

**THE EFFICACY OF THE POLLUTER PAYS PRINCIPLE IN PROTECTING
UGANDAS' ENVIRONMENT AGAINST HARZADOUS OIL AND GAS EXTRACTION.**

BY

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DECLARATION

I, **AMITO ANGEL**, do hereby declare that this Dissertation titled, the efficacy of Polluter Pays Principle in protecting Uganda’s environment against hazardous oil and gas extraction activities is entirely my original work, except where acknowledged, and it has never been submitted to any other university or institution of higher learning for the award of any such Degree.

SIGNATURE.....

DATE.....

APPROVAL

I confirm and approve that the work reported in this Dissertation titled the efficacy of Polluter Pays Principle in protecting Uganda's environment against hazardous oil and gas extraction activities was conducted by the candidate under my supervision and now it is ready for submission.

Sign: -----

Date-----

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(Academic Supervisor)

DEDICATION

To my Daughter Giovanah Atim whose being and smiles inspires me to work harder every single day of my life.

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LIST OF ABBREVIATIONS

PPP	Polluter Pays Principle
CMI	Committee Maritime International
EIA	Environmental Impact Assessment
GHGs	Green House Gases
HSER	Petroleum (Refining, Conversion, Transmission and Midstream Storage) (Health, Safety and Environment) Regulations, 2016.
ICT	Information Communication Technology
IMO	International Maritime Organization
IOC	International Oil Company
MAAIF	Ministry of Agriculture, Animal Industry and Fisheries
MEMD	Ministry of Energy and Mineral Development
NAPE	National Association of Professional Environmentalists
NAVODA	Navigators of Development Association
NEA	National Environment Act
NEAP	National Environment Action Plan
NEMA	National Environment Management Authority
NEMP	National Environment Management Policy
NFA	National Forestry Authority
NOC	National Oil Company
PAU	Petroleum Authority of Uganda
PEDPA	The Petroleum (Exploration, Development And Production) Act, 2013
PMA	Plan for Modernization of Agriculture

PRCTMSA	The Petroleum (Refining, Conversion, Transmission and Midstream Act)
PRCTMSR	Petroleum Refining, Conversion, Transmission and Midstream Regulation
UNCLOS	United Nations Law Convention on the Law of the Sea
UNFCC	United Nations Framework Convention on Climate Change
UNOC	Uganda National Oil Company
OPM	Office of the Prime Minister
UWLA	Uganda Wildlife Authority
ICJ	International Criminal Justice

List of national legislation

The 1995 Constitution of the Republic of Uganda as amended

The Atomic Energy Act, 2008

The Constitution of the Republic Uganda, 1995

The Land Act, Cap. 227

The Mining Act, 2003

The National Environment Act, Cap.153

The National Forestry and Tree Planting Act, 2003

The Penal Code Act, Cap. 120.

The Petroleum (Exploration, Development and Production) Act, 2013

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

The Water Act, Cap.152

The Uganda Wildlife Act, Cap. 200

The National Environment (Waste Management) Regulations, S.I, No. 52 of 1999

The Petroleum (Exploration, Development and Production) Regulations, S.I, No.47 of 2016

Lists of Conventions and treaties

African Convention on the Conservation of Nature and Natural Resources, 1968

Paris Agreement on Climate Change, 2016

OECD Principle

United Nations Framework Convention on Climate Change (UNFCCC), 1992

Vienna Convention on the Protection of the Ozone Layer, 1985

Rio Declaration on Environment and Development, 1992

The 1992 International Convention on Civil Liability for Oil Pollution Damage

LISTS OF CASES

National cases.

Nile Power HCMC No.268/1999 Rodgers Muema Nzioka 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.39/2000

Green watch and ACODE v Golf course Holdings HCMA No.390/2001 Green watch (U) Ltd.

Attorney General & Uganda Electricity Transmission Co. Ltd HCCT00-CV-MC-0139 of 2001

Regional cases

Christopher Aikawo v National Chemical Industries and Pesticides Manufacturers Ltd MCA

Paul Kpakol and others v Shell Petroleum Development Company (Nig) Ltd 2005 (AHRLR) 151

Rylands v Fletcher(1789)QB 2012

commune de Mesquer V Total France S.A and Another (2009)ALLER EC 525

Jonah Gbemre v. Shell Petroleum Development Company Limited CIVIL CASE NO 313 OF 2002

Shell Petroleum Development Company Nigeria Ltd v. Chief G.B.A. Tiebo & Others, SC 9/1999 S.P.A.C

Ediagbonya v Dumez (Nigeria) Limited and Another Ediagbonya v Dumez (Nigeria) Limited and Another (1986)6 SC 149

Shell Petroleum Development Company (Nig) Ltd v Chief Graham Otoko SC 9/1999,S.P.A.C

Ikpede v Shell BP Development Co (Nig) ZAZ Ltd Ikpede v Shell BP Development Co (Nig) ZAZ Ltd (1974)2 RSLR 109, Ogoni People V Royal Shell2005 (NWLR)

Foreign cases.

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

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

Indian supreme court in the case of Indian Council for Enviro legal Action V Union of India

ABSTRACT

The Polluter Pays Principle is an economic principle which is predicated based on the internalization of environmental costs into decision making for economic and among others development plans, programs and projects that are likely to affect the environment.

The study helped the Researchers to articulate pertinent problems or concerns regarding the application of the PPP and its effectiveness in combatting pollution caused by Uganda's oil and gas sector. By looking at the development of effective compliance mechanism with this principle as a way of protecting the environment from oil spills and other forms of pollution through holding the polluter accountable inform of taking care of their pollution. The study was to investigate how effective the PPP can be used to improve on environmental protection from the Hazardous oil and gas activities.

The principle is thus a way of allocating pollution costs. It has been extensively used in international law, and now has attained the status of being one of the guiding principles of international environmental law. This paper examined the efficacy of the Polluter Pays Principle in protecting Uganda's environment against hazardous oil and gas extraction where it observed that for an effective application, the Polluter Pays Principle must effectively answer the following questions: What constitutes pollution? And how much must the polluters pay?

The key findings of the study reveal that Uganda's policy framework on the sector provides for the use of PPP as a mechanism of pollution control from the sector, however the laws on avoiding and controlling oil and gas pollutions are weak and unclear and, therefore, monitoring and enforcement cannot be effective, the implementing bodies of these laws also lack proper findings, personnel and generally empowerment that deters them from doing their duties as far as pollution control using the PPP is concerned.

The study recommends that the laws should be reviewed to clearly prohibit or prevent continuous pollution, properly pronounce the obligations of the lead agencies and the consequences for non-compliance at all levels should be provided. The details of how this can be achieved should be handled by the regulator at the field development planning and design levels. The researcher concludes that, as Uganda prepares to commence production of first oil soon, calamities caused by pollution will befall Ugandans unless the recommendations of the study are implemented.

CHAPTER ONE: INTRODUCTION AND PROBLEM STATEMENT

1.1. Introduction

Following Uganda's the discovery of commercially viable quantities of oil and gas in the Albertine region in 2006¹, there has been preparations towards the starting of exploitation of oil in the region and from the forgoing it is likely that the exploitation of the oil will soon start especially in the year 2021 as projected by Chinas CNOOC, while the government of Uganda sees the production to begin in 2020.²

The oil and gas sector has been proved to be one of the activities with very high negative/ adverse effects to the environment and among these is the pollutions it causes the environment, this has been proved from countries that have active oil and gas exploitations, take for example the Macondo well deep-water horizon blowout that occurred in the Gulf of Mexico on April 20, 2010. As result of the explosions and resulting fire, 11 workers lost their lives and 16 others got seriously injured.

When the *Deep-water Horizon* rig sank roughly 36 hours later, nearly 5 million barrels of oil were released into the Gulf of Mexico.³ And as a result of this drilling, the entire environment around encountered pollution and its associated effects.⁴

In Norway it is reported that large quantities of pollutants are released to air, sea and the seabed during exploration activities of oil and gas production. This happens at all stages of oil and gas operations to pipeline construction, transporting of oil and gas onshore. When oil fields

¹ Rwakakamba M & Lukwaga D (2013) Farmers in Uganda's oil economy, deal or no deal, Kampala, Uganda, Agency for Transformation

² Oil, a crisis to the environment reported in Reuters on June 13th 2018

³ McNutt et al. 2011

⁴ "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.

are exhausted, decommissioning of installations and equipment will call for designing means for proper disposal of pollutants resulting from generated waste.^{5 6}.

There are therefore several general principles of international environmental law⁷ that have emerged from both national and international environmental law. In this overview, it is impossible to address all of them. The central focus of this research was based on the PPP alongside the precautionary principle which were first developed at the regional level before gaining universal recognition but majorly on the PPP.⁸

Briefly participatory principle addresses the legal position of individuals and civil society organisations by affirming procedural rights of access to information, public participation and access to justice in environmental policy⁹,

This discussion focused on investigating or examining the efficacy of PPP in protecting Uganda's environment against the hazardous oil and gas extraction activities. It is also important to note at this point that the discussion compared and borrowed examples from the Nigeria's legal environmental PPP development and application to see how this principle can be utilised and effected in Uganda as a way of protecting our environment from hazardous oil and gas extraction activities. In this discussion the researcher borrowed more lessons for Uganda to learn more from Nigeria's experience in its application of the principle while dealing with pollution arising from the oil and gas activities as seen in chapter two below.

Polluter Pays Principle (PPP)

⁵ Section 45 to 49 of the midstream Act of 2013

⁶ Published 07.07.2016 by the Norwegian Environment Agency, <https://www.environment.no/topics/marine-and-coastal-waters/oil-and-gas-/https://www.environment.no/links/water/english/norwegian-environment-agency-guidelines-for-offshore-environmental-monitoring-on-the-norwegian-continental-shelf-pdf/>, Published 07.07.2016 by the Norwegian Environment Agency

⁷ Handle 'Environmental Security and Global Change: The Challenge to International Law', Year book of International Environmental Law 1 (1990)

⁸ By 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

⁹ See generally G.J.H. van Hoof, Rethinking the sources of International law (Kluwer, Deventer, 1983). 8. N. de. Sadeleer Environmental Principles: From Political Slogans to Legal Rules (Oxford University Press, 2002). developed and developing countries.

The PPP was developed in the 1970s as an economic principle within the frameworks of the Organisation for Economic Co-operation and Development (OECD) and the then European Economic Community (EEC). Its aim was to internalize external costs to avoid distorting trade and competition. It was initially recognized in regional soft law instrument of these two organizations. In 1972, the OECD Guiding Principles Concerning the International Economic Aspects¹⁰ of Environmental Policies were first articulated PPP as a principle 'to be used for allocating costs of pollution prevention and control measures for encouraging the rational use of scarce environmental resources and to avoid distorting international trade and investment'. PPP like other principles of international law are based on customary¹¹ sources of international law that holds that general principles of law are derived by induction from the national legal systems of the so-called civilized nations.

The principle implies that 'the polluter should also bear the expenses of carrying out the measures decided by public authorities for ensuring that the environment is in an acceptable state and the cost of these measures ,should also be reflected or taxed in the cost of goods and services which cause pollution in production or transportation of the oil products.¹² Despite having some industries penalised in most of the countries like Norway with active oil and gas activities, the externalities of these goods and services are too high and, in the oil and gas industries take an example of decommissioning, these costs can put many companies off the business which is mitigated by the statutory cap imposed on the amount the polluter is supposed to pay.¹³

After being developed in soft law instruments, PPP was subsequently recognized in as regional hard law in 1986 with the Single European Act which amended the EEC Treaty and inserted in its specific provisions on environmental policy.¹⁴, listed the general principles of the

¹⁰ See generally G.J.H. van Hoof, *Rethinking the sources of International law* (Kluwer. Deventer, 1983). 8. N. de. Sadeleer *Environmental Principles: From Political Slogans to Legal Rules* (Oxford University Press.2002). developed and developing countries.

¹¹ Guiding principles Concerning International Economic Aspects of Environmental Policies; OECD Recommendation, 26 May 1972. sedac.ciesin.org/entries/texts/oecd/OECD-4.01.html.

¹² See sections 78, 80 of the National Environment Act 2019

¹³ Environmental defence funds –edg.org,

¹⁴ Article 130R (2) of the Treaty, EECT treaty

Community's environmental policy, including PPP. In 1992 PPP was eventually recognized in as a universal soft law instrument and it comprises of Principle 16 of the Rio Declaration.¹⁵

“This provision provides that 'National authorities should endeavour to promote the internalisation of environmental costs and the use of economic instruments, taking into account the approach that the polluter should in principle, bear the cost of pollution’¹⁶.

It is worth noting that this universal formulation is weaker than that contained in the aforementioned European instruments. So far, there has been scarce recognition of the principle in Universal hard law instruments, as PPP has found its way mostly into the preambles of various treaties, protocols and conventions. For example, the 1990 International Maritime Organisation Convention(IMO) on Oil Pollution Preparedness, Response and Cooperation refers to PPP in its preamble as 'a general principle of international environmental law and though this lacks a direct force of law, it has a direct effect on what comprises of the aspirations of the state actors.

One exception to this rather muted recognition is the 1992 OSPAR Convention, a regional monitory environmental Authority for the protection of the marine environment which states in a straightforward way that 'Contracting Parties shall apply the PPP.' Other instruments call on their parties to be 'guided by or to 'consider the PPP. International maritime organisation emphasises the protection of the environment from dangerous oil extraction activities and its adverse effects and a mechanism for its clean-up.¹⁷ The preamble of international instruments lacks force of law but nevertheless have a direct effect on what comprises aspirations of state actors.

"pollution¹⁸" means anything which causes or is likely to cause or aggravate damage or nuisance to human health or the environment including the introduction of solids, liquids or gases into air, water or ground; noise or vibrations; light and other radiation; and effects on

¹⁵ Principle 16 of the Rio Declaration.

¹⁶ Ibid

¹⁷ Article 14 of the International Maritime Organization

¹⁸ Council Recommendation of 3 March 1975 regarding cost allocation and action by public authorities on environmental matters, OJ 1975 No. L194, 25 July 1975, at 1.

temperature.¹⁹ In the current state of Uganda where discovery of oil has been made, the environment is at greater risk because of oil exploitation activities in the Albertine region. These activities have the potential of causing high rates of pollution in form of water, air, sound and land pollutions. And as such there is or there will be the need to control these forms of pollutions from the oil and gas activities so as to mitigate a much greater damage to the Environment, there the PPP will come in to play.

In Norway for example, it is reported that Oil and gas activities account for a substantial proportion of Norway's emissions to air. That in 2015, the industry generated almost a fourth of the country's greenhouse gas emissions, about 5.5 per cent of its NOx emissions and about 28.5 per cent of its VOC emissions, also in the same year, CO2 emissions from Norway's oil and gas activities totalled to 13.5 million tonnes²⁰ , these emissions have the character of causing substantial damage to the environment hence the need to control this rates of pollution by making the polluters liable hence the PPP.

One of the ways to abate and control pollution is through the application and implementation of the PPP where the person liable for the pollution is made to pay for the damages caused to the environment. In this way a potential polluter is bound to be careful the next time they will engage in a similar activity which is previously caused the pollution.

The first-time polluter is also vigilant about damaging the environment because they are aware, they will have to pay for the damages caused to the environment by their activities, in this way the human activities from the sector that would cause pollution to the environment would be thoughtfully done.²¹ Furthermore, because environmental resources are naturally limited, this makes their depletion a likely consequence of their continued use in production and consumption activities. When the cost of this deterioration/ depletion is not adequately taken into account in the price system, the market will consequently fails to reflect the scarcity of such resources both at the national and international levels.

¹⁹ Section 2 of the National Environment Act 2019

²⁰<https://www.environment.no/topics/marine-and-coastal-waters/oil-and-gas-activities/>,<https://www.environment.no/links/water/english/norwegian-environment-agency-guidelines-for-offshore-environmental-monitoring-on-the-norwegian-continental-shelf-pdf/>, Published 07.07.2016 by the Norwegian Environment Agency

²¹ Sections 78 , 80 of the National Environment Act 2019

Public measures are thus necessary to reduce pollution and to ensure a better allocation of resources by enhancing that prices of goods depends on the quality and quantity of environmental resources while reflecting more closely their relative scarcity , as well the stake holders concerned should be able to react to this proportionately and accordingly.

The principle to be used for allocating costs of pollution so as to preserve the use of the scarce environmental resources while encouraging measures for their balanced use to avoid environmental devastation is the PPP. "The Principle" means that the polluter should bear the expenses of undertaking the above-mentioned measures decided by public authorities to ensure that the environment is in a sustainable state. This balance is instrumentally vital considering the fact that resources are necessary for international trade and investments. Such measures should then not be accompanied by subsidies that would create significant distortions in international trade and investment.²²

This study investigated the rates of pollution from the oil and gas sector in Uganda, while borrowing lessons from other countries like Nigeria, what magnitude of damages such forms of pollution has caused to the environment and its people, how the PPP has been implemented by the concern authorities and how helpful has been the PPP principle in the bid to control and abate pollution that stem from the oil and gas exploration in Uganda.

The study focused on the effectiveness of the PPP as a mechanism of protecting the environment against Hazardous activities of Uganda's oil and gas industry.²³ It is very essential for the government to develop a comprehensive and effective working environmental policy that will help to protect the environment in a sustainable manner free from oil spills and flaring of gases from oil wells. And also punishing those that are found to be in breach of such environmental protection laws through levying heavy fines to those found guilty so that the environment can be restored to its formal glory by using the funds paid in correcting the mischief caused.

This chapter analysed how PPP could be a useful as a mechanism for safeguarding the

²² The OECD Principle & its Adoption protocols on 14th Nov 1974

²³ Sebastian wolf & Vishal Aditya Potluri, United Nations University 2018 page 79.

environment from dangerous activities of oil and gas for example oil spills during the extraction of oil, transportation and refinery process. This introductory chapter will encompass the following; the background which include the (theoretical, conceptual , and contextual perspective of the study), information of the study, the problem statement, the research objectives, significance of the study, the research questions, scope of the study, the justification of the study, and the conceptual framework.

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

The presentation of the background is based on Amin (2005)²⁴ who put emphasis on discussing of the theoretical, historical, conceptual and contextual background of the study. PPP is also governed by environmental law²⁵ which is also sometimes referred to as environmental and natural resource law which explains regulatory and legal framework inform of regulations, statutes, local, national, international; treaties, conventions and agreements entered into by states and international organizations aimed and designed at ensuring adequate protection of the environment from damages and wastage. It also explains legal consequences of damages towards the environment or individuals in case of any action brought against any offender.

The PPP has been mentioned as one of the principles in many regional and international conventions making it one of the most efficient principles of environmental policies and protection.²⁶ The 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.

Section 26²⁷ states that petroleum activities must be carried out with the best industrial practices. This is aimed at trying to prevent pollution from occurring and punishing those that

²⁴ Amin, M.E (2005) social science Research methodology and Analysis (Makerere university press)

²⁵ Kenneth kakuro& others, Handbook on environmental law in Uganda volume ii 2009.

²⁶ By 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

²⁷ the petroleum (Exploration, Development & Production) (Health & Safety Environmental) Regulations 2016

pollute the environmental with their oil activities. Section 80²⁸ of the National Environment Act states that the polluter is strictly liable for the pollution and establishes fees paid for the compensation in case of pollution. This suits the PPP and it helps in the restoration of the environment in case of any oil spill and gas flaring, as well section 78²⁹ prohibits pollution in the oil and gas sector which is aimed at conserving biodiversity from being distorted by pollution from the sector as the sector is already known for environmental disasters as seen in the other countries.

The principle is aimed at avoiding wastage of natural resources and to put an end to the cost-free use of the environment as a vessel for pollution. In essence the use of the PPP will secure economic efficiency as well as reduce distortions in international trade and investment to a minimum required standard.³⁰

The fossil sector of Uganda in the researchers concern is the energy sector and in specific the oil and gas exploitation in the Albertine Region. Since the commercial discovery of proven reserves of hydrocarbons in Uganda in 2006 in the Albertine region, there is a foreseen likelihood of increased rates of pollution to the environment in the country, for this the country should be sure of because we have borrowed lesson from oil producing countries like Nigeria, USA, and Norway. 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 during this offshore drilling.³¹ So far to date, the country has discovered six billion barrels of oil of which 1.4 billion barrels can be recovered and 500 billion cubic feet of gas, the resources have been confirmed in the 21 oil and gas discoveries which have been made.³²

²⁸ NEA of 2019

²⁹ NEA of 2019.

³⁰ See the OECD principle of 1972 at page 9/49

³¹ "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.

³²Eng. Irene Muloni, the former Minister for Energy and Mineral Development on Jan 22, 2020

International oil alert emphasizes that Oil development can bring great benefits, but it also comes with great risks to the environment as has been seen in oil development zones from the Gulf of Mexico to the Niger Delta. The significance of these risks cannot be overstated, and it is critical that Uganda's legislative framework puts laws in place that will ensure that these risks are minimized. Most of the current foreign exchange earnings and livelihoods come from industries that rely directly on the environment.

If oil development is undertaken in a way that compromises the natural endowment of Uganda, the short-term gains will be more than offset by long-term losses.³³

The PPP imposes liability on a person who pollutes the environment to compensate for the damage caused and return the environment to its original state regardless of the intent in **The Indian supreme court in the case of Indian Council for Enviro legal Action V Union of India**³⁴ the court held that once the activity carried on is hazardous or inherently dangerous , the person carrying on such activity is liable to make good of the loss caused to any other person by his activity irrespective of the fact whether he took reasonable steps or care while carrying on his activities . This is premised upon the very nature of the activity carried on. The concept here is that the environment and its components have the rights to co-exist while the human beings in it also have the right to a clean and healthy environment and yet in return every person has a duty to create, maintain and enhance the environment, including the duty to prevent and avoid causing pollution.³⁵

With specific reference to the oil and gas sector, the State that owns the resources should be able to promote and implement energy policies that will ensure that people's basic needs and those of environmental preservation are met.³⁶ Whereas Section 78³⁷ Prohibits pollution and that any person shall not cause pollution or initiate anything that may occasion a risk of pollution and such persons responsible for the pollution shall take the necessary action to stop further pollution and minimize the impacts of the pollution on human health and the

³³ International oil Alert , Oil and Gas laws in Uganda: a legislators' Guide 37

³⁴ 1996(3) SCC 212

³⁵ See Article 39 of the 1995 constitution of the Republic of Uganda as amended, see section 3 & 78 of the National Environment Act 2019

³⁶ See Objective 27 of the 1995 constitution of the republic of Uganda as amended.

³⁷ National Environment Act 2019 laws of Uganda

environment hence the PPP.

Strict Liability of the polluter for damage caused by pollution as under section 80³⁸ such that a person who pollutes the environment contrary to the Act or any other applicable law is strictly liable for any damage caused to human health or the environment, regardless of fault is strictly liable for such damage as well as a person who does an act or makes an omission that may aggravate the damage or nuisance caused by earlier pollution is equally and jointly responsible for the pollution ,this is the basis of the PPP.

The States are further enjoined to develop national law regarding liability and compensation for the victims of pollution and other environmental damage.³⁹ The National authorities should endeavour to promote the internalization of environmental costs and the use of economic instruments, taking into account the approach that the polluter should, in principle, bear the cost of pollution, with due regard to the public interest and without distorting international trade and investment.⁴⁰

1.3 Conceptual framework.

A conceptual framework helps to postulate or hypothesize and test certain relationships which improve the understanding of the situation.⁴¹ In the conceptual framework below. The researcher analyses the effectiveness of the PPP in protecting the environment from the dangers resulting from Uganda's oil and gas industry. As indicated, Uganda faced challenges of environmental protection because of the upcoming oil and gas production activities.

However, it's important to acknowledge that there is a relationship between efficacy of the PPP which also involves deterrence of pollution, prevention of pollution , presentation of damage to the environment , polluter bearing the costs , mitigation of damages, compensation and its ability to protect the environment from the dangerous activities in Uganda's oil and gas

³⁸ Ibid

³⁹ Principle 13 of the Rio Declaration of 1972

⁴⁰ Principle 16 of the Rio Declaration of 1972

⁴¹ Sekaran , u.& R Business Research Methods 2003.

industry which also involves preservation of the environment , Restoration , penalties , laws, policies and regulations.

The nature of PPP and the constituent of environmental protection from activities of oil and gas sector are determined by the policies, legal framework in place at any given time and the provisions of the different petroleum laws, environmental laws and regulations.

Mugenda and Mugenda⁴² view a conceptual framework as an hypothesized model identifying the model under study and the relationship between the dependent and independent variables. They invent them and then try by reality testing to see if the relationships actually work out that way.⁴³ Dependent variable is defined as a variable that is measured, predicted, or otherwise monitored and is expected to be affected by manipulation of an independent variable.⁴⁴ While an independent variable is defined as a variable that is manipulated by the dependent variables.

The conceptual framework identifies the variable in the study as effectiveness of PPP 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. Looking at this topic in question, it portrays that an effective compliance and implementation of the Principle mechanism in Uganda's Oil and Gas industry will be dependent on how best this policy has been adopted in the regulations and policies in place. This is to ensure that issues relating to environmental protection as best represented in the Oil and Gas industry in Uganda especially through the environmental principle in question.

The laws and regulations are broken down into the petroleum (Exploration, Development and Production) Act 2013(PEDPA), The Petroleum (Refining, Conservation, Transmission and Midstream Storage) Act 2013, Access to Information Act, 2005. The occupational safety and health Act of 2006,(OSHA) the National Environmental Act of 2019(NEA), the National Environmental Management Act and their regulations thereof. Being guided by the 1995 constitution of the Republic of Uganda as amended.

⁴² Mugenda, O. M., & Mugenda, A. G. (2003). *Research methods: Quantitative and Qualitative Approaches*. Nairobi-Kenya: Acts Press.

⁴³ Ibid

⁴⁴ Cooper, P. R. & Schindler, P.S. (2011). *Business research methods*. New York: Wiley.

These were reviewed and analysed on how best they have been adopted and promulgated the PPP as a mechanism of protecting the environment from oil and gas activities there by demonstrating how effective this aspect is handled in industry at large. With good and effective implementation framework of the Polluter Pays Principle it's possible to have one best industrial compliance practice especially where the monitoring and implementation drivers for such policies are on right truck. This can lead to protection of the environment from dangers posed by the activities of the oil and gas industry in Uganda.

In the above conceptual framework, applying the PPP is a good factor principle since it's been evident that the Oil and Gas sector releases lots of pollutants to the environment so as to control or mitigate the effects of the pollution on the environment,

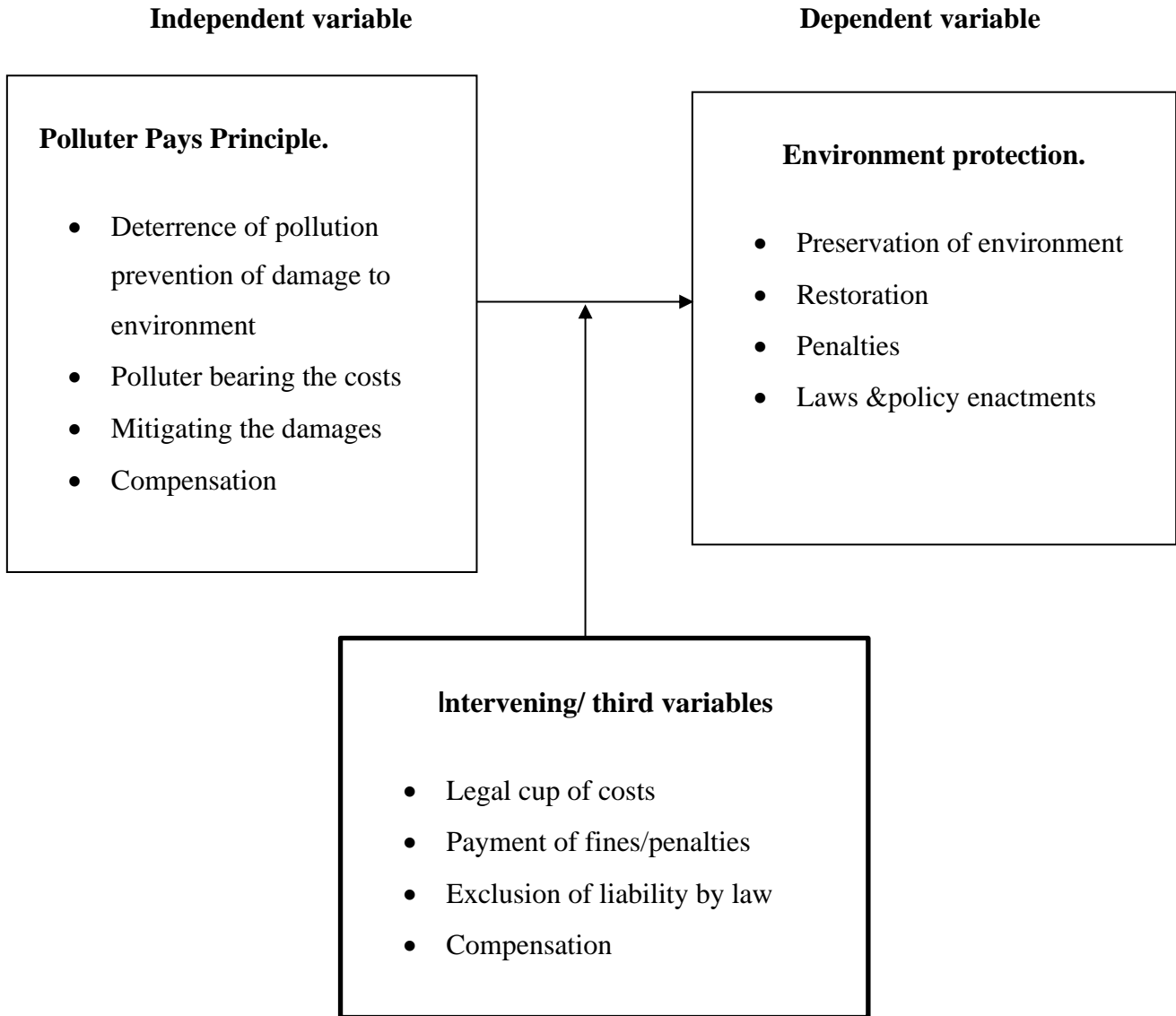
At this point also the agency implementing the principle should be well equipped to be able to quantify the damages caused as well as attached the liability to the polluter who should be made to adequately pay for it. Failure of so doing implies that the environment will never be adequately restored to its original position hence a very harmful environment it will be to live in for both plants & animals and the humans.

It is also important to acknowledge the fact that other factors like imposing Penalties, Imprisonment, mitigation, implementing laws and policies also play very important role in fighting pollution. Second to this is the authority where practicable should engage the use of incentives, such as commercializing solid wastes that would instead cause pollution in to a more useful product, as well as sensitizing and training the household and industries on how to manage their wastes.

The researcher conceptualized that in a bid for the authority to properly sustain pollution from the oil and gas sector, the authority through the long arm of the law and policy directive should use the PPP to control or mitigate pollution from the sector and if the above issues are implemented, then the rates of pollution from the sector will be at a reduced manageable level. However to come to a fulfilment of this , there should be political will to allocate funds to abate pollution generally despite the polluter paying for the costs attributed to them. The lack of commitment from institutional structure to implement the laws and policies being one of the major factors that hinder the perceived ideas from working as planned.

Conceptual framework showing the relationship between PPP and environmental protection in the oil and gas industry.

1.3 Conceptual framework structure.



The framework suggests that PPP has an effect as a mechanism of environmental protection in the Oil and Gas sector. It shows how effective PPP as an independent variable and environmental protection as the dependent variable. This Principle is characterized by deterrence of pollution, prevention of damage to the environment, polluter bearing the costs, mitigating the damages and compensation tax and how these tools can be used as a mechanism for protecting the environments from threats posed by activities of oil and gas industry and these are affected by the environmental protection laws and policies put in place with moderating variables of payments such as , compensation , mitigation and restoration and

implementation of the laws and policies.

1.3.1. Contextual Perspective

Uganda like many other countries in the world is also experiencing adverse climatic changes as a result of pollution from the various human activities being one of the causes, despite the existence of the PPP in our legislations, this environmental degradation is because Uganda's economy is heavily dependent on the environment and natural resources whereby 90% of Uganda's populations make a living from the environmental resources making the human activities very heavy on the environment, also development endeavours that is heavily dependent on the environment has as well significant implications on the quality of the environment.⁴⁵

The status of environmental pollution has reached a critical stage, evidence has shown that world over, the emissions from oil and gas operations today that is the Indirect greenhouse gas emissions from oil and gas operations, including both carbon dioxide and methane emissions, are around 5200 million tons of carbon-dioxide equivalent, around 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.⁴⁶

The oil and gas industry is the largest source of greenhouse gas emissions in Norway, and one of the largest sources of emissions of acidifying substances. The discharges of environmentally harmful chemicals are however rather small.⁴⁷

1.4. Problem Statement:

The oil and gas industries are known to release a lot of pollutants from the early stages of exploitation onwards and because of this, there is an onset need to control this pollution the rate of pollution caused by this sector is usually very high and this has caused a lot of threats

⁴⁵ see Assessment of environment pollution in the Republic of Uganda report ed in 2009 by the ministry of water and environment

⁴⁶ The world energy outlook 2018, gold standard energy analysis

⁴⁷ Published on the 17th /7/2016 by the Norwegi Environment Agency

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, USA and UK.

Equally problematic is failure of the law to provide for clear evaluation of the consequences of uncontrolled or negligent pollutions, effective sanctions for non-compliance by the oil companies, monitoring, and enforcement and implementation mechanisms for Oil and Gas pollution abatement. A major problem with petroleum activities in Uganda is that the regulatory institutions to control pollution and other associated problems are not well catered for in the law. The existing legal framework on environmental management is not very clear of key issues like when to hold the polluter liable, how much should be paid to abate such pollution, just like the implementing bodies like the NEMA are not well empowered by the law to take care of this problem.

Therefore, from the onset there should be in place the policies, legal framework and institutional framework well empowered to ensure efficient applicability of the PPP so as to mitigate these risks on the environment. The pay must be seen to be sufficient enough to restore the environment to the required standard and for this to happen the implementers of the principle should be seen to do that is required to hold the polluter fully liable to restore the environment to the standard.

This research paper is to assess the improved applicability of the PPP and how it has and will be used to ensure environmental health and safety in a more effective manner.

1.5. Significance of the study.

The study helped the Researchers to articulate pertinent problems regarding the application of the PPP and its effectiveness in combatting pollution caused by Uganda's oil and gas sector. By looking at the development of effective compliance mechanism with this principle as a way of protecting the environment from oil spills and other forms of pollution through holding the polluter accountable in form of taking care of their pollution.

With this study, this research was found out the forms of pollution that are caused as a result of paying for the damage he has caused to the environment. of petroleum exploration and exploitation activities, exposes the polluters to liability for their actions that caused that pollution and the best possible mechanisms the polluters can best abate the situation.

The researcher was able to add value to what has been put across in the research and was able to identify other key issues crucial to note and help the already existing policy aspects meant

to develop a reasonable compliance mechanism of the PPP. This has help to create more potential ideas in the years to come as the oil and gas industry of Uganda keeps developing

The Study will help the government to understand the loopholes in the efficacy mechanism with the PPP in Uganda's Oil and Gas Sector and how to improve its effectiveness. The findings of this study will be helpful in generating practical knowledge in the environmental protection, health and safety during oil exploration and production in Oil and Gas sector compliance with environmental principles. In turn it would assist policy makers and implementers in designing more meaningful interventions strategies that would enhance better implementation and compliance standards with PPP in protecting the environment from dangers posed by oil and gas industry.

The study helped the Researchers to articulate pertinent problems that are hindering the development of effective mechanism of implementing PPP in the Oil and Gas sector in Uganda. With this study, the researcher was able to add value to what has been put across in the research and be able to identify other key issues crucial to note and help the already existing policy aspects meant to develop a reasonable compliance mechanism for protection of the environment for example the principle examined in question.

1.6. Justification for carrying out the research

Pollution is not a new phenomenon in Uganda or even to the whole world at large. That must have started with the world in the age of evolution, Uganda is one of the countries that have enacted laws and policies for liability of polluters which is traceable back from the 1995 Constitution of the republic of Uganda, The National Environment Act 2019, the Current Petroleum laws 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's 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 as stipulated under the formal millennium goals of UN of sustainable development initiatives. Pollution is more prevalent in areas with much human activities like industrialization as well as petroleum activities which in return affect both the onshore and offshore environments.

Despite the application of the PPP, 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

endangered despite the various efforts made by responsible authorities. Much as the laws provide for the liabilities of the polluters but the lead agencies have tried to implement the principle despite the fact that 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 to adhere the issues of environmental principle inform of application of the PPP and why it has failed over time earlier.

17. Objectives of the study

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

1.7.1. General objectives

To explore and examine the effectiveness of the PPP in protecting the environment against the dangerous activities of Uganda's oil and gas sector.

1.7.2. Specific objectives.

1. To examine the comprehensiveness of the PPP in protecting and preserving the environment from pollution arising from the exploitation of oil and gas in the Albertine region of Uganda
2. To analyse the effectiveness of evaluating oil and gas proposed activities as a step measure of protecting the environment from pollution arising from the sector.

1.8. Research Questions.

1. What is the effectiveness of the PPP in protecting the environment from pollution arising from the oil and gas sector in Uganda?
2. How effective is the process of evaluating the proposed oil and gas activities as a step to protecting the environment from pollution arising from the sector?

1.9 Research Scope.

The scope of the study is divided into three perspectives and this includes content, Time and Geographical scope.

1.9.1. Geographical scope

This study will be carried out in Uganda because the study will focus on Uganda as country in terms of assessing its oil and Gas industry. Uganda is found in East Africa boarded by Kenya in the East, Tanzania in the south, and D.R Congo in the west, South Sudan in the North and Rwanda in the south Western part of East Africa. It located in the heart of Africa in the central sub-Saharan region of Africa. It's Oil and Gas fields are located near the part of Uganda bordering D.R. Congo.

It is reported that Uganda has a population of about 42 million people as according UBOS 2018 estimates in its statistics.⁴⁸ The report indicated that most of the Ugandans youth about 80% are unemployed there by creating a need for more investments as a way of creating more jobs for the youth through encouraging more investments in the oil and gas sector.

1.9.2. Time Scope.

This study will span for a period of 10 years considering the time period from the year 2009 to 2019. This period was used because of the availability of good quality and reliable data relevant to the topic under investigation, there were many changes that were made in regard to the efficacy of the PPP in the protection of the environment from activities of oil and gas industry.⁴⁹

This time frame will help the researcher to analyses the efficacy of the PPP in the protection of the environment from dangerous activities of oil and gas industry and to study how Uganda has complied with such regulations in the oil and gas industry of Uganda today as a lee way of protecting the environment and ensuring international safety compliance with the environmental regulations in the oil and gas industry of Uganda

The study will rely on information obtained from 2009 when significant environmental laws and policies regarding oil and gas industry were enacted. The major legislation occurred in 2013 when the petroleum (Exploration, Development and Production) were enacted. In 2019 the new National Environment Act of 2019 came into force which incorporates the Polluter Pays Principles and principles of environmental protection from the activities of the oil and gas

⁴⁸ Uganda Bureau of statistics Report of 2019 on the pollution demographics in Uganda.

⁴⁹ oil in uganda < <https://www.oxfordinstituteeforenergystudies.org> > accessed on 26th December, 2019

industry.

1.9.3. Content Scope.

The study will aim at looking at the efficacy 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. 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 focus of this study is the oil and gas industry and the environment protection from its pollution in the Republic of Uganda. It is limited to the efficacy of PPP in protecting Uganda's environment against hazardous oil and gas extraction activities.

It reviews the characteristics of an ideal PPP as a mechanism for protecting the environment from dangers posed by oil and gas industry and the extent to which it is incorporated into Uganda's environmental legal regime. The oil content 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 oil⁵¹.

1.10 Theoretical Background.

The PPP is formed by three theories of which deal with cost allocation, cost internalization, and legal liability. Scholars disagree as to whether the PPP addresses cost allocation in addition to deciding the magnitude of the costs to be allocated to the polluter⁵²

1.11 The Deterrence Theory

The PPP will be formed by deterrence theory. Deterrence entails 'the act of making someone decide not to do something, the act of preventing a particular act or behaviour from

⁵⁰ oil in Uganda < <https://www.oxfordinstituteforenergystudies.org> > accessed on 26th December, 2019

⁵¹ oil in Uganda < <https://www.oxfordinstituteforenergystudies.org> > accessed on 26th December, 2019

⁵² 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).

happening'.⁵³ Deterrence is not a new idea.⁵⁴ It is an idea that has been discussed in academic writings since the 18th century.⁵⁵ Deterrence theory postulates that people will commit a crime if it gratifies them and the experience of crime is beneficial.⁵⁶

The theory 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.⁵⁷ Therefore, individuals will 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 at its highest in places where offending brings the most pleasure.⁵⁸ Deterrence therefore in this sense 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.'⁵⁹

There are two main theories of deterrence namely: (1). General Deterrence and (2). Specific Deterrence. General deterrence is said to occur in a situation when we punish an offender so that other people do not go into the crime.⁶⁰ Thus, an example is made of offenders so that other people in the society can see that crime does not pay. An important point to note about general deterrence is that, its effects are potentially general in the sense that if this deterrence works, it is a very efficient and cost-effective way of controlling crime.⁶¹

34 Merriam Webster Dictionary, 'Deterrence' <http://www.merriam-webster.com/dictionary/deterrence> accessed 10th January 2020.

35 Aaron Chalfin and Justin McCrary, 'Criminal Deterrence: A Review of the Literature', (2014) http://eml.berkeley.edu/~imccrary/chalfm_mccrary2014.pdf accessed 20th January, 2014.

36 Ibid.

37 Daniel Nagin, 'Deterrence: Scaring Offenders Straight' http://www.sagepub.com/upm-data/40354_4.pdf accessed 10th January 2020.

38 Ibid.

39 Ibid.

40 Ibid.

41 Ibid.

42 Ibid.

A limited number of offenders are punished here so that a whole lot of other potential offenders are persuaded not to break the law.⁶² Specific deterrence (also sometimes called special deterrence) on the other hand, is when the deterrence effect is specific to the individual being punished.⁶³ For example, ‘Ade’ is punished so that Ade will not repeat the crime. Thus, the deterrent effect is specific to Ade who is being punished.⁶⁴

In relation to oil and gas pollution cases, it is submitted that the two theories of deterrence identified above should be considered when utilising the polluter-pays principle to impose liability in the prevention and control of oil and gas pollution in Uganda. The reasoning behind this submission is that after examining the essence of the PPP, one can safely conclude that in order to have an effective principle, both the individual and the group of individuals involved in oil and gas pollution for example through oil spill and gas flaring cases need to be deterred so that others can learn from their mistakes.

The deterrence principle is based on the ‘result 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).’⁶⁵ This denotes that when potential polluters is aware that they have to pay certain amount of money as damages for their actions, they hesitate from engaging 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 direct. The reason for this is that several factors often influence events that result into oil spills negligently or accidentally. These factors are not normally due to actions of the individuals or companies involved. This is not the case with deliberate oil spills such as deliberate destruction of pipelines during a war, sabotage or pipeline

43 Ibid.

44 Ibid.

45 The deterrent effect here is personal to the person being punished.

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

47 Adedayo Ojo, ‘Bonga, Endeavour & Macondo’ <<http://africaoilgasreport.com/2012/05/opinion/bonga-endeavour-macondo/>> accessed 5th December, 2019.

vandalization.

In some other cases, events that lead to the major oil spills are caused as a result of accidents, which are not predictable. Negligence or the quest of oil executives to get the job done at all cost is one of the main reasons behind oil spills. Examples of oil spill incidents in Nigeria include: Bonga (2011)⁶⁶. GOCON's Escarvous (1978); Idoho (1998).

Shell Petroleum Development Company (SPDC)'s Forcados Terminal (1978); and Texaco Funiwa 5-Blowout (1980)⁶⁷. Popular foreign oil spill events include: Torrey Canyon, United Kingdom (1967); Amoco Cadiz, France (1978); Exxon Valdez, United States (1990); Sea Empress, United Kingdom (1996); the Ekofisk Field, Norway (1977); Ixtoc I, Mexico (1979) and the Deep water Horizon, United State

Oil spill incidents can either be caused negligently or by accidents. Oil companies and vessel owners can be deterred from carrying out deliberate spills when they know that the consequences of their actions will result in heavy fines and punitive actions being taken against them. Thus, other companies in return would be forced to review their oil spill response capabilities in order to avoid falling into the trap of being caught-up in the high cost of responding to an oil spill disaster in the future. This may also make companies intending to go into new frontiers such as the arctic region, to rethink their steps or brace up financially and technologically in order to meet up with the challenges of exploring those new frontiers so as to avoid oil spills.

In summary, it can be indicated that for oil spills to be deterred in the future by deterrence theory, the PPP must be strengthened if it should be an efficient deterrent tool in preventing oil spills from the sector. there is need for liability caps⁶⁸ this is also relevant here. The

48 Peter C. Nwilo and Olusegun T. Badejo, 'Impacts and Management of Oil Spill Pollution along the

49 Nigerian Coastal Areas' <<https://www.fig.net/pub/figpub/pub36/chapters/chapter 8.pdf>> accessed 3 December 2019.

50 liability cap or financial cap limits the liability of the responsible party to a stipulated amount.

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

52 Barisere Konne, 'Inadequate Monitoring and Enforcement in the Nigerian Oil Industry: The Case of Shell and Ogoni Land' (2014) 47 Cornell International Law Journal 196.

argument here is that there should be unlimited liability regime in place in oil spill cases if the PPP is to be applied efficiently, however with this a counter-argument may be put forward in support of financial caps or liability cap is that unlimited liability would increase the operating costs for ship owners and operators. as well as making the business environment in which oil companies operate to be difficult therefore hindering normal business.

However, whichever way one looks at it, it has been observed that:

“To achieve appropriate deterrence, injurers, 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 give a 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.”⁶⁹

In essence, wherever the PPP is inserted or utilised, especially in cases related to oil spills, it must seek to achieve its aim- to make the responsible party bear responsibility for his actions.

The Principle is also informed and guided by the Attribution theory, the Polluter Pays Principle has been greatly explained by the Attribution theory, it was propagated by Pigou.⁷⁰ The theory proposes that the damages caused by pollution as a result of someone’s activities should be attributed to the causer of the pollution, the assumption behind the theory is that the environment will be better protected if those who cause such harm to the environment are made liable by attributing the costs of the damages to them and that in such a way the behaviour of the would be causers of pollution will be more restricted with regard to polluting the environment because of the fear to be held liable to it.

50 United Nations Environment Programme (UNEP), ‘Environmental Assessment of Ogoniland:

⁷⁰ Raja, M.Y. “Economic Approaches in Addressing Environmental Issues” Cover Feature, Malaysia Government Annual Bulletin, *Ingenieur* Page 19, Pigovian tax refers to taxes suggested by A.C. Pigou, (the author of *The Economics of Welfare*, referred to above)

In reality anything attributed to the pollution must be borne by the polluter themselves, in terms of paying for the cost of damage done by their activities that affected the environment.

The theory is very practical to the principle because ideally any Person who does a particular wrong should be made liable for their bad action by attaching such wrongs to them with evidence showing that the bad act has been done by the polluter, this is what we refer to as attributing the pollution to the polluter. Furthermore, because environmental resources are in general limited and their use in production and consumption activities may lead to their deterioration, when the cost of this deterioration is not adequately taken into account in the price system, the then market fails to reflect the scarcity of such resources both at the national and international levels which in turn affects the intergeneration equity.

Public measures are thus necessary to reduce pollution and to reach a better allocation of resources by ensuring that prices of goods depending on the quality and/or quantity of environmental resources reflect more closely their relative scarcity.⁷¹ 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.

Prior to the PPP, there was no perceived need to internalize the costs of environmental harm because natural resources were considered free goods, pollution emissions were thought to have negligible negative effects, and the environment was not valued at all, there was also no legal or economic bases developed to allocate the costs of clean-up because the oceans and atmosphere were seen as inexhaustible sponges for humanity's waste. Little or no thought went into the need to protect the environment until people started economically valuing the environment⁷² and as such these forms part of the rationale for the PPP.

1.12. This Research is structured into six chapters.

Chapter one introduced the study. It presents an overview of the background, Historical, Theoretical, Conceptual, Contextual perspectives of the study, statement of the problem, justification of the study, Objectives of the study, Research Questions, Significance of the

⁷¹ See the OECD principle 1972 at page 13/49

⁷² See analyzing the polluter pays principle through law and economics by Boris N. Mamlyuk

study, Scope of the study, a summary of the chapter, Research methodology, Limitations, and the structure of the Research.

Chapter Two: Literature Review; This section reviewed existing literature on PPP, what makes the 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 PPP 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; look at the Nigerian application of the principle .This part also presents an analytical overview of PPP in regard to environmental protection and its implementations in oil and gas sector.

Chapter 3: Country Outlook —Uganda (Case Study); this section delivers the legal regime of PPP and other environmental principles, legal framework in principle to guard against environmental pollution from oil and gas industry, comparison with other countries , implementation of the Principle, personal concerns with implementation , institutional framework , national legal and policy framework, hindrance of the 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 4: Methodology; this part looks at the research methodology, bringing out the research design, study population, research instruments, data sources, ways of analysing data and research ethical considerations.

Chapter 5: Data analysis and presentation; this analyses the questionnaire and interview response rates. It also presents an analysis of the main findings of the study including the interpretation and discussion thereof.

Chapter 6: Conclusions and Recommendations; this section presents the summary of findings, limitations of the study, possible recommendations as well as outlines areas for future research.

1.13. Limitations of the Study

The study was hampered by insufficient published literature in the field of oil and gas exploration and production in the Uganda's perspective, particularly on the subject of PPP as a mechanism of protecting the environment from threats posed by oil and gas sector. This is

because of the political nature of the oil resource; some data could not be accessed not because it did not exist but because those holding it fear for their safety and also because the sector is just kick-starting in Uganda with limited data facts for discussion. Because of the technical nature of the processes and activities, even some of the relevant present literature was difficult to contextualize by the researcher whose skills were still developing. This is made worse by the culture of secrecy by most government and operator offices which have the potential of hampering the study due to the reluctance to release some the relevant information.

CHAPTER TWO: LITERATURE REVIEW

2.0. Introduction

This section provides an overview of previous research on the laws governing oil and gas with regard to the issue of pollution arising from the sector. Literature review raised the opportunities for articulating a critical analysis of the actual “meaning” of the data collected.

A range of secondary data sources served as the key bibliographic tools for identifying relevant work for review. The most significant of these was the Network information. Relevant publications were found in the literature of a number of academic realms including newspapers, journals, books and existing policies, laws and regulations. Most of these publications take the form of research papers.

The PPP is the commonly accepted practice that those that produce pollutants must bear the costs of managing it by preventing damage to the human health or the environment. This principle underpins most of the regulation of pollution affecting land, water and Air. Globally the PPP is a part of a broader principles used in guiding sustainable development worldwide.⁷³ In 2012, the world health organisation estimated that 12% of the global death is caused by air pollution and when it comes to the oil and gas industry, the effects are enormous with the potential of causing an environmental disaster.⁷⁴

Oil spill is a major source of pollution to water, air and land in the surrounding environment making the health and homes of people leaving around the area of the spills are in advance affected by the activity. 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, so much so in the local context.

2.1. Relationship between the PPP and Oil and gas pollution

From the discussion so far as above, it is evident that there is a link between the PPP and

⁷³ 1992 Rio Declaration principle 16.

⁷⁴ UNEP, Environmental Management in Oil and Gas Exploration and Production: An Overview of Issues and Management Approaches (UNEP Technical Publication) (1997)

pollution forms from the sector.⁷⁵ The link between both is one that can easily be identifiable. Both concepts relate at the point of liability. That is, they meet at the point where the polluter has been identified and is considered liable for actions of pollution committed against the environment. The PPP functions after the happening of an oil spill, the principle becomes relevant after an oil spill occurs or oil and gas pollution occurs.⁷⁶

Kenneth Kakuru notes that a lot has been written about PPP as a mechanism of pollution prevention and abatement, he however says that more interest and attention should be given to its implementation and enforcements for a better results, the strong link between the PPP and the oil and gas pollution is the Implementation of the principle which will therefore prevent the pollution releases, it is important to put more attention on implementation and enforcement of the principle if Uganda should see good results on pollution prevention, however the researchers adds that besides implementation and enforcement, there must be strong empowerment of the implementing bodies by the laws as well as there should be adequate assessments of the pollution costs by the implementing body if environmental restoration must be achieved.⁷⁷

The PPP aids to point out who bears responsibility when oil and gas pollution occur. While the Oil and gas pollution acts as a connection between the PPP and oil and gas pollution. Oil spills and gas flaring leads to pollution while the PPP identifies the responsible party that caused the activities led to the pollution and make them liable for causing such pollution.⁷⁸

2.2. Prevention of Oil Spills in the Future by the PPP:

The subject of the analysis here deals with the -important issue whether the PPP would deter oil and gas pollutions from happening. From the discussion so far, especially about the nature of the PPP, the conclusion is that the PPP at its present state, cannot act as a deterrent to oil pollution in the future unless when certain steps are taken to make the principle more efficient in acting as a deterrent to pollution from the sector. A critical look at prominent oil spill

⁷⁵ 1992 Rio Declaration principle 16.

⁷⁶ M Polinsky and S Shavell, Punitive Damages: An Economic Analysis (1998) 3 Harvard Law Review

⁷⁷ Kenneth Kakuru, a Hand book on Environmental law Volume 11 at page 81

⁷⁸ Ibid 81

incidents will also indicate that the existence of the principle does not deter oil spills from happening.⁷⁹

International Oil Alert⁸⁰ also noted that there is need for legislative details in the local laws on how to cover the environmental risks, industry practices and potential issues such as oil pollution; proper pipeline construction and pipeline leaks; drilling technologies that prevent water and soil contamination; control of adverse effects of oil and gas spills to the atmosphere in order to guarantee sustainability of the oil sector.⁸¹ When we look at the local petroleum laws, they lack details' and clarity on such critical issues like how the pollution will be attributed to the polluter, what mode of assessment of damage should be used so as to arrive at the actual pollution costs yet it goes on under section 132(2) ⁸²exempting third parties who may have acted negligently in their dealing with the licensee from liability entirely without a mention of reverting then such liability to the licensee themselves.

The question here is as regards oil pollution 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 also far from being direct because we have seen the rates of pollution in Uganda and other countries like Nigeria is still high despite the heavy damages paid by the polluters after liability is attributed to them. The reason is that several factors often influence events that result into oil and gas pollution and as such there is need to manage these factors jointly and effectively through stronger enforcement policies⁸³.

According to Global Witness again⁸⁴, the laws lacked effective transparency and accountability

⁷⁹ M Polinsky and S Shavell, 'Punitive Damages: An Economic Analysis' (1998) 3 Harvard Law Review 877.

⁸⁰ Oil and Gas laws in Uganda: a legislators' Guide 37

⁸¹ International Alert; Oil and Gas Laws in Uganda: A Legislators' Guide, Available at <<http://www.international-alert.org/sites/default/files/publications/18-oil-web.pdf>>. Accessed on 20/2/18.

⁸² Petroleum (Exploration, Development and Production) Act 2013

⁸³ Adedayo Ojo, 'Bonga, Endeavour & Macondo' <<http://africaoilgasreport.com/2012/05/opinion/bonga-endeavour-macondo/>> accessed 8th January 2020.

⁸⁴ Global Witness; Uganda's Petroleum Legislation: Safeguarding the Sector February 2012, Available at <https://www.globalwitness.org/.../29_02_12_GW_Analysis_of_the_Petroleum_Laws, Accessed on 21 February 2018.

especially because the role of the parliament of Uganda was effectively missing in the Act which grants all the powers including on pollution control to the line minister which is the decentralized to the PAU and NOC. The provisions on availability of information are inadequate because of commercial confidentiality clauses which were designed to maintain much secrecy. Further, that the law did not oblige the Minister to make information available which meant that information is not necessarily public.

2.2.1. The Polluter Pays Principle

The PPP seek to maintain a balance between development and the preservation of a healthy environment meant for both the present and future generations, as well as the allocation of liability to the polluter who will be made to adequately pay for the damages cause to the environment,⁸⁵ PPP focuses more on the allocation of liability and attribution of the costs to the polluter and then the implementers should enforce the liability and payment of such costs.

The principle envisions 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 adopted by the state to eliminate, reduce and treat the polluters' emissions. The PPP also enables the state to charge the cost of rectifying environmental damage to the relevant polluter, provided that the polluter can be identified.⁸⁶

The Organisation for Economic Cooperation and Development (OECD)⁸⁷ guiding principles defines the PPP 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.⁸⁸ From the OECD definition, four key issues emerge:

⁸⁵ S Wolf and N Stanley, Wolf and Stanley on Environmental Law (5th edn Routledge 2011) 14.

⁸⁶ Ibid 88

⁸⁷ Organization for Economic Cooperation and Development (OECD). Environment Directorate, Paris France (2006) "Extended Producer Responsibility." Project Fact Sheet. A group of 24 Industrialized Countries plus the European Union and Yugoslavia which has special status.

⁸⁸OECD, 1989 Recommendation of the Council concerning the application of the Polluter Pays Principles to Accidental pollution.

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.⁸⁹ It 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, the Pollution caused must be identifiable in nature.⁹⁰ This is necessary to prove that the polluter is responsible for that resulting pollution and there must be a damage that must be compensated.⁹¹ The damage caused must be real and identifiable as compensable under a compensatory regime provided by the relevant laws. The current Petroleum laws are very silent on this, while the researcher notes it's a critical area to be seen with importance and its why the pollution rate is high while there is applicability of the PPP, the costs attributed to these polluters seems insufficient for reasons such as improper assessment by the concerned bodies, non-attribution of these costs to the polluters.

The PPP gained international momentum in 1992, at the United Nations Convention on Environment and Development (the Earth Summit) the Rio Declaration. Principle 16 of the Rio Declaration states:

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

The principle can also be described using a fairness argument, as it is only fair that the polluter pays the costs for the pollution which they have caused or contributed to and not leaving such costs to be borne by a non-contributing party. Making polluters to bear the costs of their polluting activities not only appeals directly to our sense of justice, but it also enhances

⁸⁹J Thorton and S Beckwith, Environmental Law (2nd ed Sweet & Maxwell 2004) 14.

⁹⁰T Okenabirhie, 'Polluter Pays Principle in the Nigerian Oil and Gas Industry:

Rhetorics 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 December 20th, 2019

⁹¹ Ibid 94

economic efficiency.⁹²

While it could be argued that the costs of these activities should be covered by government budgets, the fairness aspect of the PPP suggests that the polluter, due to his responsibility for the pollution, should bear these costs. Philippe Sands⁹³ argues that it seems clear from the wording of the Polluter Pays Principle that it would be used to make the polluter pay for the costs incurred by public authorities for pollution prevention and control.⁹⁴ This appeal to our sense of justice is why the PPP has come to resonate so strongly with both policy makers and the public. Thus, for an effective application, the Principle must answer the following questions among others. How do we define pollution and therefore a polluter? How much should the polluter pay once is identified? And to whom should the payment be made?⁹⁵

2.2.2. Who is a Polluter?

The polluter is any person, Company or Organisation who emits or whose action emits poisonous and hazardous substances into the environment. Pollution is any by-product of a production or consumption process that harms the environment or otherwise violates the environmental rights of others. In this regard, the polluter would be the person, company, or other organization whose activities are generating that by-product.⁹⁶

Thus, a polluter is literally the person that pollutes the atmosphere causing environmental damage. For example, the 1992 International Convention on Civil Liability for Oil Pollution Damage⁹⁷ makes the ship owner at the time of the incident, liable for pollution damage caused

⁹² Park, D.P. Energy Law and the Environment. Taylor and Francis 2002 p.16

⁹³ Phillip Sands on Pollution control

⁹⁴ Sands, Phillippe, Principles of International Environmental Law, 2nd edition 2003, Cambridge University Press, p. 285

⁹⁵ Roy E. Cordate, "The Polluter Pays Principle: A Proper Guide for Environmental Policy" Institute for Research on the Economics of Taxation Studies in Social Cost, Regulation, and the Environment: No. 6

⁹⁶ See the interpretation section of the National environment Act 2019

⁹⁷ Originally the 1969 International Convention on Civil Liability for Oil Pollution Damage (the 1969 CLC)

on the territory or territorial sea of a contracting party as a result of discharges from ships,⁹⁸ subject to three exceptions as follows:⁹⁹

That the ship owner must prove that the damage from the pollution did result from an act of war or natural phenomenon;¹⁰⁰

That the damage was caused by the act or omission of a third party done with intent to cause damage;¹⁰¹ and

That the damage occurred as result of the negligence or other wrongful act of any government or other authority.¹⁰²

Furthermore, the position under the European environmental and safety law generally is that the operator of the installation in particular bears the liabilities and obligations.¹⁰³ However, the terms of a petroleum licence for offshore oil and gas installations in the United Kingdom makes liability of the parties involved joint and several.¹⁰⁴

This is so because in the absence of express statutory provisions, it is sometimes difficult to determine the appropriate person(s) to be regarded as the polluter.

2.2.3. When Does Pollution Occur?

There are two possible interpretations of the question of when pollution occurs¹⁰⁵. First, pollution can be said to have occurred when a set threshold value has been exceeded. Thus,

⁹⁸ Article 1 (6) (a) of the 1992 Civil Liability Convention (CLC) explains this further to mean ‘loss or damage caused outside the ship by contamination resulting from the escape or discharge of oil from the ship, ...’.

⁹⁹ Articles II and III Convention on Civil Liability for Oil Pollution Damage

¹⁰⁰ Article III (2) (a) Ibid

¹⁰¹ Article III (2) (b)

¹⁰² Article III (2) (c).

¹⁰³ S Shergold, D Beggs and S Boileau, ‘United Kingdom: Incidents at Offshore Facilities- Who is Responsible for Environmental Damage?’ (2010) 6 IELR 179

¹⁰⁴ Ibid 107

¹⁰⁵ 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

any environmental damages arising when the polluter has not exceeded a threshold value will not be subject to liability or charges based on the polluter pay principle. Thus, intervention by relevant authorities, in setting the threshold levels becomes imperative in safeguarding the environment from pollution therefore.

2.2.4. What must the polluter pay?

There is a close nexus between ‘environmental damage’ and ‘environmental cost’¹⁰⁶. Thus, the amount to be paid is often determined by the extent of the damage, as damage and compensation are aimed at returning the victim as much as possible to the state they would have been 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 opponents¹⁰⁷. A related concern is whether the payment in such cases goes to the government in the form of a tax.¹⁰⁸

The PPP requires that the polluter should bear the costs of that pollution damage or pollution costs imposed on society.¹⁰⁹ By internalising these costs, the polluters 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 for nature. This cost internalisation may have a threefold effect as follows.¹¹⁰

The costs of production may rise and this might lead to a decline in output of the polluting.

Part of the increased cost of production may be passed on to the consumer in the form of higher prices; and

¹⁰⁶Garrett Hardin, "The Tragedy of the Commons," Science, Vol. 162, pp. 124348.

¹⁰⁷ 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

¹⁰⁸ 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

¹⁰⁹ 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

¹¹⁰ 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

The polluter may switch from polluting to less 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.¹¹¹

The payment to be made should equal the damage done and must be made to the affected persons. The Inanimate objects and the environment do not incur costs, people do, thus while the polluting conduct may physically cause damage to property, the reality is that it is the interests of the owners affected¹¹².

Criminal Liability, the liability from oil spills could also be criminal, as for example the imposition of criminal fines under health and environmental regimes following oil spill incidents.¹¹³ Environmental offences can either be fault-based by relying on notions of negligence and nuisance based on strict liability, such as the rule in *Rylands v Fletcher*¹¹⁴. In terms of oil pipelines, liability may be criminal or civil depending on the cause of the spill.

According to David and Pearce,¹¹⁵ among the many misunderstandings about the PPP, two stand out. First, it is thought that polluter pays mean that a manufacturer or provider of the service is perceived as the polluter and hence only that person should pay the costs of clean-up, damage or pollution prevention. A view that the cost must be shared with the consumer appears unfair. The researcher advances a view that that it is manifestly unfair for a consumer to share responsibility for the environmental cost of a manufacturing process for which they hold no pecuniary or other benefits from, except as an end user, who buys such product.

It is thought that transferring the environmental cost to the consumer is unlikely to provide any incentive for the manufacturer to stop pollution and ultimately, does not bear the cost of such pollution, which they transfers to the consumers.

¹¹¹ 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

¹¹²See 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

¹¹³ Ibid 124

¹¹⁴ ¹¹⁴D.W. Pearce, “The Polluter Pay Principle” (supra)

¹¹⁵ Ibid 126

A fair suggestion is that the consumer should receive signals in the market place that the particular product 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 PPP 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 David Pearce tends to reflect the confusion over the purpose of the PPP and shows up in the second concern.¹¹⁶

Second, the PPP is widely thought of as a tax, and therefore acts as a means for generating tax revenues.¹¹⁷ In fact, the PPP is consistent with any means of making the polluter pay, an example is, by setting environmental standards which require expenditure on pollution abatement equipment. However even if the PPP takes the form of a tax, it is an incentive charge which aims to alter behaviour, and not to raise revenues. It will have the effect of raising tax revenues if producers or consumers are locked into existing technologies or products, where they cannot find or are unwilling to embrace ready substitutes.

The PPP acts as an incentive for both the producer and the consumers. for example, the producer can look for the 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 PPP 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.¹¹⁸ 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

¹¹⁶ D.W. Pearce, "The Polluter Pay Principle" (supra)

¹¹⁷ D.W. Pearce, "The Polluter Pay Principle" (supra)

¹¹⁸ D.W. Pearce, "The Polluter Pay Principle" (supra)

eventual complete destruction will occur¹¹⁹.

International oil alert¹²⁰ emphasises that NEMA has to ensure that the principles of environmental management are observed by ensuring that prior environmental assessment of proposed projects that may significantly affect the environment or the use of natural resources ensure that the true and total costs of environmental pollution are borne by the polluter.

The PPP 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 and this is in line with the role of NEMA in environmental protection.

Kazimbazi¹²¹Noted that to achieve a sustainably clean environment, the PPP should be able to hold the polluter liable for the total costs of the pollution caused , while as to apply the PPP effectively , the funds collected for the restoration for the environment should be strictly applied to its use through the implementing agencies. He also noted that the biggest challenges to the efficacy of the PPP is the challenge of monitoring, , evaluation and implementations of the policies by the authorities concerned as well as limited information access regarding the PPP and the laws to it thereto.

The PPP is based on the idea that people should take responsibility for their actions, thus the principle has a basic appeal to our sense of justice and fair play. A person may be required to pay compensation where their action is adjudged to have caused harm to the person or property of another and the amount payable as compensation is related to the monetary value of this damage¹²². The ultimate point being that the tort feisor should provide full restitution for the suffering of the victim. The issue of remedy, that is, the determination of who is to pay and to

¹¹⁹ D.W. Pearce, “The Polluter Pay Principle” (supra)

¹²⁰ Supra

¹²¹ Payment for ecosystem in Uganda, a pathway for environmental conservation in Uganda by Dr Kazimbazi Emmanuel, Associate Professor School of Law Makerere University

¹²² D.W. Pearce, “The Polluter Pay Principle” (supra)

whom such payment should be made is dependent on property rights¹²³. It is therefore necessary to settle first and foremost the issue of entitlements.

In another sense, while people are free to pursue whatever production or consumption patterns they desire, they must however take responsibility for any damage to the person or property of others thereby occasioned. A public policy stance that is guided by a property rights based Polluter Pays Principle would allow businesses to pursue whatever production activities they desire using any techniques they deem most economical so long as the costs of their activities are not thrust upon individual members of the society through invasions of their private properties or on the society at large. If the polluting activities of one-party cause harm to others, then the offending parties must be forced to make reparations¹²⁴.

2.3. Significance of PPP in the protection of the environment against oil spills and gas flaring.

The significance of this principle stems from the fact that it allows the party responsible for the pollution to the environment to take responsibility of their actions since they are the ones who generated the pollution, also for the persons responsible to be charged with the costs of whatever pollution prevention, costs and control measures determined by the public authorities, whether preventive measures, restoration or a combination of both. This was illustrated by the **case of commune de Mesquer V Total France S.A and Another**¹²⁵ the case was on the basis of delivering fuel oil to Italy between Total international ltd and ENEL an Italian Electricity production company, the court reorganise the importance of the principle of PPP in protecting the environment against oil spills. It affirmed that the polluter must be seen to have contributed to the damage done on the environment.

The best case significance of this principle lies in the Gulf oil spill for Canada and the Gulf of Mexico case cited before, where a catastrophic accidents happened in 2010 when large amounts of oil spill over the gulf causing a lot of damage to the environment in which the oil companies

¹²³ D.W. Pearce, “The Polluter Pay Principle” (supra)

¹²⁴ D.W. Pearce, “The Polluter Pay Principle” (supra)

¹²⁵ commune de Mesquer V Total France S.A and Another (2009) ALLER (EC) 525

BP and Exxon Valdez¹²⁶ were required to pay for the damage and clean up restoration costs because of their role in polluting the environment as of the pollution Act.¹²⁷ 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 PPP as a deterrence mechanism for protecting the environment against activities of oil and gas. As a way of enforcing the PPP, 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.

The supreme court of Canada described the purpose of the PPP as a way of protecting the environment against the dangerous activities of oil and gas so as to encourage sustainable development where the polluter is assigned the responsibility of remedying containment and it imposes direct and indirect costs for the pollution on the polluter, the polluter is asked to pay more attention to the need to protect the environment and ecosystem in the course of their economic activities.¹²⁸

The court of England, wales, Scotland and northern Ireland had early alone established the PPP as a way of protecting the environment against the activities of oil and gas in the famous **Rylands V Fletcher**¹²⁹ where the court held that a person of people dealing with inherently risky substances should be held responsible for any damage cause to people and their environment should those risky substances escape their control causing damage in the concept known as strict liability. Although the courts also established exceptions to that general rule. This means that any person who bringing anything artificial on the land which is likely to cause a mischief and fails to control that thing which then escapes and causes harm to any person or property is strictly liable for the mischief caused by that unnatural thing.

In the context of the PPP, it's the oil activities that constitutes the unnatural things and if that oil spills over or gas is flared which damages the environment, the person is responsible for the that oil spill is strictly responsible for that mess and has to pay for that damage caused to

¹²⁶ West Coast environmental law, The Gulf spill and the polluter pays principle.

¹²⁷ USA pollution Act of 1990

¹²⁸ Para 24 of the Canadian supreme court ruling.

¹²⁹ Rylands V Fletcher 1789 QB 2012

the environment by his economic activities

2.3.1. Limitations of PPP in protecting the environment

The biggest limitations most times come from the law itself whereby it caps liability of the polluter to certain amount of monies. For example, the USA pollution Act of 1990¹³⁰ which caps liability to 70million dollars for the clean-up in case of oil spill yet this amount may not necessarily be enough depending on the condition of the spill. Lawrence Solomon¹³¹ blames the USA for the oil spill in the Gulf of Mexico and He insists that the companies the capacity to avert the oil spill in the Gulf of Mexico yet they never tried to do their best to avert the worst scenario because of the pollution cap.

Professor Steven Horwitz and Jesse Walker¹³² emphasises 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, the researcher agrees with the author that there is in essence no need to place a liability cap which make the costs of non-compliance much less than the compliance costs because the polluters will ultimately chose the lesser costs for their own benefits, the clean-up costs should therefore be left open to the actual costs payable by the polluter.

Another limitation to the PPP comes from the weakness of the implementing agencies who may be reluctant or with insufficient powers or tools to carry on with the principle, like adequate evaluation of the damage, actual holding of the polluter liable instantly.

2.3.2. Implementing the PPP in oil and sector and its shortcomings

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

¹³⁰ USA pollution Act of 1990

¹³¹ A Canadian commentator for the National Post Columnist.

¹³² Prof. Steven, Economist and Jesse Walker an American commentator and the Reason Magazine editor.

all of the costs involved in the production process of a commodity, when deciding how much to produce and how much to charge. For example, in the case of a company that is polluting a river which such human activities such as swimming, fishing and use of the water from the river for domestic life, etc. are carried out. The associated cost would be the value that the humans 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 PPP must accurately identify the pollution victims and ensure that compensation flows from the offending party to such victims.

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The 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.¹³⁴

Another common Challenge is that the society has been slow to adopt and reorganise the link between the greenhouse gases and climate change because its perceived that the Atmosphere is considered by everyone as global common where everyone has a right to share it without cost, this perception has made the emitters of the pollution seemingly not bothered to be held responsible for the controlling this form of pollution hence making this a challenge to the implementation of the PPP.

Global witness also criticized the laws for generally referring to ‘best petroleum industry practices’ to be applied by the oil companies though there was no mention of the fact that the laws just place a duty upon the companies to apply such practices, the likely abuse was the concern of Global Witness. It was proposed that there should be guidelines and principles in relation to best practice in the relevant areas such as International Finance Corporation Performance Standards and the implementing bodies of these [practices should be empowered

¹³³ Institute for Research on the Economics of Taxation Studies in Social Cost, Regulation, and the Environment: No. 6 Roy E. Cordato, Ph.D., Project Director

¹³⁴ 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.

by the law¹³⁵

For the case of gas flaring as a form of pollution, look at the provisions of Section 100¹³⁶ it provide for the control and prevention of gas flaring but not clear the extent of allowable release, this should be reviewed to clarify the extent of flaring by setting thresholds especially on repetitive flaring for normal operational safety or in excess of quantities needed for normal operational safety. This will prevent routine flaring under the excuse of operational safety. The argument is sustained by the good practice guidance of the World Bank and Global Gas Flaring Reduction Partnership on upstream flaring.¹³⁷ If Uganda is to prevent pollutions from gas flaring so that if a particular threshold is exceeded, the polluter is made liable under the PPP.

Dr Emmanuel Kazimbazi,¹³⁸ Notes that Essentially, an EIA performed by an oil company must be in position to clearly identify any/all possible environmental and social impacts that could arise from a given project, and document the appropriate environmental management and control measures that must be implemented to mitigate these measure and that these measures are collectively known as project environmental management and monitoring plans (EMPs). However, he notes that over time some of the plans have been subject to general criticism from civil society organizations such as ACODE, which believes that the plans are not comprehensive and do not address all the environmental issues such as pollutions from the sector and the like.

Kazimbazi¹³⁹ also noted that, that coordination and monitoring between oil companies and government agencies responsible for environmental management are woefully weak or perhaps non-existent and yet the government has a mandate to oversee all environmental aspects in its respective districts.¹⁴⁰ He also notes that at the district level, the capacity to monitor the

¹³⁵ Global Witness; Uganda's Petroleum Legislation: Safeguarding the Sector February 2012, Available at <https://www.globalwitness.org/.../29_02_12_GW_Analysis_of_the_Petroleum_Laws, Accessed on 21 February 2018.

¹³⁶ the Petroleum (Exploration, Development and Production) Act, 2013

¹³⁷ *Op.cit note 148.*

¹³⁸ Environmental regulation of oil and Gas exploration and production in Uganda by Emmanuel Kzimbazi, Associate Professor School of Law Makerere University.

¹³⁹ *Supra*

¹⁴⁰ National Association of Professional Environmentalists, 'A Critical Analysis of Oil Development Process in

environmental aspects of the oil sector is weak and un-empowered because the offices are ill-equipped in terms of facilities, technical capacities and the mandate to be able to exercise their duty diligently.

Kazimbazi said that In pursuit of these objectives i.e. a clean environment from pollution from the sector, the government of Uganda is required to ensure that environmental considerations are given priority by energy suppliers and users to protect the environment, and should put in place a monitoring mechanism to evaluate compliance with established environmental protection guidelines, the biggest gap here remains insufficient monitoring, evaluation and enforcement of the existing laws.¹⁴¹the researcher agree with the author on this part because however much laws should the government put across for effective application of the PPP , as long as the implementers are not doing well there part , there will be no realization of the goal set by the PPP in the bid to protect the environment.

Kazimbazi concluded by saying that The environmental regulatory framework for oil exploration and production in Uganda is new and still inadequate in some areas, there is also limited financial and human resources to implement the provisions of the law, limited public awareness of the PPP and the other principle and that with this there is a relatively high risk of harm to the environment during oil exploration and production unless measures for minimizing such harm is put in place.

2.3.3. PPP and the Nigeria Oil and Gas Industry

Imposing liability for oil spill pollution and clean up. A Case study of Nigeria in regard to PPP in oil and gas sector.

Nigeria is the 6th world's producers of crude oil and has vast reserves of natural gas. Nigeria is the largest producer in Africa and the most prolific oil producer in the sub-Saharan Africa. Nigerian economy is largely dependent on the oil sector, which supplies 95% of the country's foreign exchange earnings. Nigeria has a daily production of about 2.0 million barrels of crude oil and a proven gas reserve base of over 187 million cubic feet estimated to be the largest in

Uganda' (2009).

¹⁴¹ See also D K Patton, R Kashambuzi, and E N T Rubondo, 'Active Seeps, Investment Climate draw Interest to Uganda' (1995) 93 Oil and Gas Journal 18.

the world.¹⁴²

However, the oil and gas sector in Nigeria is faced with numerous problems and challenges. The major problem is oil pollution. Oil pollution is an ancillary risk associated with exploration activities and has gained prominence in the Nigerian oil and gas industry. Oil spills in Nigeria is estimated to have let out over a net volume of 2million barrels to the environment till date and the worst hit areas is the Niger Delta region.¹⁴³ The exploration and exploitation of oil in Nigeria has resulted in long term environmental pollution that has had serious implications on the health and environment of the people of the oil producing communities.¹⁴⁴

As a result, environmental pollution from oil and gas related activities has given rise to a lot of conflict between the indigenous communities and the oil companies because of the interference with the environment that affects their lifestyle and subsistence. The conflict is exacerbated by the low level of development in these communities in comparison to the highly developed areas occupied by the oil and gas companies.¹⁴⁵

Environmental pollution problems in Nigeria, and particularly oil industry pollution, are exacerbated by the non-internalization of environmental costs by polluters, and this then becomes a public concern because, this cost is passed to the public.¹⁴⁶

Nigeria's National Policy on the Environment recognizes the PPP and provides that: Nigeria is committed to a national environmental policy that will ensure sustainable development based

¹⁴² Egbewole W.O. Yusuf I.A. and Ijaiya H. Recent Developments in the Oil and Gas Law in Nigeria: The role of Law Teachers. A paper presented at the Annual Conference of the Nigeria Law Teachers Conference held at Port-Harcourt, Nigeria from 17th-20th July, 2011

¹⁴³ Onyeukwu H. The Deepwater Horizon Spillage and Lesson in Liability Claims for Nigeria <http://www.thenigeriabusiness.com/column22.html> accessed on 12 January, 2020

¹⁴⁴ Ibid 145

¹⁴⁵ See Adewale O. Sabotage in the Nigerian Petroleum Industry: Some SocioLegal Perspectives. National Association of Petroleum Engineers (Nigeria) Conference Proceedings 2006. Okenabirhie T.O. Polluter Pays Principles in the Nigeria Oil and Gas Industry: Rhetorics or Reality? www.dumd-ee.ac.uk/cepmlp/gateway/files.php?file=cepmlp-car13-26

¹⁴⁶ Oromareghake P, Arisi R, Igbo M. (2013). "Youth Restiveness and Insecurity in Niger Delta: A Focus on Delta State" <<http://socialscienceresearch.org/index.php/GJHSS/article/view/594/541>> 5 December 2019. *Ozcayir Z.O. (1998). Liability for Oil Pollution and Collisions, (LLP) 214.*

on proper management of the environment. This policy, in order to succeed must be built on the following sustainable development principles.¹⁴⁷

The PPP says that the polluter should bear the cost of preventing controlling and damages cause by pollution.¹⁴⁸ The national policy of Nigeria also recognizes that, sectoral policies, environmental laws and regulations are important, but cannot, alone, be expected to deal with the problems of environment and development. Prices, markets and governmental economic policies also play a complementary role in shaping attitudes and behaviour towards the environment. It therefore has as one of its strategies, to institutionalize PPP,¹⁴⁹ so that the polluter bears the cost of environmental degradation or pollution; thus providing the positive incentives to limit degradation or pollution of the environment.¹⁵⁰ It recognizes also the use of economic instruments and incentives as parts of strategies to propel the development process in the desired direction as follows:

To incorporate environmental costs in the decisions of producers and consumers so as to reverse the tendency to treat the environment as a "free good" and to stop passing these costs on to other parts of society or to future generations;

To integrate social, environmental and other costs of negative environmental externalities into economic activities so that prices will appropriately reflect the true and total value of resources and contribute towards the prevention of environmental degradation; ...

To develop and implement a mechanism for charging emission fees and fines for all pollutants and effluents (based on quantity, quality and detrimental effects) thereby internalizing all costs and other negative externalities into the production process and output prices.

To impose penalty taxes, fines, and charges for noncompliance to environmental standards and regulations so that violations to such regulation become costly to the violators.

Again, Nigeria's Agenda 21 on the Environment provides for the Internalisation of environmental costs through the use of Economic Instruments in the management of Natural

¹⁴⁷ Nigerian national policy

¹⁴⁸ Paragraph 1 Nigeria's National Policy on the Environment

¹⁴⁹ Ibid 148

¹⁵⁰ Paragraph 11 (d) of the National Policy on the Environment

Resources.¹⁵¹ The National Environmental Standards and Regulations Enforcement Agency (NESREA) Act¹⁵² recognizes and provides for the Polluter Pays Principle as follows:

“Where an offence under subsection (1) of this section is committed by a body corporate, it shall on conviction, be liable to a fine, not exceeding N1,000,000 and an additional fine of N50,000 for every day the offence subsists.”¹⁵³

Section 28 provides:

“The Minister for the purpose of implementing the provisions of this Act, shall by regulations prescribe any specific removal method, financial responsibility level for owners or operators of vessels, or onshore or offshore facilities notice and reporting requirements.”

These provisions presuppose that the polluter would bear the costs of removing the polluting substance or discontinuing the polluting activity, and to abate and clean up the affected area.

There are a plethora of other legislations and Guidelines embodying the Polluter Pays Principle, examples include the Environmental Impact Assessment (EIA) Act¹⁵⁴, the Harmful Wastes (Special Criminal Provisions etc) Act¹⁵⁵, the National Oil Spill Detection and Response Agency (NOSDRA) Act¹⁵⁶, the Environmental Guidelines and Standards for the Petroleum Industry in Nigeria (EGASPIN)¹⁵⁷ and the NOSDRA (Amendment) Bill 2012.¹⁵⁸ Section 6 (2) (3) of the NOSDRA Act provides that, “the failure to clean up the impacted site, to all practical extent

¹⁵¹ Agenda 21 on the Environment (made sequel to the United Nations Convention on Environment and Development

¹⁵² Cap N164 Laws of the Federation of Nigeria 2010

¹⁵³ Section 27 subsection (3) of the NESREA Act

¹⁵⁴ Cap E12 Laws of the Federation of Nigeria 2010

¹⁵⁵ Cap H1 Laws of the Federation of Nigeria 2010

¹⁵⁶ Cap N157 Laws of the Federation of Nigeria 2010

¹⁵⁷ Environmental Guidelines and Standards for the Petroleum Industry in Nigeria 2002, Published by the Department of Petroleum Resources (DPR), Paragraph 8.1, ‘Liability’

¹⁵⁸ See sections 8-11

including remediation shall attract a further fine of one million naira”.

2.3.4. Application of PPP in Nigeria’s Oil and gas industry.

These legislations set out regulations and standards that prohibit pollution and every form of environmental hazards. In addition, the parties responsible for the pollution have the responsibility of managing the process of remediation of any acts of contamination of the environment as well as compensate those who suffer the consequences of such pollution.

In Jonah Gbemre v. Shell Petroleum Development Company Limited,¹⁵⁹ Jonah Gbemre (the applicant), claimed on behalf of the Iwherekan community inter alia: A declaration that the actions of the 1st Respondents (Shell Petroleum Development Company) and 2nd Respondents (the Nigerian National Petroleum Corporation) in continuing to flare gas in the course of their oil exploration and production activities in Gbemre’s Community is a violation of their fundamental rights (including right to healthy environment) and dignity of human person which is guaranteed by Sections 33(1) and 34(1) of the Constitution of the Federal Republic of Nigeria, 1999 79 and reinforced by Articles 4, 16 and 24 of the African Charter on Human and Peoples Rights (Ratification and Enforcement) Act.^{160 161 162} The court held that the actions of the 1st and 2nd respondents in continuing to flare gas in the course of their oil exploration and production activities in the applicants’ community was a gross violation of their fundamental right to life and dignity of human person as enshrined in the Constitution.

¹⁵⁹ Civil case no 313 of 2000

¹⁶⁰ FHC/B/CS/53/05 (November 14, 2005) Federal High Court of Nigeria available at <http://www.ecolex.org/ecolex/ledge/view/RecordDetails;DIDPFDSIjsessionid=0373E91B7EBE>

¹⁶¹ Cap. A9 Vol. 1 Laws of the Federation of Nigeria, 2010 A17FCCA47AEC57E3C2?id=COU-156302&index=courtdecisions accessed 22 June 2015 and <http://www.ecolex.org/server2.php/libcat/docs/COU/Full/En/COU-156302>. accessed 12th january,2020.

¹⁶²[1996]NWLR (Pt. 445) 657

In Shell Petroleum Development Company Nigeria Ltd v. Chief G.B.A. Tiebo & Others,¹⁶³ the plaintiffs (Chief G.B.A. Tiebo and others) claimed that the defendant, an oil exploration company (Shell Petroleum Development Company Nigeria Ltd), on 16th January, 1987, negligently caused a major crude oil spillage of over six hundred barrels from its flow station and on its pipeline or other installations at or near the plaintiffs' village called Peremabiri. The plaintiffs commenced their suit on 6th June, 1988 at the Yenagoa High Court of Rivers State claiming against the defendant the sum of Sixty-four million, one hundred and forty-six thousand naira (N64, 146, 000. 00) being special and general damages for the negligence of the defendant (Shell Petroleum Development Company Nigeria Ltd) and for allowing crude oil, which the defendant was mining, to spill into the lands, swamps, creeks, ponds, lakes and shrines of the plaintiffs.

The plaintiffs sued for themselves and as the representatives of the Peremabiri Community in Yenagoa Local Government Area. At the trial court, the judge gave judgement in the plaintiff's favour awarding six million naira (N6,000,000:00) as general damages for environmental pollution of the land, river, ponds and lakes of the plaintiff and one million naira (N1, 000, 000. 00) as costs. The defendant's appeal to the Court of Appeal was dismissed. On further appeal to the Supreme Court, the award of general damages and costs awarded by the trial court were affirmed. The Supreme Court noted that there was evidence before the trial Judge that there was extensive damage done to the crops, farms, farmlands, ponds, creeks of the plaintiffs and that there was also evidence of widespread environmental pollution.¹⁶⁴

The polluters in the two cases above were made to compensate their victims for the damages resulting from their polluting activities. However, the liability regime is shaped more by the requirements of the common law remedies of the torts of nuisance, trespass, negligence or the Rule in **Rylands v. Fletcher**¹⁶⁵ than by the statutory remedies provided under the relevant statutes. Although these laws exist; yet it has been difficult to implement the PPP as a guideline for environmental policy in Nigeria and ensure adequate protection of the physical and human environment from the adverse consequences of oil pollution. Some of the shortcomings of these

¹⁶³Shell Petroleum Development Company Nigeria Ltd v. Chief G.B.A. Tiebo & Others SC 9/1999 S.P.A.C

¹⁶⁴ supra

¹⁶⁵ Supra

laws include the out-dated penalty sections, the attitude of enforcement officials and the attitude of the courts.

The extent of pollution clean-up depends on the amount of oil that has spilled over the environment which determines the magnitude of harm to the environment. Forename oil spill in a trans boundary river will create more harm than a spill on bear land. In situation where by several barrels have spilt over the sea and the spill is curtailed or the oil well that exploded is not immediately capped, the liability of the responsible party is greater than the harm caused to the environment which is usually colossal.¹⁶⁶

The effects of these oil spills to the Nigerian economy are enormous on its marine environment and liability has to be established in order for any person to be held responsible under the PPP.

These oil spills have heard advance effects on the environment and the people who live in those areas where by their farmlands have been left barren and they can't grow anything on their land. The waters can no longer be drinkable and the fish in the lakes and rivers where they used to earn their living have died because of oil floating and the water which blocked oxygen from entering the waters hence suffocating aquatic life. These oil spills have been detrimental to the Nigerian tourism industry because they have caused the death of species of birds, fish, marine animals, and marine plants and even disrupted the ecosystems proper functioning. They also put the industry at risk due to contaminated water for drinking and industry use.¹⁶⁷

However, for the principle of polluter pays to apply a person responsible for the oil spill has to be held responsible and the costs allocated to such a person of industry in which the person who bears the responsibility must be known, and the extent of the environmental effect. This helps to quantify the damage to be paid by the polluter, monetary value to the damages and the pollution caused must be identifiable which proves that the polluter is responsible for the resulting pollution.

¹⁶⁶ A relevant example of the Deep-water Horizon incident that occurred in the Gulf of Mexico in 2010

¹⁶⁷ 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>> 5 December 2019. *Ozcayir Z.O. (1998). Liability for Oil Pollution and Collisions, (LLP) 214.*

2.3.5. Major challenges affecting the implementation of PPP in Nigeria's oil and gas industry

Pipeline Vandalization and Sabotage: 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 PPP 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 Oil Pipeline Act, 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*¹⁶⁸ 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 in this line of cases is **Ediagbonya v Dumez (Nigeria) Limited and Another**¹⁶⁹ 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**¹⁷⁰

¹⁶⁸ In *Paul Kpakol and others v Shell Petroleum Development Company (Nig) Ltd*^{72005 (AHRLR) 151}

¹⁶⁹ **Ediagbonya v Dumez (Nigeria) Limited and Another** (1986) 6 SC 149., (1990) 6 N.W.L.R. (Pt 159) 693.

¹⁷⁰ *Shell Petroleum Development Company (Nig) Ltd v Chief Graham Otoko SC 9/1999 S.P.A.C*

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 of 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.¹⁷¹

These decisions cannot be supported because if the oil company, who own and operates the facility is not allowed to pay for damage resulting from the independent act of a third party and such burden is passed to an innocent victim, unless the victim has had a responsibility of keeping vigilance over oil facilities and has failed in that duty. Generally, 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.

2.4. Conclusion

Although the PPP has international favour, its enforceability in in some countries for example Nigeria is rather weak and ineffective. Pollution incidents are still being recorded almost on a daily basis in the Niger-Delta region of Nigeria.¹⁷² Polluters must be adequately identified and held liable for their actions and they must be made to clean-up the environment and compensate those affected by the harm they have caused. It is necessary to de-emphasise the fault principle and emphasise strict liability in pollution cases. Professor Fekumo¹⁷³ developed a theory of 'causation and strict liability' and argued that this theory is not a novelty, as it has a place in our statutory regime.¹⁷⁴ Relevant in this regards is the case of **Ikpede v Shell BP Development**

¹⁷¹ Cited in Abodunde Hazrat Are, "Oil Pipelines in Nigeria: An Analysis on Court's Jurisdiction in Matters Regarding Oil Spillage"

¹⁷² 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>> 5 December 2019. *Ozcayir Z.O. (1998). Liability for Oil Pollution and Collisions, (LLP) 214.*

¹⁷³ M Polinsky and S Shavell, 'Punitive Damages: An Economic Analysis' (1998) 3 Harvard Law Review 873., Fekumo, J.F., "Civil Liability for Damages Caused by Oil Pollution" in Omotola (ed.) *Environmental Law in Nigeria Including Compensation* (Lagos, Faculty of Law, UNILAG, 1990) 254

¹⁷⁴ Section 11(5) (c) of the Oil Pipelines Act

Co (Nig) ZAZ Ltd,¹⁷⁵ The facts of the case are as follows: the plaintiffs claimed damages as a result of the escape of crude oil and or chemicals from oil pipelines of the defendant on to the land of the plaintiffs.

They claimed reasonable and adequate compensation; and in the alternative relied on the rule in **Rylands v. Fletcher.**¹⁷⁶ It was held by Ovie-Whiskey, J. (as he then was) that “to lay crude oil carrying pipes through swamp forest land is a non-natural user of the land” and that “it is common knowledge that crude oil causes great havoc to fishes and crops if allowed to escape from the pipeline in which it is being carried.” Notwithstanding, the above finding, the rule was held not to apply because the acts of the defendants fell under the exception of statutory authority, since they had a license to lay the oil pipes. Nevertheless, they were held liable to pay reasonable and adequate compensation under section 11(5) (c) of the Oil Pipelines Act on the basis of statutory strict liability.

For the PPP to be efficacious in deterring pollution from dangerous activities of oil and gas in Nigeria’s oil and gas sector, there must be proper implementation and enforcement of laws relating to the environment, especially laws dealing with oil industry pollution. This would help early containment of the oil that is spilled and prevent greater damage to the environment. It is believed that if the PPP is taken more seriously the occurrence of oil industry pollution in Nigeria would be largely reduced.

The National Oil Spill Detection and Response Agency (Amendment) Act 2012 (NOSDRA Amendment Act 2012) enacted into law and under Section 8 (1) (d) of the NOSDRA Amendment Act 2012 provides for liability limit for as much as N15, 000, 000, 000 (fifteen billion naira) for oil spill from any onshore facility and/or deep-water port. This kind of provision is encouraged and it is hoped that when this bill is passed into law, this provision among others would be effectively implemented.

Moreover, monitoring agencies such as NESREA, NOSDRA and the DPR should be given clear mandates and roles as regards pollution incidents. They must possess adequate manpower and technical expertise for effective monitoring and response to pollution incidents. They must therefore be well equipped and properly funded to effectively deal with such pollution

¹⁷⁵Ikpede v Shell BP Development Co (Nig) ZAZ Ltd (1974)2 RSLR 109 , (1973)M.W.S.L 61

¹⁷⁶ Rylands v. Fletcher 1866)L.R EX 265

incidents.

Finally, environmental laws and guidelines must be implemented to the letter for a successful imposition of liability on the polluter. If properly implemented, the PP would function as a way of attributing environmental liability and thus limit incidents of environmental damage from activities of oil and gas in Nigeria's oil rich Delta.

CHAPTER THREE: INTERNATIONAL PERSPECTIVE.

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

3.0. PPP in International Law

The international law perspective on the PPP can be gathered from the OECD, United Nations (UN) and the European Union point of view. The PPP was formulated and recognised by the OECD¹⁷⁷ as an internationally agreed principle in 1972.¹⁷⁸ The principle was formulated as an economic principle aimed at allocating the cost of pollution control.¹⁷⁹ Principle 16 of the Rio Declaration reiterates the meaning of the PPP 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 PPP is also of recent enshrined in the Paris Agreement of 2016 among its provisions under where European powers and world leading economies like 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 is inline of the PPP where the nations that are very heavy polluter pledged more monies to pay for the damages caused by their economic industrial complex to the environment.¹⁸⁰

The Rio Declaration is based on recognised principles that the polluter should bear the cost of measures to reduce pollution according to the extent of either the damage done to society or

¹⁷⁷ Para 4, OECD, 'Recommendation of the Council on Guiding Principles concerning International Economic Aspects of Environmental Policies' C (72) 128 5

¹⁷⁸ J 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

¹⁷⁹ 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

¹⁸⁰ See the 2016 Paris Agreement

the exceeding of an acceptable level of pollution”.¹⁸¹ This definition places on the polluter, the responsibility for the cost of reduction of the pollution caused by their actions which are central to the protection of the honour of global environmental and developmental system.

Paragraph 4 of the OECD Guiding Principles,¹⁸² 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.¹⁸³ This indicates that the polluter should ensure that pollution is reduced to an optimum level.¹⁸⁴ The PPP is also given recognition in other Environmental Instruments¹⁸⁵ as well as case law.

In Commune de Mesquer v Total France SA and another,¹⁸⁶ the court considered the issue of whether, for the purposes of applying article 15 (c) of Council Directive (EEC) 75/442 which states that, in accordance with the PPP, 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. Such a third party could not be liable to bear that cost unless they had contributed by their conducts or negligence to the risk that the pollution caused by the shipwreck would occur.

The implication of this judgement is that the court recognises that the PPP exists as a principle of law and that it has a role to play in allocating liability at international level, also the exact polluter should be identified and attributed to the costs of pollution caused.

¹⁸¹OECD, ‘Glossary of Statistical Terms’ (December 2007) <http://stats.oecd.org/glossary/download.asp> Accessed December, 20, 2019

¹⁸²OECD, ‘Recommendation of the Council on Guiding Principles concerning International Economic Aspects of Environmental Policies’ C (72) 128

¹⁸³ [2010] All ER (D) 133 (Mar)

¹⁸⁴commune de Mesquer V Total France S.A and Another (2009) ALLER (EC) 525 [2009] All ER (EC) 525

¹⁸⁵ 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)

¹⁸⁶ commune de Mesquer V Total France S.A and Another (2009) ALLER (EC) 525

According to **Ayobami Olaniyan, its further states**¹⁸⁷

“Utilise the PPP 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.”

It's important to note that the PPP 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 ,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 PPP.¹⁸⁸

Inadequate co-ordination is a “sine qua non” to effective international use of the PPP in the sense that some countries subsidise private investment in pollution control while others do not, this makes environmental regulations a source of trade distortion. To encourage uniform applications of the principle, the OECD Council in 1972 (implemented in 1974) stipulated that the principle should constitute a fundamental principle of pollution control in Member Countries.

Nevertheless, some Member Country governments to the OECD argued in favour of accelerated national programmes of pollution reduction measures leading to the some acceptable exceptions to the strict PPP, 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.

¹⁸⁷ Ayobami Olaniyan, 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

¹⁸⁷ OECD, 1989 Recommendation of the Council concerning the application of the Polluter - Pays Principles to Accidental pollution

¹⁸⁸ OECD, 1989 Recommendation of the Council concerning the application of the Polluter - Pays Principles to Accidental pollution

3.1. Uganda's perspective of PPP.

PPP was a principle adopted by Rio Declaration, in order for it to be enforceable in Uganda like any other laws it had 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 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)¹⁸⁹ 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 123¹⁹⁰(1, 2) of the constitution¹⁹¹ empowers the parliament to ratify treaties, conventions and agreements entered into by the president or any other person authorized by the president. Having looked at the process that gives these treaties, conventions and agreements on environment to have legal effect in Uganda. The researcher is contented to say that the PPP is one of the international principles of environmental protection that Uganda has complied with to ensure health and safety to its environment from pollution arising from its oil and gas industry, the PPP holds the polluter responsible for the damage caused by their activities by paying for the costs of the pollution, damage and compensation for the mischief since nature has a right to exist, persist, maintain and regenerate in its vital cycles, structure, functions and in its processes of evolution.¹⁹² The government shall apply precautions and restrictions measures in all activities that can lead to 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.

¹⁸⁹ Article 38 of Statute of the international court of justice.

¹⁹⁰ Article 123 of the 1995 constitution of the republic of Uganda as amended.

¹⁹¹ Article 123 of the 1995 constitution of the republic of Uganda as amended.

¹⁹² See Article 125 of the 1995 constitution of the republic of Uganda as amended.

3.2. Application of PPP in Uganda's legal and Regulatory regime. Legal implementation mechanism.

Principle xiii¹⁹³ provides that the state shall protect the all-important natural resources like minerals, water, wetlands, oil, Fauna and flora. Article 39¹⁹⁴ is to the effect that every Ugandan has a right to live in a clean and healthy environment; the government has a duty to protect the environment from the dangers caused by oil and gas industry. In Uganda, sustainable development is also key to the issue of environmental protection, for sustainable development to be achievable, there is need to focus on first achieving a safe and healthy environment.¹⁹⁵

With such powers the government enacted several laws aimed at protecting the environment from the dangers caused or to be caused by activities of oil and gas industry and these include: The petroleum (Exploration, Development and Production) Act of 2013¹⁹⁶(PEDPA) with its Midstream and Upstream Act and their regulations therein., The petroleum (exploration, Development and production) (Health, Safety and Environment) Regulations of 2016¹⁹⁷ and the National Environment Act N0.2 of 2019¹⁹⁸ and its regulations therein and among others.

The PEDPA¹⁹⁹ under section 129 to 133²⁰⁰ is to the effect that a licence is liable for the damage caused by pollution caused and has to compensate any party who suffers from his damage and as well also pay for the restoration costs and damage caused to the environment as a way of enforcing the PPP under our laws.

¹⁹³National Objectivities of the Constitution of the Republic of Uganda as amended of 2018

¹⁹⁴ Article 123 of the 1995 constitution of the republic of Uganda as amended.

¹⁹⁵ Article 245 of the 1995 consstitution of the republic of Uganda as amended.

¹⁹⁶ The petroleum (Exploration, Development and Production) Act of 2013¹⁹⁶

¹⁹⁷ The petroleum (exploration, Development and production) (Health, Safety and Environment) Regulations of 2016

¹⁹⁸ The petroleum (exploration, Development and production) (Health, Safety and Environment) Regulations of 2019

¹⁹⁹ The petroleum (Exploration, Development and Production) Act of 2013

²⁰⁰ National Environment Act N0.2 of 2019

Section 3(1)²⁰¹ states that every person in Uganda has a right to a clean and healthy environment in accordance with the constitution. Section 3(2)²⁰² says every person has a duty to maintain and enhance the environment including a duty to prevent pollution. This aimed at ensuring the environment is protected from the damages caused by pollution including the ones arising from the activities of oil and gas in Uganda. Liability for pollution ,Section 80 (1)²⁰³ compiles any person responsible for to be held liable by way of mitigating the effects caused by the pollution 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.

Still under section 78²⁰⁴, it prohibits any form of pollution and it compels all persons who deal in activities that are deemed to pose any danger to the environment to put up measures that are aimed at preventing pollution and also employing use of best environmental practices while section 79²⁰⁵ 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 8²⁰⁶. The law is well put in place however the challenge here is seen to be the weakness of the implementing bodies who are not doing their parts, they should be empowered both financially and with the human resources to ensure effective implementation of the laws on PPP. Besides the measures to prevent should necessarily be left to be put up by the licensees, but the government agencies should be involved in to putting these measures if the laws are to take proper effects. There is also need for a legal environmental standards release of pollution threshold beyond which every polluter should be made liable, this is important because calling upon the polluters to avoid pollution without setting the standard % beyond which no one should exceed their release may not help the situation as far as the application of the PPP is

²⁰¹ National Environment Act N0.2 of 2019

²⁰² National Environment Act N0.2 of 2019

²⁰³ National Environment Act N0.2 of 2019

²⁰⁴ National Environment Act N0.2 of 2019

²⁰⁵ National Environment Act N0.2 of 2019

²⁰⁶ National Environment Act N0.2 of 2019

concerned and as such every efforts to apply the principle may prove futile.

This aimed at ensuring protection of the environment from the activities of oil and gas since it puts a general penalty under section 176²⁰⁷ for costs incurred because of the pollution. This gives a strong basis of the PPP. Section 85²⁰⁸ also puts in place pollution control licenses that are supposed to be bought that by any individual or companies including oil companies that carry out activities that are deemed to be very risky to the environment and section 81²⁰⁹ states that such fees must be determined by the PPP 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.

The law on pollution licence is not clear on the acceptable allowable per cent of pollution to be released by the licensees; this is a very important aspect if the PPP is to be applied effectively in the bid to safeguard the environment from pollution arising from the sector.

Section 92 and 93²¹⁰ 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 are meant to ensure that there is limited impact of any oil spill on the environment. The challenge here is still the weakness of the committee to do their work which may be coupled with lack of sufficient funding's to aid the activities of the committee and whenever this will be addressed by the government, it's probable that the pollution from the sector can be controlled with effective application of the PPP.

Section 163(2)²¹¹ 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 PPP since any person that

²⁰⁷ National Environment Act N0.2 of 2019

²⁰⁸ National Environment Act N0.2 of 2019

²⁰⁹ National Environment Act N0.2 of 2019

²¹⁰National Environment Act N0.2 of 2019

²¹¹ National Environment Act N0.2 of 2019

breaches any provision of any Act guilty of pollution. There is another aspect of pollution emission charges and failure to pay will mean a person will be penalised as a way of fulfilling the PPP as a mechanism for protecting the environment against dangerous activities of oil and gas. Therefore, even if the PPP has never been applied in Uganda's oil and gas sector since the country has not started producing its oil.

3.3. Legal Effects of the PPP.

The legal effects of the PPP depend on the question of whether the principle is contained in soft law, hard law instruments, or national law and whether the hard law or the national laws instruments absorb a 'substantive' or 'formal' approach of its application.²¹²

Soft law instruments represent those rules that are not binding per se but which have played important roles in international environmental law.²¹³ 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'.²¹⁴

The implication of inserting the PPP in a soft law is two-fold. It would not be legally binding if not inserted in the soft law to give weight to its application;²¹⁵ and due to the inexact formulation of soft laws, the PPP would not be seen as a normative principle.²¹⁶ An example of a soft law that embodies the PPP is the United Nations Convention on Environment and Development, (the Rio Declaration) 1992.

From an economic point of view, the 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 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

²¹² Ayobami Olaniyon, (supra)

²¹³ P Sands, *Principles of International Environmental Law* (2nd ed CUP 2003) 124.

²¹⁴ Ibid

²¹⁵ N Sadeleer, *Environmental Principles: From Political Slogans to Legal Rules* (OUP 2002) 312.

²¹⁶ Ibid.

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 PPP 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:²¹⁷

“To achieve appropriate deterrence, injurers, 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

The polluters from the above case should then be made to sufficiently pay for the damages caused by their action so that the prices of the goods and services in this case does not go below the required threshold, as well they should not be made to pay excessively because this will also inflate the prices of the goods and services in question which will then have a negative effect on the economy.

3.4. Likely Restraints to the Implementation of the PPP in the Ugandan oil and gas industry.

Although the PPP is an accepted principle of environmental law in most countries in the world, it is pertinent to note that the Rio Declaration ²¹⁸for example embodies the PPP, does not impose any obligation on states to enforce those principles but rather persuade them to implement the PPP, being as it were mere declaration and therefore not more than mere guiding principles for national governments, thus the application and implementation of the PPP in

²¹⁷ M Polinsky and S Shavell, ‘Punitive Damages: An Economic Analysis’ (1998) 3 Harvard Law Review 873.

²¹⁸ The Rio Declaration 1992 Art 16

the country is tainted with exceptions which act as loop holes for polluters to escape liability.²¹⁹

The effectiveness of the PPP is further attenuated by the fact that the onus of proof in pollution cases is often on the state agency concerned like the NEMA for the case of Uganda. The adequacy of the compensation paid by polluters under Ugandan laws is questionable. For instance, the Petroleum Act of 1969 banned gas flaring but at the same time the Act provided for an option of paltry fines of US \$0.063 per standard cubic feet flared.²²⁰ 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.

3.4.1. A Likelihood of Pipeline Vandalization and Sabotage like in Nigerian could occur.

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 in other countries like Nigeria, 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.²²¹

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? what happens where the perpetrators of these acts are not identifiable. Does the PPP 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*

²¹⁹ See for example, section 11 (5) of the Oil Pipelines Act

²²⁰ The fine was increased by government in January 1998 to US \$0.125 per standard cubic feet flared.

²²¹ Oromareghake P, Arisi R, Igbo M. (2013). "Youth Restiveness and Insecurity in Niger Delta: A Focus on Delta State" <<http://socialscienceresearch.org/index.php/GJHSS/article/view/594/541>> 5 December 2019. *Ozcayir Z.O. (1998). Liability for Oil Pollution and Collisions, (LLP) 214.*

*Petroleum Development Company (Nig) Ltd*²²² 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 in this line of cases is *Ediagbonya v Dumez (Nigeria) Limited and Another*²²³ 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*²²⁴ 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 of 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.²²⁵

From the foregoing cases, the decisions seems to place the environment at risk should the polluter not be found and the oil companies excused on grounds that the acts were of a one third party, the researcher argues that the oil companies who delegate the transportations of oil should be partly held responsible in cases where the liability of the third party is not attainable. It is important to also note that most of these oil companies have responsibility over their

²²² Paul Kpakol and others v Shell Petroleum Development Company (Nig) Ltd (2005) AHRLR 151

²²³ Ediagbonya v Dumez (Nigeria) Limited and Another²²³ wEdiagbonya v Dumez (Nigeria) Limited and Another (1986)NWLR 753

²²⁴ Shell Petroleum Development Company (Nig) Ltd v Chief Graham Otoko²²⁴ of Shell Petroleum Development Company (Nig) Ltd v Chief Graham Otoko(1990(6 NWLR 693

²²⁵ Cited in Abodunde Hazrat Are, “Oil Pipelines in Nigeria: An Analysis on Court’s Jurisdiction in Matters Regarding Oil Spillage”, (1986) 6 SC 149, (1990) 6 N.W.L.R. (Pt 159) 693.

facilities and therefore have a duty to secure such facilities from malicious third parties.

In case they cannot do so, 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 in this way Uganda will be able to protect its environment from pollutions from such incidences.

3.4.2. A likelihood of Using the Defence of Statutory Authority as a scapegoat:

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.²²⁶ Although the rule in *Rylands v Fletcher*²²⁷, is often referred to as a strict liability rule,

However in view of the exceptions mentioned by Blackburn J himself in the above case, it is doubtful if liability under the rule is actually strict, as the multitudes of defences have whittled down the efficacy of the rule. For instance, in *Ikpede v Shell BP Development Co (Nig) Ltd*²²⁸, 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.

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

The penalties stated by the law as penalties and fines for causing pollution must be higher or adequate so that it makes it very expensive to pollute, other oil companies have a lot of monies and so are not scared of certain scanty fines imposed for pollution, so they opt to pollute and

²²⁶See 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*

²²⁷ Supra

²²⁸*Ikpede v Shell BP Development Co (Nig) Ltd*(1973) All NLR 69

pay the fines having weighed the price of compliance and non-compliance.²²⁹

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’.²³⁰ The tendency for organisations and individuals to carry out illegal and substandard operations when they know that there are 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 due to the continuous oil spills that greatly affected the community of the Ogoni people, shell was not bothered about the negative impacts of its activities on the community because for it there was little or no consequences at all for any so damages caused to the community²³¹

The case of Ogoni People V Royal Shell ²³² Ogoni people faced devastating effects of the presence of Shell Oil Company in Ogoniland in Nigeria since the 1950s. They also face discrimination from the Nigerian government, which favors the oil company over, in 1956, when the British were still present in Nigeria, Royal Dutch Shell identified an oil field on the Niger Delta and began oil extraction in 1958, supported by the British government. This led to a 15-year period where there were thousands of oil spills in Ogoniland. In **November 2005**, The Nigerian federal high court judge therefore ruled that the gas flaring in the Niger Delta violates the rights to life, health, and dignity of the region’s residents.

²²⁹ United Nation Environment Programme (UNEP), ‘Environmental Assessment of Ogoniland: Executive Summary’ (2011) <http://postconflict.unep.ch/publications/OEA/UNEP_OEA.pdf> Accessed December, 20th, 2019.

²³⁰ Barisere Konne, Inadequate Monitoring and Enforcement in the Nigerian Oil Industry: The Case of Shell and Ogoni Land’ (2014) 47 Cornell International Law Journal 196.

²³¹ United Nation Environment Programme (UNEP), ‘Environmental Assessment of Ogoniland: Executive Summary’ (2011) <http://postconflict.unep.ch/publications/OEA/UNEP_OEA.pdf> Accessed December, 20th, 2019.

²³² Ogoni People V Royal Shell Civil case of 2005

An estimated 2.1 million barrels of oil spilled, accounting for 40% of the total oil spills of the Royal Dutch Shell Company worldwide. Shell oil company was therefore minding less on the negative effects of the oil spills it caused on the environment which was ultimately affecting the community of Ogoniland, this was because there were not serious consequences that would arise from the local regulations and at the same time the government then was in support of the oil company than its environment or its people. Then this means there was no aspect of the PPP or even just environmental protection policy, this event favored the beginning of development of environmental laws in Nigeria.²³³

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.²³⁴

3.4.4. A Likelihood of Inefficiency by 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 Nigeria 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

²³³ Ibid 267

²³⁴ United Nations Environment Programme (UNEP), 'Environmental Assessment of Ogoniland' (2011) <<http://postcon>> Accessed 2nd January, 2020.

²³⁴ Amnesty International, 'Bad Information: Oil Spill Investigations in the Niger Delta' (2013) <www.amnesty.org> accessed 20th December, 2019

²³⁴ Amnesty International report that oil spill investigations are usually led by oil company personnel and not NOSDRA. Ibid

²³⁴ National Oil Spill Detection and Response Agency (Establishment) Act No.15, 2006 (NOSDRA Act), sections 6 & 7.

²³⁴ Nigerian National Petroleum Act Cap. N123 L.F.N. 2004 Section 10 (2) (b)

²³⁴ Ibid <flict.unep.ch/publications/OEA/UNEP_OEA.pdf> Accessed 2nd January, 2020.

when oil spill investigations take place.²³⁵ 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.²³⁶ In Nigeria, NOSDRA is saddled with the responsibility of ensuring proper clean-up and remediation of affected sites of oil spill incidences.²³⁷

In Nigeria 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.²³⁸ NOSDRA is reported to be usually notified by text or letter when an oil spill investigation will take place.²³⁹ 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.

3.4.5. 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 PPP would be effectively implemented in Uganda, only if existing environmental laws and guidelines are strictly enforced. The multinational oil companies are often relaxed 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.²⁵³

²³⁵ Amnesty International, 'Bad Information: Oil Spill Investigations in the Niger Delta' (2013) <www.amnesty.org> accessed 20th December, 2019

²³⁶ Amnesty International report that oil spill investigations are usually led by oil company personnel and not NOSDRA. Ibid

²³⁷ National Oil Spill Detection and Response Agency (Establishment) Act No.15, 2006 (NOSDRA Act), sections 6 & 7.

²³⁸ Nigerian National Petroleum Act Cap. N123 L.F.N. 2004 Section 10 (2) (b)

²³⁹ Ibid,

CHAPTER FOUR: METHODOLOGY

4.0. Research Methodology

This chapter presents the methodology that was used for purposes of this study. It covered the research design, study population, the sampled fraction out of the studied population, the population size, the samplings procedures, data collection methods and their corresponding data collection instruments. The chapter also comprises of the data management and analysis procedures, reliability, validity and the ethical considerations.²⁴⁰

In analyzing the legal framework on gas flaring, secondary sources have been used to answer the research questions. Qualitative research methods have been employed to achieve the study objectives. Burns and Grove describe a qualitative approach as ‘a systematic subjective approach used to describe life experiences and situations to give them meaning’.²⁴¹ Qualitative research focuses on the experiences of people as well as stressing uniqueness of the individual.²⁴² Qualitative research is also referred as ‘a form of social enquiry that focuses on the way people interpret and make sense of their experience and the world in which they live’.²⁴³

4.1. Research Design

This study used a cross-sectional research design. In this type of research design, either the entire population or a subset thereof is selected for representation, and from these individuals, data is collected to help in answering the research questions of interests already stated in the research questions. It is called cross-sectional because the information from X and Y groups that is gathered represents what is going on at only one point at a time. In other words, a cross

²⁴⁰ Basic research tools and strategies by Amy Sloan 4th Edition 2009, A concise guide to mastering Legal Research Skills by Mark .K Osbeck 1st Edition 2010

²⁴¹N. Burns and S Grove, (2003) ‘*The Practice of Nursing Research Conduct, Critique and Utilization*’ (4th Ed). W.B. Saunders: Philadelphia, Pennsylvania. USA.

²⁴² K. Parahoo, ‘Nursing Research: Principles, Process and Issues’, (London: Macmillan Press, 1997).

²⁴³I. Holloway and S Wheeler, ‘Qualitative Research in Nursing 2nd Edition, (Oxford: Blackwell Publishing, 2002).

sectional study, takes a snapshot of a population at a certain time, allowing conclusions to be drawn about a given phenomenon across a bigger and wider population group after comparing the data collected .²⁴⁴

The study also used this design because it is cheaper to perform though requires a lot of time, it also captures a specific point in time as required by the researcher. The researcher was able to gather information without manipulating the study environment with this design.

The benefit of a cross-sectional study design lies in its ability to allow the researcher compare many different variables at the same time. The researcher for example, was capable of examining at the efficacy of the PPP and its relevancy to the environmental protection against dangerous activities of oil and gas in Uganda. The implementation of the PPP, its legal and regulatory framework, its implementation challenges and how such implementation can be improved by emulating the Nigerian responsiveness to the problems faced in its application of the PPP. It also finally looks at ways in which the application of the PPP has been deterrent. its liability and how such liability was 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 an advantage of avoiding various aspects of complicating the use of data that is drawn from various points in time. Therefore this data analysis itself was barely dependent on an assumption that the state of the relationships between variables is stable over time.²⁴⁵

The study was qualitative in nature that aimed at investigating the efficacy of the PPP in protecting the state of Uganda's environment from the hazardous consequences from the oil and gas extraction of Activities. The cross sectional design also enabled the researcher to obtain enough responses from a pool of participants from varied professional backgrounds or opinions of PPP in Uganda's environmental perceptiveness.²⁴⁶ The design was selected to ensure an in-depth

²⁴⁴ Basic research tools and strategies by Amy Sloan 4th Edition 2009, A concise guide to mastering Legal Research Skills by Mark K Osbeck 1st Edition 2010

²⁴⁵ Basic research tools and strategies by Amy Sloan 4th Edition 2009

²⁴⁶ Renee Kool Multidimensional and interdisciplinary Law Review of current Dutch legal practice (2017)13 Utrecht Law review no 3

descriptive and investigative study of the measures being taken by the government in designing a fiscal regime in as far as aspects of environmental protection is concerned.

A qualitative research approach was also adopted, with a view of exploiting the nature of connections offered by this kind of research methodology. Primary Data was collected from the interviews and secondary data collected through document review.²⁴⁷

The researcher would have come up with a comparative analysis if Uganda has had active oil and gas exploration, and this is why for now since Uganda is yet to kick-start its exploitation soon, the best the researcher found for Uganda from the other oil producing countries are lessons that Uganda can pick up to better its sector.

4.2. Research Population and Sampling Methodology

The study was undertaken by using a sample obtained from the 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, Other useful participants shall include; the Pollution Control Authority (PCA) which is responsible for insurance of pollution control license and determines license fees and penalties in cases of breach, Ministry of Environment (ME) since it's responsible for environmental protection, Green Peace (GP) a Ugandan based NGO that advocates for matters of environmental protection and conservation, Uganda Wild Life Authority (UWLA) that has responsibility for protecting wild life mindful that this is another resource that can be affected by activities of oil and gas for example oil spills and gas flaring could contaminate water catchment areas from which animals get their water while aquatic life also use it as their source of habitat, Ministry of Energy and Mineral Development (MEMD), The Uganda National Oil Company (UNOC) a government department responsible for investing in the oil and gas sector on the behalf of Ugandan nationals, Officials representatives from China National Offshore Oil Corporation (CNOOC) considering that their involvement in the sector makes them key respondents of the study.²⁴⁸

²⁴⁷ Ibid 277

²⁴⁸ W.Van Boom &R.Van Gestel evaluating the results from Dutch legal publication, a survey of (2017)13 Utrecht Law review no 3 pg 9-27

Uganda's first ever oil production license gives CNOOC the right to develop the Kingfisher field in Western Uganda where process of downstream oil production will soon begin. This makes CNOOC a key informant to the study since it is directly responsible for the management and observing of the PPP in its area of licensed oil operations. For the case of Uganda for example, in the event of any oil spill from the activities of CNOOC, this international oil company will be held liable and the legal concept of restitution integral shall be useful in making good the environmental harm caused as a result of carrying out its oil exploration and extraction activities.²⁴⁹

MEMD was handpicked as a key informant in this study because some of its roles and functions are essential in ensuring that oil companies adhere to the best environmental practices. These include.

To provide policy guidance in the development and exploitation of the Energy, Mineral, Oil and Gas resources that ensures that the environment is protected against degradation and pollution,

To monitor the activities of the oil companies to ensure that they comply with the law of environmental protection, provision and utilization of energy and mineral resources,

To inspect, regulate. Monitor and evaluate activities of private companies in energy and mineral sectors so that the resources are developed, exploited and used on a rational and sustainable basis.

National Environment Management Authority was also selected because it is responsible for ensuring that the environment is protected and used in a sustainable manner while penalising those that are responsible for acts of environmental pollution. This statutory body is entrusted with the management of the environment by ensuring that oil companies comply with the standards of environmental laws put in place.

Ministry of Finance Planning and Economic Development was also selected as another vital informant given its cardinal roles in ensuring macroeconomic stability, which includes prudent environmental protection, fiscal management and ensuring appropriate measures and precautions are taken to effectively protect the environment from pollution. In the current

²⁴⁹ See section 80 of the National environment Act 2019 on Liability for causing pollution in Uganda.

ministry structure, the petroleum environmental management tasks and responsibilities are to a great extent centralized in the Directorate of Economic Affairs (DEA) from which a number of respondents were interviewed.

A total of 32 respondents were selected based on Krejci and Morgan ²⁵⁰ sampling guidelines using non-probability methods of the purposive sampling criteria.

4.3. Sampling Techniques

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

4.3.1 Data Collection

The researcher used both primary and secondary sources of data collection for the study. By using primary sources the researcher was in position to conduct a number of interviews with key stakeholders whereas by using secondary sources, it that enabled data to be collected through reviewing the materials from literature to understand the currently existing epistemology on the PPP.²⁵¹

4.5. 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. In this method, the researcher interviewed the respondents to obtain in-depth information about the efficacy of PPP as a mechanism of protecting the environment from the dangerous activities of Uganda's oil and gas industry. The face to face interviews comprised of a set of key issues that are being investigated upon which the researcher wishes to draw data and the same

²⁵⁰ Krejcie and Morgan sampling guide lines 1970

²⁵¹Encyclopedia of Research Designby: Neil J.

Salkind**Published:** 2010: <https://dx.doi.org/10.4135/9781412961288.n333>

questions will be posed to the respondents by way of using the interview guide.

4.6. Documentary Review

Document analysis involved reviewing existing published and unpublished information relating to the application of PPP in protecting the environment against dangerous activities of Uganda's oil and gas industry. The researcher reviewed material from the internet, textbooks, reports, journals articles among others. This approach helped the researcher in accessing relevant information that is deemed useful in responding to on the study. References from which data is drawn are recognized in this study. The study used a documentary review checklist to gather information for each of the objectives which are line with the variables of the study.²⁵²

4.6.1. Validity and Reliability

Validity refers to the degree in which our test or other measuring device is truly and accurately accessing what we intend it to empirically quantify. Reliability is the term used when referring to the consistency of a particular test among different administrations. Reliability will be measured using the Cronbach Alpha Value while Validity measured using the Content Validity Index.

4.6.2. Data Analysis

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

4.7. Ethical Considerations

Research of this nature, whose objectives are furnished on sensitive topics creates some difficult in obtaining honest responses to some of the questions posed considering that some of the participants felt insecure in as far as disclosing their identity is concerned. Matters of

²⁵² Encyclopedia of Research Design **by:** Neil J.

Salkind **Published:** 2010: <https://dx.doi.org/10.4135/9781412961288.n333>, W.Van Boom &R.Van Gestel evaluating the results from Dutch legal publication , a survey of (2017)13 Utrecht Law review no 3 pg 9-27

confidentiality for the respondents in the study were addressed from the commencement of the research up to the stage of circulating the results. Consequently, the presence of an allowance for safety nets such as assurance of confidentiality and concealment of the respondents' remained vital. The only amount of personal data that was collected for the research is the minimal amount needed to insure a proper sampling of the population for the research purpose.

As a result, the data obtained from the respondents were purely for academic aspects and shall be treated as confidential as possible for the safety, social and psychological well-being of the respondents and appropriate documentation will be kept. The respondents, who for purpose of study preferred anonymity, was selected based on their willingness to participate without compulsion and their informed consent was sought. The researcher explained to the respondents the purpose of the study and the terms and conditions associated with the confidential particular and information they provided.

As such the researcher has explained where they got information from by way of citation and use of quotation marks respectively. This has helped the researcher to maintain credibility of the literature used. .

4.9. Conclusion

In conclusion therefore, since Uganda is yet to start exploiting its oil and gas resources in a few times to come, the PPP will be of such a great importance if it's well utilised with the system of environmental protections early as the exploitation will commence.²⁵³ This principle should also be employed together with other principles like the precautionary principle and other economic instruments as seen within the data analysis.

²⁵³ <https://observer.ug/news/headlines/59510-uganda-s-first-oil-production-now-pushed-to-2022>

CHAPTER FIVE: DATA PRESENTATION AND ANALYSIS

5.1. Introduction to analyzing the questionnaire and interview response rates

This chapter analyses the questionnaire and interview-based survey data collected in three sections. Section 5.1 summarizes the contents of the chapter. It is followed by section 5.2, which analyses the questionnaire and interview response rates. Finally, sections 5.3 and 5.4 analyse the main findings of the survey.

5.1.1. Questionnaire response

The general response rate for questionnaires ranges from 10% to 90% but when a questionnaire is designed well, the response rates are even higher.²⁵⁴ As already observed in chapter 4, of this study, 28 questionnaires were administered to key informants from all the 6 groups of the respondents and 23 were returned/collected fully answered. That is equivalent to a response rate of 82.1% of all the issued questionnaires: by the standards above, this was a good response rate.

The questionnaire covering the demographic characteristics 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 served in their respective positions for over 10 years and had gained hands on experience that made them adequately skilled and fairly knowledgeable for purposes of in responding 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, therefore they have the necessary exposure and experience to adequately respond to the questionnaires administered. As such, the quality of the responses provided is reliable.

5.1.2. 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, they opted for a telephone interview. Only 17 of them, representing 73.9% of all respondents that filled in and returned the questionnaires,

²⁵⁴ Elizabeth Wanger, getting research published: An A to Z of publication strategy, (oxford, Radcliffe Publishing 2010) 46

allowed a short telephone interview. This translates into 63.6% of the total respondents that received questionnaires including those that never responded as reflected in the literature and evidence discussed above.

5.1.3. Questionnaires issued and returned & Interview response rates.

The high response rates recorded in this study were due to; firstly, the influence of an introductory letter printed on the letterhead of and by the institute and the respective influence 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 5 years, the researcher knew most of the respondents and as such, there was constant telephone communication in respect of the questionnaires and interviews.

5.2. Analysis of the main findings of the study

This section uses the analytical framework described in chapter 2 and the data collected using the questionnaire and telephone interview survey to analyse the efficacy of polluter pays principle as a mechanism of protecting the environment from activities of oil extraction in Uganda. The chapter analyses the questionnaire and interview-based survey data collected in three sections of chapter 5 above.

5.2.1. Analysis of the questionnaire and interview response rates

5.2.2. Questionnaire response

The general response rate for questionnaires ranges from 10% to 90% but when a questionnaire is designed well, the response rates are even higher.²⁵⁵ As already observed in chapter 4, in this study, 28 questionnaires were administered to key informants from all the 6 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 rate²⁵⁶.

²⁵⁵ Elizabeth Wanger, *getting research published: an A to Z of publication strategy*, (oxford, Radcliffe Publishing 2010) 46

²⁵⁶ See Table 5.1

5.3 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, 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.

5.4. Analysis of the main findings of the study

The section uses the analytical framework described in chapter 2 and the data collected using the questionnaire and telephone interview survey to analyse the efficacy of PPP as a mechanism of protecting the environment from activities of Uganda's oil extraction

It precisely used the frameworks of factor criteria, especially the economic instruments ie, pollution charges, marketable permits, subsidies, deposit refund system, enforcement incentives, legal caps, laws and policies etc.

5.4.1. The Survey Findings

The study set out to analyse how Uganda positions its polluter pays principle to bridge the gap between the main aim of environmental protection and sustainable development. This bridge is very critical for Uganda's economic growth and development while minimising the likely environmental damage. In the course of resolving this issue, the study contemporaneously identified the features constituting the PPP on the one hand while on the other hand analysing its efficacy as a mechanism of environmental protection from hazardous activities of the country's oil extraction. This way, the study explained the sophisticated matrix through which the PPP can handle environmental protection to satisfy objectives of national development and still ensures that the PPP doesn't deter economic development by ensuring that it serves its purpose of deterrence to the would-be polluters.

Additionally, the respondents were also asked to articulate on whether: Law and policies can use penalties, compensation, restoration, mitigating damage to the environment, environmental protection, legal caps and costs and payment of fines under the National Environment Act of 2019 as well as economic instruments to improve the efficacy of PPP.

The respondents were further questioned whether the implementation of policies and the mode

of implementations that are founded on PPP strategies is sufficient in preserving and protecting the environment from the sector pollution, or whether the PPP is in itself an efficient mechanism of protecting the environment.

They were also examined if there was need to harmonize the regime and create a specific law for environmental protection in oil and gas industry.

The respondents were asked whether the current National Environment Act and other laws were progressive and if they appropriately balance the public interest of environmental protection and economic growth of the country.

In order to measure the efficacy of the PPP in protecting the environment from the dangerous activities of oil extraction in Uganda, the researcher engaged respondents for their opinions in terms of the four attributes of the PPP as discussed in detail below.

5.4.2. Economic Instruments

Economic Instruments are market-based mechanisms that are designed to influence people's behaviour.²⁵⁷ They are policy instruments other than the Command and Control Mechanism aimed at inducing a change in 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”.*²⁵⁸

Pigou suggests 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

²⁵⁷ Raja, M.Y. “Economic Approaches in Addressing Environmental Issues” Cover Feature, Malaysia Government Annual Bulletin, *Ingenieur* Page 19

²⁵⁸ ‘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

Pigouvian tax²⁵⁹. Dales 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 instead.²⁶⁰

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.²⁶¹ 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.²⁶² It also includes incentives such as subsidies; rewards for desired behaviour; and in similar vein disincentives such as taxes or charges for undesired behaviour.

Accordingly, 69.6% strongly agreed and 30.4% agreed that the economic instruments can be used as a mechanism of improving efficiency of the PPP. The principle is an effective one in combating against environmental pollution in Uganda's oil and gas industry. However, of those that agreed to have a telephone interview in addition to the questionnaire 58.8% noted that effectiveness of economic instruments on this principle is long overdue. They further said that the PPP if well implemented can effectively help to protect the environment from the hazardous nature of oil and gas extraction activities.

It is important to note that the current fiscal regime has some neutral taxes like corporate income tax, capital gains tax and withholding taxes but noted that for the sake of the PPP there is need to employ more economic instruments if we desire to get better results on environmental protection using the PPP. Some noted that even the action of government introducing exemptions to the principle of PPP was an unrealistic and proper violation of the principle itself.

The introduction of market permits in the United States, to reduce the leaded content of

²⁵⁹ Supra

²⁶⁰ Dales, J. *Pollution, Property and Price* (Toronto University Press, 1968) 67

²⁶¹ Organisation for Economic Cooperation and Development (OECD)

²⁶² Ibid

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 emit materials that are within its allowed emissions limit. This would naturally reduce emissions and create incentive for the adoption of less polluting production techniques.

Pollution Charges:

The pollution charges are prices paid on the use of the environment.²⁶³ 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,²⁶⁴ 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.

The respondents were asked of their opinion on whether the aspect of pollution charges can be used as an additional mechanism under the PPP to help protect the environment from pollution releases from the oil and gas sector in Uganda. And these were as follows: 54.8% of the respondents that were all the government employees that is, replied, agreed that the current state of application of PPP was not certain and as such there is need to strengthen its application by use of such instruments like pollution charges, that the per cent of pollution charges should be uplifted which will then help deter the polluters from pollution release, 31.6% were neutral. While a number of them strongly blamed the said low pollution charges imposed and on lack of a specialized oil and gas environmental law. The per cent that agreed said that the presence of policies on pollution charges would increase the efficiency of the PPP in promoting environmental protection.²⁶⁵

²⁶³ 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

²⁶⁴Oklahoma Policy Institute <http://www.okpolicy.org/resources/online-budget.html>

²⁶⁵ 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

Lack of transparency, the respondents was asked if the issue of transparency is affecting the application of the PPP in protecting the environment from the sector releases. 78.3 % strongly agreed that there is lack of transparency in the application of the PPP as well as environmental protection are concerned but only 34.8 % strongly agreed that there is a loophole in as far as understanding the PPP as a mechanism of protecting the environment from dangerous activities of oil extraction is concerned .

An equal number strongly disagree that the lack of transparency greatly responsible for uncertainty in the implementation of the PPP. All those who indicated that there was a lack of transparency in the PPP also indicated the need to sensitize the public about the role of the PPP as a tool for environmental protection in Uganda's oil and gas industry.

Risks sharing, the respondents were asked whether the current petroleum fiscal regime fairly distributes pollution risk to the parties concerned, On the other hand, 65.2% strongly disagree that due to the inefficient application of the PPP, THE Risk of pollution has been greatly resting on the government because the Polluters have not been clearly put to liability of their actions and this makes the risk distribution unfair and 30.8 % said that risk sharing is an acceptable criterion for measuring the competitiveness of fiscal regime as well as helping in the efficient application of the PPP.

During the telephone interviews, 76.5% indicated that although there is risk sharing across the sector in policy and law books such that the IOCs bears risks of their pollution releases, on ground, the biggest risks are usually borne by Host Government due to the fact that over time now there has been inefficient application of pollution control principles like the PPP as a result of poor implementation of the PPP.

Legal cap

Legal cap is the maximum percentage release of pollutants in the air beyond which the polluter is held liable for pollution of the environment, its highly recommended that a legal cap is put forward to help in the efficient applicability of the PPP in the sector. The respondents were asked on the relevance of the existing legal cap on pollution with regard to the application of the PPP and environmental protection from pollution from the sector,70% of the respondents strongly agreed that the legal caps on liability of the polluters should be removed so that the polluters are held fully accountable for their actions.

Consequently, the polluters can pay for 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 while 30 % said that besides the removal of the legal cap, the implementation of the application of the PPP should be strengthened. Therefore, the compensations and penalties must be higher to make it hard for the polluters to damage the environment in the fear of no legal cap to pollution.

5.4.3. Subsidies and setting standards.

A subsidy is a benefit given to an individual, business, or institution, usually by the government. It is usually in the form of a cash payment or a tax reduction. The subsidy is typically given to remove some type of burden, and it is often considered to be in the overall interest of the public, given to promote a social good or an economic policy. In economic theory, subsidies can be used to offset market failures and externalities in order to achieve greater economic efficiency.²⁶⁶

However, critics of subsidies point to problems with calculating optimal subsidies, overcoming unseen costs, and preventing political incentives from making subsidies more burdensome than they are beneficial.²⁶⁷

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 by the respondents.

An interviewee said that some industries need protection from external competition to maximize domestic benefit. Technically speaking, a free market economy is free of subsidies; introducing one transforms it into a mixed economy. He said that if Uganda has to achieve a clean and healthy environment, then subsidies to some of these potential polluter industries

²⁶⁶<https://www.investopedia.com/terms/s/subsidy.asp>,
<https://www.economicsonline.co.uk/Definitions/Subsidy.html>

²⁶⁷<https://www.investopedia.com/terms/s/subsidy.asp>,
<https://www.economicsonline.co.uk/Definitions/Subsidyt.html>

should be removed.²⁶⁸

From the general interview responses, 56.5% strongly agreed for the removal of subsidies and 43.5% said that government subsidies can be given to some of these companies to improve their efficiencies, however proper standards by the oil companies can increase the efficacy of the PPP as a way of encouraging more companies to recognise the PPP and setting up well established standards for enforcement of these rules besides them getting the subsidies while 4.4% of the respondents had remained neutral.

Environmental standards are set by a government and can include prohibition of specific activities, mandating the frequency and methods of monitoring, and requiring permits for the use of land or water. Environmental standards are meant to produce quantifiable and enforceable laws that promote environmental protection.²⁶⁹

Setting environmental standards impose a cost on the polluter if he does not already 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 amount of emissions allowed under the standard.²⁷⁰

From the general interview, 86% strongly agreed to the setting of efficient environmental standards to the oil companies so long as the enforcement agencies will adequately do their parts, this will ease the application of the PPP within the sector.

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 industrial plants

²⁶⁸ Information obtained from an interviewee from the Ministry of finance senior personnel

²⁶⁹ Pinkau, K. (1998). Environmental Standards: Scientific Foundations and Rational Procedures of Radiological Risk Management.

²⁷⁰ Ibid 305

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.²⁷¹

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.²⁷² From the interview, 78 % strongly agreed to the used of marketable permits as a way of applying the PPP to prevent pollution from the sector as well as increasing compliance to the application of the principle.

It is also possible to implement PPP through carbon price where the charge is imposed on the emission of greenhouse gases from the oil industry and other industries equivalent to the corresponding potential cost caused 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.²⁷³

However, many economists argue that carbon pricing²⁷⁴ 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 PPP or countries that lack environmental regulations where they continue to polluter without any restrictions hence creating implementation challenge.

²⁷¹ Dales, J. *Pollution, Property and Price* (Toronto University Press, 1968) 67

²⁷² Dales, J. *Pollution, Property and Price* (Toronto University Press, 1968) 67

²⁷³ Bob Ward and Naomi Hicks of Grantham Research Institute at LSE in Collaboration with the Guardian polluter pays principle in Britain.2012.

²⁷⁴ Bob Ward and Naomi Hicks of Grantham Research Institute at LSE in Collaboration with the Guardian polluter pays principle in Britain.2012.

5.4.4. Further Analysis.

From the responses to the research questionnaires and telephone interview it is self-evident that the PPP has a big critical role to play in protecting the environment from dangerous activities of oil and gas industry in Uganda because the current PPP is characterized by both punitive deterrence and prevention except for the loopholes in policies of implementing the weaknesses in enforcements.

Under punitive deterrence, the polluter pays for the costs of his damages to the environment, he is also expected to compensate the people who have been directly affected by their activities through payment of fines and costs of the damage of the pollution to the entire ecosystem conferring to the magnitude of this damage as a way of restoring the environment to its previous form before the pollution occurred.

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

According the responses above, it jointly denotes that the combination of both the PPP and other principles of international environmental law for example the precautionary principle and other best practices of environmental laws should be well in place to improve the efficacy of the PPP. It was also notes that the efficacy of the PPP is something that should 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 from hazardous emissions of the oil and gas sector hence leading to environmental protection.

Consequently, a country like Uganda is best suited to borrowing lessons and examples from the other already oil producing countries like Nigeria, Mexico, UK because the circumstances of each country is very unique and hence making a uniform of application of the principle becomes unrealistic. And as such, Uganda cannot be seen to adopt a substantial number of policies from Nigeria's position or even the UK, because, these countries have differences in their legal systems, their rates of pollution rates, levels of population growth, levels of industrialisation coupled with Uganda's limited involvement in actual oil production but rather borrow lessons from some of these countries.

It is important to then note that the question as to whether the PPP is very effective is largely depends on which side of the coin you are, that is while the Uganda's views will argue that its effective, the investors or IOCs involved in these activities will assert that it is not effective because both parties' interests are non-complimentary.

Nonetheless, at the end of the day, it is agreeable that the PPP is an effective principle in guarding the environment against the dangerous activities of oil and gas industry. However, its effectiveness cannot be rated independently because it is surely dependent on other international principles as well as factors. Moreover the implementation and the enforcement of the principle by the responsible government agencies have a bigger force in the principle's efficacy.

Therefore, penalties and fines that are inclusive of adequate and deterrent compensation must be strengthened and at the same time increase enforcement as a mechanism of punishing law offenders while also deterring potential offenders future .

5.5. Summary of Findings

In reflecting at Chapter one, it clearly brought out the problem of the study into effective analysis by examining whether the existence of the PPP is a mechanism for protecting the environment from pollution from the on oil and gas.

There has been a constant increase of the rate of pollution into the environment in Uganda and while borrowing example from the other countries who are actively exploiting their oil and gas.

The review of the literature also, discovered that without clear, regulation, a high degree of a tough monitoring is unlikely to ensure effective control of pollution from the sector. Chapter three of the study has established, that Uganda's legal and Policy framework for oil and gas is wide-ranging enough to have allowed an effective legal and regulatory framework for sustainable exploitation of the oil and gas resources except for some loopholes in the implementation and enforcement of the policies and laws.

The research also revealed that the existing legal provisions on pollution control in Uganda are not only weak but also unclear hence enable ensure adequate monitoring and enforcement mechanisms hence problematic applying the PPP. The potential polluters or licensees are more likely to take advantage of the loopholes in the law to release pollutants as much as they can into the environment. These known gaps must be filled if Ugandans are to be assured of controlled pollution from the sector especially the local communities in the Albertine region like Hoima, Bulisa and the rest.

Having noted earlier that the most prevalent form of pollution from the sector are oil spills and gas flaring, the technical team of the MEMD also confirmed that first gas flaring occurred on the first oil wells i.e. The Mputa, Waraga and Kingfisher wells produced a substantial amount of smoke and some drops of oil were spilled all over the surrounding locality of the oil fields.

The contamination effects irritated the community in a radius of more than 200 meters away from the oil wells that were caused by incomplete combustion. The Team also noted that this problem was later remedied by hosting improved technology in the form of Ever Green Burner which does not produce any smoke and has a vaporizer which guarantees comprehensive burning unlike the first conservative flaring methods.²⁷⁵

With regard to conduct of Environment Impact Assessments as required, the findings evidenced that the law and regulations governing EIAs in Uganda are not suitable for developing countries Uganda inclusive. The law i.e. the National environment Act 2019 places the duty to select a technical person or entity for the EIA exercises on the investors or licenses in the case of oil and gas.²⁷⁶ This leads to a high likelihood that the impacts of an activity like pollution will be offered from the viewpoint of the oil companies or the Licensees and as such results are always not environmentally friendly in nature.²⁷⁷

The role of NEMA to review and approve the reports presented by licenses has been doubted by some of the interviewees especially NAPE. They argue that the procedure and laws are so prone to abuse by the parties involved and so can hardly produce objective assessments. The MEMD also seemed to acknowledge the fact that the current EIA laws and regulations make everything appear like a self-assessment in favor of the IOCs or Licensees²⁷⁸

A senior petroleum Engineer from NAVODA noted that some states in the USA conduct their own EIA and demand compliance with the findings and he said this seems to be ideal because it would ensure credibility. He also noted that on the part of NEMA, its professionalism and integrity were highlighted as unlikely to guarantee trustworthy assessments when looking at

²⁷⁵ Information obtained from an interview with the team from the MEMD

²⁷⁷ Information obtained from an interview with the team from the MEMD

²⁷⁸ ²⁷⁸ Ibid 311

the several deficiencies viewed by Ugandans in line with environmental hazards, there is little trust in the EIAs always conducted by NEMA.

According to MEMD, most of the laws and regulations are new as well as the oil industry is and since the laws adopted the goal setting approach, there is need to develop best technologies that prevents pollutions in itself ,the study found that it is necessary to restrict issues like flaring to a specific tested technology such as the evergreen burner to ensure the safety of the environment from such pollutions.²⁷⁹

It is important to note, that additional findings presented that challenges like insufficient funding of the enforcement agencies, insufficient technical capacity of law enforcers especially at the district levels in the Albertine region , lack of technical equipment to identify pollution and measure air quality standard required and the belated issuance of legally enforceable air quality standards in form of percentages , poor infrastructure, inadequate data and information and challenges in ensuring effective monitoring and achieving compliance with environmental standards are very likely to hinder effective control of pollution from the sector.

The District environmental office of Bulisa believes that since there are already existing laws governing the right to access of information. These propositions places hope that with increased literacy and awareness of procedures to acquire information.

That with this, the public will be empowered to demand accountability for any adversative actions by the government and the licensees on the environment especially in the Albertine Region where the Oil and Gas activities are located.²⁸⁰

5.5.1. Institutional Framework for oil and gas as regards control of Pollution

The law though not very sufficiently has managed to provide for the duties and obligations of the lead institutions for oil and gas as regards to control of pollution, as discussed below, however the institutions from the findings seems to be weak in doing their work and there is need to strengthen these institutions in terms of human resource, financially and

²⁷⁹ Information obtained from a senior official from the MEMD

²⁸⁰ Information obtained from a senior official from the District Environment Officer of Buliisa District

technologically so that Uganda is able to archive an efficient applicability of the PPP as a mechanism of protecting the environment from pollution arising from the sector.

The crucial institutions responsible for running of petroleum activities in Uganda include the Petroleum Authority of Uganda which is mandated to monitor and regulate all operations of the licensed oil companies.²⁸¹ Prior to its creation, the Ministry of Energy and Mineral Development deployed on-site field monitors during all company operations to among other things ensure that the executed work programmes and budgets are in-line with those approved and follow-up to ensure that work is undertaken in line with the provisions of the Laws, PSAs and Regulations.²⁸² The Companies are required to submit daily reports regarding operations, including the costs for the operations.²⁸³

The National Oil Company (NOC) is responsible for performing the state participation role in the licenses, taking forward capacity building for Uganda's in the oil and gas sector and Ugandan's commercial interest in the approved projects and to market Uganda's share in the petroleum.²⁸⁴ The government of Uganda has a legal right to participate in petroleum activities through a specified participating interest of a license, or contract granted under PEDPA and in the joint venture established by a joint operating agreement in accordance with the licence and the Act.

The MEMD is responsible for the Energy sector handling the policy formulation role, policy implementation and monitoring. Particularly the Directorate of Petroleum, through the three departments of Upstream, Midstream and Downstream is responsible for policy issues and licensing.²⁸⁵ The findings also show that there is a loophole in the policies already made as well as the implementations and enforcements of the same.

²⁸¹Section 10 (1) of the Petroleum (Exploration, Development and Production) Act.

²⁸² MEMD, The Oil and Gas Sector in Uganda: Frequently Asked Questions, January 2017.

²⁸³ *Ibid.*

²⁸⁴ MEMD; Petroleum Activities and Investment Opportunities in Uganda, 2017. P.10 and S.43 of the PEDPA.

²⁸⁵ *Ibid.*

The research findings indicate that every activity in the oil sector has a commercial consequence on the interest of Uganda and the NOC is responsible for effectively safeguarding the country's interest.

The other is NEMA established by the NEA. It is a prime agency in matters of environmental protection with very specific directive to make regulations for the control of petroleum activities under section 3 of the PEDPA. It is also mandated with the role of regulating EIAs for all industrial projects including oil and gas and in particular pollution from the sector.

As such the researcher contents that if these authorities / ministry hold strong upon their designated duties , the applicability of the PPP in protecting the environment will be efficient and as such Uganda will achieve the health and safe environment free from pollutions arising from the sector. The researcher is certain that proper coordination and cooperation must exist for the oil sector to succeed; especially the cooperation between the government agencies, the public; especially the Albertine region.

5.5.2. The 'resource curse' fears

The study also revealed that the exploitation of this natural recourse should be handled with care to avoid the emergence of the resource curse because should this happen , the oil exploitation will become of very great disadvantage to the economy like it happened in Nigeria, if the PPP is effectively applied in the control of pollution from the sector , this could be another way of efficiently exploiting the resource without having it to affect the other activities like agriculture, tourism and the like which can be greatly affected by pollution release and not for getting the human resources who are usually affected by hazardous environment affecting their health and also productivity in the long run. In this way the whole round economy will have been affected by the eventual poor management of the petroleum exploitation.²⁸⁶

The 'resource curse' has been painted to emphasize conditions where the exploitation of the resources like oil and gas tend to produce less benefits and cause significant harm. The resource curse usually manifest through political conflict over the resources, high inequality in the

²⁸⁶ Interview information from aa senior officer from NEMA carried out on the 8 June 2020

sharing of benefits, environmental pollution due to low capacity for environmental monitoring and enforcement of standards, corruption and ‘rent seeking’.²⁸⁷

The resource curse can happen to Uganda if the resource is not properly managed. Natural resources can either be a curse or a blessings depending on the management of these recourses by a nation and that’s why other countries benefit and others loose from their own natural resources, leading to the loosing experience appreciation of the real; exchange rate, deindustrialization and poor growth prospects while those who gain experience boosted growth of industries , good exchanges and an even growth of the other sectors²⁸⁸ some resource rich countries like Botswana and Norway are very successful from their resource exploitations , the main question remains why other countries fail yet they all anticipated success.²⁸⁹

5.2.3. The Dutch Disease

The resource curse is also associated with what is commonly known as the Dutch disease, which occurs when oil windfalls push up the real exchange rate of a country’s currency, rendering most other exports or activities noncompetitive. The persistency of this disease provokes a rapid, even distorted growth of services, transportation, and construction, while simultaneously discouraging some industrialization and agriculture.²⁹⁰

Agricultural exports, a labor intensive activity particularly important to the poor – are adversely affected by economic dynamics set off by the exploitation of petroleum and dependency on petroleum exploitation and this has had the potential of thereby exacerbating other problems of dependency, but it can also lead to a permanent loss of competitiveness while, the oil sector cannot also make up the shortfall.²⁹¹

²⁸⁷ Oil in Uganda; What are the ‘Natural Resource Curse’ and ‘Dutch Disease’? [Http://Www.Oilinuganda.Org/Facts-Faqs/Global-Oil-Facts-Faqs/What-Are-The-Natural-Resource-Curse-And-Dutch-Disease.Html](http://Www.Oilinuganda.Org/Facts-Faqs/Global-Oil-Facts-Faqs/What-Are-The-Natural-Resource-Curse-And-Dutch-Disease.Html) Accessed 24/2/18.

²⁸⁸ CEF-ifo working paper No 3125, revised on 13 June 2010

²⁸⁹ supra

²⁹⁰ see WRI (2011). Op. cit. 22 International Alert

²⁹¹ Source: I. Gary and T. L. Karl (2003). Bottom of the barrel: Africa’s oil boom and the poor. Baltimore: Catholic Relief Services. p.22. Available at http://crs.org/publications/showpdf.cfm?pdf_id=183 For oil to be effectively

The increase in revenue from the oil adversely affects the development of the other sectors of the economy by appreciating the local currency which in turn makes the other activities like agriculture, industrialization and the like less competitive hence affecting the country.²⁹²

Within the Albertine region where the oil activities are, the tourism sector for example is at a great risk since most petroleum activities will take place in the Albertine region. Findings showed that the petroleum activities involve huge noise, pollution of all kinds including air, water and soils. Agriculture, both fishing and farming can be destroyed like it happened in Ogoni land Nigeria.²⁹³

All major National parks are located in the Albertine region and as a result of petroleum activities, tourism huge contribution to the economy may be lost if the resource exploitation is not handled well from the onset. Interview with officer at Kabwoya Game Reserve in Hoima revealed that the oil companies were given guidelines to follow during the conduct of petroleum activities which include strict control of pollution to enable co-existence of oil and wild life.²⁹⁴

According to NEMA, the public should understand that both oil and tourism are necessary for Uganda's environment and what is important is proper enforcement of standards governing the operations in protected areas.²⁹⁵ Consequently, the government should deliberately try to maintain all other sectors to avoid the Dutch disease but this will depend on the effectiveness of monitoring and transparency at all levels of implementation.

In conclusion, the researcher agrees that when the oil resources are exploited efficiently and with due regard to the development of the other sectors, Uganda should be able to avoid a scenarios of the Dutch disease or the oil curse. Uganda should use the great opportunity to plan for the challenges identified since it is yet in preparation stages for production and

managed, there should also be a policy environment

²⁹² L Bategeka J. Matovu; Economic Policy Research Centre; Oil Wealth and Potential Dutch Disease Effects in Uganda, 2011.

²⁹³ Supra

²⁹⁴ Interviews carried out with officer of Kabwoya Game Reserve on 16/4/2020.

²⁹⁵ Interview Information From The Senior Environmental Inspector NEMA Held On 23/4/2020.

considering the fact that exploitation may commence soon as projected. so far its noted that about 15 wells are ready for production soon out of the 21 discovered oil fields.

This presents a unlimited chance to Uganda to fix all holes that have been identified before actual production commences in the Albertine region so as to avoid such disasters caused to humanity in other already oil producing countries like Nigeria and for this Uganda is lucky to have a platform of where to borrow learning's from before it actually falls in to the disasters.

CHAPTER SIX: CONCLUSION

Conclusion, Recommendations, Limitations and areas For Future Research

6.0. Summary

This study was about the efficacy of the PPP as a mechanism of protection of the environment against hazardous activities of oil extraction in Uganda. Specifically, the focus was on the extent of the efficacy of the PPP as a principle of environmental protection. In analysing this issue, the study evaluated the PPP and how it affects and application as a way of environmental protection from dangerous activities of oil and gas industry.

While evaluating whether the PPP was very effective, it largely depended on which side of the coin the research participants were inclined., while in Uganda's view it can be argue that it is not effective if the implementations of the laws and other factors are kept constant, the investors or international oil companies involved will assert that it is effective because both parties' interests are non-complimentary.

Nonetheless, at the end of the day while picking the average views of the respondents to the research, it is agreeable that the PPP can be effective tool in guarding the environment against the hazardous activities of oil and gas industry. However, its effectiveness depends basically on implementation and the enforcement of the principle by the responsible government agencies, the availability of detailed laws and policies on environmental protection and the PPP.

Therefore, laws, policies, penalties and fines inclusive of adequate and deterrent compensation must be strengthened and increased for better results in as far as environmental protection is concerned. At the same time enforcement as a mechanism of punishing law offenders deterring the future would be offenders would make a good deal in implementing the principle, the respondents also recommends the use of other factors like economic instruments as discussed

above to help in compliance with the applicability of the PPP in the sector activities.

6.1. Limitations of the Study

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

6.1.2. Cost of the Research:

The research involved a lot of moving up and down collecting data and telephone calls to coordinate the distribution of questionnaires and telephone interviews, costs of internet for research, printing materials for the research, which necessitated financial cover. The researcher had to dig deeper into their pockets to facilitate the completion of the research.

Limited published data on the subject matter in Uganda, this is because this is still a virgin area under development, the subject of this study is highly technical and covers new areas with limited published materials especially for the case of Uganda. As such, there is lack of locally available data yet internet access is poor and expensive. This challenge is partly due to the oil industry being an upcoming industry yet to kick off with production.

Despite the challenge, the researcher managed to acquire much of the used information online while borrowing examples and lessons from other oil producing industries and this has been of a great help considering that most government departments like NEMA had less information on my subjective topic as yet. The researcher managed this limitation by borrowing examples and lessons from other successful oil producing countries like USA, Norway and Nigeria.

6.1.3. Companies' policies:

Due to some respondent company policies, it was difficult to get some data from some respondents, this explains why out of the 28 questionnaires administered only 23 were returned. Some respondents from some of these companies turned down the questionnaires and returned them unfiled due to policies in their companies that do not allow them to release out the company's information.

However, since the response rate was above 82% more than average the study proceeded with the returned questionnaires and accordingly interpreted and applied in the respective findings.

6.2. Recommendations

In order to gain and maintain the effectiveness of the PPP as a mechanism in environmental

protection, it is crucial that the principle is implemented to the later and the loopholes that exist in the present laws ought to be addressed and dealt with accordingly. Otherwise the application of the PPP will remain less effective especially when the polluters choose the non-compliance option like fines payments, since it is a cheaper compared to compliance with the principle which is too costly according to them.

In view of the findings and conclusions of the study, several recommendations are likely to enable Uganda to realize sustainable exploitation of gas have been made:

The Ministry of Energy and Mineral Development which is responsible for policy and licensing in the oil and gas sector should consider review of the current legal provisions on restriction of pollution from oil spills and gas flaring from the sector. Several main provisions intended to control or avoid pollution are unclear, non-direct and ambiguous and this makes monitoring and enforcement cannot be effective. The law should clearly set up environmental standards that should be strictly followed and the details how this can be achieved should be handled by the regulator at the field development planning and design levels.

The consequences of non-compliance with oil spills and gas flaring (pollution) regulations should be provided by the law in all cases. The law should clearly describe the consequences of non-compliance in detail in the regulatory document so that the operators are aware and, therefore can avoid breaches to these regulations a head of time.

The government should take interest in the global commitment to support avoidance of pollution generally from the sector. In cases where these pollutions are inevitable only safer technology should be approved for use by the authority.

The government should ensure that the Petroleum Authority and NEMA are sufficiently and technically equipped to ensure effective monitoring and compliance by licensees to avoid pollution especially trans-boundary pollution whose costs of clean up may swallow all the profits from the sector. For-example Pollution of Lake Albert and River Nile would affect all countries sharing the waters like South Sudan, Sudan, Ethiopia, Egypt and elsewhere and any compensation claims for damages and clean-up costs would leave Uganda without benefit from the oil and gas sector.

The Study also recommends mainstreaming environmental issues into District Development Plans of the Districts in the Albertine Region. There should be reasonable facilitation with basic equipment such as field inspection vehicles and more technical training in the oil and gas sector.

Consistent meetings should be held to detect environmental issues, prioritize them and incorporate them in work plans to assist in development of environmental Monitoring and Evaluation systems. This could also enable timely responses to environmental concerns.

Through the Ministry of Finance Planning and Economic Development, the Government should provide adequate funding to all institutions responsible for regulating, monitoring and enforcing compliance in the oil and gas sector. This should also cover the local Districts' departments responsible for monitoring of environmental activities in the Albertine region.

The government should ensure that the field development plans for the assessed wells are not approved unless they clearly provide for facilities for efficient pollution control from releases from the sector.

NEMA must rapidly put in place all pending regulations that are relevant to the control of pollution from petroleum activities. They include the air quality standards regulation which has remained in draft since 2002. Under S. 3 (8) of the PEDPA, NEMA is required to issue regulations for management production, transportation, storage, treatment and disposal of waste arising out of petroleum activities. The study recommends that the parliament should take interest and ensure that all required laws and regulations issued before production commences.

6.3 Conclusion

The study has revealed that the oil and gas sector is one of the leading industries in the emission of greenhouse gases besides oil spill pollutions from petroleum activities. This study has also revealed that the obligation by Uganda to control the emission of oil and gas substances is not well ground in the country's municipal laws and regulations as well as lack details of this aspect. The major finding is the legal provisions on control or restriction of pollution are weak and unclear and this has negatively impacted the possibility of effective monitoring and enforcement, the lead monitoring and evaluation agencies have not been sufficiently empowered to hand the implementation and enforcements of the existing laws on the applicability of the PPP and as such there is a strong need to empower these agencies like NEMA and the like.

Having observed Uganda's history of weak implementation in existing environmental laws due to a failure in sanctioning important regulations such as the regulations on required standards

of air quality, the ineffective regulation of the petroleum industry, especially with regard to pollution from the sector.

Consequently Uganda's application of the PPP has been and might remain futile as a result of the problems with pollution control plan, implementation and enforcements of the plan and the laws. Environmental sustainability under Uganda's Laws and Policies can only be realized if the green economy agenda for Uganda is efficiently assimilated in the oil and gas sector by effectively pledging to avoid Pollution through effective implementation of the PPP.

The researcher, therefore, emphasizes that the projected paybacks from the oil and Gas sector should in the long run be paid out in correcting the faults of failing to effectively avoid both licensed and unlicensed pollution from the sector. Misfortunes that occurred in Nigeria, such as physical environmental destruction, death, poverty and that agonized Nigerians will befall Uganda unless some of the researcher's recommendation are put in practice.

Finally, the researcher acknowledges that the sole presence of laws, regulations and policies alone is unlikely to address the problem of pollution from the sector in Uganda. But the long-lasting failures of the lead agency for environmental management and protection through the efficient application of the PPP could extend to the failure of management of petroleum activities in Uganda.

Production of first oil is expected in the nearby future which creates an opportunity to adjust the legal and institutional frameworks in order to enable an efficient application of the PPP to combat pollution from the sector if Uganda is to achieve a good and sustainable environmental management foundation for the oil sector in Uganda.

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**APPENDIX1: DATA COLLECTION QUESTIONNAIRE OF
UGANDA CHRISTIAN UNIVERSITY LLM OIL AND GAS CLASS.**

Dear respondents,

This questionnaire is intended to facilitate the study on “**THE EFFICACY OF THE POLLUTER PAYS PRINCIPLE IN PROTECTING UGANDAS ENVIRONMENT AGAINST HARZADOUS OIL AND GAS EXTRACTION.**”

The study is for academic purposes and is carried out in partial fulfilment of the requirements for the award of a Masters of Law 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.

To explain in brief, The principle implies that 'the polluter should bear the expenses of carrying out the measures decided by public authorities for ensuring that the environment is restored to an acceptable state and the cost of these measures, should also be reflected or taxed in the cost of goods and services which cause pollution in production or transportation of the oil, the polluter should be adequately made to bear the burden of the pollution damage cause.

However it has been noted that despite the existence of the PPP far much earlier even in countries which are already exploiting their oil resources, the rate of pollution from the sector is still high and high. As such the researcher is interested in investigating the efficacy of the principle as mechanism of environmental protection from pollution arising from the sector.

APPENDIX II: Consent Form

Dear respondent,

The researcher is Ms Amito Angel a master's student at Uganda Christian University in Partnership with Institute of Petroleum Studies-Kampala pursuing Masters of Laws in Oil and Gas and am carrying out a study paper on this topic,

The Efficacy of the Polluter Pays Principle in Protecting Uganda's Environment against Hazardous Oil and Gas Extraction. 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 neither will it 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.

Signature.....

Date

APPENDIX III: INTERVIEW GUIDE

Part One: Introduction Of The Researcher, the researcher is Ms Amto Angel a student of Masters of Law Oil and Gas of Uganda Christian University conducting an academic study on the study topic,

The Efficacy of the Polluter Pays Principle in Protecting Uganda’s Environment against Hazardous Oil and Gas Extraction.

Part Two, Introduction of the Respondent.

As a respondent who is a participant in this industry, I would like to interact with you on some key issues that might help me complete my study successfully. I would also like to thank you for your valuable time allocated to this interview in advance.

Title of the respondent

How long have you been in this industry?.....

Part Three: Problem Questions

1. What is the effectiveness of the PPP in protecting the environment from pollution arising from the oil and gas sector in Uganda?
2. How effective is the process of evaluating the proposed oil and gas activities as a step to protecting the environment from pollution arising from the sector?
3. What are some of the hindrances that are likely to affect the effective application of the PPP as a mechanism of protecting the environment from pollutions arising from the oil and gas sector?
4. What are the practical strategies and approaches that can be adopted to ensure effective application of the PPP in the id to protect the environment from pollution from the sector?
5. What are your recommendations in as far as the effective application of the PPP can be best achieved?