Sustainable development through environmental taxation in Nigeria: challenges and prospects

Iliya Garba

Department of Accounting, Faculty of Arts and Social Sciences, Gombe State University, PMB 127, Gombe, Nigeria
igarba204@gmail.com

Abstract:

Background/Objectives: The paper examines sustainable development through environmental taxation in Nigeria. There is a need to find ways of reducing environmental impairment through pollution while minimising harmful effect on the economic growth.

Methods/Statistical Analysis: The combination of both qualitative and quantitative methods was used to fulfill research aims. The research employed the Yaro Yamani formula in determining the population size. A population of 15,000,000 for the study with an error limit of 5 percent, a sample size of 400 used in this study is therefore considered adequate. A well organized constructed close-ended questionnaire is designed and administered to provide answer emerging from the analysis of the problem.

Findings: Considering the seriousness of this environmental hazards posed by these industries, Federal Government of Nigeria should formulate plans to design a tax process that might encompass 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.

Key Words: Environment, Nigeria, Taxation, Pollution, Development

1. INTRODUCTION:

It is quite well known that in most developing countries like Nigeria, as the economy progresses, the environment deteriorate. Economic growth should not, however, be achieved at the cost of environmental degradation. One main source of environmental degradation is industrial pollution, which affects adversely, not only the quality of life in the vicinity, but also agricultural product, rapid loss of biodiversity, and the ecosystem. The need for control measures is seriously needed [1]. Many developing countries like Nigeria have implemented various policy measures to protect and improve the quality of the environment [2]. Recent empirical studies have identified major advantage to the greater use of economic instruments (EIs) such as taxes or charges in environmental policy. Compare to command and control (CAC) approaches. However, the successful implementation of EIs might heavily depend on pre-existing institutional consideration (such as underfunding, inexperience, corruption, dated technology, and lack of political will) [3,4]. Because, developing countries also have structural characteristics which are quite different with developed countries. They often used more polluted fuel such as coal and unleaded gasoline, and drive more polluting vehicles per miles travelled. They do have large under taxed polluting industries that account for large proportion of a total output and higher marginal environmental damage per unit of output. Environmental challenges in Nigeria are increasing the pressure on the government to find ways to reduce environmental damage while minimizing harm to economic growth [5]. The Government has a range of tools and mechanism at her disposal, including regulations, information programmes, innovation policies, environmental subsidies and so on, notwithstanding the environmental problems that are on the increase day by day [6].

According to [7], taxation is a tool that the government uses both to collect revenue and also to prevent and encourage certain behaviour. As taxation is monetary in nature, it is equally a good way of encouraging or discouraging country citizens to behave in a certain way as deemed appropriate by the government. Throughout the world taxation is used as a means of encouraging good environmental practices and dissuades the citizens of the country from practices that could further damage the environment.

Environmentalism in Nigeria came into the limelight, to a certain degree in the earlier 1970s but mostly in the 1990s to date. Due to the pressure of environmental degradation especially, the climate change debate, oil spillage
in the Niger Delta region, pollution by the cement industries and Textile manufacturing industries. As a mode to carry out government policy, taxation laws were amended to suit the evolving policies of the day. The greatest changes came about in the 2010s period as the country geared itself to suit its policies towards the (Rio +20) Convention as a signatory to it. Crude oil being an unsustainable substance that ends up impacting on the eco-system adversely affects the environment. The important and encouraging feature of the industry today is its commitment and dedication towards steps taken to mitigate environment pollution that naturally emerges from industrialization [8].

In Nigeria, like many other countries around the globe, taxes play a critical role in ensuring the existence of the nation and the wellbeing of the people. Given the significance of taxations, it is very important for the government at all levels to pay attention to what is collected, how is collected, who collected what, who controls, what is collected, how it is spent and who is ultimately responsible and accountable to the taxpayers for their revenue collected and its utilization. To address these challenges, and to find ways for introducing other types of taxes, the national tax policy (NTP) was approved in January 2010 and sought to provide a set of guidelines, rules and the modus operandi that will regulate Nigeria’s tax system, and provide a basis for tax legislation and tax administrators to discharge their civic responsibilities. Over the five years, after the NTP, it is yet to be implemented [5]. However [9] posits that there are two more key functions of economic mechanism of environmental protection are emphasized. Thus are (i) proper planning, collection, allocation, and use of funds that are necessary for the protection of natural environment, its individual objects, ensuring rational use, restoration and replenishment of natural resources. (ii). Promotion, motivation, Economics instrument must encourage the society, individual natural persons and legal entities to comply with legal environmental requirements, fulfils individual components, rational use of natural resources as provided by legislation, and choose the method of the operations that is the safest and most favourable for the environment. The motivation for this study originated within the context and aim to fill the gap in the normative and empirical literature.

1.2. Statement of the research problem

While other developing countries have taken the initiative in environmental sustainability through taxations, Nigeria is lagging behind. Taxation can be a crucial market base instrument that can be used as synergy effort to move in this direction. As other countries have initiated a specific environmental taxes, for example, South Africa, Malaysia, Vietnam just to mentioned a few. Nigerian government has not made any effort despite an increase in environmental degradation.

The absence of any estimation of damage costs and lack of implementing best practices of environmental taxes as done in other countries an awareness for the need of public acceptance and support for environmental taxes is felt need.

It is desired that this will fill a void in an environmental degradation and environmental policy in Nigeria.

2. Theoretical framework:

Putting issues of sustainable development in Nigeria environmental activities would not be completed without careful consideration of various expressed and theories propounded on environmental pollution and oil and gas exploration, exploitation, transportation and marketing. The study thus, analyzes the main contributors from different articles. Natural resources endowment has value to which the owner has a claim. When the owner is not resourced developer or producer fiscal instruments are used to capture that value [10]. Against this background of over century of multinational companies’ dominance of extraction our natural resources. Nigerians are understandably uncertain and anxious about whether the value of the natural resources often allocated to Nigeria is fair. However, before proceeding to review the relevant literature on environmental taxation and environmental pollution by oil and gas companies. This studies provides the theoretical foundation upon which the understanding of how oil and gas economy facilitate national development or otherwise produces “resource course”. To this point, academic attentions have been given to some of the growing issues that have originated from the oil producing region in Nigeria. For example, [11] described the environmental situation in Niger Delta, Nigeria as an “Environmental Disaster”. The term framed to highlight the cumulative impact of oil pollution, and gas flaring in the Niger Delta area. [12] Believe that the best way to describe the issues plaguing the oil-rich region was to label the region a “Resource Curse”-meaning a region endowed with resources, still remain the least developed. He coined the term to also best describe the lack of political willpower and the continued averseness of the Nigerian government in
tackling the protracted environmental and socioeconomic challenges confronting the oil producing regions of the Niger Delta. Continuing this theme of government as a source of the challenges in Niger Delta region, therefore, the articles proposed two theories: a theory of internalization of externalities which was propounded by British economics by A.C Pigou in 1920s and theory of “oil-rich or wealthy nation”.

Pigouvian theory has become one of the most cited theories within the social and environmental accounting area. The theory argued that Pigou [13] was concerned with welfare maximization and build up a theory of economy effectiveness suggesting national dividend, and consequently welfare, will be increased to an optimal level if external environmental cost were fully internalized. The rationale behind these proposals was that a proper allocation of costs between those engages in economic activities causing pollution, both polluters and pollutes, will allow equal social benefits and social costs associated with those activities.

Pollution tax will contribute to reaching such a result by forcing equivalent between private cost (costs to the firm) and social costs (the total costs to the society) per product of activity. Private costs: these are the costs that are actually had to pay when we decide to do something. e.g of owning and driving a car. I have to buy the car, then I have to pay for the petrol I use, I have to maintain the car, I have to buy insurance etc, those are all private costs because I actually have to pay them and they are specific to me.

While social costs also include the externality of driving my car. When I drive my car it contributes to some extent polluting the atmosphere which I don’t directly pay for this but it affects society. When I drive my car I contribute to traffic congestion again I don’t pay for this, but I have at least a marginal effects on each other people who are also stuck in congestion wasting their time.

This condition will be fulfilled if the costs of marginal uncompensated externalities were imposed tax on the agents causing them instead of burdening the society. A logic symmetric to the one developed for the external costs case should be applied when external benefits occur instead. In such case, the tax should be replaced by subsidy to the economic agents.

Since the Pigouvian aims at neutralizing the difference between the marginal social net product and the marginal private net product [13] the tax rate should be at the amount of the marginal external costs per unit of pollution [14, 15, 16, 17]. The Pigouvian theories focus on the internalization of external costs. The second theory is the theory of oil rich or wealthy nation.

This theory was propounded by [18]. He asserted that countries with well-endowed oil and gas resources turn to develop as faster pace but with a high level of crimes. The theory explains that oil and gas extractive industries usually have greater opportunities to expand their economies through socio-economic infrastructural development such as job creation, provision of social amenities and better living standards. However, this often comes with costs. When the resources are not properly managed this could mean that any attempt by the state to misappropriate the revenue generated from the oil and gas extractive industries could lead to unfortunate circumstances such as disorder in the form of political instability, persistent pirating and resource curses. Indeed, this theory is useful for this study in two ways First; at least, it places Nigeria in the context of oil-rich nations as one of the six oil producing country in the world, which the research work found to be correct. Secondly, it advances on the argument made early that oil wealth economies are often manipulated and control by the capitalist economy. For example under the capitalist economics system which their aim is to maximize profit only. Oil and gas or any natural resources are exploded by the multinational corporation from exploration to exploitation. From transportation to the marketing of the products. The fact is that the exploration and exploitation of natural resources require huge capital investment and this is usually undertaken by those multinational companies. To this end for a developing country like Nigeria owing a national resource does not automatically transform the citizens and the country into fabulous reach as the resources wealth or oil rich nations, theory projects. Besides the role played by the multinational corporations, multinational whose activities were largely responsible for degradation of the area had cashed in on the weakness of those institutions to short change the region and also undermine environmental laws in Nigeria. Since those companies are themselves not transparent in disclosing the damage done to the environment in their annual financial statement. Therefore, it is very rear to find any oil rich nation in sub-Saharan Africa operating a transparent and accountable oil and gas economy due to pervasive patronage politics and crony capitalism (network involving cronies’ advantage position for mutual reciprocating benefit).

This study finds this theory to be inconsistent with the reality of the oil and gas extraction economy, in term of failure to disclose the actual damage costs of pollution as a result of their operations. And therefore, it argued that the theory could have shown how oil-rich nations could also serve to benefit other economies and not seen as only facilitating doom. Oil and gas revenue could promote national development if media access to information about the
sector is not facile and stakeholders do not lack insight into the operations, and government and oil and gas partners desist from patronage politics and excessive capitalism. Furthermore, the studies review the relevant literature [19] posit that environmental issues have emerged in recent decades as a major aspect of discussion in the problem of economic growth and development, a policy issue that has been of particular interest in recent years is environmental tax reforms, which involves increasing tax on the use of environment and reducing taxes on other tax bases especially labour [20]. Assert that, environmental taxes are used with increasing frequency by governments around the world as instrument design to deal with environmental externalities; we must, therefore, evaluate the difficulties in relying on them to correct market failures. Many economists argue that explicit pollution taxes create further problems which lead to government failure and little sustainable improvement in environmental condition. The main problems are listed below:

I. When assigning the right level of taxation, there are problems in setting a tax so that the private marginal cost will exactly equate the social marginal cost, therefore, at this juncture the government cannot accurately value the private benefits and costs of firms let alone, putting a monetary value on externalities, such as the cost of natural habitat and the value of human life. Without accurate information, setting at the correct value is virtually impossible. In reality, therefore, all the governments and regulatory agencies can hope to achieve this, the movement towards the optimum level of output.

II. Consumer welfare effect (issues of equity): Environmental taxes reduce output and raise prices of goods and service and this may have an adverse effect on consumer welfare. The producer may be able to pass on the tax to consumers if the demand for the goods is inelastic and, as a result, the tax may have a marginal effect in reducing demand and final output.

III. Employment and investment consequences: If the environmental tax is raised in one country, say Nigeria, the producer may likely shift their production to another country with lower taxes e.g. Ghana. This will not reduce global pollution and may likely create problems such as structural unemployment and loss of international competitiveness. Similarly, higher taxation might lead to a decline in the profit and fall in the volume of investment projects and in the long term may have beneficial spillover effects in reducing the energy intensity of an industry or might lead to innovations which augment/boost the environment.

IV. It may be cost effective: For government to switch over from direct subsidies to environmental taxation to encourage greater innovation in designing cleaner production technologies

V. The impact of environmental taxes depends crucially on what is done with the revenues. If they are balanced by reducing other taxes through “revenue recycling”, research suggests that environmental tax could result in an overall economic improvement.

VI. Measurability: a tax on pollution is very hard to measure as such and it is likely going to be a very big problem.

2.1 Concept of Sustainable Development

According to [21] “sustainable development is about enhancing human well-being through time while society’s ability to enhance or improve human well-being depends on the choices made or preference of individuals, firms, communities, and government on how to utilize their assets” Therefore, the ability of a nation to sustain a consumption flow (and, therefore, to be sustainable) depends on the change of its stock of assets or wealth. These assets may include natural assets, human assets, knowledge assets, manmade assets ex center. For these reasons, the ability to manage these assets well is very vital to achieving sustainable development. However, there are limits to sustainability, particularly for environmental and social assets that enhance human well-being through their mere existence as well as indirectly through their contribution to production and material being

3. METHODOLOGY:

Triangulation method is better when trying to overcome the intrinsic biases, problems that come from the single method and to increase the credibility and validity of the results [22] as cited in [23]. This combination of both qualitative and quantitative methods was used to fulfil research aims. The people residing in industrial locations were also chosen as one for the population study because they are the ones who are worst affected as a result of activities and operational work of these industries. The targeted population for this study comprises of residents who are 18
years and above. According to World Health Organization report, 2015 about 15 million were affected by various kinds of environmental pollution in Nigeria. In view of the researcher’s inability to reach out to the entire population the research employed the Yaro Yamani formula in determining the population size. Using the Yaro Yamani formula
\[ n = \frac{N}{1 + (N^2e^2)} \]
Where \( n \) = is the sample size, \( N \) = is the population, \( e \) = is the error limit (0.05 on the basis of 95 percent confidence level
Therefore, \( n = \frac{15,000,000}{1 + 15,000,000 \times (0.05)^2} \)
\[ n = \frac{15,000,000}{37501} \]
\[ n = 400 \]
When using a population of 15,000,000 for the study with an error limit of 5 percent, a sample size of 400 is therefore considered adequate as computed above. A well organized constructed close-ended questionnaire is designed and administered to provide answer emerging from the analysis of the problem.

4. Data Analysis:

<table>
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<th>Options</th>
<th>Frequency</th>
<th>Percent</th>
<th>Valid Percent</th>
<th>Cumulative Percent</th>
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<td>7.2</td>
<td>7.2</td>
<td>7.2</td>
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<tr>
<td>Agree</td>
<td>21</td>
<td>10.1</td>
<td>10.1</td>
<td>17.3</td>
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<tr>
<td>Undecided</td>
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<td>9.6</td>
<td>26.9</td>
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<tr>
<td>Disagree</td>
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<td>40.4</td>
<td>40.4</td>
<td>67.3</td>
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<tr>
<td>Strongly Disagree</td>
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<td>32.7</td>
<td>100.0</td>
</tr>
<tr>
<td>Total</td>
<td>208</td>
<td>100.0</td>
<td>100.0</td>
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</tbody>
</table>

**Source: Field survey (2016)**

Table 1, out of the 400 copies of a questionnaire administered to the respondents, 231 were returned with 23 damaged, therefore, a total of 208 copies which represent 52 percent were used for the analysis. 15 respondents and 21 which represent 7.2 percent of the respondents have strongly agreed or agreed with the opinion that sustainable developments have no significant effect on the introduction of environmental taxation. However, regardless of this representation by the respondents on the above subject matter 20 representing 9.6 percent of the respondents remain undecided, and another 84 which represent 40.4 percent disagreed and 32.7 percent strongly disagreed with the opinion that Barriers and Challenges have no significant effect on introduction of the tax from the result obtained, although over 67.3 percent of the respondents disagreed or strongly disagreed with the notion that Barriers and Challenges have no significant effect on the introduction of environmental tax, there is still about 17.3 percent who agreed or strongly agreed but, it is valid to conclude that sustainable developments have no significant effect on the introduction of environmental tax.

**Table 2. Benefits derived have no Significant Effect on the Introduction of Environmental Tax in Nigeria**

<table>
<thead>
<tr>
<th>Options</th>
<th>Frequency</th>
<th>Percent</th>
<th>Valid Percent</th>
<th>Cumulative Percent</th>
</tr>
</thead>
<tbody>
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<td>2.9</td>
<td>2.9</td>
<td>2.9</td>
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<tr>
<td>Agree</td>
<td>2</td>
<td>1.0</td>
<td>1.0</td>
<td>3.9</td>
</tr>
<tr>
<td>Undecided</td>
<td>10</td>
<td>4.8</td>
<td>4.8</td>
<td>8.7</td>
</tr>
<tr>
<td>Disagree</td>
<td>112</td>
<td>53.8</td>
<td>53.8</td>
<td>62.6</td>
</tr>
<tr>
<td>Strongly Disagree</td>
<td>78</td>
<td>37.5</td>
<td>37.5</td>
<td>100.0</td>
</tr>
<tr>
<td>Total</td>
<td>208</td>
<td>100.0</td>
<td>100.0</td>
<td></td>
</tr>
</tbody>
</table>

**Source Field survey 2016**
Table 2, out of 208 respondents used for the analysis, 190 represents 3.9 percent of the total respondents as either agreed or strongly agreed with the notion to great extent, that the benefits derived from environment tax have no significant effect on the introduction of the tax, nevertheless, regardless of this representation by the respondents on the above subject matter, 10 respondents which represent 4.8 percent were undecided or indifferent, while 112 represent 53.8 percent as either disagreed or strongly disagreed. Therefore, from the results obtained it is affirmative with certainty to conclude that Benefits derived from the introduction of environmental tax has no significant effect on the tax. This is based on the fact that a large percentage (62.8 percent) of the respondents is in concurrence with the argument that Benefits derived from environmental tax has no significant effect on the introduction of the tax.

5. CONCLUSIONS AND RECOMMENDATIONS:

Pollution has been an issue of concern all over the world including Nigeria, especially in the covered areas under the study. Therefore, the aforementioned challenges should not be bases for allowing the industries to keep continuing pollution of the environment leaving the inhabitant in extreme danger, and transfer the burden of social cost to the government. Environmental taxes if introduced it will also have the added “green” 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. The study therefore recommends that the Federal Inland Revenue Service should embark on massive public awareness programmes in order to educate the general public about the environmental taxation, enlightening them 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 and the government should design a tax that may coordinate environment and tax policies and also the tax policy may be designed to place the tax burden heavily on those responsible for the particular environmental problem, and finally, Environmental taxation will be more politically accepted, if it will contain a redistribution factor i.e. transferring wealth such as from the richer section of the economy, and the industries to the poorer section of the economy, the masses, as well as vital role in stimulating a more environmentally sustainable economy in Nigeria.

Reference:


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*The Publication fee is defrayed by Indian Society for Education and Environment ([www.iseeadyar.org](http://www.iseeadyar.org))*

**Cite this article as:**