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ENVIRONMENTAL TAX AND POLLUTION CONTROL IN NIGERIA

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ABSTRACT

The study examined environmental tax and its impact on pollution control in Nigeria. It specifically examined the impact of environmental tax on air pollution, it examined the impact of caron tax on air pollution, it examined the impact of environmental tax on water pollution, lastly it examined the impact of environmental tax on waste disposal. The study predicated on planned behaviour theory and value believe norm theory of environmentalism. Primary data source was explored in presenting the facts of the situation. Purposive probability sampling techniques was used to select targeted respondents. Data collected was analysed using descriptive statistics for 183 questionnaires. The findings revealed that environmental tax has significant effect on pollution control. This is based on the fact that a large percentage (90.8 percent) of the respondents is in concurrence with the argument that environmental tax has significant effect on pollution control. It was concluded that environmental tax has positive and significant effect on pollution control in Nigeria. The researcher recommends that considering the seriousness of this environmental hazards which posed a great threat to the life of the people, Federal Government of Nigeria should design a tax process will permit environmental tax policies, so that the levy of tax be designed placing its burden on those who are responsible for causing a particular environmental problem, or problems and also make provision for statutory incentives to minimize administrative cost to the government and compliance cost imposed on the tax payers.

Keywords: Environmental tax, Water Pollution, Tax Compliance, Air Pollution and Waste disposal

INTRODUCTION

Pollution has been a serious concern and posing a lot of threats to the environment of many nations of the, with Nigeria not being an exception (Yuan, Shin, & Managi, 2018). This has affected the long term sustainability of the environment in the world over, Nigeria included. Nigeria as a country has been confronted by major environmental problems which has included drought, deforestation, desertification,

erosions, oil pollution, flooding, water pollution, water hyacinth, loss of biodiversity, urban decay and industrial pollution (Kasum, 2010). Many studies have predicted that in the event that many of these environmental problems remain unchecked, the country is at a greater risk of suffering large ecological & economic losses. Research studies has over the years stressed that environmental problems in Nigeria are quite diverse in nature and of noteworthy dimensions. In many parts of the nation, they are currently undergoing not only economic stress but also political, social and environmental stress owing to the pollution of the land and water. As witnessed in other countries, tackling the key environmental problems faced today which include a variety of environmental change, water scarcity, biodiversity loss and the health impacts of pollution is an act which is both achievable and affordable (Kneese & Charles, 1975). Pollution has been a global menace for long and to control it, several workable measures are being created and put in place by various governments and international world organisations which includes the Organisation for Economic Cooperation and Development (OECD) and European Economic Agency. These efforts by many nations were responses to the alarming rate of increase in pollution and when environmental pollution became a serious threat to humanity in the world. For instance, in 1997, 160 nations of the world all agreed and signed the Kyoto protocol which specified a significant reduction in the emissions of green gases (Jaeger, 2002).

Governments throughout the world are actively considering policies to reduce their greenhouse gas (GHG) emissions and to effectively contribute in controlling pollution. These has included a series of regulations, GHG off-sets, transferable emissions permit and financial incentives such as subsidies & taxes (Opschoor & Vos, 1999). Several challenges faced by the environment has increased the pressure on government to source for alternatives in reducing the damage such challenges pose and at the same time having no or a minimal effect on economic growth. For Instance, governments have a range of tools at their disposal which they could employ in achieving their aim. Such range of tools includes environmental subsidies, innovation policies, environmental regulations, information programmes and environmental taxes. Taxes in particular are an important part of this range of tools. Environmental/carbon taxes have many significant advantages to any nation. These advantages include the ability to raise public revenue, transparency, environmental effectiveness and economic efficiency. Also, carbon taxes have been successfully used to correct a wide range of environmental challenges including water pollution, waste disposal and air emissions (Bosquet, 2000). This measure of pollution control, the environmental tax, is being introduced in many countries and is at an early stage in others. The use of environmental taxes (ETs) is becoming acceptable as a financial incentive to control pollution. A principal reason why this is becoming popular is that

emissions trading and other economic instruments has been partly driven by recognition of the limitations of conventional environmental regulation (Fullerton, Leicester, & Smith, 2010).

It is being predicted that the greenhouse gas (GHGs) emissions from developing countries has a likely probability of increasing at a pace faster than developed countries. According to the Stern Review, even if developed countries takes on responsibilities in reducing their emissions by 60-80% and has achieved this by 2050, developing countries must also take desperate attempts and significant actions in order to avoid temperature increases above 2.0 °C. One of the policy instruments this review highlighted and majorly canvassed for, to reduce GHGs, is the carbon tax (OECD, 2018). The carbon tax refers to a tax on activities or production processes which gives rise to GHGs emissions. The objective of carbon tax is to reduce the damages environmental challenges pose. The harmful behaviour of environmental pollution can be controlled with the introduction of a carbon tax. The carbon tax ensures that emitters of greenhouse gases bear a complete cost of their actions. Such need to use this form of green taxes in order to protect the environment is becoming urgent, particularly because of the recent need for climate change, and the use of this tax system can be justified via sound consequence-based and deontological arguments (Rosenstock, 2014).

An estimated number of 300,000 people have been reported dead per year as a result of environmental damages and climate change and has caused annual losses worth $125 billion. Environmental disasters have been taken as a subject of study in the world as several school of thoughts & analysts have argued that the countries' technological advancement and changing industrial development are factors leading to a rise in environmental challenges. These analysts therefore argue that these challenges cannot be eliminated completely. Rather, a system of control should be in place, the environmental taxes providing a significant platform (Fiorino, 2011). Back home in Nigeria, environmental problems including poor management of wastes, poor environmental planning policies and inadequate drains has ultimately contributed to the level of pollution we currently witness in the country (Uwuigbe, 2012). The level of pollution in the country has been on a steady increase over the years. Several industrial estates in the country have all had a hand in this and been a major contributor to the pollution witnessed in the country. It is pertinent to state that this is not only prevalent in Nigeria alone but in several countries also. The difference is that while other countries have adopted the use of environmental taxes in controlling their level of pollution, Nigeria has been slow towards adopting this form of taxes. In other words, while some countries of the world have developed sustainable ecological policies towards pollution control with the use of carbon taxes,

environmental taxes have not been employed in the country, instead, several regulations of ecological activities have been adopted which has not yielded the expected results of controlling environmental pollution (Jimoh, Daramola, & Uwuigbe, 2013).

The activities of the industries in polluting our environment remains unabated, therefore the call for using another means for the management, protection and control of the Nigerian environment is being raised. The question therefore is if carbon taxes can effectively contribute in controlling environmental damages. In other words, can the implementation of environmental taxes in Nigeria lead to the sustainability of the country's environment? While no literature was found with a dissertation on the application of environmental taxes in the country & its effective strategy in pollution control, this study hopes to identify instances of how carbon tax is influential in several parts of the world in contributing to environmental sustainability and how it could be related & applied in the country. This study therefore raises concerns in several environmental areas which could be solved by an introduction of carbon taxes. Using examples of such impact the tax policy has had in other countries, the study makes a case for Nigeria. The purpose of this research is thus to examine the possibility of the implementation of carbon tax in Nigeria and how effective it can be in achieving pollution control. Therefore, the study specifically examined the likely impact of environmental tax on water pollution control, air pollution as well as effective waste disposal in as a precursor to enhancing environmental safety in Nigeria.

LITERATURE REVIEW

Conceptual Framework

Environmental tax & Water Pollution Control

An eighty percent of waste water is discharged into our environment without a process of first eliminating contaminants. The consequences of not eliminating these contaminants poses serious concern for the country as it provides a great deal of water pollution. In developed countries, the form of eco-taxes levied on emissions are aimed at the prevention & reduction of water pollution. Also, such form of eco-taxes is designed in part to help finance proper water reclamation facilities. Over the years, water pollution has been a globally important issue as it has led to the dilapidation of water ecosystems, with attendant issues such as negative repercussions on human health & productive activities (Jiménez & Asano, 2008). Over the world, 80% of all wastewater are released without being treated in any way. A great proportion of these figures belong to developing countries of which Nigeria

falls under the category. These developing/low-income countries register the highest percentages with an average percent of 92% in comparison to figures of slightly less than thirty percent in their high-income countries. This clearly reveals that Nigeria as a country is negatively affected by water pollution and is in need of a process to minimize the effects of such pollution. Currently, there is a global case being made for proper wastewater management, increasingly being made all the more urgent by the rising cases of climate change and water stress as asserted by the UN (UNGA 2015: Agenda 2030 for Sustainable Development, adopted on 25 September 2015 by the United Nations General Assembly which includes Goal 6.3: "improve water quality by reducing pollution, eliminating dumping and minimizing the release of hazardous chemicals and materials, halving the proportion of untreated wastewater and substantially increasing recycling and safe reuse globally."). Water pollution taxes or emission fees have therefore been long advocated by environmental economists as a regulatory method to achieve cost-effectiveness in ensuring water quality improvements (Leticia, Encarnación, & Isabel-María, 2018).

Economists have long advocated several forms of pollution taxes as an effective policy to improve water quality. One of the reasons water emission taxes are being embraced by several economists interested in market-based policies is that the sources of water pollution are varied and sometimes prove difficult to assess individually in terms of control costs (Boscheck, et al., 2013). Assessing these in terms of control costs are quite difficult but in principle, taxes help to overcome this problem. With a price known as the emission tax applied to pollution emissions, firms compare the price to their costs of emissions control and in trying to minimise this, they are forced to create an effective method to control their pollution emissions. In other words, if the tax price is greater than the control costs, they would rather reduce emissions than pay the tax. Accordingly, with such price mechanism put in place, high-control-cost firms abate less while low-control-cost firms abate more. When high-control-cost firms abate less than the low-control-cost firms, a given level of pollution reductions would be achieved at the least cost. Also, the need for a tax approach is reflected in the way in which such form of taxes would promote innovation, in relation to static quantity-based principles, and the fact that these taxes generate revenue. This last feature is particularly relevant since most water quality projects include huge investments in infrastructures. For instance, sewer systems, treatment plants and flow control devices like dams usually require large chunks of public financing. Taxes therefore promise an available source of funds (Román-Sánchez, Carra, & Sánchez-Pérez, 2014).

In environmental policy, the main economic reason for using taxes is to bring the costs of pollution emissions and other costs of using the environment called

externalities into the prices of the goods and services produced by various economic & environmental activity. One of the main reason for adopting environmental taxes instead of regulations is the need to internalise external environmental costs. Rise in price of goods and services are as a result of integrating carbon/environmental taxes into the original price thus leading to hike in prices. This form of taxes also helps to apply the "Polluter Pays Principle" and to integrate fiscal, economic and environmental policies. Pollution control regulations usually expects all industrial & corporate polluters to minimise their pollution by the same proportion, irrespective of their costs of doing so (Molinos-Senante, Hernández-Sancho, & Sala-Garrido, 2010). A carbon tax gives each polluter a decision or alternative whether it is cheaper to pay the tax or to reduce pollution. The polluters who face the highest costs in terms of reducing their pollution would tend to pay more of the tax whilst those who incur lower costs of pollution control would prefer to reduce pollution instead. The moment taxpayers notice energy, water, raw materials, fluid, or volatile emissions are being taxed, they would ultimately develop new modes of housing, production, transportation, energy use and consumption to reduce their tax liability. This would help to fulfil more 'eco-efficiency' function to implement the precautionary principle and to achieve an objective of both sustainability and international competitiveness, where the future products depend on today's innovations. Another advantage carbon taxes could offer in controlling water pollution is the form of revenue it could offer the government. This revenue can then be used by the government in controlling pollution emissions and water wastages. In other words, with the fact that consumers would perhaps not completely stop to acquire these products, the taxes and charges will raise revenues. These may therefore be used to address ecological problems directly or used to subsidise consumers & producers attracting more activities that are environmental friendly which allows for a second incentive for the advancement of the environment. (Klok, Larsen, Dahl, & Hansen, 2006). Also, increasing environmental taxes could lead to an increase in prices of water, fossil fuel energy, then this can encourage new ways of meeting needs. Such revolution can pave way to new technologies, processes and products with an objective of reducing or eliminating pollution. Companies or industries who are taxed too much beyond their acceptable threshold for costs would effectively try to eliminate their emissions which gives rise to these costs. Water pollution control can therefore be achieved by including carbon taxes to firms. In their bid to control and reduce costs, they are forced to control their water pollution & wastages (Anderson, 2001).

Environmental tax & air pollution control

The International Monetary Fund (IMF) responsible for the financial & economic policies of its member nations has described the carbon tax as an effective tool in

pollution control. Describing the carbon tax as a tool, the organisation highlights how such tool is a single most powerful way to combat ecological challenges & climate change. A report from the international organisation highlights how increasing the price of carbon could be the most efficient and powerful method in combating global warming and reducing air pollution. Although the knowledge of environmental/carbon taxes on industries & corporations dealing with fossil fuel has been increasing across countries spread in different continents over the past couple of decades, many school of thoughts still believe that an increase in the prices on carbon emissions would subsequently raise energy bills. This widespread backlash has still not been able to absolve the successes carbon taxes has recorded in handling air pollution control effectively. Economists have long contended that an effective raise in the cost of burning fossil fuels & carbon emissions like coal, oil and gas is the best way to lessen the effects of pollution & climate change, and that such revenue raised from the tax can be returned to producers/consumers in the form of rebates and dividends (Nauclér & Enkvist, 2009). Records show that a considerable amount of more than forty countries globally have applied a form of environmental/carbon pricing, either through direct taxation on cap-and-trade programs or fossil fuel producers. Air pollution as a principal cause of ecological deterioration has been known to seriously affect citizens' physical & psychological health status. It has been stated that air pollution when not effectively controlled is usually associated with increased anxiety, annoyance and more devastatingly, numerous mental disorders which includes schizophrenia and depression. In addition, air pollution could introduce a variety of diseases like asthma, pneumonia, heart diseases and stroke. Air pollution when not effectively controlled could therefore pose a serious problem to any nation. Placing a cost on air pollution by industries therefore helps them to control their emissions and ultimately, a control on air pollution (Storey & Walker, 2009).

Environmental tax & waste disposal management

Even though waste disposal management does not receive as much attention as other environmental issues, it still poses serious concern to any country. This is why there has been a noteworthy change in household behaviour in many countries over the years. Generating waste is a natural feature of industrial, human and ecological processes. Waste generation has been known to increase proportionately with science, consumption, production and technological activities. Of recent, such noteworthy increase in waste generation has led to a considerable public concern about ecological/environment activities & the ecological "sustainability" of current patterns in consumption & production focuses on the disposal and generation of waste. The result of some of these ecological activities that result in waste

generation leaves the ecosystem worse-off comparatively. Subsequently, disposing many of these waste is usually done wrongly and puts the environment at risk of serious damage (Iyoha, Uwuigbe, & Uwuigbe, 2013). Most of the damaging activities to the environment are usually through the release of waste as well as the process of extracting environmental resources. In the long run, many of these wrong acts of disposing & managing waste negatively affects the environment. Of all major ecological/environment problems in several towns and cities, refuse disposal system and management is obviously the most visible. In Nigeria, the packaging system for products is mostly nylons & plastics which constitutes waste and these packaging products after being used are not properly disposed. The products, in turn, constitute to littering of the environment and when the rainy season/flooding finally comes, they lead to the obstruction of drainages & roads (Akinbola, 2009).

Waste deposited in drainages and gutters ordinarily do not allow the free flow of erosion waters, increasing the likelihood of flooding and subsequent damage to the environment. In Nigeria, most cases of flooding usually happen because of improper waste disposal management. This is because almost every nook and cranny in the country is littered with waste products such as sachet water nylon, popularly called “pure water”, the large size of which in ordinary parlance, creates pollution and constitutes negative environmental issues. Such negative effects of improper waste disposal management calls for a need to introduce a tax system that discourages producers and consumers alike from disposing waste improperly. Environmental tax when introduced would therefore create an avenue by which waste disposal management can be properly monitored and for a country like Nigeria where wastes practically litter every nooks and cranny of the nation, a tax system such as the carbon/environmental tax would do a whole lot of good in addressing these issues (Fellerton, 2006).

Theoretical Framework

Theory of Planned Behavior

One of the theoretical models usually used in the literature world to explore pro-environmental behaviour including food choice, recycling, energy consumption, travel mode choice, water conservation and ethical investment is the theory of Planned behaviour. The Theory of Planned Behaviour assumes that the proper prediction of behaviour is achieved by questioning people if they are intending to act in a particular way. Here we note that the intention of the person questioned would not express itself in behaviour if it would be physically impossible to perform that particular behaviour or if unforeseen barriers obstruct or impede the way. According to the attitudes of the theoretical model, perceived behavioural control & subjective

norms predict the intentions, which would then in turn predict the behaviour. Also, background variables such as demographical factors are supposed to impact on the behaviour through the three determinants and the intention. These three determinants; attitudes, subjective norms and the perceived behavioural control explains the behavioural intention before the actual behaviour takes place. The intention is therefore a useful predictor of the actual behaviour. The theory also states that the perceived behavioural control is an evaluation & close assessment of the necessary skills needed for conveying the behaviour and the opportunity to overcome any barrier.

Furthermore, it is stated in many literatures that for a good and predictive value of the model, it is highly necessary that the variables of several models are defined on an equal level of specificity. For instance, when examining the explaining factors of buying a product such as solar boilers which would affect the ecology, what the theory specifies is that the prediction would be difficult to discover in the attitude toward the environment, but in the attitude toward solar boilers. In summary, what the theory states that if anyone wants to study pro-environmental behaviour as a general subject, then the determinants should be measured on this general level (Wayne, 2019).

The Value-Belief-Norm Theory of Environmentalism

This theory specifies that pro-environmental actions usually occur in response to a personal or moral initiative about such actions and that these are initiated by individuals or organisations who believe that such environmental conditions could pose threats to other people, species or the biosphere, and that actions they plan to initiate could avert those consequences. This theory explains why many governments and corporations feel a need to control the ecological damages which pose a threat to the world population & species through an efficient pollution control system, of which environmental/carbon tax falls under (Paul, Thomas, Troy, Greg, & Linda, 1999).

Empirical Review

Bruvoll & Larsen (2004) examine the implications of carbon taxes on emissions change in Norway. Using an applied general equilibrium simulation, they found that environmental taxes had a significant influence on the reduction of CO2, contributing to an overall two percent decrease. The study found out that the reduction in carbon emissions per a unit of GDP is significant and the immediate effect was a decrease in energy intensity and process emissions.

Liang, Fan, & Wei (2007) in their study also arrived at the same conclusion with the

aforementioned study after using a CGE model to investigate the impact of different carbon tax developments in China. The study recommended an appropriate use of tax system for different settings. Iliya (2017) investigated the level of sustainable development environmental taxes are capable of achieving. The study employed the use of both qualitative & quantitative method in analysing its data. After its findings, the paper therefore proposed a need for Nigeria's federal government to formulate a tax process that encompasses environmental tax policies such that a tax levy is placed on individual and corporations responsible for environmental problems.

Nakata & Lamont (2001) explored in a forecast study the effect of carbon and energy taxes on the energy system of Japan. The conclusion of the study gives supports to the idea that such form of taxes is an effective instrument for reducing carbon emissions. Olatunji & Olaoye (2015) examined the developmental implications of environmental taxation in Nigeria. The study specifically analysed the relationship between environmental taxation & environmental quality and whether the former is capable of influencing cost-effectiveness. The study found out that environmental tax, though is significantly related to environmental quality, has no effect on firms' cost-effectiveness. The study therefore recommended that the government tightens its environmental tax system and rids it of any loopholes.

Wissema & Dellink (2007) in their study explored the Irish case and discovered that a reduction of twenty-five percent relative to the 1998 scenario, where the level of CO2 was reduced, can also be realised with a carbon tax of 10 to 15 euros per ton of CO2. Di-Cosmo & Hyland (2011) also using the Irish case as a part of their case study, investigate different tax scenarios to look at the influence on carbon emissions & energy demand. The study, using a situation where carbon tax is to be increased from twenty-one euros in 2012 to forty-one euros in 2025, the authors discover that carbon emissions has a likelihood of being reduced by 861,000 tons relative to a zero carbon tax scenario.

Oyedokun, Fowokan, Hassan, & Akintoye (2018) investigated the challenges environmental accounting and taxation are facing in Nigeria. The study recommended that the government of the country holds the greatest responsibility of ensuring the full implementation of this form of tax system. Vehmas (2005) in his study considers the experiences of Finland with environmentally-based energy taxation and comes to a conclusion that fiscally-driven deviances from the model environmental tax have weakened the real purpose for which this tax system was formulated.

Sterner (2007) examined in their study Europe's fuel taxes and demonstrate the positive long-term effect such fossil fuel taxes in Europe have in reducing carbon

emissions & fuel demand. The author explains that with the introduction of high fuel taxes, carbon emissions are reduced by more than half. Also, the carbon content of the atmosphere is reduced by more than 1 ppm. Yan & Crookes (2009) explain in their study, the significance of a scenario with fossil fuel taxes in dealing with the rapid growth of automobiles and energy demand in China. This particular scenario significantly leads to a potential decrease in energy demand by 16.3%, petroleum demand by 18.5% and GHG emissions by 16.2% in 2030 compared to the current scenario. Concrete empirical evidence therefore showed the effectiveness of such environmentally/carbon related taxes.

Convery, McDonnell, & Ferreira (2007) investigates the effectiveness of the plastic bag levy which was introduced in Ireland and started in 2002. The introduction of such tax system was influential in promoting proper waste disposal management. One major & observable result was that the purchase of plastic bags in retail outlets reduced by ninety percent and then the yearly revenues from this tax are around 13 million euros. The study therefore recommended a form of this tax system to curb inappropriate waste disposal management.

Deyle & Bretschneider (1995) in their work, explored waste taxes in the United States (in particular taxes on land disposal). The study found out that higher taxes has a tendency to reduce wastes sent to landfills in comparison to other processes of waste management. Odunjo & Oluronke (2013) examined why the country is yet to achieve sustainable environmental management. The study adopted the use of secondary data and personal observations to make its findings. In its recommendations, the author proposes that the country needs to pay more attention to envionmental conservation & sanitation and adopt strict measures to achieve this objective.

Gap

Several studies have been carried out in the past on this subject. But the review of previous empirical literature revealed a lack of consensus in the research findings of past researchers which indicates the existence of a research gap.

Observably, majority of the available empirical evidence were on the assessment of environmental tax and economic growth and the result of the available study is inconsistency. Few studies captured the connection between environmental tax and waste disposal in Nigeria which appear to be one sided in the discourse of environmental tax and pollution control in Nigeria. Hence this study set out to analyse environmental tax and its impact on the control of pollution in Nigeria.

METHODS

The study adopted descriptive survey design through the administration of questionnaires to the targeted respondents. The targeted respondents were officials of relevant tax authority and tax payer (both corporate and individual) that create environmental pollution. Purposive probability sampling techniques was used to select targeted respondents. Data collected was analysed using descriptive statistics. 183 out of questionnaire distributed were received from the respondents.

ANALYSIS AND RESULTS

Environmental tax and water pollution

Descriptive Statistic

SN	Items	A	SA	D	SD	Mean	SD
1	There is water pollution in Nigeria	87	76	5	15	3.28	0.87
2	Water pollution my not be easily ascertained talk less of imposing levy on offenders	86	75	13	9	3.30	0.80
3	Compliance with environmental regulation on waterway may be difficult!	67	61	25	30	2.90	1.07
4	Weak compliance mechanism will vitiate environmental tax on pollution of waterways	89	71	11	12	3.30	0.85
5	Taxation for water pollution will not increase government tax revenue	34	21	67	61	2.12	1.10
6	Environmental tax will not reduce water pollution	61	23	56	43	2.56	1.18

Carbon tax and air pollution

SN	Items	A	SA	D	SD	Mean	SD
1	There is no link between environmental tax and air pollution	12	16	78	77	1.80	0.86
2	Monitoring to ascertain culprit of air pollution for tax will be difficult	67	71	23	22	3.00	0.99

3	Imposition of environmental tax will not work in Nigeria since no effective mechanism in place to track violators	45	55	33	50	2.52	1.14
4	Air pollution will be difficult to ascertain and offenders may not be apprehended easily	34	44	49	56	2.31	1.10
5	There will be high rate of environmental tax evasion in case of air pollution	54	49	40	40	2.64	1.12
6	Compliance with carbon tax for air pollution will be low	44	56	43	40	2.57	1.08

Environmental Tax and waste disposal

SN	Items	A	SA	D	SD	Mean	SD
1	There is water pollution in Nigeria	87	76	5	15	3.10	0.97
2	Water pollution my not be easily ascertained talk less of imposing levy on offenders	86	75	13	9	2.85	1.03
3	Compliance with environmental regulation on waterway may be difficult!	67	61	25	30	2.61	1.11
4	Weak compliance mechanism will vitiate environmental tax on pollution of waterways	89	71	11	12	1.70	0.84
5	Taxation for water pollution will not increase government tax revenue	34	21	67	61	2.78	1.13
6	Environmental tax will not reduce water pollution	61	23	56	43	2.63	1.14

H_{01}: There is no significant relationship between Environmental Tax and Water Pollution

Table 1: Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.837[a]	.700	.698	.47684

a. Predictors: (Constant), Environmental Tax

Table2: ANOVA[a]

Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	96.069	1	96.069	422.516	.000[b]
	Residual	41.155	181	.227		
	Total	137.224	182			

a. Dependent Variable: Water Pollution

b. Predictors: (Constant), Environmental Tax

H_{02}: There is no significant relationship between carbon tax and air pollution

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.862[a]	.743	.741	.43565

a. Predictors: (Constant), a3

ANOVA[a]

Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	99.166	1	99.166	522.494	.000[b]
	Residual	34.353	181	.190		
	Total	133.519	182			

a. Dependent Variable: a1

b. Predictors: (Constant), a3

H_{03}: There is no significant relationship between Environmental Tax and Water Pollution

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.661[a]	.437	.434	.73178

a. Predictors: (Constant), a3

ANOVA[a]

Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	75.304	1	75.304	140.622	.000[b]
	Residual	96.926	181	.536		
	Total	172.230	182			

a. Dependent Variable: a1

b. Predictors: (Constant), a3

Environmental Tax and Water Pollution

Table 3: *Summary of ANOVA showing the impact of environmental tax on water pollution*

ITEMS		Sum of Squares	df	Mean Square	F	Sig.
There is water pollution in Nigeria	Between Groups	141.762	1	141.762	360.711	.000
	Within Groups	71.134	181	.393		
	Total	212.896	182			
Water pollution my not be easily ascertained talk less of imposing levy on offenders	Between Groups	103.974	1	103.974	275.721	.000
	Within Groups	68.255	181	.377		
	Total	172.230	182			
Compliance with environmental regulation on waterway may be difficult	Between Groups	104.322	1	104.322	216.059	.000
	Within Groups	87.394	181	.483		
	Total	191.716	182			
Weak compliance	Between	142.923	1	142.923	313.445	.000

mechanism will vitiate environmental tax on pollution of waterways	Groups					
	Within Groups	82.531	181	.456		
	Total	225.454	182			
Taxation for water pollution will not increase government tax revenue	Between Groups	78.443	1	78.443	281.600	.000
	Within Groups	50.420	181	.279		
	Total	128.863	182			
Environmental tax will not reduce water pollution	Between Groups	152.918	1	152.918	344.518	.000
	Within Groups	80.339	181	.444		
	Total	233.257	182			

Summary of ANOVA showing the impact of carbon tax on air pollution

ITEMS		Sum of Squares	df	Mean Square	F	Sig.
There is no link between environmental tax and air pollution	Between Groups	111.934	3	37.311	1021.858	.000
	Within Groups	6.536	179	.037		
	Total	118.470	182			
Monitoring to ascertain culprit of air pollution for tax will be difficult	Between Groups	156.472	3	52.157	173.672	.000
	Within Groups	53.758	179	.300		
	Total	210.230	182			
Imposition of environmental tax will not work in Nigeria since no effective mechanism in place to track violators	Between Groups	124.679	3	41.560	1007.083	.000
	Within Groups	7.387	179	.041		
	Total	132.066	182			
Air pollution will be difficult to ascertain and offenders may not be apprehended easily	Between Groups	137.467	3	45.822	97.775	.000
	Within Groups	83.888	179	.469		

	Total	221.355	182			
There will be high rate of environmental tax evasion in case of air pollution	Between Groups	211.775	3	70.592	305.415	.000
	Within Groups	41.373	179	.231		
	Total	253.148	182			
Compliance with carbon tax for air pollution will be low	Between Groups	211.775	3	70.592	305.415	.000
	Within Groups	41.373	179	.231		
	Total	253.148	182			

Summary of ANOVA showing the impact of Environmental Tax on waste disposal

ITEMS		Sum of Squares	df	Mean Square	F	Sig.
There is water pollution in Nigeria	Between Groups	119.406	3	39.802	399.862	.000
	Within Groups	17.818	179	.100		
	Total	137.224	182			
Water pollution my not be easily ascertained talk less of imposing levy on offenders	Between Groups	96.013	3	32.004	255.100	.000
	Within Groups	22.457	179	.125		
	Total	118.470	182			
Compliance with environmental regulation on waterway may be difficult	Between Groups	200.855	3	66.952	1278.327	.000
	Within Groups	9.375	179	.052		
	Total	210.230	182			
Weak compliance mechanism will vitiate environmental tax on pollution of waterways	Between Groups	109.200	3	36.400	284.952	.000
	Within Groups	22.866	179	.128		
	Total	132.066	182			
Taxation for water	Between	172.940	3	57.647	213.129	.000

pollution will not increase government tax revenue	Groups					
	Within Groups	48.415	179	.270		
	Total	221.355	182			
Environmental tax will not reduce water pollution	Between Groups	227.023	3	75.674	518.495	.000
	Within Groups	26.125	179	.146		
	Total	253.148	182			

CONCLUSION

From the results obtained above, the following can be deduced. Out of 183 respondents used for the analysis, based on ANOVA summary result which reflected that 96 percent of the respondents strongly agreed with the notion to great extent that environmental tax has positive and significant relationship with water pollution which is a clear indication that if environmental tax has been put in place it will checkmate the highly level of water pollution and the way it is abuse. The ANOVA summary result of carbon tax and air pollution revealed that 99 percent of respondent strongly agreed with the notion to great extent, that carbon tax has positive and significant relationship with air pollution which is a clear indication that if carbon tax has been put in place it will checkmate the highly level of air pollution .The ANOVA result of environmental tax on waste disposal revealed that the benefits derived from environmental tax have significant effect on waste disposal because the result clearly revealed waste disposal posed a great challenge to the environment which is very harmful in the community, regardless of this representation by the respondents on the above subject matter, 96 respondents which represent 50 percent strongly agreed that. Environmental tax have strong relationship with waste disposal which is a clear indication that if environmental tax has been put in place it will curb the menace of uncultured waste disposal in the environment and anyone found guilty will face the tax burden. Therefore, from the results obtained it is affirmative with certainty to conclude that benefits derived from introduction of environmental tax has significant effect on pollution control. This is based on the fact that a large percentage (90.8 percent) of the respondents is in concurrence with the argument that environmental tax has significant effect on pollution control.

CONCLUSION AND RECOMMENDATIONS

This study concludes that pollution has been a serious disaster, experiencing across the world and Nigeria is not exempted. Environmental taxes if introduced it will be a good source of generating income to the government which is a dividend of encouraging technological innovations towards a cleaner environment and efficiently regulating environmental protection efforts, especially as an effective and efficient complement to other regulatory efforts. Therefore, the implementation of environmental taxes on all types of pollution such as water pollution, air pollution and waste disposal will lead to an immense control of pollution in Nigeria, thereby reducing the amount of waste disposal. This is because pollution constitutes a bulk of the environmental hazard as this will aid in the control of pollution in Nigeria as a whole, thereby making the area a conducive place for habitation and future sustainability

The study therefore recommends that federal government through the Federal Inland Revenue Service Federal Inland Revenue Service should commence public awareness programmes in order to educate the entire public on the subject of environmental taxation, educating them on the hazard on pollution and that however caught in creating any harmful pollution which have to pay tax and that the tax should be designed in such a way that will place the burden of tax on those responsible for causing a particular environmental problem, explaining that, this point is related to fairness and not to incentives as well as vital role in stimulating a more environmentally sustainable economy in Nigeria and this will also serve as a source of generating revenue to the government.

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