



Sustainable Environment and the built Space: Integrating Ecology, Planning and Human Well-being

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EFFECT OF GREEN FINANCE ON ENVIRONMENTAL SUSTAINABILITY IN NIGERIA (2015-2024)

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Abstract

Green finance provides a mechanism for directing capital toward activities that can reduce environmental risks, promote renewable energy adoption, and support sustainable development. This study examined the effect of green finance on environmental sustainability in Nigeria, focusing on green bond financing, green credit/loan facilities, and renewable energy financing. An ex post facto research design was adopted using data from the Central Bank of Nigeria Statistical Bulletin and World Bank Data. The study used green bond issuance, green credit/loan facilities, and renewable energy investment as measures of green finance, while carbon dioxide emissions were used as a proxy measure of environmental sustainability. The Augmented Dickey-Fuller unit root test was used to determine the stationarity. The short-run effects were analysed using the Auto-regressive Distributed Lag (ARDL) model, which is appropriate when variables are integrated at a mixture of $I(0)$ and $I(1)$, provided none is integrated at $I(2)$. Regression analysis was employed, and results interpreted using coefficients, t -statistics, F -statistics, and model fit. The results showed that Green Bonds Issuance (GBI) has a positive and insignificant effect on Greenhouse Gas CO_2 emissions (GCO_2). Green Loans/Credit Facilities (GLCF) has a negative and insignificant effect on Greenhouse Gas CO_2 emissions (GCO_2), while Renewable Energy Investment (RIE) has a negative and insignificant effect on Greenhouse Gas CO_2 emissions (GCO_2). The study recommends, among other things, strengthening the scale of deployment, high-emissions sectoral targeting, monitoring, and implementation of green-finance instruments to improve their measurable contribution to emissions reduction. It further recommends sustained deployment of low-emission energy sources, discounted green-loan programmes, and incentives for clean-energy investment.

Keywords: Carbon dioxide emissions; Environmental sustainability; Green bonds; Green finance; Renewable energy investment