

USING ECONOMIC INSTRUMENTS FOR ENVIRONMENTAL PROTECTION IN NIGERIA: LEGAL FRAMEWORK*

Abstract

This paper examines the use of economic instruments to solve environmental issues in Nigeria and the extant legal framework. Explicitly in what ways economic instruments exempli gratia, tradeable emission permits, pollution charges, road tolls, administrative charges, effluent and emission taxes, export and import taxes, access fees, non-liability charges, environmental performance bonds, waste delivery and sanitation charges, subsidies and natural resource taxes can be utilised to protect the human environment. This paper bears down on the advantage of using economic instruments to safeguard the environment. The paper likewise argues a couple of issues and difficulties correlated with the management of economic instruments as in lack of determination by political actors to commit funds and political capital to attain desired objectives. This paper wraps up by highlighting the importance of centring attention on using economic instruments as a mechanism to solve environmental issues in Nigeria.

Keywords: Economic instruments, environmental protection, Legal Framework, Nigeria

1. Introduction

Human beings are at the centre of the environment, they impact the environment in several ways by carrying out activities that trigger pollution, burning of fossil fuels, deforestation, climate change, flooding, soil erosion, poor air quality, mass extinction of floras and faunas and depletion of natural resources. It has been argued that anthropocentrism represent the philosophical ‘viewpoint that human beings are the central or most significant entities in the world...’ that are “superior to nature and holds that human life has intrinsic value while other entities (including animals, plants, mineral resources, and so on) are resources that may justifiably be exploited for the benefit of humankind”.¹ Principle 1 of the Rio Declaration on Environment and Development adopted at the 1992 Earth Summit in Rio de Janeiro, echoes that “human beings are at the centre of concerns for sustainable development. They are entitled to a healthy and productive life in harmony with nature”.²

It has been argued by authors that the impact of environmental pollution from human activities on water, air quality and climate change are extensively damaging and harmful and exert adverse effects reaching unprecedented and disturbing proportions globally.³ This is where economic instruments steps in ‘as one of the efforts to prevent and control environmental pollution caused by industrial activities.’ In so doing, it seeks to balance the synergy of economic and social development...’ with emphasis ‘on maximum efforts to make use (sic) the natural resources and the environment in a sustainable manner and the purpose is to maximize the increase of social welfare (maximizing social well-being)’.⁴ Nigeria’s legislation on environmental safeguard, incorporate several provisions that include the use of economic instruments to solve environmental issues, thus, discourage unsustainable activities that degrade and despoil the environment. Some of these economic instruments mentioned earlier include but not limited to taxes, levies and charges intentionally designed to ensure compliance with environmental protection legislation.

Section 20 of the 1999 Constitution of the Federal Republic of Nigeria, provides that ‘the state shall protect and improve the environment, safeguard the water, air, land, forests and wildlife of Nigeria’. In order to fulfil the mandate contained in section 20 thereof, which unfortunately, is found under Chapter II, ‘Fundamental Objectives and Directive Principles of State Policy’, which is not justiciable, it has been argued that the courts can always find a way out of this by adopting a broader rule of interpretation in order to give life to the provision of section 20 of the 1999 Constitution.⁵ Thus, it could be argued that section 20 of the 1999 Constitution can be used as a legislative framework to develop legislation on economic instruments.⁶ Economic instruments are therefore, gaining extensive popularity in most jurisdictions globally as a measure for environmental protection and used in environmental policy to incentivize environmentally responsible behaviour and internalize environmental costs, offering a market-based approach to conservation. Economic instruments can be both ingenious and objective in solving environmental issues in autochthonous economic activities in Nigeria.

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¹ Sarah E. Boslaugh, ‘Anthropocentrism’ (Encyclopaedia Britannica 11 January 2016). <https://www.britannica.com/topic/anthropocentrism>. Accessed 3 August, 2025.

² Report of the United Nations Conference on Environment and Development (Rio de Janeiro, 3 – 14 June 1992). A/CONF. 151/26/Vol. 1, Rio Declaration on Environment and Development.

³ Great Iruoghene Edo et al, ‘Impact of Environmental Pollution from Human Activities on Water, Air Quality and Climate Change’ [2024] (44) (5) *Ecological Frontiers*. 874 – 889.

⁴ Indah Dwiprigitaningtias, Aliesa Amanita, Zulfika Ikravdinl, Lily Andayani, R. Ardini and Rakhmania Ardan, ‘The Role of Environmental Economic Instruments as One of the Efforts to Prevent and Control Environmental Pollution Caused by Industrial Activities’ [2020] *Conference Paper*. Doi:10.4108/len126-a-2020.2302613.

⁵ Theodore Okonkwo, ‘Environmental Constitutionalism in Nigeria: Are We There Yet?’ [2015] (13) *Nigerian Juridical Review*. 175 – 216.

⁶ See, Damilola S. Olawuyi, ‘Constitutionalizing Environmental Rights in Nigeria’ Reflections on the Question of Approach’ [2015]. *National Human Rights Commission Journal*.

2. Conceptual Clarifications and Theoretical Explanations

Adelegan and Itesi have argued that the environment not only accommodates the economy, it also provides the basic natural resources as inputs into productive and consumptive activities.⁷ Thus, economic instruments constitute a major approach used in achieving global environmental objectives.⁸ In this segment, it is intended to examine in a concise manner the following conceptualisations namely, the traditional command and control regulation which suggests that regulators should employ traditional regulation by telling polluters how they must reduce pollution.⁹ We shall also examine the terms economic instruments and environmental responsibility.

Traditional command and control regulation

According to Hong-Li Tang, Jin-guang and Jian-min Liu, command and control environmental regulation hindered the enterprise total factor productivity growth of industries in China. The authors argued that increasing cost and lower resource allocation efficiency 'are main influence channels'¹⁰ and that 'heavily polluted enterprise is more hindered than lightly polluted enterprise'.¹¹ Command-and-control environmental regulation is a traditional environmental policy that is still widely used in developing countries¹² and Nigeria is no exception. According to Puja Singhai, policy makers have long favoured command-and-control methods to tackle environmental damage¹³. In Nigeria, the number of legislation and policies on environmental protection has increased since the late 1980s and has formed a greater part of environmental laws and regulation. Between late 1980s and 2022 the most significant command-and-control legislation are the Harmful Waste (Special Criminal Provisions Etc.) Act Cap H1 LFN 2004; the Environmental Impact Assessment Act Cap E12 LFN 2004; the National Environmental Standards and Regulations Enforcement Agency (NESREA) Act 2007; the Climate Change Act 2021 and the Petroleum Industry Act 2021. These command-and-control environmental legislation adopt the use of standard settings, penal measures, and enjoins enforcement by government agencies to implement them in such a manner to protect the environment. It follows top-bottom approach providing standard settings, limits, prohibition on pollution, emissions and in some instances require industries to use the best available technologies to attain cleaner environment. The main feature of the command-and-control legislation is the criminalising of environmental inactions, which should not be so, they are merely *mala prohibita* and not *mala in se*. The potency and effectiveness of the command-and-control regulation has been subject of academic research and debate particularly their likely downside.¹⁴ They however, remain overriding force in developing countries like Nigeria. According to Adelegan and Itesi,¹⁵ command-and-control approach to environmental management is all about defining environmental standards in law by specifying them as ambient standards, technology-based standards and performance-based standards. Despite the rich literature on command-and-control and market-based environmental legislation and policies, the transition between them has received relatively less attention. There is need to analyse the trade-off between the abatement cost and innovation compensation effects of environmental regulations.¹⁶

Economic instruments

According to Hari Srinivas, economic instruments are tools that governments and businesses can use to influence economic behaviour.¹⁷ Economic instruments are incentive based policies that buoy up conservation management and pollution cutback policy. Regulatory instruments are labelled economic instruments for environmental conservation, environmental protection, ecological preservation, sustainable resource management and environmental stewardship and are used to limit human impact on the environment. They sway decision-making actions that results in alternative choices 'that lead to an environmentally more desirable situation than in their absence'. The environmental impact of production processes could be addressed through the use of economic instruments by tackling the complex issues of solid wastes and residue, liquid wastes, waste water, gaseous pollution and GHG emissions.¹⁸ According to Srinivas, economic instruments help in tackling this myriad of impacts using fiscal and other economic incentives and disincentives. Such instruments help incorporate

⁷Abiodun Edward Adelegan and Nyaluaziba Samuel Itesi, 'Economic Instruments for Environmental Sustainability in the Nigerian Oil and Gas Sector' [2019] (3) (12) *Saudi Journal of Economics and Finance*. 610 – 619.

⁸ Ibid, above n 7.

⁹ David Driesen, 'Economic Instruments for Sustainable Development' *Environmental Law for Sustainability: A Reader* (Benjamin T. Richardson & Stepan Wood eds., 2006).

¹⁰Hong-Li Tang; Jian-min Liu and Jin-guang Wu, 'The Impact of Command-and-Control Environmental Regulation on Enterprise Total Factor Productivity: A Quasi-Natural Experiment Based on China's "Two Control Zone" Policy'. [2020] (254) (120011) *Journal of Cleaner Production*.

¹¹ Ibid, above n 10.

¹² Ibid, above n 10.

¹³ Singhai Puja, 'Environmental Regulations: Lessons from the Command-and-Control Approach' [2018] (124) *DIW Roundup: Politikum Focus*. (Deutsches Institut für Wirtschaftsforschung (DIW), Berlin). 1 – 9.

¹⁴ KPV O'Sullivan and Darragh Flannery 'A Discussion on the Resilience of Command-and-Control Regulation Within Regulatory Behaviour Theories' [2012] (1) (1) *Journal of Governance and Regulation*. 15 – 24.

¹⁵ Ibid, above n 7.

¹⁶ Maogang Tang; Xiuzhen Li; Yun Zhang; Yingtao Wu and Baijun Wu, 'From Command-and-Control to Market-Based Environmental Policies: Optimal Transition Timing and China's Heterogeneous Environmental Effectiveness' [2020] *Economic Modelling*. 1- 10.

¹⁷ Srinivas Hari, 'Economic Instruments for Environmental Policy: Solving Global Environmental Problems with Local Economic Action' [2023] (Series E-190) (Kobe, Japan: Global Development Research Center).

¹⁸ Ibid above n 17.

environmental costs and benefits into the budgets of households and industries.¹⁹ The major categories of ‘economic instruments that governments have used globally to influence behaviour have traditionally been fiscal instruments (taxes, subsidies, fees, and charges)’.²⁰ Thus, government ensures direct jurisdiction and authority in matters of the rate of tax, subsidy or charge ‘as deciding how to spend any revenue raised’. There are several types of environmental taxes and ‘environmentally based fees and charges’ in existence today, such as, property rights; market creation; fiscal instruments-taxes and subsidies; charge systems-fines and fees; financial instruments-incentives; liability instruments-socially responsible behaviours; performance bonds and deposit refund systems.

Environmental responsibility

Environmental responsibility is the ability of organisations to carry out the obligation to manage their impact on the environment by adopting principles such as pollution prevention, sustainable resource use, and the protection of biodiversity, as well as accepting the consequences of their actions.²¹ Environmental responsibility is interlinked with environmental sustainability which is concerned with environmental management and the concept of inter-generational equity and exhaustible resources.²² Intergenerational equity is essential for sustainability and is key pillar of sustainable development which has been ‘reinvigorated globally by the United Nations 2030 Agenda for Sustainable Development (2030 Agenda)’.²³ Intergenerational equity refers to the principle that the current generation should responsibly use and conserve natural resources for the benefit of future generations. This is noteworthy given the fact that the environment fit in with the economy, resulting in economic growth with long term environmental consequences. This calls for a ‘balance between economic growth and the preservation of natural resources.’ The international response on environmental responsibility is reflected in several United Nations efforts at environmental protection such as the Rio Declaration,²⁴ Johannesburg Summit,²⁵ Kyoto Protocol,²⁶ the Copenhagen Summit²⁷ and the Paris Agreement on Climate Change.²⁸ The use of economic instruments to solve environmental issues in autochthonous economic activities becomes more relevant when we consider the theory of ‘Tragedy of the Commons’ which is the phenomenon where shared natural resources become depleted due to individuals acting in their own self-interest, resulting in environmental despoliation. This is so, because those utilising the resources lack a sense of responsibility for its sustainability and do not consider the long-term effects of their actions.²⁹ Under the circumstances, economic instruments by way of taxes and charges are likely to place restrictions and put a control on activities that harm the environment. Economic instruments could also be used ‘from the lens of negative externalities.’ Here, the unintended consequences of economic activities like pollution from industries could be tackled by the use of economic instruments which makes the person responsible for such activity to bear the costs.

Environmental issues create third-party impact where a person’s activities lead to costs and damages for others without such persons being compensated for those costs or damages. Where an industry emits smoke that causes pollution and affects the health of persons residing within the locality or causes damage, this is negative externality which creates costs ‘to the society, private cost, cost to the bystanders’.³⁰ Adelegan and Itesi, has written that negative externalities can be corrected by the use of economic instruments through taxes and charges. The authors argued that:

The tax/charge paying company will reflect the cost of the tax to the product thus increasing the unit price of the good. Depending on the price elasticity of the good, the demand will go down, thus forcing down the producer to produce less which will lead to a lesser amount of negative externality. This will eventually diminish the pressure on the environment, scarce resources and biodiversity.³¹

¹⁹ Srinivas Hari, *ibid*, above n 17.

²⁰ Adelegan and Itesi, n 7.

²¹ AI generated definition based on ‘Ethics Management in Libraries and other Information Services’ [2018] 127 – 168.

²² Robert M Solow, ‘Intergenerational Equity and Exhaustible Resources’ [1973] (103) *Working paper* Department of Economics, (Massachusetts Institute of Technology, Cambridge).

²³ Michelle Lim and Anna A Sidorovich, ‘Early0Career Experts Essential for Planetary Sustainability’ [2017] *Current Opinion in Environmental Sustainability*.

²⁴ A/CONF.151/26/Vol. 1: Rio Declaration on Environment and Development. The United Nations Conference on Environment and Development, also known as the Rio de Janeiro Conference or the Earth Summit, was a major United Nations Conference held in Rio de Janeiro from 3 to 14 June, 1992. The Rio Declaration on Environment and Development states that long term economic growth is only ensured if it is linked with the protection of the environment.

²⁵ The World Summit on Sustainable Development in Johannesburg adopted a Political Declaration and Implementation Plan which included provisions covering a set of activities and measures to be taken in order to achieve development that takes into account respect for the environment.

²⁶ The Protocol was adopted in Kyoto, Japan in 1997, as greenhouse gas emissions threatened climate stability. It was replaced by the Paris Agreement 2015 which went into effect in 2016. The Kyoto Protocol aimed to reduce carbon dioxide emissions and the presence of greenhouse gases (GHG) in the atmosphere.

²⁷ The 2009 United Nations Climate Change Conference, held at the Bella Centre in Copenhagen, Denmark, 7 - 18 December, 2009 with a political declaration affirming the need to limit global average temperature rise to no more than 2°C above pre-industrial levels (1750).

²⁸ The Paris Agreement is an international treaty on climate change that was signed in 2016. The treaty covers climate change mitigation, adaptation and finance. It was negotiated by 196 parties of the 2015 United Nations Climate Change Conference, Paris France.

²⁹ Hardin, G. *The Tragedy of the Commons* (Science 162 1968).

³⁰ Adelegan and Itesi, n 7.

³¹ *Ibid*, above n 30.

The position taken by Adelegan and Itesi accords with the polluter-pays-principle. In environmental law, the polluter-pays-principle makes a party responsible for producing pollution responsible for paying for the cost and damage done to the natural environment. This principle puts the costs of pollution prevention on the polluter. Thus, polluter-pays-principle balances economic growth and environmental protection by ensuring that the polluter should bear the cost of carrying out the measures. There is also the theory of environmental justice which is all about intergenerational equity concerning the application and use of natural resources. Society should be responsible enough to weigh the consequences of their activities not only on the environment *per se*, but on the present and future generations, the 'costs and benefit' of actions that impact on the environment should be considered.

3. Examination of Economic Instruments

Economic instruments are not merely monetary based policies, they encompass other major issues such as policy failures, institutional failures and market failures much of which determine 'the size of the economic instruments to be implemented as well as incentives to promote action and verification'. Economic instruments consist of data and information which includes monitoring, reporting and verification, environmental laws, government policies, technology solutions, stakeholder participation and commitment awareness, education,³² public enlightenment and advocacy. There are major categories of economic instruments: taxes and charges which are fees on pollutants, waste or resource extraction; subsidies which are financial support for environmentally beneficial activities and technologies; tradeable permits which allows companies to trade permits for emitting pollutants, creating a market for pollution reduction; deposit-refund systems-encouraging recycling or responsible waste disposal through monetary incentives; performance bonds and guarantees, requiring financial guarantees for environmental projects and activities. Other economic instruments include environmental damage rights and credits and transferrable development credits; tradeable quotas, for example in forestry, fisheries and water supply; resource rents and royalties; differential excise, value added taxes and tariffs. From government policy perspective, economic instruments can be employed to restrain adverse environmental activities, enhance social justice, raise revenue and recover public-sector costs. Use of economic instruments in environmental protection imposes legal responsibility in the pollution and environmental destruction due to exploitation of natural resources.³³

Indah, Aliesa, Zulfika, Lily and Andayani have argued that the role of environmental economic instruments as one of the efforts to prevent and control environmental pollution caused by industrial activities is to improve the public welfare so that as the process of development activities is increasing, it carries with it the danger of pollution which endangers the ecosystem. In their words, 'it requires environmental restoration costs which is high enough'. This brings in the issue of internalisation of environmental costs, which then holds business and industrial actors responsible including the cost of pollution in their production costs. 'These costs include the preventing of environmental pollution or damage, the monitoring of environmental pollution and damage'.³⁴ It is thus, argued that 'the synergy of economic and natural resources and the environment in a sustainable manner and purpose... should be maximised in order to maintain a balanced social well-being'. Hans Bressers and Dave Huiteman, has argued for the use of economic instruments for environmental protection, and asked the question. Can we trust the "magic carpet"?³⁵ They asked if economic instruments are a type of "magic carpet" for the trip to sustainable development. They found this argument flawed. This is so because other factors are involved in determining the effectiveness or otherwise of the use of economic instruments for environmental protection. Such factors range from policy making and implementation behavioural reactions of key target groups, interests of the actors involved and the institutional contexts of both policy-making and policy-learning³⁶. James Chen, has also discussed the issue from the perspective of environmental economics when he stated that it involves '...cost effective allocation use and protection of the world's natural resources.' According to James Chen, environmental economic instruments focus on how humans produce and consume goods and services, how they use and manage them in a manner that meets the needs of the present population without depleting that of the future generations yet unborn. The concern here is sustainability and what cost that should be placed on the environmental impact of such human activities. It therefore behoves on governments and standard setters to weigh the pros and cons of alternative measures and design'.³⁷ Chen argued that the government can impose a fixed limit on carbon emissions, or it can adopt more incentive-based solutions, like placing quantity-based taxes, on emission or offering tax credits to companies that adopt renewable power sources.

4. Nigeria's Legal Framework for Environmental Protection through the Use of Economic Instruments

The debate over the use and nature of economic instruments for environmental protection is often polarised. On the one hand, there is a school that argues that natural resources are infinite, thus, there should be no reason for placing costs on environmental impacts of activities on the society. On the other hand, another school argues that nature should be protected from man's degradation and that activities that despoil and damage the environment should be restrained through imposition

³² Hari Srinivas, *ibid*, above n 17.

³³ LOA La Ode Angga and H Suat, 'Legal Responsibility in the Pollution and Environmental Destruction Due to Gold Mining Exploitation in Botak Mountain of Buru Regency' [2019] *Fiat Justitia*. 1695.

³⁴ Indah Dwiprigitanjngtias, Aliesa Amanita, Zulfika Ikrardim, Lily Andayani and Bakhmania Ardan', 'The Role of Environmental Economic Instruments as one of the Efforts to Prevent and Control Environmental Pollution Caused by Industrial Activities' [2020] Conference Paper. Doi:10.4108/eai.26-9-20202302613.

³⁵ Hans Bressers & Dave Hitema, 'Economic Instruments for Environmental Protection Can we Trust the "Magic Carpet"? [1999] *International Political Science Review* (20) (2). 175 – 196.

³⁶ *Ibid*, above n 34.

³⁷ James Chen, 'Environmental Economics: Definition, Importance, and Example [2024] *Investopedia*.

of environmental costs.³⁸ Whichever school that appeals to one it is argued that economic instruments remain an important tool 'for the integration of environmental and economic policy, and can be designed to advance sustainable development'.³⁹ In Nigeria, there is no conscious effort to develop a legal framework for environmental protection through the use of economic instruments. The existing legal framework are found in the command-and-control instruments of various environmental legislations which impose mandatory obligations or restrictions on the activities of persons, industries and institutions that harm the environment. These command-and-control regulations set out objectives and targets and employ the use of economic instruments in order to correct negative impacts of human and industries activities on the environment. Bojan, has rightly argued that rather than governments stipulating the technologies that must be used to curb pollution or the maximum allowable emissions, (command and control approach), economic instruments can provide the financial incentive to act in a more environmentally responsible manner through the use of such mechanisms as taxes, marketable permits, charges to property rights, negotiated agreements, emissions or access charges, and other financial approaches to modifying behaviour.⁴⁰ The 1999 Constitution of the Federal Republic of Nigeria,⁴¹ in its Chapter II provisions 'Fundamental Objectives and Directive Principles of State Policy' set out in general terms the environmental objectives as follows: 'The State shall protect and improve the environment and safeguard the water air and land, forest and wildlife of Nigeria'.

In carrying out the mandate contained in section 20 of the Constitution, the government has introduced several legislation and policies to safeguard the nation's environment and some of these legislation and policies have recognised the use of economic instruments to solve environmental issues. Nigeria's National Policy on Environment⁴² recognised the use of economic instruments to protect the nation's environment. It notes 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 of shaping attitudes and behaviour towards the environment. The Nigeria's National Environmental Policy recognises the use of economic instruments to protect the nation's environment. It notes 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. Sustainable development requires that the exploitation of resources, the production of goods and services, the direction of investments, the orientation of technological development and institutional change are all in harmony and enhance both current and future potentials to meet human needs and aspirations. Since Nigeria's national development policy objective is to achieve rapid economic growth and improvement of individual welfare on a sustainable basis, a range of enabling policies, economic instruments and incentives are required to propel the development process in the desired direction. The strategies/activities for achieving these objectives shall include:

- (a) incorporation of environmental costs in the decisions of producers and consumers so as to reverse the tendency to treat the environment as a "free good" and stop passing these costs on to other parts of society or to future generations;
- (b) integrating 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;
- (c) including, wherever appropriate, the use of market principles in the framing of economic instruments and policies to pursue sustainable development, and in particular, to consider gradually building on experience with economic instruments and market mechanisms by undertaking to reorient policies, keeping in mind national plans, priorities and objectives;
- (d) institutionalizing the "Polluter-Pays-Principle" 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;
- (e) developing and implementing a mechanism for charging emission fees for all pollutants and effluents (based on quality, quantity and detrimental effects), thereby internalizing all costs and other negative externalities into the production process and output prices;
- (f) imposing penalty taxes, fines, and charges for non-compliance to environmental standards and regulations so that violations to such regulation become costly to the violator;
- (g) encouraging participation of all stakeholders in the management, harvesting and the utilization of revenue from the use of natural resources;
- (h) adopting an appropriate pricing of natural resources and production inputs to encourage an optimal allocation, production and consumption of these resources;
- (i) promoting tax relief that encourage investment in pollution abatements through:
 - grant of accelerated allowance on pollution abatement equipment;
 - the removal of import duty on abatement equipment;

³⁸ Stijn Neuteleers, 'Trading Nature: When Are Environmental Markets Undesirable' [2022] *Journal of Political Philosophy* (30) (1) 116 – 139.

³⁹ Bojan Vračarevic, 'Economic Instruments in Environmental Policy' [2014] *The Environment*. 79 – 83.

⁴⁰ UNEP, 'The Use of Economic Instruments in Environmental Policy: Opportunities and Challenges' [2004]. UN. Cited in Bojan, n 38.

⁴¹ Act No. 24 as amended in 2018 – First Alteration 2010 No. 1; Second Alteration 2010 No. 2; Third Alteration 2010 No. 3; Fourth Alteration 2017 No. 21; Fourth Alteration 2018 No. 6 - 10; Fourth Alteration No. 16, Act 2017.

⁴² Formulated in 1989 and later revised in 2016.

- the grant of tax holidays and pioneer status to environmentally sound new projects;
- the use of other credit schemes;
- (j) promoting market-based extraction charges and appropriate taxes on the extraction of resources to discourage their destructive exploitation and inefficient use;
- (k) requiring the submission of performance bonds to ensure that industries comply with post resources extraction regulations and employee accident insurance schemes;
- (l) allowing, where appropriate, the direct transfers of financial assistance (subsidies) -
 - to compensate specific groups which may suffer additional costs or hardship in complying with standards;
 - to encourage groups to improve their environment especially where conservation initiatives affect their immediate income;
- (m) developing a compensation framework for environmental damage which ensures that:
 - the polluted environment is adequately compensated by way of remediation and restoration;
 - persons affected are equitably compensated, and
 - the offender or saboteur is made liable.
- (n) employing appropriate insurance schemes and other risks management processes in remediation and restoration of polluted or degraded areas;
- (o) encouraging active participation and prompt payment of financial contributions to relevant international organisations charged with protecting the environment.

Nigeria has also enacted several key environmental legislations that contain provisions relating to the use of economic instruments to protect the nation's environment. Such relevant legislations include the National Environmental Standards and Regulations Enforcement Agency (NESREA) Act 2007; the Environmental Impact Assessment Act (EIA),⁴³ the Harmful Waste (Special Criminal Provisions, etc) Act,⁴⁴ Climate Change Act 2021 and the Petroleum Industry Act 2021. These legislations emphasise the need to integrate environmental issues into critical 'economic decision making processes, ensuring environmental remediation costs are factored into development projects utilising economic instruments for resource management, and promoting the adoption of environmentally friendly technologies'.⁴⁵ Nigeria's legal framework for environmental protection thus, incorporates provisions on economic instruments to ensure sustainable practices and discourage acts that despoil the environment. These economic instruments include environmental permits.

Environmental permit(s)

Environmental permit(s) enable businesses and industrial facilities whose operations may have potential impact on the environment to be environment-friendly in their operations and comply effectively with the relevant environmental standards and regulations. For the purpose of clarity, and to guard against unnecessary duplication of Permits, NESREA has categorized Environmental Permits into the following five (5) main groups:

- Air Quality Permit relating to issues on Atmospheric Emissions, Vehicular Emissions, Open Burning, Refrigeration and Air Conditioning equipment (RAC), and Noise;
- Waste and Toxic Substances Permit relating to issues on Waste Generation, Restricted Chemicals, Sludge Disposal and Effluent Discharge;
- Used Electrical and Electronic Equipment (UEEE) Permit relating to handling, import and export of UEEE; and
- Biodiversity Conservation Permit relating to issues on Assess to Genetic Resources".
- Eco-Guard Certification.

Other economic instruments include taxes, subsidies, tariffs, charges, fines fees and levies.

In all these, polluter-pays-principle; user-pays-principle and environmental off-setting remain the key principles that drive the use of economic instruments to protect the environment. The polluter-pays-principle⁴⁶ usually incorporated into environmental regulations ensures that those who pollute the environment should bear the costs of pollution prevention and remediation. The user-pays-principle states that the cost of using a resource should reflect the environmental costs associated with its extraction, transformation and use.⁴⁷ Environmental off setting recognises the need to offset 'unavoidable environmental damage with measures to restore or mitigate the impact in another location'.⁴⁸

5. The Objectives and Challenges of Using Economic Instruments for Environmental Protection in Nigeria

According to Harris Srinivas, the objective of economic instruments is to encourage environmentally sound and efficient production and consumption through full-cost pricing.⁴⁹ Such economic instruments include effluent taxes or charges on pollutants and waste, deposit-refund systems and tradeable permits.⁵⁰ Harris further argued that economic instruments such

⁴³ Cap E12 LFN 2004.

⁴⁴ Cap H1 LFN 2004.

⁴⁵ Generated with the help of AI.

⁴⁶ The Polluter Pays Principle was first formally articulated in 1972 by the Council of the Organisation for Economic Co-operation and Development (OECD). It later appeared in the 1992 Rio Declaration as Principle 16.

⁴⁷ Edward Dommen (ed.) *Fair Principles for Sustainable Development* [1993]. Chapters 3, 4, and 5.

⁴⁸ ResearchGate, 'Biodiversity Offsets: Practice and Promise' [2025].

⁴⁹ Ibid, above n 17.

⁵⁰ OECD, above n 45.

as levies/charges and tradeable permits, when used approximately can provide least costs solutions to environmental problems, provide greater flexibility and encourage innovation.⁵¹ Economic instruments can be used on their own or in combination with other measures to improve the efficiency of environmental protection efforts.⁵² Hans Bressers and Dave Huitema⁵³ have written that ‘economic instruments appear as a type of “magic carpet” for the trip to sustainable development, because they put market forces to work for the goal of a sustainable society. As far back as 1994, Theodore Panayotou wrote that the importance of economic instruments for environmental policy is aptly captured in both the Rio Declaration and Agenda 21 where it was articulated that the use of economic instruments represents a tool for national authorities to promote the internalisation of environmental costs and to apply the polluter-pays principle in the most efficient manner.⁵⁴ Theodore argued that they provide a means of enhancing the capacity of government to deal with environmental and development issues in a cost effective manner, promoting technological innovation, influencing consumption and production patterns, as well as providing an important source of funding. It must be stated that most key environmental legislations in Nigeria aligns with the position articulated by Theodore Panayotou by providing for the use of economic instruments like environmental permits, licenses, fees, fines and charges, as a means of environmental protection by discouraging activities likely to cause adverse effects on the nation’s environment.⁵⁵

Jean-Philippe Barde in his Working Paper No. 92 discussed the issues of the polluter-pays-principle (PPP); regulations and standards; economic instruments (EIs) and applying EIs in developing economies. He argued that the objective of the use of economic instruments for environmental protection ‘is twofold’:

- (i) To achieve costs minimising solutions (by inducing firms with high marginal abatement cost to purchase abatement from firms with low marginal abatement cost);
- (ii) To reconcile economic development activity with environmental protection by allowing new activities to set up in a control area without increasing the total amount of emission within it.⁵⁶

The important argument by Jean-Philippe Barde is encapsulated in Nigeria’s environmental regulations both at the federal and state levels which employs several types of economic instruments such as emission charges or taxes to tackle pollution issues (water pollution, waste pollution, air pollution and noise pollution). There are also user charges; product charges or taxes; administrative charges or fees; marketable (tradeable) permits; deposit-refund systems; subsidies and finally value added tax (VAT). Zeynalova has stated that the role of economic instruments ensures the ‘integration of economic, social, cultural and ecological factors... to provide sustainable development which protects the long-term value of the environment’.⁵⁷ In their work, Marta Postula and Katarzyna Radecka-Moroz highlights that public spending on environment offers results only in a longer time perspective and that taxes bring little incentives to reduce environmental pollution.⁵⁸ This argument is true of the Nigerian situation where despite the provision of charges, fees, fines, penalties and other forms of taxes to control environmental issues like pollution, waste disposal, gas flaring, crude oil spills and noise pollution, amongst others, there has not been any noticeable changes in the way and manner humans and industries continue to despoil the environment unabated. The effectiveness of these regulations and economic instruments depends on the level of implementation and transparency on the part of government and non-government actors. There is need to ‘support the intergovernmental character of environment-friendly solutions.’ Having stated the objectives of using economic instruments to protect the environment, there are however, a plethora of challenges.

Politics has affected the efficacy of the actual implementation of the use of economic instruments to protect the environment. Governments in Nigeria typically depart from the use of the economic instruments to protect the environment for political reasons. Frequently, taxes and fines imposed on industries, particularly the oil and gas industries are usually viewed as a cog in the wheel of economic development. In most cases where the government insists on the payment of such charges, fees or fines, they view them as a means to raise revenue rather than to protect the environment. Government failures to holistically enforce the use of economic instruments for environmental protection thus, remain a primary challenge. Other challenges are weak institutional capacity; inadequate co-ordination, economic instability; government resistance or inertia; corruption and resistance by polluters. There is also the lack of legislative and institutional capacity, weakness of environmental agencies; inadequate information concerning the cost and benefits of the economic instruments in use; fines and penalties are not sufficiently deterrent; and in most cases, polluting industries opt to pay fines rather than invest money in pollution abatement.

⁵¹ Ibid, above n 17.

⁵² Ibid, above n 17.

⁵³ Hans Bressers and Dave Huitema, above n 34.

⁵⁴ ‘Theodore Panayotvu, ‘Economic Instruments for Environmental Management and Sustainable Development’ [1994] International Environment Program Harvard Institute for International Development. Harvard University. *Environmental Economics Series* Paper No. 16.

⁵⁵ See, the NESREA Act 2007; EIA Act Cap E12 LFN 2004; Harmful Waste Act Cap H1 LFN 2004; Climate Change Act 2021, and Petroleum Industry Act 2021.

⁵⁶ Jean-Philippe Barde, ‘Economic instruments in Environmental Policy: Lessons from OECD Experience and their Relevance to Developing Economies’ [1994] *Working Paper No. 92* OCDE/GD (93) 193.

⁵⁷ Zeyanalova, Z, ‘The Role of Economic and Social Instruments of Environmental Policy’ [2017] *International Journal of Development and Sustainability*. (6) (11). 1757 – 1767.

⁵⁸ Marta Postula and Katarzyna Radecka-Morez, ‘Fiscal Policy Instruments in Environmental Protection’ [2020] *Environmental Impact Assessment Review* (84) 106435.

There is no arguing that Nigeria has a plethora of environmental legislations both at the federal and state levels that incorporate provisions for the use of economic instruments to protect the environment, enforcement remain an underlining challenge. The extant provisions of the key environmental legislations are not consciously implemented and enforced. Classical examples are the laws and regulations that prohibit gas flaring; these laws have also created exceptions. They are not strict, thus, weakening their enforcement.

6. Economic Instruments for Environmental Protection under the Petroleum Industry Act 2021

The Petroleum Industry Act 2021 (PIA) marked a very significant era in Nigeria's petroleum industry. This feat was achieved through several years of efforts to redress the perceived and actual shortcomings and deficiencies contained in the various incoherent legislations regulating the petroleum industry in Nigeria. The PIA thus, established 'a unified legal framework for the petroleum industry, aligning itself with global best practices'.⁵⁹ The PIA contains provisions aimed at protecting Nigeria's environment through the use of economic instruments. Chapter IV of the PIA provides for fiscal framework and is in eleven parts. Specifically, sections 260 to 266 focuses on Hydrocarbon Tax. Part III deals with Ascertainment of Chargeable Tax, whereas, Part IV is on the Ascertainment of Chargeable Profits and Consolidation for Tax purposes. Part V provides criteria and obligations for Chargeable persons, whereas sections 277 to 287 'provide guidelines on the applicability of tax regulations, accounting practices, and reporting requirements.' The PIA 2021 incorporates provisions that highlights the significance of the use of economic instruments for the environmental sustainability and protection in the petroleum industry. PIA addresses the long petroleum notorious issue of gas flaring and provides that a licensee must conduct petroleum operations in accordance with good international industry practices.⁶⁰ Of importance is the provision on environmental restoration and rehabilitation whereby operators are required to develop and implement plans for the remediation of areas affected by petroleum operations. PIA provides that fines collected from violations of its provisions on environmental sustainability shall be for the purpose of environmental remediation and relief of the host communities of the settlers on whom the penalties are levied.⁶¹

It can therefore be safely argued that the PIA 2021 incorporates economic instruments for environmental protection through the various charges, fines, fees, penalties, funds, payments for gas flaring, financial contributions for environmental damage remediation and funding of host community development trusts in support of environmental projects.

7. Conclusion

Economic instruments unequivocally, are a significant tool for integrating environmental and economic issues, and can be fashioned to promote environmental protection and sustainable development in the exploitation and use of natural resources bearing in mind the concepts of polluter-pays-principle, inter-generational and intra-generational equities. This paper argues that despite the several benefits discussed, such as preferring the use and application of economic instruments for environmental protection as opposed to the command-and-control regimes, the role of economic instruments is limited and does not translate to a 'magic carpet'. Governments and their officials still show apathy and reluctance to abandon the traditional command-and-control approach to environmental protection. Nigeria should do more and sharpen her focus on the use of economic instruments to protect her environment. Citizen should also elevate their legitimate expectation beyond mere social media hype and empty platitudes and demand that governments both at federal and state levels be held accountable in implementing and enforcing the extant environmental laws for better, effective and efficient outcomes, 'so the social argument for using economic theory to improve instrument choice will become more powerful'.⁶² It can be argued that although the use of economic instruments in Nigeria is reflected in our extant environmental laws, it is yet to be widely recognised and accepted by not only the citizens but by those charged with the functional responsibility 'to protect and improve the environment and safeguard the water, air and land, forest and wildlife of Nigeria'.⁶³ It is not therefore, yet *uhuru*, until those involved in rent-seeking, interest group politics, and corruption understand and come to the realisation that environmental protection is everyone's responsibility, after all, the United Nations General Assembly has declared that everyone on the planet has a right to a healthy environment.⁶⁴ Therefore, Nigeria should step up efforts to ensure that citizens have access to a 'clean, healthy and sustainable environment' through the use of economic instruments for environmental protection.

⁵⁹ Ater Solomon Vendaga, 'Petroleum Industry Act 2021 (PIA) and its Impact on Environmental Sustainability in Nigeria' [2024] *Sabilaw*. www.SabiLaw.org. Accessed 22 August, 2025.

⁶⁰ Section 96 (1) (a) PIA 2021.

⁶¹ Section 104 (4) PIA 2021.

⁶² Bojan Vračarevic, above n 38.

⁶³ Section 20, 1999 Constitution of the Federal Republic of Nigeria.

⁶⁴ UNEP, 'In Historic Move, UN Declares Healthy Environment A Human Right' [2022]. UNEP-UN Environment programme <https://www.unep.org>. Accessed 22 August, 2025.