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TAX POLICY AND PROMOTION OF ENVIRONMENTAL SUSTAINABILITY IN OGUN STATE

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ABSTRACT

Environmental sustainability has emerged as a critical global concern due to the rising threats of climate change, resource depletion, and environmental degradation. These challenges are exacerbated by the lack of effective regulatory frameworks and the absence of robust mechanisms to hold polluters accountable. Despite Nigeria's commitment to international environmental agreements such as the Paris Agreement, domestic policies have been insufficient in addressing these issues comprehensively. This research work examined the effect of tax policies on environmental sustainability in Ogun State, Nigeria. The study investigated the relationship that exists among tax incentives, green tax policies, and environmental sustainability. The research adopted a descriptive survey research design, through primary data. The primary source of data was obtained via questionnaire. The population of the study was two hundred and thirty-two (232) respondents, while two hundred and twenty (220) properly completed questionnaires were used for the analysis. The sample size was determined using Taro Yamane Statistical Formula. The data were analyzed using frequency, percentage, and regression analysis. The findings revealed that there was a significant relationship between tax policies and environmental sustainability in Ogun State. The study concluded that tax incentives and green tax policies influenced environmental sustainability in the state. The research recommended among others that government should give greater importance to green tax policies and tax incentives as tools to promote environmental sustainability in Nigeria.

Keywords: Tax Policies, Green Tax, Environmental Sustainability, Recycling and emissions-based tax rebates

1. INTRODUCTION

Environmental sustainability has emerged as a critical global concern due to the rising threats of climate change, resource depletion, and environmental degradation. In Nigeria, these issues manifest in the form of deforestation, pollution, oil spills, and improper waste management, which have profound implications for human health, biodiversity, and economic growth. As one of Africa's largest economies, Nigeria faces the dual challenge of promoting economic development while mitigating environmental damage. Tax policies have proven to be effective tools for addressing these issues by incentivizing environmentally sustainable practices and discouraging activities that harm the environment (Brown, 2022).

Tax policies aimed at promoting environmental sustainability include carbon taxes, green levies, and tax incentives for renewable energy and sustainable practices. These policies are designed to influence behavior, encouraging businesses and individuals to adopt greener alternatives and invest in sustainable solutions. In Nigeria, while some steps have been taken to align tax policies with environmental goals, challenges such as weak enforcement, corruption, and limited awareness hinder their full implementation and impact (Dokholyan, Khasanova & Musaeva, 2024).

Achieving environmental sustainability for both current and future generations, as embedded in the 2030 Agenda for Sustainable Development and the Sustainable Development Goals (SDGs), which Nigeria and other 194 United Nations member states are signatories to, requires strong economic stability and sustainability. As per Nnadi, Chukwubuike and Chibor (2025) “a major hurdle for implementing these goals is financing”. These have put pressure on many governments to find ways of reducing environmental damage while minimizing harm to economic growth (Alpheaus, Ujah & Ihendinihu, 2025). Literature suggests an array of economic and non-economic tools at the disposal of governments, for example, regulations, innovation policies, information sharing, awareness programmes, environmental subsidies, and taxation (Mpofu, 2022). According to Wang, He and Wu (2024), among the various instruments available to the government for ensuring environmental sustainability, taxation is an indispensable option. The fallout of the 2021 COP26 summit also pinpointed environmental and carbon taxes as the way forward in tackling environmental degradation in the long term by ensuring that industrial countries and organizations take responsibility for the adverse effects of their economic operations on the earth’s climate (Li et al., 2022).

Many scholars (see, e.g., Sadiq & Durowaiye, 2025; Mpofu, 2022) have collaborated that the government can use environmental taxes to discourage environmental degradation, which, if not drastically reduced, may jeopardize the plan of achieving the SDGs. The proponents of environmental taxes (also called green taxes) argue that they will affect the energy consumption of economic entities by discouraging unfriendly ecological activities, thereby contributing to the reduction of greenhouse gas emissions, including carbon dioxide. Mazars (2024) also suggests that environmental taxes would be effectively instrumental in achieving the twin tasks of generating revenue for the government (i.e., economic sustainability) as well as discouraging harmful

environmental activities (i.e., environmental sustainability). In the literature, however, while most recent empirical studies (see, e.g., Brown, 2022; Wang, He & Wu, 2024; Mpofu, 2022) have presented compelling arguments in favour of environmental taxes and have identified their adoption as an essential strategy for mitigating environmental degradation and adoption of renewable energy sources, others (e.g., Sikic & Hodzic, 2022) deemed it retrogressive and failed to show a robust correlation between environmental levies and GHG emissions in various EU nations.

Nigeria, as a densely populated and advancing country, faces numerous environmental challenges that poses threat and endanger its ecosystems, public health, and socio-economic stability. These challenges include deforestation, pollution, climate change, and biodiversity loss (Wang et al., 2022). Nigeria's environmental challenges are well-documented, with the country experiencing significant environmental degradation due to industrial activities, oil exploration, deforestation, and poor waste management. These challenges are exacerbated by the lack of effective regulatory frameworks and the absence of robust mechanisms to hold polluters accountable.

This study aims to investigate the complex relationship between tax policies and promotion of environmental sustainability in Nigeria. Tax incentives, Green equipment tax exemptions and recycling and emissions-based tax rebates on waste management are the sub-variables for tax policies.

Tax policy represents the overarching framework governments use to fund public expenditures, redistribute income, and shape economic behavior (Ahmed, 2021). Environmental sustainability is the practice of utilizing and protecting Earth's natural resources responsibly. It ensures that life-supporting systems such as clean air, water, land, and climate are preserved so both present and future generations can survive, function, and thrive (Patterson, 2026). Green taxes are financial charges imposed on activities, goods, or services that cause environmental degradation. By directly linking the tax to the amount of pollution or resource depletion, these mechanisms ensure that polluters pay for the hidden social and ecological costs of their actions (Ele, 2024).

The theory that is relevant to the study is tax competition theory. It analyzes how governments strategically set tax rates to attract mobile capital and labor, often leading to lower taxes to maintain competitiveness. The Zodrow-Mieszkowski (1986) model indicates that tax competition is

generally harmful, as jurisdictions lower tax rates on mobile capital too much, resulting in lower-than-optimal public services (OECD, 2011; Korneychuk, 2017).

Fadipe, Adegbe and Ogunbajo (2025) evaluated the effect of tax policies on the sustainable development of Nigeria. The study employed a survey research design. The population of the study was tax practitioners, public analysts, and FIRS staff involved in tax policy formulation, administration, and enforcement in Nigeria. Using a purposive sampling technique, 100 respondents were selected for the study. A validated and structured questionnaire was used to obtain data. One hundred copies of the questionnaire were administered. Data were analyzed using descriptive and inferential (multiple regression) statistics were used to analyze the data at 0.05 level of significance. The result found that tax policy had significant effect of sustainable development (Human Development Index) in Nigeria. The study concluded that tax policy influenced sustainable development (Human Development Index) in Nigeria.

Animashaun and Owolabi-Wopa (2024) explored the interplay between taxation policies and sustainable development in Nigeria, focusing on how effective tax strategies can drive economic growth while fostering environmental sustainability. The study examined Nigeria's current tax framework, identifying gaps and inefficiencies that hinder the attainment of inclusive growth and environmental targets. Through an analysis of certain statutes on taxation, legal principles, and court cases, the paper highlights the potential of green taxes and carbon taxes to enhance revenue while encouraging sustainable practices. Key findings indicate that a well-structured tax policy can promote resource conservation, generate funds for social and environmental programs, and create a stable foundation for long-term economic growth. The study concluded with policy recommendations, emphasizing the need for reforms to Nigeria's tax code that prioritize sustainability and provide a roadmap for integrating economic and environmental agendas.

2. METHODOLOGY

A descriptive survey research design was employed. This design is suitable for gathering and describing current conditions, attitudes, and practices regarding tax policies and their impact on environmental sustainability. The population of this study concentrates on (232) staffs of Ogun State Internal Revenue Service (OGIRS) Abeokuta, Ogun State. This study adopts a simple

random sampling technique, which ensures each member of the population has an equal chance of being selected, thus reducing sampling bias.

3. RESULTS

3.1 Presentation and Interpretation of Data

Table 3.1.1

Model Summary				
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.725 ^a	.525	.321	.44591

a. Predictors: (Constant), Tax Incentives for green investments, Green Equipment tax exemptions, Recycling and emissions-based rebates

Source: Researcher's Computation, 2026

Table 3.1.1 presents the coefficient of determination, which explains the degree to which changes in the dependent variable can be accounted for by variations in the independent variables (Tax Incentives for Green Investments, Green Equipment Tax Exemptions, and Recycling and Emissions-Based Rebates). The analysis shows that the independent variables explain 52.5% of the variance in the dependent variable, as represented by the R-squared value. This indicates that 47.5% of the changes in the dependent variable can be attributed to other factors not captured in this model. The adjusted R-squared value of 32.1% further confirms the reliability of the model, while the standard error of estimate (0.44591) indicates a moderate fit of the regression line to the observed data.

Table 3.1.2

ANOVA ^a						
Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	73.770	3	24.590	50.147	.000 ^b
	Residual	105.917	216	.490		
	Total	179.686	219			

a. Dependent Variable: Environmental Sustainability

b. Predictors: (Constant), Tax Incentives for green investments, Green Equipment tax exemptions, Recycling and emissions-based rebates

Source: Researcher's Computation, 2026

Table 3.1.2 shows the Analysis of Variance (ANOVA) used to test the overall significance of the regression model. The F-statistic value is 50.147, with a significance value of 0.000. Since the significance value (0.000) is less than 0.05, it indicates that the overall model is statistically significant. This implies that the predictor variables (Tax Incentives for Green Investments, Green Equipment Tax Exemptions, and Recycling and Emissions-Based Rebates) jointly explain the variation in the dependent variable (Environmental Sustainability). If the significance value of F had been greater than 0.05, it would have implied that the independent variables do not significantly explain the variation in the dependent variable.

Table 3.1.3

		Coefficients^a				
Model		Unstandardized Coefficients		Standardized Coefficients		
		B	Std. Error	Beta	t	Sig.
1	(Constant)	-.398	.180		-2.208	.028
	Tax Incentives for green investments	.343	.086	.228	4.009	.000
	Green Equipment tax exemptions	.518	.049	.569	10.660	.000
	Recycling and emissions-based rebates	.098	.057	.099	1.714	.088

a. Dependent Variable: Environmental Sustainability

Source: Researcher's Computation, 2026

The regression equation ($ES = \beta_0 + \beta_1 TI + \beta_2 GE + \beta_3 REB$) was interpreted to mean

$$ES = -0.398 + 0.343TI + 0.518GE + 0.098REB$$

Where:

- ES = Environmental Sustainability
- TI = Tax Incentives for Green Investments
- GE = Green Equipment Tax Exemptions
- REB = Recycling and Emissions-Based Rebates

According to the equation, taking all factors constant at zero, the value of Environmental Sustainability will be -0.398. The findings also show that a unit increase in tax incentives for green investments will lead to a 0.343 increase in environmental sustainability, a unit increase in green equipment tax exemptions will lead to a 0.518 increase in environmental sustainability, while a

unit increase in recycling and emissions-based rebates will lead to a 0.098 increase in environmental sustainability.

This result shows that green equipment tax exemptions contribute more to environmental sustainability compared to the other predictors, followed by tax incentives for green investments, while recycling and emissions-based rebates have the least effect. The significance values further indicate that tax incentives for green investments ($p = 0.000$) and green equipment tax exemptions ($p = 0.000$) are statistically significant predictors, while recycling and emissions-based rebates ($p = 0.088$) is not statistically significant in explaining the variations in environmental sustainability.

3.2 Hypothesis Testing

The relevant hypotheses were tested using multiple regression model with least square method. The stated hypotheses are:

Hypothesis 1

H₀₁: Tax incentives for green investments have no significant impact on the promotion of environmental sustainability in Ogun State.

Decision Rule: The coefficient table shows that tax incentives for green investments have a probability value of 0.000, which is less than 0.05 and therefore statistically significant. This denotes that we reject the null hypothesis and conclude that tax incentives for green investments have a significant impact on the promotion of environmental sustainability in Ogun State.

Hypothesis 2

H₀₂: Green equipment tax exemptions have no significant effect on the adoption of environmentally friendly technologies in Ogun State.

Decision Rule: The coefficient table shows that green equipment tax exemptions have a probability value of 0.000, which is less than 0.05 and therefore statistically significant. This denotes that we reject the null hypothesis and conclude that green equipment tax exemptions have a significant effect on the adoption of environmentally friendly technologies in Ogun State.

Hypothesis 3

H₀₃: Recycling and emissions-based tax rebates have no significant influence on waste management and pollution reduction practices in Ogun State.

Decision Rule: The coefficient table shows that recycling and emissions-based rebates have a probability value of 0.088, which is greater than 0.05 and therefore not statistically significant. This denotes that we fail to reject the null hypothesis and conclude that recycling and emissions-based tax rebates do not have a statistically significant influence on waste management and pollution reduction practices in Ogun State.

4. DISCUSSION

Green equipment tax exemptions also significantly promote the adoption of environmentally friendly technologies, supporting firms' transition to renewable energy and energy-efficient processes, consistent with findings by Lawal, Oyetunji and Soladoye (2023) that fiscal support facilitates technology adoption in Nigerian firms. While recycling and emissions-based tax rebates are positively associated with waste management and pollution reduction, their non-significant effect suggests that these measures alone are insufficient to drive meaningful environmental change without complementary awareness campaigns and institutional support, as emphasized by Saqib et al, (2023) and Dong, Hou and Qin (2023).

5. CONCLUSION

Based on these findings, it can be concluded that tax incentives for green investments are effective in enhancing environmental sustainability in Ogun State, as they encourage businesses to invest in eco-friendly technologies, aligning with recent literature indicating that targeted fiscal policies positively influence sustainable investment practices (Alpheaus, Ujah & Ihendinihu, 2025; Nchofoung, Fotio & Miamo, 2023).

5.1. Recommendations

Based on the findings of this study, the following recommendations are made:

- i. The government should expand awareness campaigns and provide technical guidance to businesses to maximize the effectiveness of green investment incentives.

- ii. For green equipment tax exemptions, policymakers should streamline the application process, improve accessibility, and offer support mechanisms that enable more firms to adopt renewable technologies.
- iii. Regarding recycling and emissions-based tax rebates, it is recommended that the government strengthen institutional support, conduct regular training programs, and launch public awareness initiatives to ensure that these rebates translate into tangible environmental benefits.
- iv. Collectively, these measures would enhance the impact of tax policies on promoting environmental sustainability in Ogun State and provide a model for similar interventions in other regions of Nigeria.

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