

Making the Punishment fit the crime in environmental pollution control and governance: A case for Nigeria

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Abstract

In order to vindicate relevant interests in environmental governance the legislature enacted a variety of environmental crimes. These crimes have failed to base punishment according to the seriousness of a harm to the environment as they have provisions for seemingly blanket sanctions. Since environmental harm do vary in seriousness, the authorised punishments ought to reflect this reality. This paper argued that a graduated system of punishment based on the seriousness of harm to the environment should be reflected in environmental criminal law. It further argued that a graduated system of punishment should be more effective in environmental governance than a blanket sanction and that the punishment should fit the crime. This guides against overcharging or undercharging defendants in specific cases.

Keywords: command-and-control, environmental crime, typology of crimes, graduated punishment system

1. Introduction

Enforcing environmental laws and regulations is an important ingredient in protecting the environment and reducing environmental harm. To this end, environmental law enforcement agencies utilise various enforcement methods to ensure compliance to environmental legislation. In some cases enforcement agencies rely on coercive powers to demand compliance to environmental laws, generally labelled “command and control” strategies. Command-and-Control is defined as “the direct regulation of an industry or activity by legislation that states what is permitted and what is illegal.”^[1] In this respect ‘command’ is the presentation of quality standards/targets by a government authority that must be complied with, while ‘control’ on the other hand signifies the negative sanctions that may result from non-compliance^[2].

In Command and Control there is a perception of a problem and the solution for its control is developed and subsequently implemented. It encompasses a variety of methods that could elicit the required compliance to regulations on environmental pollution abatement. According to Holling and Meffe^[3] such methods include: laws, incentives, contracts and agreements. For the purposes of this paper the theory of Command-and-Control is limited specifically to environmental criminal law. The reason being that the principles that inform criminal legislation can be used to elicit environmental pollution abatement compliance. Thus, the need to protect the environment from abuse and destruction through criminal sanctions. But these

sanctions are seemingly flat or blanket as they failed to base punishment according to the seriousness of the harm to the environment. Since environmental crimes do vary in seriousness, the authorised punishments ought to reflect this reality.

This paper focused on defining and delimiting environmental crime, argued against the legislature fixing culpability of a polluter based on blanket criminal sanctions irrespective of the seriousness of the harm to the environment, advocates that a graduated system of punishment that befits the seriousness of the environmental harm be put in place to guide enforcers of environmental criminal law in determining the culpability of the polluter and reiterates on the utility value of punishment goals in graduated system of punishment.

2. Defining and delimiting environment crime

Environmental crime is defined as “an act committed with intent to harm or with a potential to cause harm to ecological and/or biological systems” as well as with the purpose to increase business or personal gain. It “is any act that violates an environmental protection statute [law].”^[4] Factors generally considered in environmental crime are: (1) the harm done, whether the action caused harm immediately or was only potentially harmful; (2) the action itself, ranging from littering to major dumping of hazardous wastes; and, (3) the offender, whether individual or corporation^[5] Despite the attempt at defining environmental crime, it

¹ P. McManus, *Environmental Regulation* (Australia Elsevier Ltd, 2009), 98

² R. Baldwin, M. Cave and M. Lodge, *Understanding Regulation: Theory, Strategy and Practice*, 2nd edn (Oxford: Oxford University Press, 2011) 34

³ C. Holling and G. Meffe, “Command and Control and Pathology of Natural Resource Management” *Conservation Biology*. 10: 2, 1996, 328

⁴ Mary Clifford, *Environmental Crime: Enforcement, Policy and Social Responsibility* (Jones & Bartlett Learning, LLC, 1998), ISBN: 0834210096, ISBN13:9780834210097, https://www.thriftbooks.com/w/environmental-crime-enforcement-policy-and-social-responsibility_mary-clifford/810299/#isbn=0834210096&idq=7156608, accessed 14 July 2020

⁵ <https://law.jrank.org/pages/11964/Environmental-Crime-Defining-environmental-crime.html>, accessed 15 July 2020

remains confusing. For example, concerning specific actions, should someone who illegally dumps leftover paint thinner down a street drain be prosecuted as forcefully as a company employee who dumps hazardous wastes into a stream in the middle of the night? Should the employer of the person who committed "midnight dumping" (disposing waste in the middle of the night) be prosecuted along with the employee? If a large company violates environmental law, can a corporation be prosecuted or only individuals within the company? Should only the top officials of a company be prosecuted? Should only those who seek financial gain from environmental crime be prosecuted? ^[6]

These questions show why environmental crime is much more difficult to define than crimes under traditional criminal law. Unfortunately, the perpetrators of prohibited acts, including acting without lawful authority, or being in possession of substances likely to cause harm to the environment and or human health, face the same punishment under some environmental criminal law. The reason being that the environmental law so breached may have one punishment, irrespective of the severity of the harm to both the human and natural environment.

For example, the Nigeria's Harmful Waste (Special Criminal Provisions, etc.) Act (HWSCP Act) ^[7] in section 1(1) prohibits all activities relating to the purchase, sale, importation, transit, transportation, deposit, storage of harmful wastes ^[8] Section 1(2) of the Act provides that:

Any person who, *without lawful authority* carries, deposits, dumps or causes to be carried, deposited or dumped, or is in possession for the purpose of carrying, depositing or dumping, any harmful waste on any land or in any territorial waters or contiguous zone or Exclusive Economic Zone of Nigeria or its inland water ways shall be guilty of an offence.

In addition, it is an offence "to transport, or causes to be transported or is in possession of transporting, imports, or causes to be imported or negotiates for the purposes of importing; or sells, offers for sale, buys or otherwise deal in any harmful waste." ^[9] Again, under the HWSCP Act ^[10] a person shall be deemed to deposit or dump harmful waste if: He deposits or dumps the harmful waste ... in such circumstances, or for such period that he may be deemed to have abandoned it where it is deposited or dumped; or to have brought it to the place where it is so deposited or dumped for the purpose of its being disposed of or abandoned whether by him or any other person.

An offence is also committed under the Act if the person actually does the act or makes the omission which constitutes the crime; or does or omits to do any act for the purpose of enabling or aiding another person to commit the crime; or aids another person in committing the crime; or counsels or procures any person to commit the crime, in which case he may himself be charged with committing the crime or with counselling or procuring the commission of the crime ^[11]

Unfortunately, under the Act there is no graduated

punishment as penalty on conviction of any of the prohibited acts above stated is life imprisonment and forfeiture of vessel and of land on which the harmful waste was dumped ^[12] Where the crime is committed by a body corporate and it is proved that it was committed with the consent or connivance of or is attributable to any neglect on the part of a director, manager, secretary or similar officer of the body corporate, or any other person purporting to act in the capacity of a director, manager, secretary or similar officer, he as well as the body corporate, shall be guilty of the crime and shall be liable to be proceeded against and punished accordingly ^[13] Curiously, where a person is charged with a crime under the Act and the evidence establishes an attempt to commit the crime such person may be convicted of having attempted to commit that crime and on conviction be sentenced to imprisonment for life ^[14]

Compounding the problem of definition of environmental crime even further is the issue of scientific uncertainties that make it more difficult to prove whether an action is harmful, potentially harmful, or not harmful. For instance, a person who releases chemical waste into a river, causing numerous fish to die has done immediate harm, but a company's storage of hazardous chemical containers in a warehouse without permit is only potentially harmful to the environment and humans.

From the foregoing, despite the attempt at defining environmental crime, it remains confusing and replete with problems. In this paper environmental crime is linked with the following actions: lack of permit in discharging polluting matters into the environment, and even with a permit, contaminating water by discharging effluents and other polluting materials into a stream or river; releasing pollutants into the air; and, improper disposal, storage, or transportation of wastes generally and hazardous wastes such as pesticides, chemicals, and radioactive materials in particular. Each aspect of these acts has different impact on the environment and on human health. It is on this premise that it is being advocated in this paper that the punishment should fit the crime.

3. Graduated system of punishment and nature of environmental crime

The effective enforcement of environmental laws is vital to any protection regimes that are designed to protect the environment. In the early days of environmental legislation, violations carried largely insignificant civil fines and penalties. Initial environmental laws and regulations had little or no deterrent effect on corporations, individuals, or governments to comply with environmental laws ^[15] For instance, a major source of failure of United States of America (USA) environmental protection legislation was the civil character of federal enforcement actions. Their chief sanction was fines, which many corporations took in stride as a cost of doing business. Environmental criminal law covers narrower ground ^[16]

⁶ Mary Clifford (n4)

⁷ Cap H1 Laws of the Federation of Nigeria (LFN), 2004.

⁸ Harmful waste is defined in HWSCP Act, s. 15 as any "semi-solid, liquid or solid substance as well as "any injurious, poisonous toxic or noxious substance... which can subject any person to the risk of death, fatal injury or incurable impairment of physical and mental health...."

⁹ HWSCP Act, s. 1(2) (b)-(d)

¹⁰ Ibid, s.1(3)

¹¹ HWSCP Act, s.2.

¹² Ibid, s.6

¹³ Ibid, s.7

¹⁴ Ibid, s.8 (1) and (2)

¹⁵ Kevin Tomkins, "Police, Law Enforcement and the Environment," *Current Issues in Criminal Justice*; Volume 16, Issue 3; Mar 2005; 294-306

¹⁶ Yingyi Situ and David Emmons, *Environmental Crime: The Criminal Justice System's Role in Protecting the Environment* (Sage Publications, 1999) ISBN 0-7619-0036-5, ISBN 978-0-7619-0036-8.

In this respect, environmental crimes frequently rank low on the law enforcement priority list, and are commonly punished with administrative sanctions, themselves often unclear and low.^[17] The reason being that environmental interests and values may not enjoy an absolute protection in environmental law. Unlike traditional crime such as criminal assault, robbery, theft or homicide, which may cause personal benefits only to the criminal, most polluting activities may generate substantial environmental costs. This is probably one of the reasons environmental crimes often fail to prompt the appropriate governmental response as it is often perceived as 'victimless' and incidental crimes.^[18] As a result, environmental crimes are commonly punished largely with administrative sanctions, usually through licensing and permitting systems. In order words, environmental criminal law focuses on punishing the lack of a permit or the violation of permit or other regulatory requirements and conditions.

There appears to be a departure from this stereotype position as virtually every framework environmental legislation,^[19] and some sectoral environmental legislation,^[20] in Nigeria, and indeed other jurisdictions, have some form of provisions for criminal sanctions against violators. However, in a bid to protect the environment from abuse, the environmental criminal laws, without recourse to graduated system of crimes and punishment, provide the same sanctions for virtually any form of contravention of the provisions of the environmental criminal law. This is irrespective of the harm or potential harm, or otherwise, the act complained off might have caused the environment.

For instance, from the provisions of some of the National Regulations^[21] offences that have the potential to cause or likely to cause serious harm to the environment include, where:

1. a facility or person fails to comply to take reasonable measures to remove or treat and dispose of any effluent, remediate the environment, comply with guidelines with respect to the handling, storing and transport of any effluent, releases effluent and sludge into the environment in excess of permissible level, take reasonable measures to prevent, reduce or remedy the adverse effect of effluent and sludge on the environment^[22]
2. a facility or person fails, to take reasonable measures to remove or otherwise treat and dispose of any effluent to minimize adverse environmental impact, release effluent and sludge into the environment in excess of permissible level, take reasonable measures to prevent, reduce or remedy adverse effect of effluent, sludge and emissions released into the environment to the standard

prescribed by the Agency^[23]

3. a facility or person discharges effluent into the environment and fails to treat the effluent to the permissible level to ensure assimilation by the receiving medium or fails to report release of effluent and sludge, into the environment in excess of the permissible level as may be provided under the relevant Regulations^[24]

Punishment provided is a fine of ₦=200, 000^[25] or an imprisonment for a term not less than one year or to both such fine and imprisonment and in addition to a fine of ₦=20,000 for every day the offence subsists^[26] Where the offender is a body corporate the penalty shall be a fine of ₦=2,000,000 and an additional ₦=50,000 for each day the offence subsists^[27] This punishment may be considered appropriate in view of the likely harm such violation may cause to the environment.

However, the same punishment is imposed on offences that may be only potentially harmful to the environment and humans. For instance, where a facility or a person operates without permit,^[28] contravenes permit conditions,^[29] makes false statement to the Agency,^[30] fails to maintain records of all discharges and file quarterly and annual reports of all discharges^[31] These acts may cause environmental harm but the extent of such harm cannot be compared to the offences mentioned earlier.

Again, the National Environmental (Air Quality Control) Regulations 2014, set out maximum air contaminants concentration^[32] require a person operating an industrial plant or facility to forward to the Agency^[33] information related to its point source emissions for criteria pollutants annually within 3 months of the end of each year,^[34] require installation of air pollution control device to new equipment, installations or retrofit an existing facility with technology or technologies that enable the facility to meet the national air quality emissions standard,^[35] ban smoking in public places, except designated areas,^[36] among others.

Violation of these Regulations amounts to an offence and penalty includes a fine of ₦=100, 000 or to imprisonment for a term not exceeding 6 months or to both such fine and imprisonment. In addition the person is fined ₦=10,000 for every day the offence subsists. Where the offender is a body corporate the penalty shall be a fine of ₦=1,000,000 and an additional ₦=50,000 for each day the offence subsists.

²³ National Environmental (Textile, Wearing Apparel, Leather and Footwear Industry) Regulations 2009, regulation 47.

²⁴ National Environmental (Food, Beverages and Tobacco Sector) Regulations 2009, regulation, 48

²⁵ ₦= is sign for Nigerian currency the Naira

²⁶ NESREA Act, s. 20(3)

²⁷ Ibid, s. 20 (4)

²⁸ National Environmental (Pulp and Paper, Wood and Wood Products Sector) Regulations 2013, regulation 60

²⁹ National Environmental (Base Metal, Iron and Steel

Manufacturing/Recycling Industries Sector) Regulations 2011, regulation 50

³⁰ Ibid, regulation 51

³¹ National Environmental (Non-Metallic Minerals Manufacturing Industries Sector) Regulations 2011, regulation 60

³² National Environmental (Air Quality Control) Regulations 2014, regulation 6

³³ National Environmental Standards and Regulations Enforcement Agency, the flagship of environmental protection in Nigeria established in 2007

³⁴ National Environmental (Air Quality Control) Regulations 2014, regulation 9

³⁵ National Environmental (Air Quality Control) Regulations 2014, regulation 10

³⁶ Ibid, regulation 24

¹⁷ United Nations Interregional Crime and Justice Research Institute (UNICRI), <http://www.unicri.eu/topics/environmental/crimes>, accessed 15 July 2020

¹⁸ Ibid

¹⁹ Such as Harmful Wastes (Special Criminal Provisions) Act, Environmental Impact Assessment Act, Cap E12 LFN, 2004, National Environmental Standards and Regulations Enforcement Agency Act, 2007 (these Laws, among others.

²⁰ Such as Oil in Navigable Waters Act, Oil Pipelines Act, Associated Gas Re-injection Act, etc.

²¹ National Regulations as created pursuant to the National Environmental Standards and Enforcement Regulations (Establishment) Agency Act of Nigeria, 2007 (NESREA Act)

²² National Environmental (Mining and Process of Coal, Ores and Industrial Minerals) Regulations 2009, regulation 28

[37]

These penalties are irrespective of the seriousness or otherwise of the offence likely harm to the environment. For example, failure to install air pollution control device to new equipment, or retrofit an existing facility with technology or technologies that enable the facility to meet the national air quality emissions standard, should be considered offences that may likely impact or seriously impact the environment as compared to the environmental impact of smoking in non-designated area in public. These two categories of offences should not carry the same punishment. The punishment provided under the Regulations should be appropriate for the former and not the later.

It is against this background that there is the need to segregate the punishment based on the severity or seriousness or otherwise, of the act complained off. Punishment should therefore be based on the following typology of environmental crimes, after Susan F. Mandiberg and Michael G. Faure,^[38] should be of help. They are:

- a. Abstract endangerment crimes;
- b. Concrete endangerment crimes;
- c. Concrete harm crimes and
- d. Serious Environmental Pollution crimes.

a. Abstract endangerment crimes

When an environmental law is used to punish actions in violation of a permit condition that does not involve a discharge or any other possible effect on the environment the act fits within the abstract endangerment crimes^[39] The basic characteristics of environmental crimes under this concept is that punishment does not relate to actual causing of specific or certain environmental harm, rather this theory criminalises disobedience to administrative rules and requirements *per se*. They do not punish environmental pollution. Instead, the role of abstract endangerment crimes is to enforce prior administrative decisions, and so they punish the failure of a regulated entity to adhere to administrative dictates concerning environmental regulations^[40]

The crime aspect of such laws normally contains a general statement such as: “anyone or facility who operates without permit,^[41] contravenes permit conditions,^[42] makes false statement to the Agency,”^[43] will be punished with a specific sanction. For example, the National Environmental (Ozone Layer Protection) Regulations 2009, provides as follows, “with effect from 1st January 2010, a person shall not possess halon that is, or has been, for use in halon based equipment unless he is a holder of a halon special permit...”^[44] In this case, possessing halon without a special halon permit, though does not harm the environment *per se*, is

regarded as an offence under regulation 22(1),^[45] which provides that “any person who violates the provisions of these Regulations commits an offence...” Here it is immaterial that no harm was done to the environment. The bottomline therefore is that adherence to the regulatory scheme is the most effective way to prevent an environmental harm. In essence, the abstract endangerment crimes merely adds criminal law to the enforcement mechanisms available to ensure compliance with monitoring, paperwork, licensing, and other rules meant to regulate pollution producing activities.

Some statutes criminalise discharging a pollutant in the absence of a required permit to do so. It is immaterial that the amount of the discharge is small and the offender argues that the social harm is primarily the flaunting of administrative requirements and not an intention to cause any harm to the environment. In this respect, it is wrong for the Legislature to lump punishment for this sort of act alongside an act that caused or has the potential of causing serious environmental harm. An example in this case is operating a storage facility without a permit under section 1 of HWSCP Act. Even though no actual pollution is involved, the offender is punished under section 6(1) of the Act that provides for life imprisonment.^[46]

Although abstract endangerment crimes focus on vindicating administrative values, punishing the administrative violation indirectly furthers ecological values in two ways. First, an entity that obtains required permits and adheres to paperwork, monitoring, and inspection requirements displays a willingness to follow administrative rules; such an entity is also likely to follow the rules more closely connected to preventing environmental harm. Second, and more to the point, if administrative rules are followed, the regulatory agency can monitor the entity’s operations to ensure that harm is less likely to occur. To this end, the criminal sanction should not be in the same category like those acts that have the potential to harm the environment.

b. Concrete endangerment crimes

The second typology of environmental crimes is the concrete endangerment crimes. Concrete endangerment crimes involve behaviour that both violates regulatory law and poses a threat of harm to the environment. The violation complained of in terms of causing environmental harm are certain and specific. As with the first typology (the abstract endangerment crimes), the activity in question must take place in an unlawful way: either without a required permit or in violation of terms and conditions contained in a statute, regulation, or permit.

The characteristic of this typology of crime is the unlawfulness of the act complained of. To this end, violating regulatory law is a requisite element. For example, under the National Environmental (Hazardous Chemicals and Pesticides) Regulations 2014, an offence is committed where any person exporting or transiting hazardous wastes does so without a valid permit issued by the Agency^[47] Again, under section 27(1) of the NESREA Act,^[48] “the

³⁷ Ibid, regulation 40

³⁸ Susan F. Mandiberg and Michael G. Faure: “A Graduated Punishment Approach to Environmental Crimes: Beyond Vindication of Administrative Authority in the United States and Europe,” *3 European Journal of Crime, Criminal Law and Criminal Justice*. 316 (1995), 448.

³⁹ Susan F. Mandiberg and Michael G. Faure (n38)

⁴⁰ Ibid

⁴¹ National Environmental (Pulp and Paper, Wood and Wood Products Sector) Regulations 2013, regulation 60

⁴² National Environmental (Base Metal, Iron and Steel Manufacturing/Recycling Industries Sector) Regulations 2011, regulation 50

⁴³ Ibid, regulation 51

⁴⁴ National Environmental (Ozone Layer Protection) Regulations 2009, regulations 18

⁴⁵ National Environmental (Ozone Layer Protection) Regulations 2009

⁴⁶ The same punishment for those convicted of dumping or depositing harmful waste on the environment. No justifications were made as why this is so

⁴⁷ Regulation 31

⁴⁸ Similar provision can be found in HWSCP Act, s. 1.

discharge in such harmful quantities of any hazardous substance into the air or upon the land and the waters of Nigeria or at the adjoining shorelines is prohibited, *except where such discharge is permitted or authorised under any law in force in Nigeria*. In this case no offence is committed where the discharge is permitted by the Agency.

The concrete endangerment crimes differ from crimes under the abstract endangerment crimes in that they either presume or require proof that the unlawful activity involved a threat of harm to the environment but does not require proof that harm to the environment did, in fact, occur. While all concrete endangerment crimes involve a threat of harm to the environment, the concept has two variations. The first variation is termed “presumed endangerment,” and the second category, “demonstrated endangerment.” These two variations represent different approaches to vindicating environmental values^[49]

Under the presumed endangerment what is criminalised, *per se*, is the unlawful contact of some quantity of polluting materials with the environment on the assumption that such contact necessarily causes at least some threat of harm to the environment. Presumed endangerment crimes are easiest to prove and thus allow earlier and more frequent intervention by environmental protection agency. However, any situation in which the agency can prove an actual threat of environmental harm arguably represents a far more serious violation. From one perspective, presumed endangerment statutes provide the greatest protection for ecological values because the agency can obtain a conviction with the least amount of proof^[50] In this situation, all that the agency need to show is that an unpermitted emission occurred; either that the facility had no permit at all^[51] or that it allowed polluting materials to come into direct contact with air, water, or that discharging or emitting a pollutant without a permit was involved^[52] or that discharging or emitting polluting materials is in violation of permit limits,^[53] or that an amount greater than that allowed was discharged,^[54] or that the emission standards in the existing license or operating permit was involved.^[55] One thing is clear in all these provisions, that such discharges or emissions threaten the natural environment or the human environment. In the above provisions no actual harm may likely result. All that happened was that the offender engaged in a prohibited act which may be presumed to endanger the environment.

In demonstrated endangerment on the other hand, sanction should be based on affirmative proof of a threat to the environment beyond the mere fact of an unlawful emission or release. Demonstrated endangerment crimes should raise issue of how imminent the harm must be for the environment to be in danger. This situation is similar to the offence of “attempt” under traditional criminal law. But the problem is should the statute allow official intervention as

soon as authorities identify an actor who is intending harm, or should it delay intervention until the social harm at issue is about to be realized?^[56] In other words, should an attempt to cause harm to the environment be punished as an act that actually caused harm to the environment as is the case under section 8 of HWSCP Act. Under this section, “any person who attempts to commit any of the crimes under the Act shall be guilty of a crime and shall on conviction be sentenced to imprisonment for life^[57] This punishment to say the least is draconic. For as Adams^[58] pointed out, “the subjective state of mind of an actor in an environmental case is often difficult to judge: was it the actor’s purpose to harm the environment, or was the actor merely indifferent to the consequences of the actions?”

In the case of *United States v. Borowski*,^[59] workers discharged spent nickel-plating and nitrous-acid baths directly into sinks without any pre-treatment. The sinks drained directly into underground pipes that fed into the municipal sewer system and then into a publicly owned treatment works (POTW). Discharging the untreated liquid into a POTW violated the Clean Water Act.^[60] The court indicated that a “knowing endangerment” charge might be valid if the discharge threatened workers at the POTW. Between the time the liquid was poured into the sink and the time the discharge reached the POTW, however, it would never have been outside of pipes. Thus, act was merely an attempt and as such a “knowing endangerment” charge was invalid.

c. Concrete harm crimes

The concrete harm crimes punish serious environmental harm even if the activity at issue was lawful. Sanctions may be imposed where the discharge, though with the consent or authority of the Environmental protection authority but such discharges was not in accordance with laid down regulations, such as failure to comply with the requirements of any Regulations including failure to install anti-pollution equipment for detoxification of effluents and failure to apply best practices as specified under relevant Regulations^[61] Or below the standards specified, such as failure to comply with waste water parameters^[62] Or contrary to existing guidelines on the discharge of such pollutants, as in a situation where a facility fails to comply with or take reasonable measures to remove or treat and dispose of any effluent, or fails to remediate the environment, or fails to comply with guidelines with respect to the handling, storing and transport of any effluent, or releases effluent and sludge into the environment in excess of permissible level, or fails to take reasonable measures to prevent, reduce or remedy the adverse effect of effluent and sludge on the environment^[63] Or contrary to the conditions stipulating the quality and

⁴⁹ Mary Clifford, “Criminal Law, and Environmental Crime,” in Mary Clifford (ed), *Environmental Crime: Enforcement, Policy, and Social Responsibility*, (Boston: McGraw Hills, 1998) 139

⁵⁰ Mary Clifford (n49)

⁵¹ As is in the National Environmental (Sanitation and Wastes Control) Regulations 2009, regulation 38 (1)

⁵² HWSCP Act, s.1

⁵³ As is the case in the provisions of the National Environmental (Food, Beverages and Tobacco Sector) Regulations 2009, regulation 15(2) (a)

⁵⁴ As is the case in the provisions of the National Environmental (Chemical, Pharmaceutical, Soap and Detergent Manufacturing Industries) Regulations 2009, regulation 17

⁵⁵ As is the case in the provisions of the National Environmental (Noise Standards and Control) Regulations 2009, regulation 3

⁵⁶ Mary Clifford (n49)

⁵⁷ HWSCP Act, s.8 (1). (Imprisonment for life is the same punishment as to where the full offence is committed).

⁵⁸ Thomas. L. Adams, “Enforcement and Liability,” in Thomas F. Sullivan (ed.): *Environmental Law Hand Book*, 15th edn (Rockville, Maryland: Government Institute, 1999) 55

⁵⁹ 977 F.2d 27 (1st Cir. 1992)

⁶⁰ United States of America

⁶¹ National Environmental (Chemical, Pharmaceutical, Soap and Detergent Manufacturing Industries) Regulations 2009, regulation 6

⁶² See the National Environmental (Textile, Wearing Apparel, Leather and Footwear Industry) Regulations, 2009, sch. 1

⁶³ See the National Environmental (Mining and Process of Coal, Ores and Industrial Minerals) Regulations, 2009, regulation 28

quantity of effluent that can be discharged^[64]

Crimes fitting this category require proof that the polluter violated an administrative rule as well as proof of actual Environmental harm. Sanction in this case must be based on proof of something more than mere contact between a pollutant and the environment. The law has to define environmental harm in the criminal provision itself and vary the seriousness of the criminal sanction based on the toxicity of the substance at issue, the risk versus fact of contact with air or water, the risk versus fact of an effect on flora, fauna, or human populations, and the magnitude of the violation. Therefore, sanctions in terms of environmental “harm” or “damage” or authorised differences in sanctions may be based on degrees of “harm,” proof of “pollution,” negative changes to the existing environment, among other considerations^[65]

A traditional way of measuring environmental harm is to look through the lens of harm to human beings instead of examining the effect on the environment itself. The reason for this according to Mary Clifford^[66] is that “our ethical heritage largely attaches values and rights to persons, and if non-personal realms enter, they enter only as tributary to the personal.” Thus, many discharges and effluent limitations are set with human health and welfare in mind. For example, some National Regulations set their provisions with a view of protecting the human environment. In this respect some of the regulations set permissible limits for noise,^[67] permissible levels for effluent discharges into the water bodies,^[68] and emission standards for facilities^[69]

Beside proof of environmental harm, the concrete harm crimes require the prosecution to prove that the defendant’s behaviour caused environmental harm, however defined. Proving causation is not particularly difficult in the case of a single polluting event that immediately results in clear damage instantly. However, the requirement could present a challenge to prosecutors in other situations. For example causation problems are likely to be difficult to a prosecutor where the effects of a polluting event may not be clear for a great many years. Another problem is that a defendant may be able to show that one or more additional actors independently emitted pollutants into the same water, soil, or air, either previously, simultaneously, or subsequently to the defendant’s own actions. To this end, proving causation could be daunting in many environmental cases. The question therefore is whether there is really a need to undertake the task of developing a body of causation law in the context of environmental crimes.

d. (d) Serious environmental pollution crimes

Crimes under the “serious environmental pollution,” aim at punishing very serious pollution regardless of whether there was any underlying regulatory violation. Crimes following

this typology are based on the assumption that the environmental harm in issue is of a magnitude beyond that contemplated by the administrative rules with which the entity complied or failed to comply. Environmental statutes following this set of crimes therefore impose criminal sanctions despite the defendant having obeyed license or permit conditions or other regulatory laws.

For instance, under regulation 17(1), “no facility shall discharge effluent on land, into a water body *unless the facility ensures that the parameters of the effluent do not exceed the permissible limits specified under the Regulations.*” It is an offence if a facility fails to comply with or contravenes any of these condition of a permit^[70] The penalty for contravention is a fine of =N=200,000 or to imprisonment for a term not less than two years or to both such fine and imprisonment and an additional fine of =N=5,000 for every day the offence subsists^[71] In the case of a body corporate, contravention attracts a fine of =N=1,000,000 and an additional fine of =N=50,000 for every day the offence subsists^[72]

This sanction to say the least, does not fit the crime. The question is what if this non-compliance by the entity had caused serious environmental damage such as water pollution, and people drank the polluted water and death results, imposing the above sanction for violation has not served the end of justice as this sanction to say the least, does not fit the crime.

It is suggested that sanctions arising thereto should be severed from the existing criminal sanction and that better environmental justice may be achieved if such an entity is charged under the traditional criminal law such as homicide^[73] The reason is that the death of the victim was a violation of his fundamental right as protected under section 33 of the Constitution of the Federal Republic of Nigeria, 1999, as amended. Under that section, “every person has a right to life, and no one shall be deprived intentionally of his life, save in execution of the sentence of a court in respect of a criminal offence of which he has been found guilty in Nigeria.”

Although cases of this nature are rare or non-existent in Nigeria, perhaps its application in other jurisdictions may ginger Nigerian courts into adopting this approach especially in a situation where the action of the offender had caused harm to life and limb. Some of the cases in other jurisdictions, especially in USA and Europe, to which this approach had been applied, may suffice. In the case of *People v. Polvino*^[74] the defendant was charged for manslaughter. In that case the defendant knew the proper procedure to be followed in disposing corrosive and hazardous chemicals that were on his property. But evidence showed that the defendant did otherwise as he hired another man to haul the barrels away in a trailer. The contents spilled, and the hauler died at the scene of the spill from resulting lung damage. The court found that evidence of foreseeability was sufficient to allow the case on

⁶⁴ Northern Ireland Environmental Agency, “Waterways discharge consent,” <https://www.gov.uk>, accessed 24 June 2020

⁶⁵ Mary Clifford (n49)

⁶⁶ Mary Clifford (n49)

⁶⁷ National Environmental (Noise Standards and Control) Regulations 2009, regulation 2. Under regulation 10 any person may complain to the Agency in writing if such a person considers that the noise levels being emitted, or likely to be emitted may be higher than the permissible noise levels set out under regulation 2.

⁶⁸ National Environmental (Food, Beverages and Tobacco Sector) Regulations 2009, regulation 16 (1)

⁶⁹ National Environmental (Textiles, Wearing Apparel, Leather and Footwear Industry) Regulations 2009, regulation 20 (1)

⁷⁰ National Environmental (Chemical, Pharmaceutical, Soap and Detergent Manufacturing Industries) Regulations 2009

⁷¹ *Ibid*, regulation 51(1)

⁷² I National Environmental (Chemical, Pharmaceutical, Soap and Detergent Manufacturing Industries) Regulations 2009, regulation 51(2)

⁷³ The reason for this being that while liability under NESREA Act carries imprisonment for 5 years and/or a fine, the death penalty, or at least life imprisonment, may be invoked under the traditional criminal law of homicide.

⁷⁴ 580 N.Y.S.2d 616 (1991).

manslaughter to continue.^[75]

Another example of use of traditional homicide law can be found in the case of *People v. Roth*.^[76] In that case an employee who was cleaning a truck trailer died when petroleum vapours exploded.^[77] The defendants, charged with manslaughter and negligent homicide, were a petroleum transport company, its district manager, and the operations manager of the facility where the deceased worked. The State's theory was that defendants were responsible for the unsafe conditions and improper practices that led to the explosion. The court affirmed dismissal of the charges, finding that the evidence presented to the Grand Jury was insufficient to show foreseeability that death would occur in the manner it did, a requirement of New York's causation law. Although the evidence was insufficient for the homicide counts, the court allowed a general reckless endangerment prosecution to continue. Under the reckless endangerment, the prosecution did not have to prove injury, and so the defendant's inability to foresee the manner in which injury occurred was immaterial.

Again, in the case of *People v. Thoro Products Co.*,^[78] the defendant company stored and disposed of hazardous waste without a permit. A quantity of the substance leaked, causing contamination to the soil of down-gradient property owners. Even after learning of the problem, the company did nothing to clean up its property or stop the contamination. The statute of limitations barred prosecution for environmental crimes, as the actual leaks occurred decades earlier. However, the court affirmed the company's conviction for criminal mischief, a generally applicable felony. The statute of limitations problem did not prevent this prosecution because the defendant's act, failure to clean up the contamination, was ongoing. Here the prosecution was based on defendant's "knowing failure to remediate or clean up its own property so as to stop the process by which the solvent-laden soils contaminated the property of down-gradient owners."^[79]

Similarly, in the case of *People v. Macellaro*^[80] the court allowed a reckless endangerment prosecution where evidence showed that the defendant dumped two 35-gallon drums on the side of a roadway. One drum was leaking, and when the defendant attempted to remove the "hazardous" warning label by burning it with a lighter, the substance ignited.

Application of traditional crimes was applied in the explosion that occurred in the British Petroleum (BP) Deepwater Horizon oil rig in the Gulf of Mexico, off the Southern coast of USA on 20 April, 2010. The explosion killed 11 people and spilled hundreds of millions of gallons of crude oil into the Gulf of Mexico in the four months it took to cap the well. In November, 2012 the company was criminally charged, including felony and manslaughter. The company, BP, pleaded guilty and agreed to pay a record

\$4.5 billion in criminal fines.^[81]

In addition, the legislature may borrow a leaf from the French Penal Codes. The French Penal Code provides for what is termed crime of "ecological terrorism." By articles 421-2 of the Code:

The introduction into the atmosphere, on the ground, in the soil, in foodstuff or its ingredients, or in waters, including territorial waters, of any substance liable to imperil human or animal health or the natural environment is an act of terrorism where it is committed intentionally in connection with an individual or collective undertaking whose aim is to seriously disturb public order through intimidation or terror.

4. Utility of Punishment Goals in Graduated Punishment System

One way to achieve a graduated punishment system is to focus on the mental state of a polluter who knowingly violated an administrative rule. Such a person should be more culpable than the person who was not aware that the rule existed but who ought to have known of their existence. In this paper it is advocated that punishments or sanctions according to the typology of environmental crimes should be according to their act elements, that is, the type of harm in issue. Thus, punishment goals are therefore traditionally seen as being either utilitarian or deontological.^[82] Utilitarian goals include deterrence (scaring the actor into refraining from the activity)^[83] rehabilitation (changing the actor into one who no longer wishes to engage in the activity), and incapacitation (putting the actor in a situation where the activity cannot occur).

The deontological goal is retribution, correcting the moral imbalance caused by the activity in question. The interest in avoiding environmental harm, then, is served when application of a criminal statute deters the defendant or other actors from harming the environment in the future, changes the actor into one who no longer wishes to harm the environment, creates a situation in which the defendant can no longer harm the environment, or inflicts just desserts on the defendant for having harmed the environment in the past. Of course, the interest is served even more when a sentence accomplishes more than one of these goals.

Retribution is implicated only when it is immoral to violate administrative rules. If the agency must prove the defendant's awareness of violating the administrative rule, some retributive value exists in punishing the knowing violation of a law. When these factors are missing, however, retribution is not involved. When these goals of punishment are factored into the equation, that is vindicating only administrative values, then the abstract endangerment crimes theory may be used. This is because an abstract endangerment crime may only accomplish utilitarian punishment goals and the existence of meaningful punishment serves as deterrent, and, perhaps, other utilitarian goals.

In contrast to the abstract endangerment crimes, crimes

⁷⁵ Ibid, at 617.

⁷⁶ 604 N.E.2d 92 (N.Y. 1992).

⁷⁷ Petroleum vapours contain, for example, benzene and toluene, both of which are hazardous air pollutants under the Clean Air Act of USA

⁷⁸ 70 P.3d 1188 (Colo. 2003)

⁷⁹ *People v. Thoro Products Co* (n78)

⁸⁰ 516 N.Y.S.2d 950 (N.Y. App. Div. 1987)

⁸¹ Michael Eboh, "US proposes \$16bn settlement with BP over Gulf spill" <http://www.vanguardngr.com/2013/02/us-proposes-16bn-settlement-with-bp-over-gulf-spill/#sthash.nZGVBs1L.dpuf>, accessed, 24 February 2020

⁸² Relating to philosophical theories that state that the moral content of an action is not wholly dependent on its consequences.

⁸³ Commentators like Susan Mandiberg and G. Faure (n38), distinguish between specific and general deterrence. Specific deterrence focuses on the defendant being prosecuted and sentenced; general deterrence focuses on the effect of that defendant, as an example, on others who might be tempted to violate the law.

fitting the other three typologies of environmental crimes implicate both utilitarian and deontological goals of punishment. Unlike the first concept, however, retribution also comes into play in other three. This is surely true when environmental harm is defined in terms of danger or harm to human health, safety, or property. In addition, as ethical values develop with regard to the environment, people increasingly feel a moral obligation to prevent even environmental harm that does not directly affect human beings^[84] For example, Pope Benedict XVI^[85] declared that “the wonder of God’s creation reminds us of the need to protect the environment and to exercise responsible stewardship of the goods of the earth.” Still, most people seem to feel more concern about damage that affects human interests than they do about damage that affects only the environment.

Taken together, contrasting the interests implicated by environmental crimes in terms of the goals of punishment suggests how the four typologies of environmental crimes can be placed along a continuum that represents the seriousness of the offence and the severity of the authorised punishment. First, it makes sense to place abstract endangerment crimes at the lowest end of the continuum. These crimes vindicate only administrative interests, and they mainly achieve only utilitarian punishment goals. This does not mean, necessarily, that punishment should be a slap on the wrist or a mere cost of doing business. Meaningful sanctions must exist if utilitarian goals are to be met.

In addition, abstract endangerment crimes often do vindicate environmental and, perhaps, human interests indirectly by providing a mechanism for government intervention before these values are actually harmed. In sum, it is desirable to have abstract endangerment crimes in the mix with meaningful sanctions attached. The fact that these crimes allow early intervention and are easy to prosecute means that they may end up serving environmental values effectively, and in a more widespread manner than the other typologies as they adopt proactive inhibition on environmental protection^[86] Nevertheless, crimes under abstract endangerment should be punished with milder sanctions than crimes in the other three typologies, which vindicate more important interests and serve an additional punishment goal.

So where does the other three types of environmental crimes (concrete endangerment crimes, concrete harm crimes and serious environmental pollution crimes) fit along the continuum, one may be tempted to ask? It is easy to conclude that concrete endangerment crimes and concrete harm crimes are both more serious than abstract endangerment crimes. The administrative predicate ensures that these crimes vindicate administrative interests. However, unlike the abstract endangerment crimes, the other typologies vindicate one or two other interests as well.

The concrete endangerment crimes, concrete harm crimes and serious environmental pollution crimes require proof that the environment was threatened, or that the environment was actually harmed, and thus implicate environmental interests. Thus, unlike abstract endangerment crimes, crimes fitting these typologies serve both utilitarian and retributive goals.

It is also easy to conclude that concrete harm crimes are more serious than concrete endangerment crimes. This ordering reflects the notion that released harm is more serious than the threat of harm. In addition, it is often difficult to prove that harm actually occurred and that the actor in question caused it; when the environmental protection agency can make such proof, it is likely that the behaviour in issue was egregious. All of these factors add up to an argument that concrete harm crimes should carry more severe punishments than those under concrete endangerment crimes.

This leaves us with the task of positioning crimes in the serious environmental harm, the fourth typology, which requires proof of serious environmental harm, but not a violation of administrative rules. Comparing this typology with the concrete harm crimes, is tricky. Both require proof of harm to the environment. Serious environmental pollution crimes require that the harm be extreme, which suggests that these crimes are more serious than those in concrete harm crimes. On the other hand, as there is no administrative predicate, serious environmental pollution crimes implicate one less interest than those in concrete harm crimes.

Another approach to providing sanctions against environmental harm is further sub-dividing the concepts. This is not an unusual approach: it is common for modern statutory schemes to sub-divide a single crime into degrees of seriousness based on nuances in the social harm at issue^[87] Each degree is defined so as to be slightly more serious than the next lower degree, and the increasing seriousness of the degrees of crime is reflected in the punishments authorised.

Thus, environmental criminal statutes should adopt graduated punishments not only to protect the environment, but also form basis for compensation of pollution victims^[88]

5. Conclusion

Environmental criminal law can serve a variety of interests: administrative and human as well as purely environmental. Purely environmental interests are served only indirectly when crimes are defined in terms of disobedience to administrative rules and when harm is viewed through the lens of human health, safety, and property. In order to vindicate all the relevant interests: administrative; human and environmental, a legislature should enact a variety of environmental crimes. But in doing so should make efforts to differentiate among the various punishment according to the seriousness of the crime. One reason for this is to satisfy the demands of the proportionality principle as

⁸⁴A survey found that “73 percent deem it our ‘moral obligation’ and ‘duty as Americans’ to reduce global warming pollution;” support for this position “cuts across party lines, county lines, and income and education levels.” Moral Obligation, Patriotic Duty, *GRIST*, June 17, 2008, <http://www.grist.org/article/moral-obligation-patriotic-duty>. Accessed 23 June 2020

⁸⁵ Pope Benedict Preaches Environmental Protection at World Youth Day, *Environmental News Service*, July 17, 2008, <http://www.ens-newswire.com/ens/jul2008/2008-07-17-01.asp>. Accessed 30 June 2020

⁸⁶ We should note that this theory applies the no harm rule as the crimes are committed for non-compliance to administrative directives and not on actual harm to the environment.

⁸⁷ For instance in the case of homicide which may be murder or manslaughter, as the case may be.

⁸⁸ The USA in February 2013 had proposed a \$16 billion settlement to British Petroleum, BP, over the 2010 oil spill in the Gulf of Mexico. The settlement covered fines BP owes under the Clean Water Act, a federal water pollution law, as well as payments under the Natural Resources Damage Assessment Act, an environmental evaluation law. Michael Eboh (n81)

environmental crimes do vary in seriousness, and as such the authorised punishments ought to reflect this reality. Again, a graduated system of crimes is arguably more effective than a flat or blanket sanction. Thus, the existence of crimes that truly reflect degrees of seriousness saves prosecutors from the burden of overcharging or undercharging defendants in specific cases, and it allows the court to convict guilty defendants of a crime that matches their behaviour.

Where these typology of environmental crimes are articulated by the legislature in environmental protection legislation, it is hoped it will go a long way in the protection and management of the environment so that the punishment should fit the crime.

References

1. McManus P. Environmental Regulation (Australia Elsevier Ltd, 2009, 98
2. Baldwin R, Cave M, Lodge M. Understanding Regulation: Theory, Strategy and Practice, 2nd edn (Oxford: Oxford University Press, 2011, 34.
3. ¹ C. Holling and G. Meffe, "Command and Control and Pathology of Natural Resource Management" Conservation Biology. 1996; 10(2):328
4. Mary Clifford. Environmental Crime: Enforcement, Policy and Social Responsibility (Jones & Bartlett Learning, LLC, 1998. ISBN: 0834210096, ISBN13:9780834210097, https://www.thriftbooks.com/w/environmental-crime-enforcement-policy-and-social-responsibility_mary-clifford/810299/#isbn=0834210096&idq=7156608, accessed 14 July 2020
5. <https://law.jrank.org/pages/11964/Environmental-Crime-Defining-environmental-crime.html>, accessed 15 July 2020
6. Mary Clifford (n4)
7. Cap H1 Laws of the Federation of Nigeria (LFN), 2004.
8. Harmful waste is defined in HWSCP Act, s. 15 as any "semi-solid, liquid or solid substance as well as "any injurious, poisonous toxic or noxious substance... which can subject any person to the risk of death, fatal injury or incurable impairment of physical and mental health...."
9. HWSCP Act, s. 1(2) (b)-(d)
10. Ibid, s.1(3)
11. HWSCP Act, s.2.
12. Ibid, s.6
13. Ibid, s.7
14. Ibid, s.8 (1) and (2)
15. Kevin Tomkins, "Police, Law Enforcement and the Environment," Current Issues in Criminal Justice. 2005; 16(3):294-306
16. Yingyi Situ, David Emmons. Environmental Crime: The Criminal Justice System's Role in Protecting the Environment (Sage Publications, 1999) ISBN 0-7619-0036-5, ISBN 978-0-7619-0036-8.
17. United Nations Interregional Crime and Justice Research Institute (UNICRI), <http://www.unicri.eu/topics/environmental/crimes>, accessed 15 July 2020
18. Ibid
19. Such as Harmful Wastes (Special Criminal Provisions) Act, Environmental Impact Assessment Act, Cap E12 LFN, 2004.
20. National Environmental Standards and Regulations Enforcement Agency Act, 2007 (these Laws, among others.
21. Such as Oil in Navigable Waters Act, Oil Pipelines Act, Associated Gas Re-injection Act, etc.
22. National Regulations as created pursuant to the ational Environmental Standards and Enforcement Regulations (Establishment) Agency Act of Nigeria, 2007. (Nesrea Act)
23. National Environmental (Mining and Process of Coal, Ores and Industrial Minerals) Regulations, 2009. regulation 28
24. National Environmental (Textile, Wearing Apparel, Leather and Footwear Industry) Regulations, 2009. Regulation 47.
25. National Environmental (Food, Beverages and Tobacco Sector) Regulations 2009, regulation, 48
26. =N= is sign for Nigerian currency the Naira
27. NESREA Act, s. 20(3)
28. Ibid, s. 20 (4)
29. National Environmental (Pulp and Paper, Wood and Wood Products Sector) Regulations 2013, regulation 60
30. National Environmental (Base Metal, Iron and Steel Manufacturing/Recycling Industries Sector) Regulations, 2011. regulation 50
31. Ibid, regulation 51
32. National Environmental (Non-Metallic Minerals Manufacturing Industries Sector) Regulations 2011, regulation 60
33. National Environmental (Air Quality Control) Regulations, 2014. regulation 6
34. National Environmental Standards and Regulations Enforcement Agency, the flagship of environmental protection in Nigeria established in, 2007.
35. National Environmental (Air Quality Control) Regulations, 2014. regulation 9
36. National Environmental (Air Quality Control) Regulations, 2014. regulation 10
37. Ibid, regulation 24
38. Ibid, regulation 40
39. Susan F. Mandiberg and Michael G. Faure: "A Graduated Punishment Approach to Environmental rimes: Beyond Vindication of Administrative Authority in the United States and Europe," 3 European Journal of Crime, Criminal Law and Criminal Justice. 1998; 316:448.
40. Susan F. Mandiberg and Michael G. Faure (n38)
41. Ibid
42. National Environmental (Pulp and Paper, Wood and Wood Products Sector) Regulations 2013, regulation 60
43. National Environmental (Base Metal, Iron and Steel Manufacturing/Recycling Industries Sector) Regulations 2011, regulation 50
44. Ibid, regulation 51
45. National Environmental (Ozone Layer Protection) Regulations 2009, regulations 18
46. ¹ National Environmental (Ozone Layer Protection) Regulations 2009
47. The same punishment for those convicted of dumping or depositing harmful waste on the environment. No justifications were made as why this is so
48. Regulation 31
49. Similar provision can be found in HWSCP Act, s. 1.

50. Mary Clifford, "Criminal Law, and Environmental Crime," in Mary Clifford (ed), *Environmental Crime: Enforcement, Policy, and Social Responsibility*, (Boston: McGraw Hills, 1998) 139
51. Mary Clifford (n49)
52. As is in the National Environmental (Sanitation and Wastes Control) Regulations regulation 2009, 38 (1)
53. HWSCP Act, s.1
54. As is the case in the provisions of the National Environmental (Food, Beverages and Tobacco Sector) Regulations regulation 2009, 15(2)(a)
55. As is the case in the provisions of the National Environmental (Chemical, Pharmaceutical, Soap and Detergent Manufacturing Industries) Regulations 2009, regulation 17
56. As is the case in the provisions of the National Environmental (Noise Standards and Control) Regulations 2009, regulation 3
57. Mary Clifford (n49)
58. HWSCP Act, s.8 (1). (Imprisonment for life is the same punishment as to where the full offence is committed).
59. Thomas L Adams. "Enforcement and Liability," in Thomas F. Sullivan (ed.): *Environmental Law Hand Book*, 15th edn (Rockville, Maryland: Government Institute, 1999) 55
60. 977 F.2d 27 (1st Cir. 1992)
61. United States of America
62. National Environmental (Chemical, Pharmaceutical, Soap and Detergent Manufacturing Industries) Regulations 2009, regulation 6
63. See the National Environmental (Textile, Wearing Apparel, Leather and Footwear Industry) Regulations, 2009, sch. 1
64. See the National Environmental (Mining and Process of Coal, Ores and Industrial Minerals) Regulations, 2009, regulation 28
65. Northern Ireland Environmental Agency, "Waterways discharge consent," <https://www.gov.uk>, accessed 24 June 2020
66. Mary Clifford (n49)
67. Mary Clifford (n49)
68. National Environmental (Noise Standards and Control) Regulations 2009, regulation 2. Under regulation 10 any person may complain to the Agency in writing if such a person considers that the noise levels being emitted, or likely to be emitted may be higher than the permissible noise levels set out under regulation 2.
69. National Environmental (Food, Beverages and Tobacco Sector) Regulations regulation, 2009, 16(1)
70. National Environmental (Textiles, Wearing Apparel, Leather and Footwear Industry) Regulations 2009, regulation 20 (1)
71. National Environmental (Chemical, Pharmaceutical, Soap and Detergent Manufacturing Industries) Regulations, 2009.
72. Ibid, regulation 51(1)
73. I National Environmental (Chemical, Pharmaceutical, Soap and Detergent Manufacturing Industries) Regulations regulation, 2009, 51(2).
74. The reason for this being that while liability under NESREA Act carries imprisonment for 5 years and/or a fine, the death penalty, or at least life imprisonment, may be invoked under the traditional criminal law of homicide.
75. 580 N.Y.S.2d 616 (1991).
76. Ibid, at 617.
77. 604 N.E.2d 92 (N.Y. 1992).
78. Petroleum vapours contain, for example, benzene and toluene, both of which are hazardous air pollutants
79. under the Clean Air Act of USA
80. 70 P.3d 1188 (Colo. 2003)
81. People v. Thoro Products Co (n78)
82. 516 N.Y.S.2d 950 (N.Y. App. Div. 1987)
83. Michael Eboh, "US proposes \$16bn settlement with BP over Gulf spill" <http://www.vanguardngr.com/2013/02/us-proposes-16bn-settlement-with-bp-over-gulf-spill/#sthash.nZGVBs1L.dpuf>, accessed, 24 February 2020
84. Relating to philosophical theories that state that the moral content of an action is not wholly dependent on its consequences.
85. Commentators like Susan Mandiberg and G. Faure (n38), distinguish between specific and general deterrence. Specific deterrence focuses on the defendant being prosecuted and sentenced; general deterrence focuses on the effect of that defendant, as an example, on others who might be tempted to violate the law.
86. A survey found that "73 percent deem it our 'moral obligation' and 'duty as Americans' to reduce global warming pollution;" support for this position "cuts across party lines, county lines, and income and education levels." Moral Obligation, Patriotic Duty, GRIST, 2008. <http://www.grist.org/article/moral-obligation-patriotic-duty>. Accessed 23 June 2020
87. Pope Benedict Preaches Environmental Protection at World Youth Day, Environmental News Service, 2008. <http://www.ens-newswire.com/ens/jul2008/2008-07-17-01.asp>. Accessed 30 June 2020
88. We should note that this theory applies the no harm rule as the crimes are committed for non-compliance to administrative directives and not on actual harm to the environment.
89. For instance in the case of homicide which may be murder or manslaughter, as the case may be.
90. The USA in February 2013 had proposed a \$16 billion settlement to British Petroleum, BP, over the 2010 oil spill in the Gulf of Mexico. The settlement covered fines BP owes under the Clean Water Act, a federal water pollution law, as well as payments under the Natural Resources Damage Assessment Act, an environmental evaluation law. Michael Eboh (n81)