

**AN ANALYSIS OF THE POLLUTER PAYS PRINCIPLE WITH REGARD TO
ENHANCING PROTECTION OF UGANDA'S ENVIRONMENT FROM
DANGEROUS ACTIVITIES OF OIL AND GAS INDUSTRY.**

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**A DISSERTATION SUBMITTED TO THE FACULTY OF LAW OF UGANDA
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DECLARATION

I, **NABULOBI ANNET JANET**, do hereby declare that this research is entitled an analysis of the Polluter pays Principle with Regard to Enhancing Protection of Uganda’s Environment from Dangerous Activities of Oil and Gas Industry is entirely my original work, except where acknowledged, and it has never been submitted to any other University or any other institution of higher learning for the award of a Degree. I also certify that this Dissertation was particularly prepared by me for the partial fulfilment for the award of Master of laws in Oil and Gas of Uganda Christian University.

SIGNATURE.....

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APPROVAL

This is to certify that this dissertation entitled an analysis of the Polluter pays Principle with Regard to Enhancing Protection of Uganda’s Environment from Dangerous Activities of Oil and Gas Industry has been done under my supervision and now it is ready for submission.

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DATE.....

DEDICATION

This dissertation is dedicated to my late Father Mr. Boniface Wamakuyu and his dear wife my mother Mrs Prisca Wamakuyu, to my sisters (Nazeza Betty and Nabuduwa Grace) and my brothers (Mudoko Patrick, Walimbwa Francis, Wamono James, Wamakuyu Gibson, Kimenya Moses, Wagigona Stephen, and Madibo Simon) who have been there for me all the days of my life. To my dear husband Mr. Mooli Albert Sibuta who has kept me since I left my parents, to my sweet sons and daughters (Mutenyo Titus Elvin Mooli, Sibuta Elisha Mooli, Mooli Elijah Junior, Muyama Angel Mooli and Naluwende Elizabeth Mooli. Not forgetting the almighty God and his beloved son Jesus Christ who have allowed us to see and enjoy the light of each day.

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ABSTRACT

Protecting the environment from oil spills and other environmental disaster is a key in ensuring the sustainability of the environment. The polluter pays principle is an economic principle predicated on the internalization of environmental costs into decision making for economic and other development plans, programs and projects that are likely to affect the environment and oil and gas industry is normally the likely course in countries with extractable resources. The principle is thus a way of allocating pollution costs. It has been extensively used in international law, and now has the status of one of the guiding principles of international environmental law.

However, what the theory does not address is who the actual polluter is and which costs shall be covered? This study focuses on the efficacy of the polluter pays principle as a mechanism for protecting the environment against dangerous oil activities of Uganda's oil and gas industry as a case study where it will be observed that for an effective application of the principle, the question then is; what constitutes pollution? Who are the polluters? How much must the polluters pay? To whom should such payment be made? How this principle can be used to protect Uganda's environment from the anticipated oil and gas activities. The study also addresses recommendations to policy makers too. The research in particular recommends that Government should increase on the pollution charges to make it heavier than it is now. It can offer incentives to allow the authorities to do their work efficiently. It should further remove a cap on the liability of the polluter, it can also market limits on the total pollution by the industry not neglecting the need to provide subsidies among others to ensure that the environment is protected from the oil and gas industry.

CHAPTER ONE

GENERAL INTRODUCTION

1.0.Introduction

After the discovery of commercially viable quantities of oil and gas in the Albertine region in the western part of Uganda in 2006, there have been preparations towards the start of exploitation and production of oil and gas in the region. From the foregoing it is likely that the exploitation of the oil will soon start especially in the year 2025 as projected by Chinas CNOOC and the government of Uganda.¹To borrow experience from other countries that have managed to exploit their oil resources, oil and gas exploitation have adverse implications on the environment, take an example of the Macondo well deep water horizon blowout that occurred in the Gulf of Mexico on April 20, 2010, resulted in a fire which led to the death of 11 workers and serious injuries to 16 others. In effect, the *Deep-water Horizon* rig sank roughly 36 hours later releasing 5 million barrels of oil into the Gulf of Mexico (McNutt et al. 2011).² It was revealed in the case of US v. BP trials (2015) that 3.19 million barrels (roughly 500,000m³) of oil were released into the ocean as a result of the spill coupled with several hundred thousand tons of hydrocarbon (HC) gases. This oil spill affected both the waters and the surface. To the waters the oil was toxic to a variety of organisms like planktons, invertebrates, fish, birds and sea mammals suffered reduced growth, disease, impaired physiological health and reproduction. Ecological resources like the deep-sea coral, organisms living at and in shorelines sediments, sea turtles, sea grass, beach sand habitants, dolphins, shore birds to mention but a few were all affected drastically.³

Norway also reports large quantities of pollutants released to air, sea and the seabed during exploration activities of oil and gas production. This happens at all stages starting from oil and gas field operation, pipeline construction, transportation of oil and gas, onshore processing, decommissioning of installations and equipment which results in further releases of pollutants and generate waste that must be properly disposed of.⁴ These oil spills from the foregoing have proved beyond repair that they are dangerous to the environment as they

¹Reported in Reuters on June 13th 2018.

²Suggested Citation: "Summary." National Academy of Engineering and National Research Council. 2012. Macondo Well Deepwater Horizon Blowout: Lessons for Improving Offshore Drilling Safety. Washington, DC: The National Academies press. Doi: 10.17226/13273

³<https://www.niva.no/en/publications/environmental-effects-of-the-deepwater-horizon-oil-spill>.

⁴Published 07.07.2016 by the Norwegian Environment Agency: www.environment.no/topics/marine-and-coastal-waters/oil-and-gas-activity.

endanger human, animal, plants, ecosystem given the fact that all the above depend on the environment.

Because of the above, several principles of International Environmental law⁵ have emerged from both National and International Environmental law to protect the environment for the present and the future generation. These include the polluter pays principle and the precautionary principles among others which were first developed at the regional level before attaining universal recognition. In this overview, it is impossible to address all of them. Therefore, a few important examples are focused on. The principles are common but differentiated responsibilities address the differences in capacity to act between developed and developing countries. The participatory principle addresses the legal position of individuals and civil society organizations by affirming procedural rights of access to information, public participation and access to Justice in Environmental Policy. However, this study focuses on the efficacy of polluter pays principle as a mechanism of protecting the Environment from harmful activities of oil and gas.

It is important to note that, these Principles are distinguished from rules of law. Rules are precise prescriptions for specific factual situations. They determine specific action by clearly identifiable subjects. Rules have a determinate content and provide a specific behavioural prescription, thus guaranteeing legal certainty. Principles, however, are flexible norms which help orient decision-making. There is a high degree of abstraction and a low measure of determinacy in principles and no automatic legal consequences can be derived from them. A principle can be seen as a kind of rule with indeterminate content, as addressees enjoy a margin of discretion in its implementation. The difference between rules and principles, in this view, appears more like a question of degree of determinacy rather than a clear-cut dichotomy.

Polluter pays principle like other principles of international law are based on the traditional theory⁶ of the sources of international law. It holds that general principles of law are derived by induction from the National legal systems of the so-called civilized Nations. According to a more modern view, general principles are derived from positive rules of

⁵Handle 'Environmental Security and Global Change: The Challenge to International Law', Year book of International Environmental Law 1 (1990)

⁶Guiding principles concerning International Economic Aspects of Environmental Policies;OECDRecommendation, 26 May 1972. sedac.ciesin.org/entries/texts/OECD/OECD-4.01.html.

international law. They can be seen as a reflection of a general legal conviction of the international community or as a type of formless interstate consent.⁷

A synthetic view, bringing together these two approaches, would hold that general principles emerge from both national laws, soft and hard international law. In the current state of Uganda where discovery of oil has been made, the environment is greatly at risk because of the forthcoming oil exploitation activities in the Albertine region which activities may cause high rates of pollution in water, air, sound and land. Consequently, there is need to control these forms of pollutions from the oil and gas activities so as to avoid or mitigate a much greater damage to the Environment.

These chapters analysed how polluter pays principle can be used as a mechanism of safe guarding the environment from dangerous activities of oil and gas for example oil spills during the extraction of oil, transportation, process of refining it and decommissioning.

1.1. Background of the study of oil and gas in Uganda

The presentation of the background will be based on Amin,⁸ who put emphasis on discussing the historical and theoretical background.

Historical background of the study.

Uganda has been described by the oil industry press as Africa's 'hottest inland exploration frontier'. Exploration is taking place across the entire Albertine Rift in Uganda, with five out of nine oil-prospecting blocks established by the government currently allocated to companies for exploration purposes in 2006 when Uganda discovered commercially viable commercial reserves of oil.⁹ However, the search for oil started many decades back. In the early 1920's there was significant oil exploration done by Waayland in which substantial amounts of hydrocarbons were traced in the Albertine Graben.¹⁰ This discovery was later to be followed by the first ever drilling of wells in 1938. Further, exploration was carried in the 1940's and 1950's and several shallow wells were drilled mainly for stratigraphic purposes¹¹. However, oil activities were disrupted by political turmoil that ravaged the country between

⁷See generally G.J.H. van Hoof, *Rethinking the sources of International law* (Kluwer. Deventer, 1983).

⁸ Amin, M.E (2005) *social science Research methodology and Analysis* (Makerere university press)

⁹ International Alert *Oil and Gas laws in Uganda, Legislative Guide of 2011*

¹⁰E.Kasimbazi. (2016), *Legal and Environment Dimension of oil exploration in Uganda.*

¹¹E.Kasimbazi. , *Legal and Environment Dimension of oil exploration in Uganda.*

1966 and 1980 until the 1980's when aeromagnetic data across the entire Graben region was obtained.

The aeromagnetic surveys carried out during 1983 and 1992 produced a ray of hope that indeed Uganda had the prospects of further oil reserves¹² in the Albertine Graben¹³ region. In 1985, it became obvious that, the 1985 petroleum (Exploration and production) Act of Uganda was enacted in order to guide government in levying taxes and also in guiding of further oil exploration in the country. However, this was not sufficient to take the industry from the exploration and development phase into the production, processing, transportation, storage and marketing phase. Current estimates put the country's oil potential at around 2.5 billion barrels of recoverable reserves from the three blocks that have so far been drilled. Some analysts anticipate Uganda's Albertine Graben may hold more than 6 billion barrels of oil, placing Uganda among the foremost African oil producers. Given the volatility of oil prices, it is difficult to estimate Uganda's likely revenues from oil. Yet, if production goes ahead without hitches, the country's budget looks likely to receive a major windfall potentially doubling Uganda's revenue base within six to ten years.¹⁴ But international experience points to challenges which are often faced by resource countries due to mismanagement of the oil revenues.

Consequently, government initiated a process of drafting and fast tracking the enactment of updated petroleum bills and laws to guide and govern the oil and gas tax industry.¹⁵ Among all these, parliament has a pivotal responsibility fulfilling its function of representing all the above actors and its constituents (wider society) in shaping public policy, enacting relevant and effective legislation, providing checks and balances on the executive's performance, overseeing policy implementation, and advocating for Ugandans' long-term interests.¹⁶

Article 77(1) of the 1995 Constitution of Uganda (the Constitution) establishes the parliament of Uganda, vesting parliament with powers to make laws on any matter for the peace, order,

¹² Sebastian Wolf & Vishal Aditya Potluri, Uganda's oil, how much, when and how it will be governed, WIDER Working Paper 2018-179 December 2018, united Nations University Institute for Development Economic Research. 2016.

¹³ Carol Nakhle, Petroleum, sharing the oil wealth, a study of petroleum taxation yesterday, today and tomorrow (London, Routledge, 2008) 149-150.

¹⁴ International Alert Oil and Gas laws in Uganda, Legislative Guide of 2011

¹⁵ Petroleum (exploration, development and production) Act 2013(laws of Uganda)

¹⁶International Alert Oil and Gas laws in Uganda, Legislative Guide of 2011

development and good governance of Uganda. Article 79 goes on to specify the following duties.¹⁷

- (a) Protect the Constitution and promote the democratic governance of Uganda;
- (b) Give legislative sanction to taxation and acquisition of loans, in order to finance the work of government; and
- (c) Scrutinize government policy and administration, and approve presidential nominations for ministers, judges, ambassadors and other positions specified in the Constitution. Legislators are further tasked to represent constituent interests under Article 38(1) of the Constitution which provides that ‘every Ugandan citizen has the right to participate in the affairs of government, individually or through his or her representative in accordance with the law.’¹⁸

As such the National Oil and Gas policy of 2008 was put in place¹⁹ following shortly in 2012, the oil and Gas Revenue management policy was launched. In 2013, the petroleum (Exploration Development and Production) Act,²⁰ and the petroleum (Refining, Conversion, Transmission and Midstream storage) Act,²¹ Incomes Tax Act as amended by 2019, VAT Act as amended, the petroleum (Exploration, Development and Production) (Health, Safety and Environment) Regulations 2016, National oil content Regulations of 2016 were also enacted prior to passing and enactment of these policies and laws. Uganda had adopted a model petroleum sharing Agreement (PSA) in 1999, 2012 another model PSA in 2016²² to guide on the duties and roles between the international oil companies and the Ugandan government which were supported by these Acts.

These Acts also established the Petroleum Authority of Uganda (PAU) as the regulatory body and designated the Uganda National Oil Company (UNOC) to manage the government’s commercial interest in the sector. Formulated with Norwegian support, the two Acts formed the legal basis for the development of upstream and midstream capacity. In the same year, the Ministry of Finance approved an Oil and Gas Revenue Management Policy.

¹⁷ International Alert Oil and Gas laws in Uganda, Legislative Guide of 2011

¹⁸ International Alert Oil and Gas laws in Uganda, Legislative Guide of 2011

¹⁹ Uganda national oil and gas policy.

²⁰ Act No.4 of 2013 (parliament of Uganda).

²¹ Supra 6

²² Uganda production sharing Agreement of 2016.

In order to ensure the resource will be used to yield lasting benefits to present and future generations, key issues of public debate are; The need for a regulatory environment that fosters transparency concerning all revenues and in negotiation and award of contracts and the importance of balancing petroleum production with conservation of the different exploration areas' unique biodiversity, and wider environmental wellbeing.

The history of polluter pays principle is as old as our planet itself. If one considers even the commonly accepted definition of pollution as an introduction by man, directly or indirectly of substances or energy into the environment resulting into harmful effects of such nature as to endanger human health, harm living resources, ecosystems and impair or interfere with amenities and other legitimate uses of the environment.²³

The Polluter-Pays Principle (PPP) was adopted by OECD (Organization for Economic Cooperation and Development) as a guiding principle concerning international Economic Aspects of Environmental policies where the polluter was held responsible for environmental damage and pollution. It was adopted in 1972 in Geneva as an economic principle for allocating the costs of pollution control. The principle has since been undergoing development for the last 20 years.²⁴The history of the polluter pay principle is far traced in the early economic literature from 1920s. The OECD recommended the PPP as the 'Guiding Principle Concerning the International Economic Aspects of Environmental Policies' in 1972.

The PPP has been mentioned as one of the principles in many regional and international conventions making the polluter pays principle as one of the most efficient principles of Environmental policies.²⁵The Polluter-Pays Principle is not a principle of equity but it is designed not to punish polluters but to set 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.

This Principle also extends to emissions of greenhouse gases which cause climate change. Greenhouse gas emissions are a form of pollution whose potential harm and damages are seen through the impact they cause on the climate. Given the fact that society is slow to

²³ OECD Council Rec.C (74) 224 of 14th November, 1794

²⁴See the OECD Principles 1972

²⁵By Munir, Muhammad, History and Evolution of the Polluter Pays Principle: How an Economic Idea Became a Legal Principle? (September 8, 2013). Available at SSRN: <https://ssrn.com/abstract=2322485> or <http://dx.doi.org/10.2139/ssrn.2322485>, See Walker Oxford Companion to Law, for the definition of "Nuisance Posted in 1980

easily recognise the link between greenhouse gases and climate change, and since the atmosphere is seen as global common to be used and shared by all, hence missing out on holding the emitters responsible for controlling this form of pollution. But it has been suggested that implementation of the polluter pays principle can still be effected through a carbon price which imposes a charge on the emission of greenhouse gases equivalent to the corresponding potential cost caused through future climate change. This way factories/ industries are given financial incentives to minimise costs there by reducing emissions. Carbon price can be uniform globally to prevent factory owners and industries from moving from a strict country to a pollution haven with no restrictions.²⁶

For any law to have any legal effective, it must have been enacted in a manner which is consistent with the established legal framework in place. In Uganda, this legal framework is governed by the Vienna law of treaty which establishes the mechanism under which a treaty can have a binding force in any Legal Regime. Article 38 (1)²⁷ establishes the application of Environmental law. It defines a treaty as a written or oral agreement entered into between states or international organization governed by international law. Article 123,²⁸ empowers the parliament to ratify treaties, conventions and agreements entered into by the President or any other person authorized by the President. This article is also enforced by the Ratification of treaties Act²⁹ which lays down the procedure under which an act of foreign treaties and conventions can be laid down before parliament to be passed in order for them to have a binding effect in the legal regime in Uganda³⁰. These mirrors the same process laid by the Vienna convention on the law of treaties and the I.C.J statute. Having looked at the process that gives these treaties, conventions and agreements on environment to have legal effect in Uganda. There are many regional and international conventions which Uganda has complied with to ensure health and safety in its oil and gas industry and they include among others.

Section 26³¹ states that petroleum activities must be carried out with the best industrial practices. Section 80³² states that the polluter is strictly liable for the pollution and establishes fees paid for the compensation in case of pollution. Section 78³³ prohibits pollution in the oil

²⁶ The guardian, article written by Bob Ward and Naomi Hicks of the Grantham Research Institute at LSE in collaboration with the Guardian. <https://www.theguardian>

²⁷ Article 38 of Statute of the international court of justice.

²⁸ Article 123 of the 1995 constitution of the republic of Uganda as amended.

²⁹ Cap 204, laws of Uganda, 2000.

³⁰ Section 3 of the same ACT

³¹ the petroleum (Exploration, Development & Production) (Health & Safety Environmental) Regulations 2016

³² NEA of 2019

³³ NEA of 2019.

and gas sector. These laws best suit the principle of polluter pays and it helps in the restoration of the Environment in case of any oil spill and gas flaring in conserving biodiversity from being distorted by the pollution from oil and gas industry in Uganda since the sector is well known for Environmental disasters

The aim of the principle is to avoid wasting natural resources and to put an end to the cost-free use of the Environment as a receptacle for pollution. In essence the use of the Polluter-Pays Principle secures economic efficiency and reduces distortions in international trade and investment to a minimum.³⁴ For the case of Uganda, since commercial discovery of proven reserves of hydrocarbons were made in 2006 in the Albertine region, there is a big likelihood of pollution to the Environment in the whole Country. In the case of USA, we consider for example the blowout of the Macondo well that occurred in the Gulf of Mexico on April 20, 2010, and as a result the well was greatly polluted, so many people lost their lives and the entire environment encountered pollution as a result of the during offshore drilling.³⁵

1.2 Theoretical Background.

The polluter pays principle is informed by the deterrence theory of which it deals with cost allocation, cost internalization, and legal liability.³⁶

1.2.1. The Deterrence Theory

In criminology and penology deterrence is one of the recognized theories of punishment. This and other theories are discussed by Thomas.³⁷ It is therefore assumed that the higher penalties will be a disincentive to the polluters of the environment.

The polluter pays principle was informed by deterrence theory. Deterrence entails ‘the act of making someone decide not to do something: the act of preventing a particular act or

³⁴ See the OECD principle of 1972 at page 9/49

³⁵ Suggested Citation: “Summary.” National Academy of Engineering and National Research Council. 2012. *Macondo Well Deepwater Horizon Blowout: Lessons for Improving Offshore Drilling Safety*. Washington, DC: The National Academies Press. doi: 10.17226/13273.

³⁶ See Jonathan Remy Nash, Too Much Market? The Conflict between Tradeable Pollution

34 Allowances and the “Polluter Pays” Principle, 24 HARV. ENVTL. L. REV. 465, 472-78 (2000).

³⁷ See, D.A Thomas, The Theories of Punishment in the Court of Appeal, The Modern Law Review, Sept 1964, Vol. 27, pp 546-567, particularly at 559.

behaviour from happening,³⁸ Deterrence is not a new idea.³⁹ It is an idea that has been discussed in academic writings since the 18th century.⁴⁰

Deterrence theory postulates that people will commit a crime if it gratifies them and the experience of crime is beneficial.⁴¹ This suggests that criminals or violators would engage in acts they believe would be of great benefit to them. The concept of deterrence is held to be based on the notion that people consciously try to avoid pain and seek pleasure.⁴² Therefore, individuals engage less in activities such as crime if the outcome of the crime would cause them pain. This perspective also suggests that crime rate would be at its lowest in places where offending evokes the most 'pain' (or costs) and it is highest in places where offending brings the most pleasure.⁴³ Deterrence occurs when people do not commit crimes because of fear of the costs or unpleasant consequences that will be imposed on them. The deterrence effect is 'how much crime is saved through the threat and application of criminal punishments.'⁴⁴

The principle of deterrence is based on the 'effect that the prospect of having to pay damages will have on the behaviour of similarly situated parties in the future (not just on the behaviour of the defendant at hand).'⁴⁵ This implies that when potential polluters know that they have to pay certain amount of money as damages for their actions, they would not engage in such actions. The question then is as regards oil spill cases, have oil companies or vessel owners changed their behaviour overtime since they know that they would pay heavy damages as a result of oil spills that result from their activities or activities of their companies? The answer to this question is not really straightforward. The reason is that several factors often influence events that result into oil spills. These factors are not normally due to deliberate actions of the individuals or companies involved. This is not the case with deliberate oil spills

34 Merriam Webster Dictionary, 'Deterrence' <http://www.merriam-webster.com/dictionary/deterrence> accessed 20th March 2021.

35 Aaron Chalfin and Justin McCrary, 'Criminal Deterrence: A Review of the Literature', (2014) http://eml.berkelev.edu/~imccrary/chalfin_mccrary2014.pdf accessed 20th March, 2021

36 Ibid.

37 Daniel Nagin, 'Deterrence: Scaring Offenders Straight' http://www.sagepub.com/upm-data/40354_4.pdf accessed 20th March 2021.

38 Ibid.

39 Ibid.

40 Ibid.

46 M Polinsky and S Shavell, 'Punitive Damages: An Economic Analysis' (1998) 3 Harvard Law Review 877.

47 Adedayo Ojo, 'Bonga, Endeavour & Macondo' <<http://africaoilgasreport.com/2012/05/opinion/bonga-endeavour-macondo/>> accessed 23rd March, 2021.

such as deliberate destruction of pipelines during a war, sabotage or pipeline vandalization.

In summary, it can be stated that for oil spills to be deterred in the future, the polluter-pays principle must be strengthened in order for it to be an efficient deterrent tool in preventing oil spills.⁴⁶ However what the theory does not address is whether the costs allocated to the polluters is or has been sufficient to reduce pollution such that the environment is restored to the required acceptable standard that makes it healthy and safe for the people and other living organisms.

1.3. Problem Statement:

Oil and gas industries are known to release lots of pollutants from the early stages of Exploitation, because of this, the rate of pollution caused by this sector is usually very high and this has caused a lot of threats and damages to the Human Environment by the oil and gas activities especially in countries where the oil Exploitation has already been successful like in Norway and USA. In the case of USA we consider for example the blowout of the Macondo well that occurred in the Gulf of Mexico on April 20, 2010 and as a result the well was greatly polluted. Many people lost their lives and the entire Environment encountered pollution as a result,⁴⁷ it is likely that Uganda will face a similar situation because the commercial discovery of oil has been made already in the Albertine Region of Uganda. Therefore, pollution if not prevented may cause damage to the Environment. Therefore, from the onset there should be in place policies and legal framework to ensure efficient applicability of the polluter pays principles so as to mitigate risks on the Environment.

The payment must be sufficient enough to restore the Environment to the required standard and for this to happen the implementers of the principle must ensure that the polluter is fully held liable to restore the Environment to the standard. Evidence has shown that world over, the emissions from oil and gas operations are indirect greenhouse gas emissions from oil and gas operations, including both carbon dioxide and methane emissions. These are estimated to be 5200 million tonnes of carbon-dioxide equivalents, 15% of the Energy Sector's total Green House Gas emissions. In total, the emissions from producing, refining and transporting a barrel of oil are between 10% and 30% of its full well-to-wheel lifecycle emissions intensity.⁴⁸The

⁴⁶ See the OECD principle 1972 at p. 13/49

⁴⁷ Ibid

⁴⁸ Ibid

above arguments derive their existence from Article 39 and objective 27 of the 1995⁴⁹ that endowed the people of Uganda with the right to clean and healthy environment.

This research assesses the applicability of the polluter pays principle and how to mitigate and ensure environmental health and safety.

1.4.0. Objectives of the study

The objectives are divided into two namely. General and specific objectives

1.4.1. General objectives

To analyse the adequacy and efficacy of the polluter pays principle in protecting the Environment against the dangerous activities of Uganda's oil and gas industry.

1.4.2. Specific Objectives.

1. To examine the comprehensiveness of the polluter pays principle in protecting the environment from the pollution arising from the exploitation of oil in the Albertine region of Uganda.
2. To assess the relevance, effectiveness and implementation strategies of the polluter pay principles.
3. To assess the comparative analysis of the polluter pays principle in relations with other jurisdictions.
4. To analyse, recommend and give remedies to the findings.

1.5. Research Questions.

1. What is the effectiveness of the polluter pay principle in protecting the environment?
2. What is the relevance of effective implementation strategies adopted by the government in preserving the environment from pollution from the oil exploitation?
3. What is the comparative analysis of the polluter pays principle with other jurisdictions?

⁴⁹ The 1995 Constitution of the Republic of Uganda

4. What are the recommendations and remedies for the proper implementation of polluter pays principle in protection of the environment against pollution?

1.6. Scope.

The scope of the study is divided into three perspectives and these include; content, Time and Geographical scope.

1.6.1. Geographical scope

This study was carried out in Uganda focused on Uganda as country in terms of assessing its oil and Gas industry. Uganda is found in East Africa Neighbouring Kenya in the East, Tanzania in the South, and Democratic Republic of Congo in the west, South Sudan in the North and Rwanda in the south Western part of East Africa. It is located in the heart of Africa in the central sub-Saharan region of Africa. Some of the Oil and Gas fields are located near the part of Uganda and D.R. Congo.

1.6.2. Time Scope.

This study covered a period of 10 years considering the time period from the year 2010 to 2020. This period was used because of the availability of good quality and reliable data relevant to the topic under investigation since there were many changes that were made in regard to the efficacy of the polluter pays principle in the protection of the environment from activities of oil and gas industry.

1.6.3. Content Scope.

The study aimed at looking at the effectiveness of the polluter pays principle, the dangers caused by the oil and gas activities to the Environment and the best Environmental practices in the oil and gas sector in Uganda. The oil that has been discovered in Uganda is about 6.5 billion barrels and the recoverable oil is about 1.8 to 2.2 barrels of oil.⁵⁰

The study was restricted to polluter pays principle as a means of protecting the Environment from harm resulting from the activities from the oil and gas sector in Uganda. The researcher critically analysed the polluter pays principles and the laws thereto, it also discussed the forms of pollutions that arise from the oil and gas sector, the research also

⁵⁰oil in uganda <<https://www.oxfordinstituteeforenergystudies.org>> accessed on 26^{3rd} March, 2021

discusses the effects of pollution on the Environment and also discussed the laws that support the polluter pays principle.

1.7. Significance of the study.

To the policy makers.

The Study will help the government to understand the loopholes in the efficacy mechanism with the polluter pays principle in Uganda's Oil and Gas Sector and how to improve its effectiveness.

To the Researchers.

This research will help to find out the forms of pollution that are caused as a result of petroleum exploration and exploitation activities, to expose the polluters to liability for their actions that caused pollution and the best possible mechanisms the polluters can best abate the situation

To the students.

The Study will be useful to scholars and researchers generally who want to learn about issues concerning the efficacy of polluter pays principle as a mechanism. In particular those researchers interested in issues pertaining to the protection of the Environment from the activities of Uganda's oil and gas industry.

1.8. Justification for carrying out the research

Pollution is not a new phenomenon in Uganda or even to the whole world at large. It must have started with the world in the age of evolution. Uganda is one of the countries that have enacted laws and policies for liabilities of polluters which fetches back from the Constitution⁵¹ of the Republic of Uganda, the National Environment Act ⁵² and has also adopted international instruments in line with this principle.

The rate of pollution is steadily increasing with the emergence and development in industrialization at a very large scale. And that is why the polluters have to be held liable if the Environment is to be protected and kept Healthy and safe for the current and future generation in a sustainable manner under the Formal millennium goals of UN of sustainable development

⁵¹1995

⁵² Act No. 5 of 2019

initiatives. Pollution is more prevalent in areas with many human activities like industrialization as well as petroleum activities both onshore and offshore which in turn affects both the onshore and offshore Environments.

Despite the application of the principle of polluter pays, the Environment is still heavily being polluted and the costs paid by the polluters to abate the situation seem to be insufficient since the Environment is still being endangered despite various efforts made by the responsible authorities. Despite the fact that some of the polluters are being held liable for their actions, there is need to increase the rates of liability to be sufficient to abate the pollution caused and in this way the environment may be better protected from the harm caused to it by human activities. Much as the laws provide for the liabilities of the polluters and the lead agencies have tried to implement the principle, the polluters seem to have not paid for the rates of pollution sufficiently.

There is more need to sensitize the communities on better modes of protecting their Environment from dangers. In this way, it might help reduce the gap of pollution among the communities if these penalties are stiff and deterrent in nature. There is urgent need to adhere to the issues of Environmental principle in form of application of the polluter pays principle and why it has failed in other places and sectors.

1.9.0. The research framework of the study.

They are two types of framework, the theoretical which deals with the ideal and real situation of the research problem and the conceptual framework which deals with how the research variable interacts to form the existing problem and upon that basis therefore, conceptual framework is one that shows how the dependant, independent and intervening variables interact which makes it easy to solve the research problem.

1.9.0. The conceptual framework.

A conceptual framework helps to postulate or hypothesize and test certain relationships which improve the understanding of the situation.⁵³ The conceptual framework identifies the variable in the study as efficacy of Environmental principles. Polluter pays principle in Uganda's oil and gas sector as the independent variable whereas the environmental protection from the activities of oil and gas as the dependent variables.

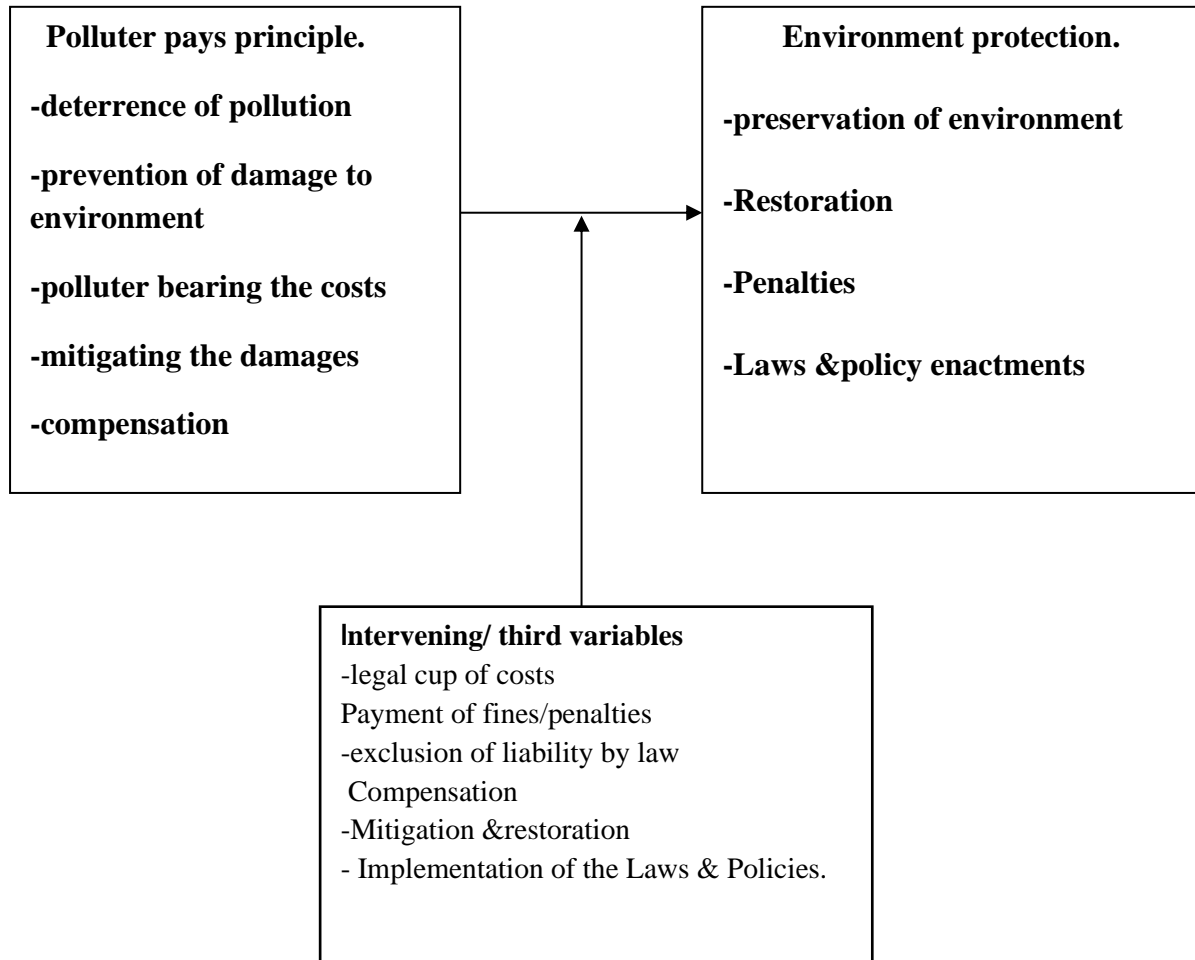
⁵³Sekaran, u.& R Business Research Methods 2003.

1.9.1 Conceptual framework

Title:

Independent variable

Dependent variable



1.9.2. Theoretical Framework.

This research adopted the theoretical framework in solving the research problem, Theoretically polluter pays principle deters pollution in the oil and gas sector through imposing heavy fines to the polluter to be able to restore the Environment in its previous state and should discourage the would be polluters from damaging the Environment due to costs of paying for the damage however despite all these measures , Oil and gas pollution still exists in the industry and its anticipated to occur in Uganda as well. It is upon such measures that I investigated to find out why the principle has failed to deter the pollution in the oil and gas sector.

1.10. The structure of the Research.

Chapter one introduces the study. It presents an overview of the background, Historical, Theoretical., statement of the problem, Research Objectives of the study, Research Questions, Significance of the study, Scope of the study, Justification of the study as well as the Conceptual framework; a summary of the chapter, Research methodology, Limitations, and the structure of the Research.

Chapter Two: Literature Review; This section reviewed existing literature on polluter pays principle, what makes a polluter pays principle in one country a more effective mechanism in protecting the Environment from threats posed by activities of oil and gas industry. It expounded more on the characteristics of an effective environmental principle of polluter pays principle in protection of the environment from threats of oil spills and gas flaring in the oil and gas sector as put across by different scholars, academicians and researchers. Who is a polluter, relationship between pollution and the Environment, looked at the Nigerian application of the principle? This part also presents an analytical overview of polluter pays principle in regard to environmental protection in the oil and gas sector in Uganda and its implementations in oil and gas sector?

Chapter Three: Methodology; this part looked at the research methodology, bringing out the research design, study population, research instruments, data sources, ways of analysing data and research ethical considerations.

Chapter four: Country Outlook, Uganda (Case Study); this section delivers the status of polluter pays principles and other environmental principles, legal framework in principle to guard against environmental pollution in oil and gas industry., comparison with other countries , implementation of the polluter pays principle, personal concerns with implementation , institutional framework , national legal and policy framework, hindrance of polluter pays principle, Dangers posed by oil and gas activities and finally mechanism to mitigate those dangers posed to the environment by oil and gas industry.

Chapter Five: Conclusions and Recommendations; this section presents the summary of findings, limitations of the study, possible recommendations as well as outlines areas for future research.

CHAPTER TWO

LITERATURE REVIEW

2.0. Introduction

According to the Rio Declaration, the polluter pays principle is the commonly accepted practice to those that produce pollutants must bear the costs of managing it to prevent the damage to the human health or the environment. This principle underpins the most of the regulation of pollution affecting land, water and Air. Globally the polluter pays principle is a part of a broader principles used in guiding sustainable development worldwide.⁵⁴The principle underpins most of the regulations of pollutions affecting land, water and Air in Uganda, United Kingdom, USA, Nigeria, China and many other countries in the world. Pollution causes a great harm not only to the environment but also to human life. In 2012, the World Health Organisation estimated that 12% of the global death was caused by air pollution and when it comes to the oil and gas industry, the effects are enormous.

According to Walker, Oil spills lead to pollution of water and land in the surrounding environment. The health and homeland of people leaving around the area of the spills are in advance affected. Although there is a lot of literature on legal aspects of environmental health and safety protection, there is not a lot when it comes to the area of oil and gas exploration and production. Even the literature present may not easily be intelligible due to the novelty of its substance on environmental health and safety in oil and gas exploration and production and in some cases has research gaps on legal application and implementation of these aspects on compliance with environmental health and safety standards which need to be filled. Nevertheless, the following are vital;⁵⁵

2.1 Relationship between the Polluter-Pays Principle and Oil and gas pollution

From the discussion so far, it is obvious that there is a connection between the polluter-

⁵⁴ 1992 Rio Declaration principle 16.

⁵⁵ Notwithstanding the fact that many pieces of literature have been written in the field of oil and gas law and economics, most of the writings are not domestic. Hence their information however accurate cannot fit in the context of Uganda without modification. Additionally, most of the writings are based on highly developed technologies and advanced democratic politico-economic dispensations which don't exist in Uganda, something which creates the need to review this literature, identify the gaps and advise on the relevance of that literature *mutatis mutandis*. The literature review proceeds in distinct heads showing key issues considered by the researcher. These include: environmental and social costs of oil and gas exploration and production; managing the oil sector in Uganda: regulation and oversight; good oil governance principles; the resource curse (paradox of plenty); the Dutch disease syndrome; transparency and accountability including budget transparency and expenditure transparency; Strategic Environmental Assessment (SEA) and Environmental Impact Assessment (EIA)

pays principle and oil spills. The link between both is not one that is so glaring that one can easily identify. Both concepts can be said to relate at the point of liability. That is, they meet at the point where the polluter has been identified and is deemed liable for his actions committed against the environment. The polluter-pays principle functions after the happening of an oil spill. In essence, the polluter-pays principle becomes relevant after an oil spill occurs. The polluter-pays principle helps to pin-point who bears responsibility when oil spills occur. Oil pollution also acts as a linkage between the polluter pays-principle and oil spills. Oil spills leads to oil pollution while the polluter-pays principle identifies the responsible party that caused the spill which led to the oil pollution.

According to Professor Horwitz et al ⁵⁶emphasises that liability cap is beyond clean-up of the environment in case of oil spill whereby the cost of noncompliance is less than the cost of compliance. This gives companies a way not to comply hence causes oil spill accidents.

2.2 The Polluter Pays Principle

According to Wolf, The Polluter Pays Principle is a principle of international environmental law where the polluting party is required to pay for the damage done to the natural environment. It is one of the key legal and policy principles of international environmental law, designed to shape the development of environmental law. Other key principles include the principle of sustainable development, precautionary principle, the principle of common but differentiated responsibility etcetera. These principles seek to maintain a balance between development and the preservation of a healthy environment, as well as the allocation of liability.⁵⁷It would seem that the polluter pays principle focuses more on the allocation of liability. The principle envisages that polluters would internalise the costs of the pollution which results from their actions, so that the cost of their goods and services would reflect the true costs of the measures which the state adopts to eliminate, reduce and treat the polluters' emissions. The polluter pays principle also enables the state to charge the cost of rectifying environmental damage to the relevant polluter, provided that the polluter can be identified.⁵⁸

⁵⁶ Prof. Horwitz et al, an American commentator and the Reason Magazine editor.

⁵⁷ S Wolf and N Stanley, Wolf and Stanley on Environmental Law (5th edn Routledge 2011) 14.

⁵⁸ Ibid.

Polluter Pays Principle is also known as Extended Polluter Responsibility (EPR), which seeks to shift the responsibility of dealing with, wastes from governments to the entities producing such wastes, by internalising the cost of waste disposal into the cost of the product. This will create an incentive for producers to improve the waste management profile of their companies, thus decreasing waste and increasing possibilities for reuse and recycling.

The Organisation for Economic Cooperation and Development (OECD) defines EPR as:

A concept where manufacturers and importers of products should bear a significant degree of responsibility for the environmental impacts of their products throughout the product life-cycle, including upstream impacts inherent in the selection of materials for the products, impacts from manufacturers' production process itself, and downstream impacts from the use and disposal of the products. Producers accept their responsibility when designing their products to minimize life-cycle environmental impacts, and when accepting legal, physical or socio-economic responsibility for environmental impacts that cannot be eliminated by design.⁵⁹

The Organisation for Economic Cooperation and Development (OECD)⁶⁰ guiding principles defines the Polluter Pays Principle as an instrument for “allocating costs of pollution prevention and control measures”. The OECD Joint Working Party on Agriculture and Environment stated that the polluter should be held responsible for environmental damage caused and should bear the costs of carrying out pollution prevention measures or paying for damaging the state of the environment.⁶¹ From the OECD definition, four key issues emerge:

First, is the issue of identifying the polluter? This is crucial to the allocation of costs and making the polluter take responsibility for his pollution, as stipulated by the OECD definition given above;⁶²It is necessary to ascertain the extent of damage done to the environment and establish the extent of the polluter's liability so that precise monetary value can be attached to the degradation;

⁵⁹Organization for Economic Cooperation and Development (OECD). Environment Directorate, Paris France (2006) "Extended Producer Responsibility." Project Fact Sheet.

⁶⁰A group of 24 Industrialized Countries plus the European Union and Yugoslavia which has special status.

⁶¹OECD, 1989 Recommendation of the Council concerning the application of the Polluter Pays Principles to Accidental pollution.

⁶²J Thornton and S Beckwith, Environmental Law (2nd ed Sweet & Maxwell 2004) 14.

- Pollution caused must be identifiable.⁶³ This is necessary to prove that the polluter is responsible for that resulting pollution; and
- There must be a damage that must be compensated.⁶⁴ The damage caused must be real and identifiable as compensable under a compensatory regime provided by the relevant laws.

These issues when properly articulated would help ensure that the polluter is made liable for the cost of his polluting activities. The polluter pays principle envisages that, the parties who generate pollution, and not the victims, the society or the government, should bear the cost of abatement. It therefore allows the party responsible for polluting the environment to take responsibility for his actions. It also allows the polluter to be ‘charged with the cost of whatever pollution prevention and control measures are determined by the public authorities, whether preventive measures, restoration, or a combination of both.’⁶⁵

The polluter pays principle means that the polluter should bear the expenses of carrying out measures decided by public authorities to ensure that the environment is in an acceptable state. In other words, the cost of these measures should be reflected in the cost of goods and services that cause pollution in production and/or consumption. Such measures should not be accompanied by subsidies that would create significant distortions in international trade and investment. The rationales for the polluter pay principle can be gleaned from issues such as efficiency, equity, judicial/legal and pedagogical reasoning.

The purpose of the policy was to internalise the economic cost of pollution control, cleaning and protection measures and to ensure that government did not distort international trade and investment by subsidizing those environmental costs. The rationale is that when a charge is levied, it induces polluters to treat their effluents, and they will do this as long as the treatments costs remain lower than the amount of the charge, they would otherwise be compelled to pay in the absence of pollution abatement.⁶⁶

⁶³T Okenabirhie, ‘Polluter Pays Principle in the Nigerian Oil and Gas Industry: Rhetoric or Reality? Environmental and Social Issues in Energy Industry (CAR CEPMLP Annual Review) (2008/2009)

<http://www.dundee.ac.uk/cepmlp/gateway/index.php?news=30840> Accessed on 20th March, 2021

⁶⁴ Ibid

⁶⁵OECD, ‘Recommendation of the Council on Guiding Principles concerning International Economic Aspects of Environmental Policies’ C (72) 6

⁶⁶See Goldenberg, J. Energy Environment and Development Earth Scan Publication Limited p.125

2.3 Who is a Polluter?

The questions, who is a polluter and to whom should payment be made, bring to the fore the more contentious issue of the setting of entitlements. Thus, questions would arise as to who has rights to the property in question; whether or not the polluter has the entitlement to pollute; or whether the victim has an entitlement to live in a pollution free environment. Where the polluter has the entitlement to pollute, payment of compensation/damages would not flow from the polluter to the victim. This does not however diminish the application of the polluter pays principle, because the pollution cost would be internalised through some forms of economic instruments.

2.4 What must the polluter pay?

Shergold opines that there a close nexus between ‘environmental damage’ and ‘environmental cost’. Thus, the amount to be paid is often determined by the extent of the damage, as damage and or compensation are aimed at returning the victim as much as possible to the state he was before the injury occurred. There are nevertheless instances where the amount to be paid is not determined by the extent of any actual damage done. Rather, it is set at a level that curbs the environmentally disfavoured activity to the degree desired by its opponents. The payment in such cases, whether or not there are real victims goes to the government in the form of a tax.

According to Pearce et al the polluter pays principle requires that the polluter should bear the costs that pollution damage or pollution control imposes on society. By internalising these costs, they become part of the private costs of producing goods and services. In this way, the otherwise free services of the natural environment are being priced and treated in like manner as labour or capital costs. This cost internalisation may have a threefold effect as follows:

- the costs of production may rise and this may lead to a decline in output of the polluting product;
- part of the increased cost of production may be passed on to the consumer in the form of higher prices; and
- The polluter may switch from polluting to fewer polluting technologies in an effort to avoid the costs of adding pollution control to existing technology, or may switch out

of polluting products into less polluting ones.⁶⁷

The payment to be made should equal the damage done and must be made to the person or persons affected. Inanimate objects and the environment do not incur costs, people do, thus while the polluting conduct may physically cause damage to property, but the reality is that it is the interests of the owner that is actually affected. However, damage to the person (the legal occupant of the damaged property) is often de-emphasised in favour of the physical property. Liability from oil spills could also be criminal, as for example through, the imposition of criminal fines under health and environmental regimes following oil spill incidents.⁶⁸ Environmental offences can either be fault-based (for example, negligence or nuisance) or based on strict liability. In terms of oil pipelines, liability may be criminal or civil depending on the cause of the spill.

According to Pearce, et al⁶⁹ among the many misunderstandings about the polluter pays principle, two stand out. First, it is thought that polluter pays means that the manufacturer or provider of the service is the polluter and hence only he or she should pay the costs of clean-up, damage or pollution prevention. That the cost is shared with the consumer appears unfair. The present writer believes that it is manifestly unfair for a consumer to share responsibility for the environmental cost of a manufacturing process which holds no pecuniary or other benefits for him, except as an end user, who buys such product. It is thought that passing the environmental cost to the consumer may not provide any incentive for the manufacturer to stop pollution, because ultimately, he does not bear the cost of such pollution, which he passes to the consumers. A fair suggestion is that the consumer should receive signals in the market place that the particular product in question is polluting, that way the consumer can exercise the discretion to either buy such product and share the environmental cost or go for a more environmentally friendly product. It is wholly consistent with the polluter pays principle that market prices for polluting products should rise relative to less polluting ones. Consumers then have an incentive to respond by altering their behaviour just as the polluter pays principle's guiding principles require. The idea that consumers should not pay tends to be expressed in concerns about the effect on inflation. Since the prices of polluting products rise, the overall level of inflation may rise. This according to Pearce, tends to reflect the confusion over the

⁶⁷ See D.W. Pearce, "The Polluter Pay Principle" Briefing Papers on Key Issues in Environmental Economics Gatekeeper Series No. LEEC 89-03 London Environmental Economics Centre

⁶⁸ Ibid

⁶⁹ Ibid

purpose of the polluter pays principle and shows up in the second concern.⁷⁰

Second, the polluter pays principle is widely thought of as a tax, and therefore as a means to generate tax revenues. In fact, the polluter pays principle is consistent with any means of making the polluter pay. For example, through setting environmental standards which require expenditure on pollution abatement equipment. But even if the polluter pays principle takes the form of a tax, it is however, an incentive charge, which aims to alter behaviour, not to raise revenues. It will have the effect of raising tax revenues if producers or consumers are locked in to existing technologies or products, where they cannot find or are unwilling to embrace ready substitutes. The polluter pays principle acts as an incentive for both producer and consumers to look for new technologies and substitute products, albeit, less polluting for polluting products, which in the long run would minimize any tax burden on either the producer or consumer.

The basic tenet of polluter pays principle is that the price of a good or service should fully reflect its total cost of production, including the cost of all the resources used. Thus, the use of air, water or land for the emission, discharge or storage of wastes is as much a use of resource as are other labour and material inputs. The lack of proper prices for, and the open-access characteristic of many environmental resources means that there is a severe risk that over-exploitation leading to eventual complete destruction will occur. The polluter pays principle seeks to rectify this by making polluters internalise the costs of use or degradation of environmental resources. The aim is to integrate use of the environment (including its waste assimilation capacity) into the economic sphere through the use of price signals and the use of economic instruments such as pollution charges and permits. Significance of polluter pays principle in the protection of the environment against oil spills and gas flaring.

The significance of this principle is that it stems from the fact that it allows the party responsible for the pollution of the environment to take responsibility of his actions since he is the one who generated the pollution and also for the person responsible to be charged with the costs of whatever pollution prevention and control measure determined by the public authorities, whether preventive measures, restoration or combination of both.

The significant of these principle lies in the Gulf oil spill for Canada and the Gulf of Mexico where a catastrophic accidents happened in 2010 when large amounts of oil spill over

⁷⁰ D.W. Pearce, "The Polluter Pay Principle" (supra)

the gulf causing a lot of damage to the environment in which the oil companies BP and Exxon Valdez⁷¹ were required to pay for the damage and clean up restoration costs because of their role in polluting the environment as per the pollution Act⁷² whereby they were required to pay over 75million USA dollars in the clean-up costs in case of oil spills as a way of enforcing the principle of polluter pays as a deterrence mechanism for the protecting the environment against activities of oil and gas.

As a way of enforcing the principle of polluter pays, BP was held responsible and accountable for all the costs and significant clean up and containment costs, it was also ordered to pay for the damages of the oil spill, compensate for the damage caused by oil spill.

However even its liability of the principle is also limited as a principle of environmental protection the supreme court of Canada described the purpose of the polluter pays principle as a way of protecting the environment against the dangerous activities of oil and gas as a way of encouraging sustainable development whereby the polluter is assigned the responsibility of remedying containment and it imposes direct and indirect costs for the pollution in which the polluter is asked to pay more attention to the need to protect the environment and ecosystem in the course of their economic activities.⁷³

Implementing the polluter pays principle in oil and sector and its shortcomings

The biggest limitations sometimes come from the law itself whereby it caps liability of the polluter to certain amount of monies. For example, the USA pollution Act,⁷⁴ which caps liability to 70million dollars for the clean-up in case of oil spill, is not enough to deter pollution. Solomon⁷⁵ blames the USA for the oil spill in the Gulf of Mexico and he insists that the companies had any incentive to avert the oil spill in the Gulf of Mexico because they never tried to do their best to avert the worst scenario. Economics, being a behavioural and social science, attaches the concept of costs to human beings and individual decision making. Cost is what a person must give up when he chooses one course of action as opposed to another, or when someone else's activities prevent a person from choosing one course of action over another. According to economists, efficiency will be maximized when manufacturers take into account all of the costs involved in the production process of a commodity, when deciding how

⁷¹ West Coast environmental law, The Gulf spill and the polluter pays principle.

⁷² USA pollution Act of 1990

⁷³ Para 24 of the Canadian supreme court ruling.

⁷⁴ USA pollution Act of 1990

⁷⁵ A Canadian commentator for the National Post Columnist.

much to produce and how much to charge. For example, in the case of a company that is polluting a river, such cost might be to downstream recreational users whose activities, such as swimming, fishing and use of the water from the river for domestic life, among others.

Their cost would be the value that they place on the activities that the pollution is preventing them from pursuing. It is imperative to note that, the people who use the river are the ones who bear the costs of the pollution of the river and not the river itself. Thus, the polluter pays principle must accurately identify the pollution victims and ensure that compensation flows from the offending party to such victims. And in cases where there are no direct or identifiable victims, the relevance of the polluter pays principle would be in ensuring that the polluter bears the cost of rehabilitating and restoring the environment to an acceptable state. It has been observed that the polluter pays principle works through the internalization of the environmental costs of the polluting activity. Cost internalization can be achieved through the use of regulatory instruments, represented by the command-and-control strategy and economic instruments, as well as other complementary strategies. The polluter pays principle has been practiced in many different forms in different cultures and economic systems.

It is applied through varied economic instruments, such as the government prohibiting subsidies for pollution abatement, to ensure that product prices reflect costs of pollution control; and by ensuring the internalization of all environmental costs, including residual damage, in the form of liability and compensation, taxes and charges, emissions trading, as in cap and trade, deposit refund schemes, liability and insurance, among others. Such taxes, whether in the form of a carbon tax or other charges would be set at a level that internalizes the true costs of environmental damage, so that the prices of commodities reflect the real environmental costs of pollution, this is known as Pigouvian tax.

The polluter pays principle is also commonly acceptable practice that those who produce pollution in context that they should bear the costs of managing it to prevent damage to human health and the environment for example a factory that produces poisonous substances must be held liable for the safe disposal of its wastes from the factory.⁷⁶ This underpins most of the regulation of pollution affecting land, water and air in U.K Law as pollution is defined to mean contamination of the land, water or air by harmful substances or potentially harmful substances.

⁷⁶ Bob Ward and Naomi Hicks of Grantham Research Institute at LSE in Collaboration with the Guardian polluter pays principle in Britain.2012.

This part of the broader principles to guide sustainable development worldwide formally known as the 1992 Rio Declaration, the polluter pays principle been applied significantly to emissions of greenhouse gases which cause climate since they cause potential harm to the environment.

However, since the society has been slow to adopt and reorganise the link between the greenhouse gases and climate change since the Atmosphere is considered by everyone as global common where everyone has a right to share it hence emitters are not generally held responsible for the controlling this form of pollution. It is also possible to implement polluter pays principle through carbon price whereby the charge is imposed on the emission of greenhouse gases from the oil industry and other industries equivalent to the corresponding potential cost caused by through future climate change. In this way, a financial incentive is created for a factory, for instance to minimise the costs by reducing emissions which can damage the environment. In the oil and gas sector it can be given to oil companies which have put up contingent measures to ensure that oil spills never occur as an incentive for not polluting the environment.

However, many economics argue that carbon pricing⁷⁷ should be global and uniform across countries and sectors so that polluters don't simply move operations to pollution heaven where there is no implementation of the polluter pays principle or countries that lack environmental regulations where they continue to polluter without any restrictions hence creating implementation challenge.⁷⁸Application of polluter pays principle in Nigeria's Oil and gas industry.

According to Ward, imposing liability for oil spill pollution and clean up.

⁷⁷ Bob Ward and Naomi Hicks of Grantham Research Institute at LSE in Collaboration with the Guardian polluter pays principle in Britain.2012.

⁷⁸Bob Ward and Naomi Hicks of Grantham Research Institute at LSE in Collaboration with the Guardian polluter pays principle in Britain2012.

CHAPTER THREE

RESEARCH METHODOLOGY

2.0.Introduction

This chapter presents the methodology that the researcher used in the study. It covers the research design, study population, sample population, size, samplings procedures, data collection methods and their corresponding data collection instruments, data management and analysis procedures, reliability, validity and the ethical considerations.

This research took a purely qualitative approach. It was conducted using library and desk research methods. These desk research methods were used to review government published data such as laws and policies which were very helpful in the entire research process. Also, important textbooks and articles were reviewed to obtain and contextualize scholarly opinions for the guidance of this paper. The research also reviewed Newspapers to ascertain the current trends in the industry. The paper also relied on some internet sources for secondary and tertiary information to support the study especially in ascertaining current global trends in the industry.

Non -Doctrinal legal research method

The study was conducted through a qualitative non-doctrinal legal research method which provides a systematic exposition of the rules governing a particular legal category, analyses the relationship between rules, explains areas of difficulty and, perhaps, predicts future developments and involves going to field where data is collected, analyzed and recommendations made according to the information got from the field.

3.1. Research Design and comparative analysis.

This study used a cross-sectional research design. In this type of research design, either the entire population or a subset thereof is selected, and from these individuals, data is collected to help answer research questions of interest. It is called cross-sectional because the information from X and Y that is gathered represents what is going on at only one point in time. In other words, a cross sectional study, takes a snapshot of a population at a certain time, allowing conclusions about phenomena across a wide population to be drawn. The study used this type of design because it is not costly to perform, does not require a lot of time and also

captures a specific point in time. The researcher was able to gather information without manipulating the study environment.

The benefit of a cross-sectional study design is that it allowed the researcher to compare the many different variables at the same time. The researcher for example, looked at an analysis of the Polluter pays Principle with Regard to Enhancing Protection of Uganda's Environment from Dangerous Activities of Oil and Gas Industry, the implementation of the polluter pays principle, its legal and regulatory framework, its implementation challenges and how its implementation can be improved looking at the problem facing Nigerian application of polluter pays and finally how deterrent is the polluter pays principle and its liability and how such liability is assessed in Uganda's oil and gas industry as a way of protecting the environment against the dangerous activities of oil and gas sector.

Cross-sectional analysis has the advantage of avoiding various complicating aspects of the use of data drawn from various points in time. Further, the data analysis itself does not need an assumption that the nature of the relationships between variables is stable over time although this comes at the cost of requiring caution if the results for one-time period are to be assumed valid at some different point in time.⁸⁷

The study was qualitative in nature aiming at investigating the efficacy of the polluter pays principle as mechanism of protecting the environment against dangers activities of Uganda's oil and gas sector. Cross sectional design helped the researcher to gather enough data and information from a pool of participants with varied characteristics of polluter pays principles in Uganda's environmental perspective. The design was selected to describe in-depth, the measures taken by government in designing the environmental legislations. A qualitative research approach was adopted, in order to exploit the synergies offered by this kind of research methodology.⁸⁸ Primary Data was collected from the interviews, questions and secondary data was collected through document review.

The study undertook a comparative analysis of the polluter pays principle at regional and national perspective. The study focused Nigeria at regional level being one of the longest African country that has traded long in the Oil and gas sector. It analysed how the principle has been effectively implemented, what challenges they faced and how they overcame the challenges of implementing the polluter pays principle in the protection of the environment country in preparation against dangers of oil spill pollutions. This will inform our the same and

how best we can apply the polluter pays principle so that it can be effectively implemented in the protection of Uganda's environment against the dangerous activities of oil spills.

Research Population and Sampling Methodology

The study was conducted using a sample of National Environment Management Authority NEMA, The office of the Prime Minister which is responsible for the National Oil Spill Contingency Preparedness and Response plan in case of any oil and gas spill of the National and Lead Agency for emergency preparedness and Response system, the pollution fees and penalties in case of breach, ministry of Environment since it's the one responsible for environmental protection ,Green Peace an NGO which advocates for environmental protection and conservation, Uganda wild life Authority is also responsible for protection of wild life which might be affected by activities of oil and gas for example oil spill and gas flaring, Ministry of Energy and Mineral Development (MEMD), The Uganda National oil company an investment branch of the government responsible for investing in the oil and gas sector on the behalf of the people of Uganda, Officials from China National Offshore Oil Corporation (CNOOC) since they were key respondents to the study.

A total of 32 respondents were selected from the sample of, NEMA, OPM, PCA, GP, ME, UWLA, MEMD, and CNOOC so as to obtain accurate information about the efficacy of the polluter pays principle as a mechanism of protecting the environment against the dangerous activities of Uganda's oil and gas industry. These institutions (NEMA, OPM, PCA, GP, ME, UWLA, MEMD, and CNOOC) were picked for the study because they have primary information relevant to the study. For example, National Environment Management Authority, ministry of Environment and China National Offshore Oil Corporation (CNOOC) which was awarded the contract for extraction.

The license gives CNOOC the right to develop the Kingfisher field in Western Uganda where production began in 2017. This makes CNOOC a key informant to the study since it is directly responsible for the management and observing the polluter pays principle since in case of any oil spill it was among the parties that were held strictly liable for the damage caused to the environment by their extraction activities and also directly affected by the application of the polluter pays principle as a law in Uganda's oil and gas sector.

3.2.Sampling Techniques

Purposive sampling is whereby the samples are selected with a purpose in mind. This is in one or more specific predefined groups the researcher sought to gather information about the topic under investigation. In this study, purposive sampling technique was used to select key respondents from UNOC, ME, NEMA, OPM, UWA, PLC, PCA, MEMD; CNOOC because it was best suited for selecting information rich cases for in depth study.

3.3.Data Collection

The researcher used both primary and secondary sources of data collection for the study. Through Primary Sources the researcher conducted a number of interviews with key stakeholders whereas through secondary sources, data was collected by reviewing literature on existing materials on the subject matter.

3.4.Interviewing

An interview is a conversation between two people (the interviewer and the interviewee) where questions are asked by the interviewer to obtain information from the interviewee.⁹¹ in this method the researcher interviews the respondents to obtain in-depth information about the efficacy of polluter pays principle as a mechanism of protecting the environment from the dangerous activities Uganda's oil and gas industry. The face-to-face interview was comprised of a set of issues on which the researcher wished to draw data and the same questions were posed to the respondents using an interview guide.

3.5.Documentary Review

Document analysis involves reviewing existing published and unpublished information relating to the influence of polluter pays principle in protecting the environment against dangerous activities of Uganda's oil and gas industry. The researcher reviewed material from the internet. Text books, reports, journals among others. This helped the researcher to access all the relevant information on the study. References from which data is drawn are recognized in this study. The study used a documentary review checklist to gather information objective by objective, and line with the variables of the study

3.6.Validity and Reliability

Validity refers to the degree in which the test or other measuring device is truly measuring what was intended to measure. Reliability refers to the test's consistency among different administrations.

3.8. Data Analysis

Qualitative data analysis involves identification and transcribing the qualitative findings into different themes. The themes were then edited, and arranged in different categories to generate useful conclusions and interpretations on the research objectives which was deduced for reporting in a narrative form.

3.9. Chapter Summary

The chapter is basically considered to be the backbone of the research. This is so because it tackles the issues of why the research study is undertaken, how the research problem was formulated, the different types of data are collected, the particular method that was used and why a particular technique of analysis of data is to be used in order to come up with the different research findings.

CHAPTER FOUR

PRESENTATION AND ANALYSIS OF DATA

4.0 Introduction

This chapter analyses the response rate, interview-based survey data collected in three sections. Section 4.1 summarizes the contents of the chapter. It is followed by section 4.2, which analyses the questionnaire and interview response rates. Finally, sections 4.3 analyse the main findings of the survey as per the research objectives which included;

- a) The need to examine the comprehensiveness of the polluter pays principle in protecting the environment from the pollution arising from the exploitation of oil in the Albertine region of Uganda.
- b) The need to assess the relevance, effectiveness and implementation strategies of the polluter pay principles.
- c) The need to assess the comparative analysis of the polluter pays principle in relations with other jurisdictions.
- d) The need to analyse, recommend and give remedies to the findings.

4.1. Questionnaire response Rate

The general response rate ranges from 10% to 90% but when a questionnaire is designed well, the response rates are even higher⁷⁹. This study, 28 questionnaires were administered to key informants from all the 9 groups of respondents and 23 were returned/collected fully answered. That is 82.1% of all the questionnaires issued by the standards above, this was a good response rate⁸⁰.

Section A⁸¹ covers the demographic characteristics of respondents which did not ask for the level of education because during the pilot study, the researcher discovered that although some respondents didn't have qualifications adequate to occupy their portfolio, they had occupied those positions for over 10years and had gained knowledge and skill relevant to respond to the questionnaire. Over 80% of the respondents are in a managerial position or above and over 70% are lawyers, Environmentalists, and civil society advocacy groups for environmental protection Teachers that have been working in their respective position for over

⁷⁹ Elizabeth Wanger, getting research published: An A to Z of public strategy, (oxford, Radcliffe publishing 2010) 46.

⁸⁰ See Table 5.1

⁸¹ See Appendix c

5years therefore they had the necessary exposure and experience to adequately respond to the questionnaires administered. As such, the quality of the responses provided is reliable.

4.2.1. Telephone interview response

All the 28 respondents that received questionnaires were requested to indicate whether they were willing to supplement their questionnaire responses with either a face-to-face or telephone interview. Due to time constraints and Covid restrictions, they opted for a telephone interview. Only 17 of them, representing 73.9% of all respondents that filled in and returned the questionnaires, allowed a short telephone interview. This translates into 63.6% of the total respondents that received questionnaires including those that never responded. According to literature and evidence in section 3.2.1.

4.2.2. Reasons for the Quick and clear response by respondents.

The high response rates recorded in this study was due to; firstly, the influence of an introductory letter⁸² printed on the letterhead issued by the Institute an affiliation of Uganda Christian University, Mukono. Secondly, the questionnaire was simple, clear and straight to the point. Thirdly, in the circumstances, there was ample time allowed to the respondents. Fourthly, the questionnaires were given to experts with adequate knowledge on the subject. Finally, having been in legal practice for over 6 years, the researcher knew most of the respondents and as such, there was constant telephone communication in respect of the questionnaires and interviews.

4.2.3. Analysis of the main findings of the study

Analytical framework, questionnaires and telephone interview was used during the survey in analysing the efficacy of the polluter pays principles in the protection of the environment from dangerous activities of the oil and gas extraction.

4.2.4. The Survey Findings

The data analysed how Uganda applies its polluter pays principle to bridge the gap between environmental protection and sustainable development which is very critical for economic growth and development in Uganda without putting a lot of damage to the

⁸²Appendix B

environment. To resolve this, the study contemporaneously identified the features that constitute polluter pays principle and also on the one hand while analysing its efficacy as a mechanism of environmental protection from the dangerous activities of Uganda's oil extraction.

Similarly, the study explained the sophisticated matrix through which the polluter pays principles manipulates environmental protection to satisfy its national development objectives of environmental protection and still ensures that the principle doesn't deter economic development and ensuring that the principle serves its purpose of deterrence to the would-be polluters.

In order to measure the efficacy of the polluter pays principle in protecting the environment from the dangerous activities of oil extraction in Uganda, the researcher engaged respondents for their opinion on;

- a) Various attributes of a polluter pay principle notably; economic instruments, pollution charges, marketable permits, subsidies, deposit refund system, enforcement incentives, legal caps, laws and policies etc. Their role was to assess whether the aforementioned characteristics are reflected in the current environmental protection⁸³,
- b) Whether the available laws and policies on penalties, legal caps compensations, restoration, mitigation and protection of the environment improve the efficacy of polluter pays principle in relation to incentives in improving international competitiveness of the industry.
- c) Whether the polluter pays principle implementation strategies were enough to preserve and protect the environment.
- d) Whether the polluter pays principle is in itself capable of protecting the environment with the impact of penalties, fines, compensations, legal cap and Exclusion of liability in pollution in enforcing environmental protection.
- e) Whether there was need to harmonize the regime and create a specific law for

⁸³See 'section C of the Research Questionnaire annexed hereto as Appendix C.

environmental protection in oil and gas industry.

- f) Whether the current environment Act and other laws were progressive and if it appropriately balances the public interest of environmental protection and interests of development and growth of the country.

For ease of analysis, the responses were evaluated in accordance with the framework criteria as follows.

4.2.5. Economic Instruments

Accordingly, 69.6% strongly agreed and 30.4% agreed that the economic instruments can be used as a mechanism of improving efficiency of the polluter pays principle. Polluter pays are very effective in combating against environmental pollution in Uganda's oil and gas industry principles. However, of those that agreed to a telephone interview in addition to the questionnaire 58.8% noted that effectiveness of the economic instruments on this principle is a long overdue.

They further said that the polluter pays principle if well implemented can help to protect the environment from dangerous oil extraction activities. Current fiscal regime has some neutral taxes like corporate income tax, capital gains tax and withholding taxes. Some noted that even the action of government introducing exemptions to the principle of polluter pays principle was an unrealistic and proper violation of the principle itself.

Economic Instruments are market-based mechanisms that are designed to influence people's behaviour.⁸⁴ They are policy instruments other than the Command-and-Control Mechanism that aim at inducing a change in the behaviour of economic agents by internalising environmental or deflection costs through a change in the incentive structure that these agents face. The United Nations Environment Programme states:

*Economic instruments for environmental protection are policy approaches that encourage behaviour through their impact on market signals rather than through explicit directives regarding pollution control levels or methods or resource use.*⁸⁵

⁸⁴ Raja, M.Y. "Economic Approaches in Addressing Environmental Issues" Cover Feature, Malaysia Government Annual Bulletin, *Ingenieur* p.19

⁸⁵ 'Economic Instruments for Environmental Protection' United Nations Brief on Economic, Trade and Sustainable Development Information and Policy Tools from United Nations Environment Program (UNEP). Published July 2002

Economic instruments affect cost and benefits of alternative actions open to economic agents, with the effect of influencing behaviour in a way that is favourable to the environment.⁸⁶Economic instruments differ from the command-and-control strategy in that, they have the potential to make pollution control economically advantageous to commercial organisations as well as governments and to lower pollution abatement costs. Economic instruments encompass a range of policy tools from pollution taxes and marketable permits to deposit-refund system performance bonds.⁶¹it also includes incentives such as subsidies; rewards for desired behaviour; and in similar vein disincentives such as taxes or charges for undesired behaviour.

Pigou⁶²suggests the use of taxes to correct market distortions caused by externality, as these taxes would discourage activities that generate externalities. Such tax is now known as Pigouvian tax. Dales⁶³ opines that the introduction of transferable property right could work to promote environmental protection at lower aggregate cost than conventional standards. He advocates the introduction of market permits or licences. The introduction of market permits in the United States, to reduce the leaded content of gasoline, has helped to reduce Chlorofluorocarbons (CFCs) and Sulphur dioxide emissions, which are responsible for acid rain. Where a market permit policy is in place, a firm can only legally emit within its allowed emissions limit. This would naturally reduce emissions, and create incentive for the adoption less polluting production techniques.

4.2.6. Pollution Charges:

On pollution charges, all the government employees that is, 34.8% of the respondents that replied, agreed that the current polluter pays principle was certain, 21.6% disagreed, 13.2% strongly disagreed while 30.4% were neutral. 65.2% strongly blamed the said low pollution charges imposed and on lack of a specialized oil and gas environmental law. A similar percentage agreed that the pollution charges should be increased as a way of increasing the efficiency of polluter pays principle and the environmental protection.

In addition to the above, 78.3 % strongly agreed while 8.7% agreed that there is lack of transparency as far as polluter pays principle and environmental protection are concerned but only 34.8 % strongly agreed that there is a loophole in as far as understanding the polluter pays

⁸⁶ Organisation for Economic Cooperation and Development (OECD)

principle as a mechanism of protecting the environment from dangerous activities of oil extraction. An equal number strongly disagree that lack of transparency is responsible for uncertainty in the polluter pays principles. All those who indicated there was lack of transparency in the polluter pays principle also indicated the need to sensitize the public on the polluter pays principle and environmental protection in Uganda’s oil and gas industry.

All respondents either strongly agreed or agreed that the legal caps on liability by the polluters should be removed so that the polluters are held fully accountable for their actions and pay for the damages they have caused to a tune of the cost of the environment for the restoration of the environment polluted to the costs of the damage incurred to the environment. Therefore, the compensations and penalties must be higher to make it hard for the polluters to damage the environment since the cost of pollution and compliance will be very higher compared to compliance with the polluter pays principles.

Table 1: Responses on whether the compensation, payment of fines and penalties are enough to or adequate to deter further pollution and damage to the environment from dangerous activities of oil and gas sector.

<i>Agree</i>	23	30.4%
<i>Neutral</i>	23	30.6%
<i>Disagree</i>	23	19%
<i>Strongly disagree</i>	23	20%

4.2.7. Subsidies and setting standards.

56.5% strongly agreed and 43.5% agreed that government subsidies and proper standards by the oil companies can increase the efficacy of the polluter pays principle as a way of encouraging more companies to full the polluter pays principle and setting up well established standards for enforcement of these rules. 73.9% agreed, 21.7% disagreed and 4.4% neutral. Respondents were also asked on the weather enforcement incentives can help to increasing compliance with the polluter pays principle as a way of improving the efficiency and environmental protection from dangerous activities of oil and gas industry.

30.4% strongly agreed and 47.8% agreed, 13.04% were neutral while only 8.7%

disagreed. Table 2 below shows the response rates in respect of the enforcement incentives, subsidies and setting up standards for the application of the polluter pays principle. Government takes in the oil and gas industry in Uganda. While table 3 shows how respondents were represented in the percentage below in ensuring protection in Uganda’s oil extraction sector.

Table 2. Responses on whether subsidies, setting up standards, enforcement incentives and deposit refund system.

<i>Agree</i>	23	73.9%
<i>Neutral</i>	23	4.4%
<i>Disagree</i>	23	21.7%
<i>Strongly disagree</i>	23	0%

Table 3: Responses on setting up proper standards of polluter pays principle as a way of environmental protection

<i>Strongly agree</i>	23	30.4%
<i>Agree</i>	23	47.8%
<i>Neutral</i>	23	13.04%
<i>Disagree</i>	23	8.7%
<i>Strongly disagree</i>	23	

4.3. Further Analysis.

From the responses to the research questionnaires and telephone interview it's evident that the polluter pays principle has a big critical role to play in protecting the environment from dangerous activities of oil and gas industry in Uganda. The current polluter pays principle is characterized by both punitive deterrence and prevention.

Under punitive deterrence, the polluter pays for the costs of his damages to the environment, he also expected to compensate for the people who have been affected by his illegal activities through payment of fines and costs of the damage of his pollution to the entire ecosystem according to the magnitude as a way of restoring the environment to its previous form before the pollution occurred. On the other hand, prevention is achieved through heavy fines and compensation that makes it hard for the oil and gas companies to pollute the environment since the costs of compliance will be very less compared to the price of non-compliance with the polluter pays principle.

Respondents also noted that from the viewpoint of the environmental protection the increase in efficacy of the polluter pays principle as a mechanism for protection of the environment against dangerous activities of oil and gas ensure that there is environment protection from oil and gas pollution and those that pollute are held to account for their mischiefs. While the polluter pays principle is seen as unnecessary way of preventing them from polluting at this point since they view it in terms of hindering their investments and punitive in nature is unknown but merely an estimate.

A large number of respondents indicated that a well implemented polluter pays principles accompanied by other international principles of environmental laws can act as a safe guard against environmental pollution from dangerous activities of oil and gas industry. Investors prefer back-ended profit-based taxes because they take into account economic rent and increase the neutrality aspect of the fiscal regime.

According to responses above, the combination of both the polluter pays principle's and other international environmental principle for example the precautionary principles and other best practices and environmental laws in place can help to improve on the efficacy of the polluter pays principles with a total of 80%. While the efficacy of the polluter pays principle is something that must be assessed on a case-by-case basis, if the principle is well adhered to it can be a good step in protecting the environment against the dangerous activities of oil and gas sector as a way of environmental protection.

It also has to learn from countries that have experienced worst environmental crisis like Nigeria in the Organiland, river delta state and USA Macondo incident in the Gulf of Mexico which were one of the environmental disasters the world has ever seen in recent history. Uganda can also learn from these past experiences and create a good implementation strategy for the polluter pays principle. Respondents noted that investors find this unattractive and therefore not competitive particularly when compared with a peer petroleum-producing frontier like Ghana.

However, Uganda cannot be seen to strictly adopt Nigeria's position, because of some differences in the legal system, pollution, population, industrialisation and Uganda is not yet into oil production and circumstance are quite very unique in each country.

Whether the polluter pays principle is very effective largely depends on which side of

the coin you are, while the Ugandans views will argue that it's effective, while the investors or international oil companies involved will assert that it is not effective because both parties' interests are non-complimentary.

Nonetheless, at the end of the day, it's agreeable that the polluter pays principle is very effective in guarding the environment against the dangerous activities of oil and gas industry. However, its effectiveness depends basically on implementation and the enforcement of the principle by the responsible government agencies. Therefore, penalties and fines inclusive of adequate and deterrent compensation must be strengthened and increased and at the same time enforcement as a mechanism of punishing the law offenders and also deterring the future offenders.

CHAPTER FIVE.

LEGAL AND REGULATORY FRAMEWORK OF POLLUTER PAYS PRINCIPLE AS A MECHANISM FOR PROTECTING THE ENVIRONMENT FROM THE DANGERS POSED BY OIL AND GAS ACTIVITIES.

5.0. International perspective.

5.1. Polluter Pays Principle in International Law

The international law perspective can be gleaned from the OECD, United Nations (UN) and the European Union point of view. The polluter pays principle was formulated and recognised by the OECD⁸⁷ as an internationally agreed principle in 1972.⁸⁸ The principle was formulated as an economic principle aimed at allocating the cost of pollution control.⁸⁹ The polluter-pays principle is also recognised by the United Nations in Principle 16 of the Rio Declaration on Environment and Development (1992). Principle 16 of the Rio Declaration reiterates the meaning of the polluter pays principle given by the OECD. The Rio Principles are not mandatory for national governments to follow but they however serve as directive principles for national governments.

The polluter pays principle is also of recent enshrined in the Paris Agreement of 2016 among its provisions under Article European powers and world leading economies for example China , India and many others pledged to help the developing countries deal with climate change and offer funds to help to turn to renewable energy to decrease on the level of greenhouse gases that where contributing to global warming and negative climate change .this was inline of the principle polluter pays where by those that polluter more pledged more monies to pay for the damages caused by their economic industrial complex.

Although the Rio Declaration does not constitute binding provisions, but it is based on recognised principles which are crucial to the protection of the integrity of the global environmental and developmental system. The principle means that “the polluter should bear

⁸⁷Para 4, OECD, ‘Recommendation of the Council on Guiding Principles concerning International Economic Aspects of Environmental Policies’ C (72) 128 5

⁸⁸J Barde, ‘Economic Instruments in Environmental Policy: Lessons from the OECD experience and their Relevance to Developing Economies’ (Working Paper No.92, January 1994) OCDE/GD (93) 193, 5

⁸⁹ OECD, ‘The Polluter-Pays Principle: OECD Analysis and Recommendations’ OECD/GD (92) 81, 5; OECD, ‘Recommendation of the Council on Guiding Principles concerning International Economic Aspects of Environmental Policies’ C (72) 128. This paragraph states that allocating costs means that the polluter bears responsibility for the payment of the costs of preventing and controlling pollution

the cost of measures to reduce pollution according to the extent of either the damage done to society or the exceeding of an acceptable level of pollution”.⁹⁰ This definition places on the polluter, the responsibility for the cost of reduction of the pollution caused by the action. Paragraph 4 of the Organisation for Economic Co-operation and Development (OECD) Guiding Principles,⁹¹ which established this principle, further provides in addition to the above definition, that the polluter should “ensure that the environment is in an acceptable state”. This indicates that the polluter should ensure that pollution is reduced to an optimum level and not necessarily eradicated. The polluter-pays principle or a variation of it is also given recognition in other Environmental Instruments^{92,93,94} as well as case law.

In *Commune de Mesquer v. Total France SA and another*,³⁵ the court considered whether, ‘for the purposes of applying article 15 (c) of Council Directive (EEC) 75/442 which stated that, in accordance with the polluter pays principle, the cost of the waste disposal was to be borne by the previous holders or the producer of the product from which the waste came, even though the substance spilled at sea was transported by a third party, in this case a carrier by sea.’ Accordingly, the court held that “in accordance with the polluter pays principle, however, such a producer could not be liable to bear that cost unless he had contributed by his conduct to the risk that the pollution caused by the shipwreck would occur”.

The implication of this judgement is that the court recognises that the polluter pays principle exists as a principle of law and that it has a role to play in allocating liability. This case also confirms that the polluter pays principle is recognised both at the international level especially at the European Union level. The court here also advanced the polluter pays principle in the sense that it affirmed that the polluter must be seen to have contributed to the damage done to the environment from dangerous activities which includes those of oil and gas sector.

Also, in *Raffinerie Mediterranee (ERG) SPA and Others v. Ministero dello Sviluppo*

⁹⁰OECD, ‘Glossary of Statistical Terms’ (December 2007) <http://stats.oecd.org/glossary/download.asp> Accessed March, 22nd, 2021

⁹¹ OECD, ‘Recommendation of the Council on Guiding Principles concerning International Economic Aspects of Environmental Policies’ C (72) 128

⁹² The Preamble to the International Convention on Oil Pollution Preparedness, Response and Co-operation (OPRC); the European Union Treaty, Article 191 (2), Consolidated Versions of the Treaty on European Union and the Treaty on the Functioning of the European Union [2010] C83/01; the Energy Charter Treaty 1994 Article 19 (1); the Convention for the Protection of the Marine Environment of the North-East Atlantic (OSPAR) Article 2 (2) (b); and Agenda 21 for the Environment Paragraph 8 (28)

⁹³[2009] All ER (EC) 525

⁹⁴[2010] All ER (D) 133 (Mar)

Economic,³⁶ the court held inter alia that, in accordance with the polluter pays principle, the local authority in question must have tangible evidence that can justify the presumption that the pollutants found in the contaminated area is closely linked with what the operators use in their activities. This case clearly establishes the cogent point that, as regards the polluter pays principle; the polluter must be linked to the damage he is alleged to have caused.

These cases according to AyobamiOlaniyan,⁹⁵

*...utilise the polluter pays principle thus reaffirming the fact that the principle is an established principle of law and that from the above cases and other oil spill pollution incidents, it is obvious that the principle is one that applies after the damage to the environment has been done not before. Thus, the principle does not act in a preventive manner but it acts to remedy the damage that has been done.*⁹⁶

This reasoning cannot be supported because the polluter pays principle does not only cover the cost of damage and rehabilitation of a polluted environment, it also includes the cost of pollution prevention and control measures as well as liability for environmental harm to victims; clean-up costs of damage to the environment as well as pollution at the source and product impacts, extended producer responsibility etcetera. See for example, the OECD definition of the polluter pays principle.⁹⁷

Adequate co-ordination is a sine qua non to effective international use of the polluter pays principle because where some countries subsidise private investment in pollution control while others do not, environmental regulations can become a source of trade distortion. To encourage uniform applications of the polluter pays principle, the OECD Council stipulated that the polluter pays principle should constitute a fundamental principle of pollution control in Member Countries in 1972 (implemented in 1974). Internationally, the polluter pays principle has become a principle of non-subsidisation of polluters. Nevertheless, some Member Country governments argued in favour of accelerated national programmes of pollution reduction measures.

⁹⁵ AyobamiOlaniyan, Imposing Liability for Oil Spill Clean-Ups in Nigeria: An Examination of the Role of the Polluter-Pays Principle; Journal of Law, Policy and Globalization www.iiste.org ISSN 2224-3240 (Paper) ISSN 2224-3259 (Online) Vol.40, 2015 78

⁹⁶ Ibid

⁹⁷ OECD, 1989 Recommendation of the Council concerning the application of the Polluter - Pays Principles to Accidental pollution

This led to the acceptance of certain exceptions to the strict polluter pays principle, so that financial aid could be given to a polluting sector if that sector was already suffering from significant economic difficulties. But such aid could only be given for a fixed amount of time in a clearly defined programme so as to prevent international trade distortion.

5.2.Ugandan perspective of polluter pays principle.

National perspective.

Since polluter pays principle was a principle adopted by Rio Declaration, in order for it to be enforceable in Uganda like any other laws it has to be domesticated through a process known as ratification. For any law to have any legal effect it must have been enacted in a manner that is consistent with the established legal framework in place. In Uganda we are governed by Vienna law of treaty which establishes the mechanism under which a treaty can have a binding force in any legal regime. Article 38 (1)⁹⁸ of the I.C.J statute establishes the application of the environment law. It defines a treaty as a written or oral agreement entered into between states or international organization governed by international law.

Article 123⁹⁹(1, 2) of the constitution empowers the parliament to ratify treaties, conventions and agreements entered into by the president or any other person authorized by the president. This article is also enforced by the Ratification of treaties Act of 1998 cap 204 laws of Uganda which lays down the procedure under which an act of foreign treaties and conventions can be laid down before parliament to be passed in order for them to have a binding effect in the legal regime in Uganda under section 3 of the same Act. These mirrors the same process laid by the Vienna convention on the law of treaties and the I.C.J statute. Having looked at the process that gives these treaties, conventions and agreements on environment to have legal effect in Uganda. They are many regional and international conventions which Uganda has complied with to ensure health and safety in its oil and gas industry and they include among others.

The polluter pays principle whereby the polluter is held responsible for the damage caused by his pollution in terms of paying of the costs of his pollution, damage and compensation for his mischief since nature has a right to exist, persist, maintain and regenerate in its vital cycles, structure, functions and its processes in evolution under Article 125 of the constitution. The government shall apply precautions and restrictions measures in all activities that can lead to

⁹⁸Article 38 of Statute of the international court of justice.

⁹⁹Article 123 of the 1995 constitution of the republic of Uganda as amended.

the extinction of species, destruction of the ecosystem or the permanent alteration of the natural cycle. This was aimed at protecting the environment against the dangers posed by activities of oil and gas.

5.3.Application of polluter pays principle in Uganda’s legal and Regulatory regime.

Legal implementation mechanism.

Principle xiii¹⁰⁰ of the National Objectivities of the Constitution of the Republic of Uganda as amended of 2018 provides that the state shall protect all important natural resources like minerals, water, wetlands, oil, Fauna and flora. Article 39 is to the effect that every Ugandan has a right to live in a clean environment. It’s the government’s duty to protect the environment from the dangers caused by oil and gas industry. Article 245 gives powers to the parliament to make laws that are aimed at protecting the environment for sustainable development. In so doing the National Oil and Gas Policy for Uganda was passed in 2008 and under objective nine it had to ensure that oil and gas activities are undertaken in a manner that conserves the environment and biodiversity,¹⁰¹ also the Petroleum Authority was established as a leading petroleum regulatory agency with one of the key aspects of ensuring environmental health, safety and social protection during petroleum activities.¹⁰²

With such powers the government enacted several laws aimed at protecting the environment from the dangers caused by activities of oil and gas industry and these include; the petroleum (Exploration, Development and Production) Act of 2013,¹⁰³ the petroleum (refining, conversion, transmission and midstream storage) Act.¹⁰⁴ The regulations under these laws included; the petroleum (exploration, development and production) regulation of 2015, the petroleum (exploration, Development and production) (Health, Safety and Environment) Regulations of 2016,¹⁰⁵ the petroleum (exploration, Development and production) (National Content) regulations 2016, the petroleum (exploration, Development and production) (metering) regulations,¹⁰⁶ the petroleum (refining, conversion, transmission and midstream

¹⁰⁰National Objectivities of the Constitution of the Republic of Uganda as amended of 2018

¹⁰¹ www.pau.go.ug

¹⁰² *ibid*

¹⁰³The petroleum (Exploration, Development and Production) Act of 2013¹⁰³

¹⁰⁴ Of 2013

¹⁰⁵The petroleum (exploration, Development and production) (Health, Safety and Environment) Regulations of 2016

¹⁰⁶ Of 2016

storage) regulations,¹⁰⁷ the petroleum (refining, conversion, transmission and midstream storage) (National content) regulations.¹⁰⁸ The National Environment Act N0.2 of 2019¹⁰⁹ and its regulations therein, the land Act of 1998 as amended, Access to information Act of 2005, Investment Code Act Cap 92, Penal Code Act Cap 120, wildlife Act Cap 200, National Forest and Tree planting Act 2003 Public Health Act Cap 281, Water Act Cap 152 and the Income Tax Act 2002 as amended. All these laws among other things target the protection of the environment since they relate to land, water, wild life and air which are prone to pollution if not well protected from oil spills yet they are of great importance to all living things.

The PEDPA¹¹⁰ under section 129 to 133¹¹¹ is to the effect that a licence is liable for the damage caused by his pollution and he has to compensate any part that suffers from his damage and also pay for the restoration costs and damage he has caused to the environment as a way of enforcing the principle of polluter pays under our laws.

Section 3(1)¹¹² states that every person in Uganda has a right to a clean and healthy environment in accordance with the constitution. Section 3(2)¹¹³ states that every person has a duty to maintain and enhance the environment including a duty to prevent pollution. This aims at ensuring the environment is protected from the damages caused by activities of oil and gas in Uganda. Section 5 (1)¹¹⁴ compiles any person responsible for the pollution to take precautionary measures as a way of mitigating on the effects caused by oil pollution in case of any oil spillage even before the said development has taken place and also to provide compensation for the damage done to the environment and to bear all the costs of the clean-up and the restoration of the environment in its previous form as soon as possible and also to provide for the loses that are connected to the incident.

Still under section 78¹¹⁵ it prohibits any form of pollution and it compiles all persons who deal in activities that are deemed to pose any danger to the environment to put up measures

¹⁰⁷ Of 2016

¹⁰⁸ Of 2016

¹⁰⁹The petroleum (exploration, Development and production) (Health, Safety and Environment) Regulations of 2019

¹¹⁰National Environment Act N0.2 of 2019

¹¹¹National Environment Act N0.2 of 2019

¹¹²National Environment Act N0.2 of 2019

¹¹³National Environment Act N0.2 of 2019

¹¹⁴National Environment Act N0.2 of 2019

¹¹⁵National Environment Act N0.2 of 2019

that are aimed at preventing pollution and also employing use of best environmental practices and where the law permits flaring and venting of gases in oil and gas sector for safety purposes for example releasing pressure from the well such activities must comply with the measures put in place by the Law. Section 79¹¹⁶ tasks any person to put up measures and steps aimed at minimising the impact of pollution in case it has occurred to the environment which is supposed to be reported to the relevant Agency which is the National Environmental Management Authority under section 8¹¹⁷. This aimed at ensuring protection of the environment from the activities of oil and gas since it puts a general penalty under section 176¹¹⁸ for costs incurred because of the pollution. This emphasises on the principle of polluter pays and the measures for paying are reflected under section 79(2)¹¹⁹ of the Act after the amount for compensation has been arranged and failure to pay can lead to revoking of the license.

Section 80¹²⁰ is to the effect that a person who pollutes is strictly liable for the pollution and for any damage incurred to the human health and the environment regardless of the fault and the same applies to any person that aggravates pollution. This means that person must bear the costs for the damages caused by his or her pollution through the environmental restoration and compensation for the victims. Section 85¹²¹ also puts in place pollution control licenses that are supposed to be bought by that any individual or companies including oil companies that carry out activities that are deemed to be very risky to the environment and section 81¹²² states that such fees must be determined by the polluter pays principle whereby a person that contributes to the greatest amount of pollution must also pay more changes for his pollution activities as a way of promoting behaviours that are environmentally friendly.

Section 92 and 93¹²³ put in place the national oil spill contingency preparedness response under the national and lead agency emergency preparedness and response systems, contingency plan and other plans to ensure that there is limited impact of any oil spill. This agency is responsible for the containment of the oil spill and section 126¹²⁴ establishes the environmental Audit for assessing the damages caused to the environment periodically and this includes activities of oil and gas industry. It can also recommend fines and penalties to be paid to the

¹¹⁶National Environment Act N0.2 of 2019

¹¹⁷National Environment Act N0.2 of 2019

¹¹⁸National Environment Act N0.2 of 2019

¹¹⁹National Environment Act N0.2 of 2019

¹²⁰National Environment Act N0.2 of 2019

¹²¹National Environment Act N0.2 of 2019

¹²²National Environment Act N0.2 of 2019

¹²³National Environment Act N0.2 of 2019

¹²⁴National Environment Act N0.2 of 2019

government by an individual or oil company for compensation for the damages caused to the environment.

Section 163(2)¹²⁵ empowers the court to make any judgment issuing for compensation for clean-up of the polluted environment to the polluter and for him to meet costs for clean-up and for the restoration of the environment. This clearly emphasises the polluter pays principle since any person that breaches any provision of any Act. There are even pollution emission charges and failure to pay will mean that a person will be tasked to a penalty as a way of fulfilling the principle of polluter pays as a mechanism for protecting the environment against dangerous activities of oil and gas sector through penalising the offender to pay for the damage caused to the environment.

Section 23¹²⁶ requires every developer in need of under taking a project which may have significant effect on any wildlife species or community to have undertaken an environmental impact assessment in accordance with the National Environment Act.¹²⁷ The wildlife authority is under duty to perform all functions required of the lead agency for purposes of environmental impact assessment under the National Environment Act and any regulations made there under unless the authority is the developer. They are equally mandated to carry out environmental audits and monitoring or they have to cause audits and monitoring of projects that impact on wildlife to be carried out in accordance with the National Environment Act.¹²⁸

The Water Act¹²⁹ under objectives 4(b and c) aims at promoting provision of clean, safe and sufficient supply of water for domestic purposes for all persons and also to allow for the orderly development and use of water resources for purposes of other than domestic use such as the watering of stock, irrigation, agriculture industrial, commercial, mining, generation of hydroelectricity, navigation, fishing, preservation of flora and fauna and recreation in ways which minimise harmful effects to the environment. And section 31¹³⁰ prohibits any form of pollution into the water and subsection (4) requires the polluting party to pay the cost of remedying the damage and reinstating the environment to the condition that it was in had the

¹²⁵National Environment Act N0.2 of 2019

¹²⁶ The wild Life Act 2019

¹²⁷ 2019

¹²⁸ Section 24 of the wildlife Act 2019

¹²⁹ Cap 152

¹³⁰ Ibid

damage been caused. This law indicates and recognises the principle of polluter pays principle as the best way to protect the environment from any form of pollution into the environment.

This comes from the fact that the Albertine Graben where lots of oil has been discovered is one of the most ecologically diverse regions in the world boasting of owning the world's most unique animal and plants species with 52% of all African birds and 39% of African animals, it has lots of water bodies like lake Albert, river Nile, semuliki and wambabya. It is also surrounded with Budongo forest and Murchison national park which is rich in biodiversity. All these are at the danger of oil spill which can affect the tourism, fishing industry and the wildlife habitats which have of use to us before the discovery of the oil in question.

It is important to note that after confirmation of oil in the Albertine Region in 2006, Government had to put in place regulatory bodies and formulation of policies to guide the operations of the oil industry for the present and future generation. In effect the National Oil and Gas policy of Uganda¹³¹ which is the key document guiding the development of the country's oil and gas sector. Also the petroleum Authority of Uganda (PAU) was established under section 9¹³² whose main objective is to monitor and regulate the exploration, development and production together with refining, gas conversion, transportation and storage of petroleum in Uganda. The establishment of this is in line with the National Oil and Gas policy of Uganda.¹³³

Therefore, even if the polluter pays principle has never been applied in Uganda's oil and gas sector since the country has not started producing its oil.

5.4. Legal Effects of the Polluter-Pays Principle

The legal effects of the polluter pay principle depend on whether the principle is contained in soft law, hard law instruments, or national law and whether the hard law or the national laws instruments imbibe a 'substantive' or 'formal' approach.¹³⁴

Soft law instruments embody those rules that are not binding per se but which have

¹³¹ 2008

¹³² Of the petroleum (Exploration, Development and Production Act of 2013)

¹³³ <https://www.pau.go.ug>

¹³⁴ AyobamiOlaniyon, (supra)

played important roles in international environmental law.¹³⁵ These instruments ‘point to the likely future direction of formally binding obligations, by informally establishing acceptable norms of behaviour, and by ‘codifying’ or possibly reflecting rules of customary law’.¹³⁶ The implication of inserting the polluter pays principle in a soft law is two-fold. It would not be legally binding;¹³⁷ and due to the inexact formulation of soft laws, the polluter pays principle would not be seen as a normative principle.¹³⁸ An example of a soft law that embodies the polluter pays principle is the United Nations Convention on Environment and Development, (the Rio Declaration) 1992.

From an economic point of view, the polluter pays principle would make polluters take responsibility for their actions and, ultimately, internalize the pollution costs into the production costs of its goods and services, with positive effects on the price system and the efficient allocation of resources. It would also provide strong incentives for pollution prevention, because when those involved in production activities realize that they will be held strictly accountable for any harm that comes to others as a result of their polluting activities, attempts will be made to ameliorate the problems before they occur. There would also be a strong incentive to develop new technologies that are meant to eliminate or minimize pollution from the outset, leading to overall reductions in pollution generally.

The polluter pays principle can also be described as a form of self-monitoring. By making polluters pay for the control and prevention of their pollution. They are forced to monitor themselves, and this would reduce the costs of monitoring by state authorities.

When the polluter pays principle is read in conjunction with the precautionary principle, the interpretation is that the polluter should pay not only where actual damage has occurred, but also when there exists a risk of such damage occurring. A principal tenet of sustainable development is the precautionary principle, which focuses on prevention rather than cure, as a more cost effective environmental policy-making. The polluter pays principle envisages that the polluter rather than society should bear the cost of taking such precautionary measures. And this will act as a disincentive to change individual behaviour in terms of the decision whether or not to pollute.

¹³⁵ P Sands, *Principles of International Environmental Law* (2nd ed CUP 2003) 124.

¹³⁶ *Ibid*

¹³⁷ N Sadeleer, *Environmental Principles: From Political Slogans to Legal Rules* (OUP 2002) 312.

¹³⁸ *Ibid*.

The polluter pays principle would serve as a deterrent to would-be polluters and force them to review their precautionary and control capabilities because the consequences of their actions may result in heavy fines and punitive actions being taken against them. Strict and absolute liability in pollution cases make good sense, but it is thought that this may increase the operating costs of the companies and make the business environment in which oil companies operate to be difficult. Polinsky and Shavell argue that:

...to achieve appropriate deterrence, injurer, should be made to pay for the harm their conduct generates, not less, not more. If injurers pay less than for the harm they cause, under deterrence May result- that is, precautions may be inadequate, product prices may be too low, and risk-producing activities may be excessive. Conversely, if injurers are made to pay more than for the harm they cause, wasteful precautions may be taken, and product prices may be undesirably curtailed.⁸⁹

5.5.Economic mechanism for implementation of polluter pays principle.

Economic Instruments

Economic Instruments are market-based mechanisms that are designed to influence people's behaviour.¹³⁹ They are policy instruments other than the Command-and-Control Mechanism that aim at inducing a change in the behaviour of economic agents by internalising environmental or deflection costs through a change in the incentive structure that these agents face. The United Nations Environment Programme states:

Economic instruments for environmental protection are policy approaches that encourage behaviour through their impact on market signals rather than through explicit directives regarding pollution control levels or methods or resource use.¹⁴⁰

Economic instruments affect cost and benefits of alternative actions open to economic agents, with the effect of influencing behaviour in a way that is favourable to the environment.¹⁴¹ Economic instruments differ from the command-and-control strategy in that, they have the potential to make pollution control economically advantageous to commercial

¹³⁹ Raja, M.Y. "Economic Approaches in Addressing Environmental Issues" Cover Feature, Malaysia Government Annual Bulletin, *Ingenieur* p.19

¹⁴⁰ 'Economic Instruments for Environmental Protection' United Nations Brief on Economic, Trade and Sustainable Development Information and Policy Tools from United Nations Environment Program (UNEP). Published July 2002

¹⁴¹ Organisation for Economic Cooperation and Development (OECD)

organisations as well as governments and to lower pollution abatement costs. Economic instruments encompass a range of policy tools from pollution taxes and marketable permits to deposit-refund system performance bonds.⁶¹ It also includes incentives such as subsidies; rewards for desired behaviour; and in similar vein disincentives such as taxes or charges for undesired behaviour.

Pigou⁶² suggests the use of taxes to correct market distortions caused by externality, as these taxes would discourage activities that generate externalities.

Pigouvian tax. Dales⁶³ opines that the introduction of transferable property right could work to promote environmental protection at lower aggregate cost than conventional standards. He advocates the introduction of market permits or licences. The introduction of market permits in the United States, to reduce the leaded content of gasoline, has helped to reduce Chlorofluorocarbons (CFCs) and Sulphur dioxide emissions, which are responsible for acid rain. Where a market permit policy is in place, a firm can only legally emit within its allowed emissions limit. This would naturally reduce emissions, and create incentive for the adoption less polluting production techniques.

The Pigouvian Tax,⁶⁴ would be set equal to reflect the monetary value of the damage caused by the pollution at the point of optimal pollution. Basically, optimal pollution occurs where the costs of abating pollution any further are greater than the extra benefits obtained. A Pigouvian tax would maximise the net benefits of production and industrialisation to society as a whole. Due to difficulties in assessing the monetary value of pollution damage and the costs of controlling such pollution, it is virtually impossible to measure the optimal level of pollution.¹⁴²¹⁴³¹⁴⁴¹⁴⁵

Setting environmental standards: Setting standards impose a cost on the polluter if he does not meet them as an incidental feature of choice of technology, because these environmental costs increase the costs of production of goods and services, the result is a rise in the prices of goods and services. These standards can be translated into pollution permits

¹⁴² United Nations Brief on Economic, Trade and Sustainable Development Information and Policy Tools from United Nations Environment Program (UNEP). Published July 2002

¹⁴³ Pigou, A.C. "The Economic of Welfare" London, Macmillan and Co. Limited (1920)5

¹⁴⁴ Dales, J. *Pollution, Property and Price* (Toronto University Press, 1968) 67

¹⁴⁵ Pigouvian tax refers to taxes suggested by A.C. Pigou, (the author of *The Economics of Welfare*, referred to above)

equal in aggregate value to the number of emissions allowed under the standard.

Pollution Charges: The pollution charges are prices paid on the use of the environment.¹⁴⁶ They include effluent charges, which are based on the quantity and quality of the discharged pollutants. User charges are fees paid for the use of collective treatment facilities. They are charges paid by businesses and individuals for the benefit they receive,¹⁴⁷ such as waste treatment and disposal. Product charges aim at reducing the external cost to the society, by passing such charges to the product or some characteristic of such product that can potentially harm the environment when used in the production process, consumed or disposal after its use. There are also administrative charges which are fees paid to Authorities' pollution control activities.

Marketable Permits: These involve an authority setting maximum limits on the total allowable emission of pollutant by issuing permits that authorise industrial plants or other sources of pollution to emit a stipulated amount of pollutant over a specified period of time. These permits are then allocated to firms or industrial plants and the issuing authority receives revenue for them. These emissions permits are tradable, that is they can be bought and sold. Firms and/or industrial plants are therefore free to buy and sell the permits as desired, and such emissions trading can be internal between plants within the same organisation or external, between different companies. The attraction of this approach is that polluters who face high costs of abatement will tend to buy the permits, while those with low costs of abatement will make gains by selling the permits and abating the pollution. In this way the abatement of pollution is concentrated among the low abatement cost polluters. The overall effect is to minimise the costs of compliance.

Subsidies: The removal of subsidies, particularly in relation to fossil fuel is an effective tool for controlling pollution. They include tax incentives grants and low interest loans designed to induce polluters to curtail the sources of pollution, by investing in various types of pollution control measures. Thus, the removal of subsidies on fossil fuels has been strongly canvassed.

¹⁴⁶ Bernstein, J.D. "Water Pollution Control: A Guide to the Use of Water Quality Management Principle" Published for the United Nations Environment Programme, The Water and Sanitation Collaboration Council on the World Health Organisations by E & F Spon 1997 ISBN 0419229108

¹⁴⁷ Oklahoma Policy Institute <http://www.okpolicy.org/resources/online-budget.html>

Deposit-Refund System: This involves a purchaser paying an additional sum in excess of the usual purchase price when buying a potentially polluting product. The additional sum is in actual fact a refundable deposit, which will be refunded when the user of the said product returns it to an approved centre for proper disposal or recycling.

Enforcement Incentives: These are forms of penalties designed to induce polluters to comply with environmental standards and regulations. They include non-compliance fees, chargeable to polluters when their discharge exceeds acceptable limits. They also include performance bonds, which are payments made to regulating authorities before a potentially polluting activity is undertaken, and then refunded when the environmental performance is proven to be acceptable.

5.6. Comparative analysis on Effective Implementation of the Polluter Pays Principle in Uganda's oil and gas industry with Nigeria

Although the Polluter Pays Principles is an accepted principle of environmental law in Nigeria, it is pertinent to note that the Rio Declaration which in Principle 16 embodies the polluter pays principle not to impose any obligation on states to enforce those principles, being as it were mere declaration and therefore not more than mere guiding principles for national governments. For example,

Principle 16 of the Rio Declaration stipulates that “National Authorities should *endeavour to promote*.¹⁴⁸” This provision does not place any compulsion and obligation on nation states to implement it thus the application and implementation of the polluter pays principle in the country is marred with exceptions which act as loop holes for polluters to escape liability.¹⁴⁹ The effectiveness of the polluter pays principle is further attenuated by the fact that the onus of proof in pollution cases is often on the victim. In addition, the adequacy of the compensation paid by polluters under Ugandan laws is questionable. For instance, the Petroleum Act of 1969 banned gas flaring. However, the Act provided for an option of paltry fines of US \$0.063 per standard cubic feet flared.¹⁵⁰ The polluters find it more economically viable to flare the gas and pay the paltry fines, than to invest in facilities for re-injection or utilization of associated gas.

¹⁴⁸ Emphasis mine

¹⁴⁹ See for example, section 11 (5) of the Oil Pipelines Act

¹⁵⁰ The fine was increased by government in January 1998 to US \$0.125 per standard cubic feet flared.

5.7.Likely Pipeline Vandalization and Sabotage like in Nigerian must be prepared for.

Uganda must also put in mechanism to ensure that pipes carrying oil and gas are protected as a way of averting pollution caused by pipeline vandalism as already observed, pollution problems in Nigeria relates to oil industry pollution, and the bulk of oil spill in Nigeria is attributed to pipeline vandalization and sabotage, at least from the point of view of the oil companies. Where the allegation of sabotage is held to be true, the question then becomes one of determining the real polluter, who should be held to account. Is it the vandal or the owner of the facility? And what happens where the perpetrators of these acts are not identifiable. Does the polluter pay principle become irrelevant, impracticable and impotent at that point because liability cannot be placed on anyone? This seems to be where our law stands at the moment. The defences provided under Section 11 (5) (c) of the PEDPA Act of Uganda, which exculpates a polluter where damage to a pollution victim results from his own default or the malicious act of a third party has made the application and implementation of the polluter pays principle difficult. In *Paul Kpakol and others v. Shell Petroleum Development Company (Nig) Ltd*⁷⁰ the court reasoned as follows:

Can it be proven that the damage was caused by Shell?

If the damage was caused by shell, then Shell is mandated to pay damages. Otherwise, if it is proven that the damage was caused by parties other than Shell; then Shell need not pay any compensation to the plaintiff. It therefore held that compensation to the plaintiff was not payable since the damage resulted from the malicious act of a third person without negligence on the part of the defendant.

Another scenario case is *Ediagbonya v. Dumez (Nigeria) Limited and Another*⁷¹ where the court held that an oil company was not liable for an escape of oil and consequent damage to crops of neighbouring landowners which was caused by an unknown trespasser deliberately drilling a hole in the company oil pipeline.

The case of *Shell Petroleum Development Company (Nig) Ltd v. Chief Graham Otoko*⁷² was for compensation for injurious affection and deprivation of the use of the Andoni River and Creeks as a result of crude oil spillage from the defendant's facilities caused by their negligence. At the court, first instance judgment was given for the plaintiff, but on appeal it was held that the allegation of negligence on the part of the defendant/appellant was not proved and since damage to the plaintiff resulted from the malicious act of a third party the

defendant/appellant cannot be held liable.¹⁵¹

These decisions cannot be supported because if the oil company who owns and operates the facility is not allowed to pay for damage resulting from the independent act of a third party, it would not be justice if such burden is passed to an innocent victim unless the victim has responsibility of keeping vigilance over oil facilities and has failed in that duty. As we all know, only oil companies have responsibility over their facilities and therefore have a duty to secure such facilities from malicious third parties, and if they cannot do so, they should be liable for the natural consequences of its default. Therefore, Ugandan oil companies must be able to protect their infrastructures from the malicious acts of the third parties so as to minimise on pollution and to prevent it.

5.8.The Defence of Statutory Authority:

Strict liability aims to suppress activities that carry unusually large external costs, but it is relaxed in respect of undertaking carried out under statutory authority, like railways and public utilities supplying water, gas and electricity in bulk. These public utilities authorities are exempted from liability for any harmful consequences which occur in the course of its normal operations, provided it has not been negligent.¹⁵²

Although the rule in *Rylands v. Fletcher*, is often referred to as a strict liability rule, however in view of the exceptions mentioned by Blackburn J himself, it is doubtful if liability under the rule is actually strict, as the myriads of defences have whittled down the efficacy of the rule. For instance, in *Ikpede v. Shell BP Development Co (Nig) Ltd*,¹⁵³ due to leakage in the defendant's pipeline, crude oil escaped and caused damage to plaintiff's fish swamp. The court held that although all the requirements of the rule were met, the defendant was not liable, since the laying of its pipeline was done in pursuance of a license issued under the Oil Pipelines Act 1956.

5.9.Lack of Effective Penalties and Sanctions for Violations of Environmental Laws:

The penalties stipulated by the law as penalties and fees for causing pollution must be

¹⁵¹ Cited in AbodundeHazrat Are, "Oil Pipelines in Nigeria: An Analysis on Court's Jurisdiction in Matters Regarding Oil Spillage"

¹⁵² See the cases of *Green v. Chelsea Waterworks Co. (1894) 70 LT 547*; *National Telephone Co. v Baker (1893) 2 Ch 186* and *Longhurst v. Metropolitan Water Board [1948] 2 All ER 834*

¹⁵³ (1973) All NLR 69

higher so that it makes it very expensive to pollute other oil companies, because they have a lot of monies, they will always weigh the price of compliance and non-compliance.

It is observed that ‘without real consequences for environmental violations, there is no incentive for multinational corporations to respect the environment in which they operate’.¹⁵⁴ The tendency for organisations and individuals to carry out illegal and substandard operations when they know that there is little or no consequences for their actions is very high. A clear example is the indictment by the United Nations Environment Programme (UNEP) which reported that in Ogoniland (Rivers State) industry best practices were not applied in the control, maintenance and decommissioning of oilfield infrastructure and that even Shell Petroleum Development Company (SPDC)’s own procedure in these areas were not applied thus creating public safety issues.¹⁵⁵ It is thought that if relevant sanctions and penalties were implemented against the Shell Petroleum Development Company and other violators of environmental laws and other relevant laws, the degradation and damage caused to the Niger-Delta environment would not be as severe as reported by UNEP in its Environmental Assessment Report on Ogoniland.¹⁵⁶

5.9.1. Likely Inefficiency of Monitoring Agencies

The National oil spill contingency preparedness Response plan and force, and the National Environment Management Authority Oil are the two major agencies involved in dealing with oil spill incidents in Uganda during oil and gas production. These monitoring agencies face recurring problems of inefficiency, lack of adequate funding, technology and manpower. It is observed that oil companies, particularly, the multinational oil companies usually decide when oil spill investigations take place.¹⁵⁷ Oil companies usually provide transport to the site of the oil spill investigations and they provide technical expertise, which the regulatory agencies in Uganda do not have.¹⁵⁸ In Nigeria, NOSDRA is saddled with the

¹⁵⁴ BarisereKonne, Inadequate Monitoring and Enforcement in the Nigerian Oil Industry: The Case of Shell and Ogoni Land’ (2014) 47 Cornell International Law Journal 196.

¹⁵⁵United Nations Environment Programme (UNEP), ‘Environmental Assessment of Ogoniland: Executive Summary’ (2011) <http://postconflict.unep.ch/publications/OEA/UNEP_OEA.pdf> Accessed December, 20th, 2019.

¹⁵⁶United Nations Environment Programme (UNEP), ‘EnvironmentalAssessment of Ogoniland’ (2011)<http://postconflict.unep.ch/publications/OEA/UNEP_OEA.pdf> Accessed 2nd January, 2021.

¹⁵⁷ Amnesty International, ‘Bad Information: Oil Spill Investigations in the Niger Delta’ (2013) <www.amnesty.org> accessed 20th December, 2019

¹⁵⁸ Amnesty International report that oil spill investigations are usually led by oil company personnel and not NOSDRA. Ibid

responsibility of ensuring proper clean-up and remediation of affected sites of oil spill incidences.¹⁵⁹

Thus, NOSDRA is at the fore front of dealing with oil spill incidences while the DPR has the statutory responsibility of ensuring compliance to petroleum laws, regulations and guidelines in the oil and gas industry.¹⁶⁰ NOSDRA is reported to be usually notified by text or letter when an oil spill investigation will take place.¹⁶¹ It is expected that since NOSDRA is the main regulatory government agency saddled with the responsibility to deal with oil spills, it should take the lead in oil spill investigations instead of tagging along while oil companies take the lead in oil spill investigations. This might also be an implementation challenge in Uganda.

5.9.2. Inadequate Enforcement of Environmental Laws and Guidelines

This is a major issue when it comes to imposing liability on the polluter. Relevant government agencies do not carry out their roles adequately. As regards to liability, the polluter may not be strictly adhered to or enforced. The polluter pays principle would be effectively implemented in Uganda, only if existing environmental laws and guidelines are strictly enforced.

The multinational oil companies are often nonchalant about carrying out proper clean up or paying adequate compensation to the host communities for environmental harm, and this has often led to breakdown of law and order which sometimes result in loss of equipment and shut down of operations of the oil companies. It is reported that some operators employ some poor indigenes of the host communities, to clean up oil spill, by scoping oil into a bucket with spade.¹⁶²

¹⁵⁹ National Oil Spill Detection and Response Agency (Establishment) Act No.15, 2006 (NOSDRA Act), sections 6 & 7.

¹⁶⁰ Nigerian National Petroleum Act Cap. N123 L.F.N. 2004 Section 10 (2) (b)

¹⁶¹ Ibid

¹⁶² See "Oil Spill: Communities seek N55.8+n from Shell", the Punch Newspaper November 13, 2008.

CHAPTER SIX
SUMMARY OF FINDINGS, RECOMMENDATIONS, CONCLUSIONS,
LIMITATIONS AND AREAS FOR FUTURE RESEARCH

6.0 Summary findings;

This study was about the efficacy of the polluter pays principle as a mechanism of protection of the environment against dangerous activities of oil extraction in Uganda: specifically, the focus was on the extent of the efficacy of the polluter pays principle as a principle of environmental protection. The research findings are as follows;

- a) On pollution charges, as discussed in chapter 4 paragraph 4.2.6, it was found out that there is need to increase on the charges and remove the caps since the international oil companies can easily abuse it given the fact that such charges can be affordable to them compared to prevention measures.
- b) Economic instruments were found to be one of the most efficient way of enabling the proper implementation of the polluter pays principle because it had been tested in other countries. Though some respondents where not contended with it.
- c) Subsidies and setting standards was one of the suggested measures of the proper implementation of the polluter pays principle. It has been well discussed in chapter 4 paragraph 4.2.7
- d) It was further found out that the current polluter pays principle is characterized by both punitive deterrence and prevention. The punitive deterrence principle requires the polluter to pay for the costs of his damages to the environment, he also expected to compensate for the people who have been affected by his illegal activities through payment of fines and costs of the damage of his pollution to the entire ecosystem according to the magnitude as a way of restoring the environment to its previous form before the pollution occurred. On the contrary, prevention is achieved through heavy fines and compensation that makes it hard for the oil and gas companies to pollute the environment since the costs of compliance will be very less compared to the price of non-compliance with the polluter pays principle.

6.1 Recommendations

In order to gain and maintain the effectiveness of the polluter pays principle in environmental protection, it is crucial that the polluter pays principle is implemented to the letter and the loopholes that exist in the laws to be addressed and dealt with accordingly. Otherwise, it will be less effective especially when people choose non-compliance since it is very cheap compared to compliance with the polluter pays principle which is too costly according to them.

Economic Instruments

Economic Instruments are market-based mechanisms that are designed to influence people's behaviour.¹⁶³ They are policy instruments other than the Command-and-Control Mechanism that aim at inducing a change in the behaviour of economic agents by internalising environmental or deflection costs through a change in the incentive structure that these agents face. The United Nations Environment Programme states:

*Economic instruments for environmental protection are policy approaches that encourage behaviour through their impact on market signals rather than through explicit directives regarding pollution control levels or methods or resource use.*¹⁶⁴

Economic instruments affect cost and benefits of alternative actions open to economic agents, with the effect of influencing behaviour in a way that is favourable to the environment.¹⁶⁵ Economic instruments differ from the command-and-control strategy in that, they have the potential to make pollution control economically advantageous to commercial organisations as well as governments and to lower pollution abatement costs. Economic instruments encompass a range of policy tools from pollution taxes and marketable permits to deposit-refund system performance bonds.⁶¹ It also includes incentives such as subsidies; rewards for desired behaviour; and in similar vein disincentives such as taxes or charges for undesired behaviour.

¹⁶³ Raja, M.Y. "Economic Approaches in Addressing Environmental Issues" Cover Feature, Malaysia Government Annual Bulletin, *Ingenieur* P. 19

¹⁶⁴ 'Economic Instruments for Environmental Protection' United Nations Brief on Economic, Trade and Sustainable Development Information and Policy Tools from United Nations Environment Program (UNEP). Published July 2002

¹⁶⁵ Organisation for Economic Cooperation and Development (OECD)

Setting environmental standards:

Setting standards impose a cost on the polluter if he does not meet them as an incidental feature of choice of technology. Because these environmental costs increase the costs of production of goods and services, the result is a rise in the prices of goods and services. These standards can be translated into pollution permits equal in aggregate value to the number of emissions allowed under the standard.

Pollution and user Charges:

The pollution charges are prices paid on the use of the environment.¹⁶⁶ They include effluent charges, which are based on the quantity and quality of the discharged pollutants. User charges are fees paid for the use of collective treatment facilities. They are charges paid by businesses and individuals for the benefit they receive¹⁶⁷, such as waste treatment and disposal. Product charges aim at reducing the external cost to the society, by passing such charges to the product or some characteristic of such product that can potentially harm the environment when used in the production process, consumed or disposal after its use. There are also administrative charges which are fees paid to Authorities' pollution control activities.

Subsidies:

The removal of subsidies, particularly in relation to fossil fuel is an effective tool for controlling pollution. They include tax incentives grants and low interest loans designed to induce polluters to curtail the sources of pollution, by investing in various types of pollution control measures. Thus, the removal of subsidies on fossil fuels has been strongly canvassed.

Deposit-Refund System:

This involves a purchaser paying an additional sum in excess of the usual purchase price when buying a potentially polluting product. The additional sum is in actual fact a refundable deposit, which will be refunded when the user of the said product returns it to an approved centre for proper disposal or recycling.

¹⁶⁶ Bernstein, J.D. "Water Pollution Control: A Guide to the Use of Water Quality Management Principle" Published for the United Nations Environment Programme, The Water and Sanitation Collaboration Council on the World Health Organisations by E & F Spon 1997 ISBN 0419229108

¹⁶⁷ Oklahoma Policy Institute <http://www.okpolicy.org/resources/online-budget.html>

Enforcement Incentives:

These are forms of penalties designed to induce polluters to comply with environmental standards and regulations. They include non-compliance fees, chargeable to polluters when their discharge exceeds acceptable limits. They also include performance bonds, which are payments made to regulating authorities before a potentially polluting activity is undertaken, and then refunded when the environmental performance is proven to be acceptable.

6.2 conclusions

In the face of it when evaluated alongside Nigeria, one easily concludes that based on efficacy of the polluter pays principle looking at the legal caps and exclusion of liability, compensation, payment of fines, and costs to Uganda's polluter pays principle is more effective. However, since there is 'no one size fits all' in environmental protection and polluter pays principle and given the fact that each petroleum frontier has peculiar characteristics, each nation's polluter pays principle should be judged on the needs and circumstances of the particular governments legal and regulatory regime.

6.3 Limitations of the Study

While carrying out this study, the researcher encounters the following challenges;

Time Constraints

Since the researcher is in full time employment, there was delay in the distribution and collection of questionnaires because of work related constraints. Giving equal attention to both activities poses a challenge.

Cost of the Research:

The research involved a lot of travelling and telephone calls to coordinate the distribution of questionnaires and telephone interviews, which necessitated financial cover. The researcher had to dig deeper into her pockets to facilitate the completion of the research given the hardships with covid restriction on movements and accessing people's offices.

The subject of this study is highly technical and covers new areas hitherto irrelevant. Since the oil industry is an upcoming industry and yet to kick up with production. Luckily, the researcher managed to acquire much of the information on line which helped a lot, and some of

the government departments like NEMA, UNOC and PAU had sufficient information on my subjective topic.

Companies' policies:

Due to some companies' policies, it was difficult to get some data from some respondents, this explains why out of the 28 questionnaires administered only 23 were returned. It turned out that despite the assurances of non-disclosure and assigning academic research as a reason some respondents called back with apology, as they could not fill the questionnaires due to what they called 'reasons beyond their pay grade.'

However, since the response rate was above 82% (see section 4.1.1) more than average the study proceeded with the returned questionnaires and were interpreted accordingly and applied the respective findings.

REFERENCES

ACODE, Comments on the EIA for the proposed Early Production System (EPS) at Kaiso Tonya Area, Block 2, Lake Albert, Uganda (2008)

AFIEGO (EITI), A Scoping Study on the Adoption and Implementation of EITI in Uganda (2012)

AFIEGO, Oil Activities and Environmental Conservation in Uganda: Applying the Right to a Clean and Healthy Environment for Environmental Performance of the Oil Sector Industry (2010)

AFIEGO, Proceedings Report of the Training Workshop on Oil Governance for National Development; strengthening the oversight role of selected Members of Parliament and CSOs (2010)

AmanigaRuhanga, I, Manyindo J and Jordahl, Maintaining the Conservation and Tourism Value of Protected Areas in Petroleum Development Zones of the Albertine Rift, Oil and Gas Series No.2 of Uganda Wildlife Society (2009)

Amnesty International (2013).“Bad Information: Oil Spill Investigations in the Niger Delta” www.amnestv.org accessed 2^{3rd} March 2021.

API, Environmental Protection for Onshore Oil and Gas Production Operations and Leases: Upstream Segment. API Recommended Practice 51R (1st Edition) (July 2009)

Articles Gurumo T &Lixin H, „Petroleum and Sustainable Development: The Role of International Conventions“ in International Conference on Petroleum and Sustainable Development. IPCBEE, Vol. 26 (2011) IA SIT Press, Singapore

Authority (2007)

Barde J. (1994). “Economic Instruments in Environmental Policy: Lessons from the OECD experience and their Relevance to Developing Economies” (Working Paper No.92) OCDE/GD (93) 193, 5.

CENTER FOR ECONOMIC ANALYSIS OF HUMAN BEHAVIOUR AND SOCIAL INSTITUTIONS, New York (1974)

Cholakov G „Control of Pollution in the Petroleum Industry“ in Pollution Control Technologies Vol. III Civil Society Coalition on Oil in Uganda, „Uganda’s Oil Agreements Place Profit before People“ (2010)

Diarra G & Sebastien Marchand, Environmental Compliance, Corruption and Governance: Theory and Evidence of Forest Stock in Developing Countries (2011)

DNV, Enhancing Offshore Safety and Environmental Performance: Key Levers to further reduce the Risk of Major Offshore Accidents. DNV Position Paper 1

Donor Engagement in Uganda’s Oil and Gas Sector: An Agenda for Action. A Briefing by Global Witness (October 2010)

Ebrahim-zadeh, C, „Back to Basics: Dutch Disease. Too Much Wealth Managed Unwisely“ (2003) Finance and Development 40 (1) Environmental Management in the Albertine Graben,

Exploration & Production Forum Waste Management Guidelines (1993)

Global Witness, Uganda’s Petroleum Legislation: Safeguarding the Sector (2012)

Government Publications Ministry of Energy and Mineral Development, Remarks by Hon. Engineer Irene Muloni at 6th EITI Conference, Sidney, Australia (2013)

Hayes A „Implementing Environmental Regulation: Enforcement and Compliance“

Humphreys M, Jeffrey D. Sachs and Joseph E. Stiglitz (Eds.), Escaping the Resource Curse (Foreword by George Soros, New York: Columbia University Press, (2007) in Ugandan Portion of the Albertine Rift: A report of findings prepared on behalf of Uganda Wildlife

Johnson L, Assessing the Impacts of Energy Developments and Developing Appropriate Mitigation

Joseph C. Bell and Teresa Mauria Faria, „Critical issues for a Revenue Management Law“ Initiative for Policy Dialogue Working Paper Series (2006)

Kasiita I „History of Oil Discovery in Uganda“ in New Vision Friday 23rd Jan, 2009

Kasimbazi E, Legal and Environmental Dimensions of Oil and Gas Exploration and Production in Uganda (2009)

Kasimbazi E. B „Environmental Regulation of Oil and Gas Exploration and Production in Uganda“ in Journal of Energy and Natural Resources Law Vol.30 No.2 of 2010

Kathman J & Shannon M „Oil Extraction and the Potential for Domestic Instability in Uganda“ African Studies Quarterly, Vol. 12. Issue 3 (Summer 2011)

Kathman J & Shannon M „Oil Extraction and the Potential for Domestic Instability in Uganda“ African Studies Quarterly, Vol. 12. Issue 3 (Summer 2011)

Kaweesi E „Uganda“s Security amidst Oil Exploration, Development and Production“ in Makerere Law Journal (2013)

Kaweesi E „Uganda“s Security amidst Oil Exploration, Development and Production“ in Makerere Law Journal (2013)

Louisiana Environmental Program, Field Guide to Environmental Compliance for Oil and Gas Exploration and Production Operations (April 2012)

Mark A. Cohen, „Environmental Crime and Punishment: Legal/Economic Theory and Empirical Evidence on Enforcement of Federal Environmental Statutes“ in Journal of Criminal Law and Criminology Vol. 84 (Issue 4 Winter) (1992)

Mark A. Cohen, „Environmental Crime and Punishment: Legal/Economic Theory and Empirical Evidence on Enforcement of Federal Environmental Statutes“ in Journal of Criminal Law and Criminology Vol. 84 (Issue 4 Winter) (1992)

Miguel De Cervantes „Don Quixote De La Mancha“, at www.cliffsnotes.com

Miguel De Cervantes „Don Quixote De La Mancha“, at www.cliffsnotes.com

Ministry of Energy and Mineral Development, Strengthening the Management of the Oil and Gas

Ministry of Energy and Mineral Development, Strengthening the Management of the Oil and Gas Sector in Uganda: A Development Programme in cooperation with Norway (2010)

Mwebaza R. „Access to Information, Public Participation and Justice in Environmental Decision Making in Uganda“ (2003) 9 East African Journal of Peace and Human Rights

Mwebaza R. „Access to Information, Public Participation and Justice in Environmental Decision Making in Uganda“ (2003) 9 East African Journal of Peace and Human Rights

National Association of Professional Environmentalists, A Critical Analysis of the Development Process in Uganda (2009)

NEMA, Environmental Sensitivity Atlas for the Albertine Graben (2009)

Presentation to journalists at Africa Centre for Media Excellence (ACME) on 22nd Aug. 2012

Rechtschaffen C „Deterrence vs. Cooperation and the Evolving Theory of Environmental Enforcement, in Southern California Law Review Vol. 71

Rechtschaffen C „Deterrence vs. Cooperation and the Evolving Theory of Environmental Enforcement, in Southern California Law Review Vol. 71

Richard A. Posner, „Theories of Economic Regulation“ NBER Working Paper Series, No.

Richard A. Posner, „Theories of Economic Regulation“ NBER Working Paper Series, No. CENTER FOR ECONOMIC ANALYSIS OF HUMAN BEHAVIOUR AND SOCIAL INSTITUTIONS, New York (1974)

Shepherd B, „Oil in Uganda. International Lessons for Success“ (2013)

Shepherd B, „Oil in Uganda. International Lessons for Success“ (2013)

Shultz J, „Follow the Money: A Guide to Monitoring Budgets and Oil and Gas Revenues, (2005)

Shultz J, „Follow the Money: A Guide to Monitoring Budgets and Oil and Gas Revenues, (2005)

Sophie Des Clers, Mitigating the Impacts of Oil Exploration and Production on Coastal and Wetland Livelihoods in West and Central Africa (2007)

Terry K Lynn, "Understanding the Resource Curse" in Svetlana Tsalik and Anya Schriffin (Eds.), *Covering Oil: A Reporter's Guide to Energy and Development* (New York: Open Society Institute, 2005).

Terry K Lynn, "Understanding the Resource Curse" in Svetlana Tsalik and Anya Schriffin (Eds.), *Covering Oil: A Reporters Guide to Energy and Development* (New York: Open Society Institute, 2005).

The Wall Street Journal, „Uganda signs Deals with Foreign Companies to Develop the Oil Sector“

The Wall Street Journal, „Uganda signs Deals with Foreign Companies to Develop the Oil Sector“

Tumushabe G. „Towards Environmental Accountability: Freedom of Access to Information Legislation for Uganda“, in Greenwich Environmental Law Institute, *Handbook on Environmental Law in Uganda* (2004)

Tumushabe G. „Towards Environmental Accountability: Freedom of Access to Information Legislation for Uganda“, in Green Watch Environmental Law Institute, *Handbook on Environmental Law in Uganda* (2004)

Tumusiime F, „Is Uganda ready for oil Revenues? “ (2011)

Tumusiime F, „Is Uganda ready for oil Revenues? “ (2011) Government Publications Ministry of Energy and Mineral Development, Remarks by Hon. Engineer Irene Muloni at 6th EITI Conference, Sidney, Australia (2013)

A Thomas,D.A, *The Theories of Punishment in the Court of Appeal, The Modern Law Review*, Sept 1964, Vol. 27, pp 546-567,.

Uganda Contracts Monitoring Coalition, *A Tool for Monitoring Social and Environmental Compliance in the Extractive Sector* (2012)

UNEP, *Environmental Management in Oil and Gas Exploration and Production: An Overview of Issues and Management Approaches* (UNEP Technical Publication) (1997)

US Environmental Protection Agency, *Assessment of the Environmental Implications of Oil and Gas Production: A Regional Case Study. Working Draft* (Sept. 2008)

Wolff P, Global Standards for the Extractive Industry – ten years of the EITI and Publish What You Pay (2012)

Yergin D, The Prize: The Epic Quest for Oil, Money and Power, New Edition (Free press) (New York, 2008).

ONLINE SOURCES.

Chalfin A. and McCrary J. (2014). “Criminal Deterrence: A Review of the Literature”, http://eml.berkeley.edu/~imccrary/chalfin_mccrary20.pdf accessed 23rd, March, 2021.

Konne B. (2014). “Inadequate Monitoring and Enforcement in the Nigerian Oil Industry: The Case of Shell and Ogoni Land” 47 Cornell International Law Journal 196.

Lord Donaldson’s Inquiry, Safer Seas, Cleaner Seas: Report of Lord Donaldson’s Inquiry into the Prevention of Pollution from Merchant Shipping (Cm 2660) 24-26.

Mann I. and Hare F. (2009). “A Comparative Study of the Polluter Pays Principle and its International Normative Effect on Pollutive Processes” http://consulegis.info/fileadmin/downloads/thomas_marx_08/Ian_Mann_paper.pdf accessed 13th 22nd March, 2021.

McLoughlin J. and Bellinger E (1993). *Environmental Pollution Control: An Introduction to Principles and Practice of Administration* (International Environmental Law Policy Series) (Graham & Trotman) 145.

Merriam Webster Dictionary, “Deterrence” <http://www.merriam-webster.com/dictionary/deterrence> accessed 23rd March, 2021.

Nagin D. “Deterrence: Scaring Offenders Straight” http://www.sagepub.com/upm-data/40354_4.pdf accessed 23rd March, 2021

Nwilo P. C. and Badejo O.T. “Impacts and Management of Oil Spill Pollution along the Nigerian Coastal Areas” https://www.fig.net/pub/figpub/pub36/chapters/chapter_8.pdf accessed 23rd March 2021.

Ojo A. “Bonga, Endeavour & Macondo” <http://africaoilgasreport.com/2012/05/opinion/bonga-endeavour-macondo/> accessed 22nd March, 2021.

Okenabirhie T. (2008/2009). “Polluter Pays Principle in the Nigerian Oil and Gas Industry: Rhetorics or Reality?” (CAR CEPMLP Annual Review) (Environmental and Social Issues in

Energy Industry) <http://www.dundee.ac.uk/cepmlp/gateway/index.php?news=30840> accessed 23rd March, 2021.

Olawuyi D. (2013). *The Principles of Nigerian Environmental Law: Essential Readings* (1st edn Business Perspectives) 148. Organization for Economic Co-operation and Development (OECD) (2007). “Glossary of Statistical Terms” <http://stats.oecd.org/glossary/download.asp> accessed 22nd March, 2021.

Organization for Economic Co-operation and Development (OECD) (1975). *The Polluter Pays Principle: Definition Analysis Implementation* 15.

Organization for Economic Co-operation and Development (OECD) (1992). “The Polluter-Pays Principle: OECD Analysis and Recommendations’ OECD/GD 81, 5.

Organization for Economic Co-operation and Development (OECD), “Recommendation of the Council on Guiding Principles concerning International Economic Aspects of Environmental Policies” C (72) 128, 6.

Oromareghake P, Arisi R, Igho M. (2013). “Youth Restiveness and Insecurity in Niger Delta: A Focus on Delta State” <http://socialscienceresearch.org/index.php/GJHSS/article/view/594/541> 20th March 2021. *Ozcayir Z.O. (1998). Liability for Oil Pollution and Collisions, (LLP) 214.*

Polinsky M and Shavell S. (1998). “Punitive Damages: An Economic Analysis” 3 Harvard Law Review 873, 877.

Powell J. (2002). *Oil Spills* (Franklin Watts) 8, 10, 11, 12, 13.

Ramseur J.L. (2010). “Oil Spills in U.S. Coastal Waters: Background and Governance” (Congressional Research Service) <http://fpc.state.gov/documents/organization/142741.pdf> accessed 22nd March, 2021.

Sadeleer N. (2002). Environmental Principles: From Political Slogans to Legal Rules (OUP) 305, 307, 312, 313, 314.

Sands P. (2003). Principles of International Environmental Law (2nd ed CUP) 124.

Shell Petroleum Development Company of Nigeria Limited “Oil Spill Data”
<<http://www.shell.com.ng/environmentsociety/environment-tpkg/oil-spills.html>> accessed
23rd March 2021).

Shergold S., Beggs D. and Boileau S. (2010). “United Kingdom: Incidents at Offshore
Facilities- Who is Responsible for Environmental Damage?” 6 IELR 179.

Thorton J. and Beckwith S. (2004).*Environmental Law* (2nded Sweet & Maxwell) 14.

United Nations Environment Programme (UNEP) (2011). “Environmental Assessment of
Ogoniland: Executive Summary” <[http://postconflict.unep.ch/publications/OEA/UNEP
OEA.pdf](http://postconflict.unep.ch/publications/OEA/UNEP_OEA.pdf)> accessed 22nd March, 2021.

Wolf S. and Stanley N. (2011).*Wolf and Stanley on Environmental Law* (5thedn Routledge)
14.

Wolf S., White A. and Stanley N. (2002).*Principles of Environmental Law* (3rd ed. CPL)

TABLE OF STATUTES

STATUTES

Constitution of the Republic of Uganda, 1995 (as amended) Constitutional (Amendment) Act, 2019 Investment Code Act Cap.82

Land Act Cap. 227

Mining Act, 2003

National Environment (Standards for Discharge of Effluent into Water or on Land) Act, 1999 National Environment (Waste Management) Regulations, 1999

Uganda Wildlife Act, Cap. 200 Water Act Cap.152

National Environment (Wetlands, River Banks and Lakes Shores Management) Regulations, 2000 Petroleum (Exploration and Production) (Conduct of Exploration Operations) Regulations, 1993

National Environment Act 2 Of 2019

National Forestry and Tree Planting Act,2003

Occupational Safety and Health Act, 2006

Petroleum (Exploration, Development and Production) Act, 2013

Petroleum (Refining, Conversion, Transmission and Midstream Storage) Act, 2013

Petroleum Supply Act, 2003

Public Health Act Cap.281

Statutory Instruments National Environment (Management of Ozone Depleting Substances and Products) Regulations, 2001 National Environment (Noise Standards and Control) Regulations, 2003

Water Resources Regulations, 1998 Water (Waste Discharge) Regulations, 1998

TABLE OF CASES

Christopher Aikawo v National Chemical Industries and Pesticides Manufacturers Ltd MCA

Green watch and ACODE v Golf Course Holdings HCMA No.390/2001.

Green watch (U) Ltd. v. Attorney General & Uganda Electricity Transmission Co. Ltd

HCCT00-CV-MC-0139 of 2001

Leatch v National Parks and Others (1991) 81 LGERA 270 (Australia)

NAPE v AES Nile Power HCMC No.268/1999

Rodgers MuemaNzioka v Tiomin Kenya Ltd HCCC No.97/2001 (HC of Kenya)

No.126/1992 (HC of Tanzania)

TEAN v. Attorney General and NEMA H.C M. A No.39/2001

APPENDICES

Appendix A: DATA COLLECTION QUESTIONNAIRE

UGANDA CHRISTIAN UNIVERSITY

Dear respondent,

This questionnaire is intended to facilitate the study on “AN ANALYSIS OF THE EFICACY OF THE ENVIRONEMNTAL PRINCIPLES IN ENHANCING PROTECTION OF THE ENVIRONEMNT AGAINST DANGEROUS ACTIVITIES OF THE OI AND GAS EXTRACTION. A CASE STUDY OF THE POLLUTER PAYS PRINCIPLLE. The study is for academic purposes and is carried out in partial fulfilment of the requirements for the award of a Master of Laws Oil and Gas of Uganda Christian University. As a respondent; your responses are highly important and will be treated with utmost confidentiality. Thank you very much for your valuable time.

Brief introduction of the topic.

To explain in brief, Polluter pays principle is an environment principle used to protect the environment from polluter where the polluter is punished for the pollution through paying for the costs as a deterrence to the would-be polluters. This is done through imposing punitive fines and compensation aimed at restoring the environment in the position it would have been before the pollution took place if possible and in Uganda this is provided in our laws and it aimed at protecting the environment from harm and damaged especially in Uganda’s oil and gas sector.

SECTION A: BACKGROUND INFORMATION

BIO DATA

Please do provide the following information. Tick the appropriate category

L_ Gender _____

Female

Male

2. Age Group: (Tick)

Below 20 years	20-29 years	30-39 years	40-49 years	50 years and above
1	2	3	4	5

3. Highest level of education

Certificate	Diploma	Degree	Post	Others (Please
1	2	3	4	5

4. Area of Participation

Civil	Public	Comm	Polic	Compa	Others specify

5. Working experience (Tick):

0-3 years	4-6 years	8 years and above

Use (x) or Tick (V) in the questionnaire boxes to indicate your preference/choice.

1	2	3	4	5
Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree

Section B.

Questions.

1. What is the effectiveness of the polluter pay principle in protecting the environment?

.....

2. How effective is the process of evaluating the proposed oil and gas activities as a step to protecting the environment?

.....

3. Is it relevant to promote polluter pays principle as a mechanism of protecting the environment from dangerous activities of Oil and Gas industry in Uganda? Why or why not?

.....
3. Are there any disadvantages of polluter pay principle in the Oil and Gas industry?
Please explain.

.....
4. What are the reasons for and against the implementation of the polluter pays principle
of the Oil and Gas industry of Uganda?

.....
5. What are the practical approaches available in ensuring environmental protection in the
oil and gas of Uganda?

.....
6. What are the factors that may hinder the effective implementation of the polluter pays
principle in the Oil and Gas in Uganda?

.....
7. What are the possible recommendations available to the government of Uganda
and the different stakeholders in the Oil and Gas industry to ensure that polluter
pays principle as provided under the law as an aspect in the Oil and Gas of
Uganda is upheld?

.....
8. What are some of the hindrances that are likely to affect the effective progress
concerning the implementation of the polluter pays principles in the Oil and Gas
Industry of Uganda? If any, verify please.

.....
9. What is the relevance of the implementation strategies adopted by the government in
preserving the environment from pollution of the oil exploitation?

.....

10. What are the practical strategies and approaches that can be adopted to ensure effectiveness of the polluter pays principle as a mechanism of protecting the environment from dangerous activities in the oil and gas industry in Uganda?

.....

12. What best practice would you suggest to the Ugandan legal framework to strengthen environmental protection in the Oil and Gas Industry?

.....

13. Does Uganda have sufficient laws, policies and regulations to ensure the effectiveness of polluter pays principle as a mechanism of protecting the environment against dangerous activities of oil and gas industry?

.....

14. How can the laws, policies and regulations be improved upon to ensure an effective implementation of polluter pays principle as a mechanism of protecting the environment against dangerous activities in Uganda's Oil and Gas Industry?

.....

15. What role should the law play in ensuring an effective implementation of polluter pays principle in the Oil and Gas Industry of Uganda?

.....*

16. What recommendations would you make to the Government of Uganda and stakeholders to ensure the effectiveness of the polluter pays principle as a mechanism of protection the environment from dangerous activities of Uganda's oil and gas industry?

.....

Name of the Respondent. Signature.

.....

Thanks so much for your humble time.

APPENDIX B: INTRODUCTORY LETTER



Institute of Petroleum
Studies - Kampala

30th August, 2021

TO WHOM IT MAY CONCERN

Dear Sir/ Madam,

RE: INTRODUCTION FOR MS NABULOBI ANNET JANET TO CONDUCT RESEARCH IN YOUR ORGANIZATION

Greetings in the precious name of our Lord.

I wish to introduce to you the above-named person, who is a master's student pursuing Master of Laws in Oil & Gas Management, of Uganda Christian University in affiliation with the Institute of Petroleum Studies – Kampala (IPSK).

Her proposal has been approved by our vetting committee and is in the process of collecting data. Ms. Nabulobi would wish to conduct research in your organization.

The title of her research is “AN ANALYSIS OF THE EFFICACY OF THE ENVIRONMENTAL LAW PRINCIPLES IN ENHANCING PROTECTION OF UGANDA’S ENVIRONMENT FROM DANGEROUS ACTIVITIES FROM OIL AND GAS INDUSTRY: A CASE STUDY OF POLLUTER PAYS PRINCIPLE.”

By copy of this letter, all respondents are notified that this study is for academic purposes and as an Institution, we request you to cooperate in facilitating this very interesting research project.

Sincerely,

James Mugerwa

DEAN OF STUDIES



Plot 6207 Rose Lane, Off tankhill road Muyenga Kampala - Uganda
Tel: 0414695610 Email: info@ipsk.ac.ug Website: www.ipsk.ac.ug

APPENDIX C: CONSENT FORM

Dear respondent,

I am NABULOBI ANNET JANET of Uganda Christian University pursuing a Master of Laws Oil and Gas, and I am carrying out a study on analysing the efficacy of the environmental law principles in enhancing protection of Uganda's environment from dangerous activities of oil and gas industry. A case study of the polluter pays principle. You have voluntarily consented to participate in the study and all the information you give will be kept confidential as requested. You are under no obligation to participate in the study, and refusal to participate will not affect you in any way.

The information collected from you will be coded so that it is not linked to your name and your identity will not be revealed at any time during the study. All data will be kept in a safe place and will not be shared with anybody and will not be used for any other purposes apart from that which the study is intended to achieve.

You are free to ask any question about the study at any time if you need more clarification. For Respondent only;

The topic and its objectives have been fully explained to me, and I have understood and voluntarily agreed and consented to participate in the study.

I will be grateful for your positive response

NABULOBI ANNET JANET

Researcher