



ANALYSING THE LEGAL AND POLICY LANDSCAPE FOR RENEWABLE ENERGY PROJECTS: IMPLICATIONS FOR NIGERIA'S SUSTAINABLE DEVELOPMENT

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Nigeria, rich in renewable energy potential, faces a critical juncture in its sustainable development journey. This paper examines the legal and policy frameworks governing renewable energy projects, evaluating their effectiveness in driving clean energy adoption and achieving sustainable development goals. Through doctrinal analysis, the study reveals that outdated legal structures, policy inconsistencies, and weak enforcement hinder the sector's growth. The research explores challenges such as insufficient policy integration and the need for stronger government incentives and international collaboration. It further investigates the crucial link between renewable energy development and key SDGs, including climate change mitigation, energy access, and poverty reduction. The findings indicate that current frameworks are inadequate to fully harness renewable energy's potential. The paper concludes by offering specific recommendations for legal and policy reforms. These include enhancing legal clarity and consistency, strengthening investment incentives, improving inter-agency coordination, and promoting transparent policymaking. These reforms are crucial for Nigeria to transition towards a sustainable energy future and achieve its long-term development objectives.

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1. INTRODUCTION

The world is currently facing an urgent need to transition to renewable energy sources to combat the accelerating effects of climate change, reduce dependence on fossil fuels, and foster environmental sustainability. This transition is integral to ensuring the future health of the planet, improving energy security, and driving economic growth in a more sustainable manner. Renewable energy, with its potential to reduce greenhouse gas emissions and provide reliable energy solutions, has emerged as a critical component of global efforts to achieve long-term sustainability.

Sustainable development, as defined by the United Nations, emphasizes meeting the needs of the present without compromising the ability of future generations to meet their own needs¹. A fundamental aspect of this principle is the transformation of energy systems to incorporate cleaner, more efficient technologies. In this context, the role of legal and policy frameworks becomes indispensable. Effective legal structures and policies can provide the necessary incentives, regulations, and infrastructure to enable the widespread adoption of renewable energy technologies, while also addressing social, economic, and environmental concerns.

Despite the clear potential for renewable energy to drive sustainable development, there are significant challenges in the legal and policy landscapes that can either facilitate or hinder this transition. In many countries, including Nigeria, outdated legislation, inadequate enforcement mechanisms, and fragmented policy initiatives have slowed the pace of renewable energy adoption. The question, therefore, arises: How do existing legal and policy frameworks facilitate or hinder the development of renewable energy projects, and what are the implications for achieving sustainable development goals?

This article seeks to address this central research question by examining the legal and policy landscape governing renewable energy projects,

¹ United Nations General Assembly, *Transforming our World: The 2030 Agenda for Sustainable Development*, A/RES/70/1 (25 September 2015).

specifically focusing on Nigeria. It will analyse key statutes, regulations, and international agreements that shape the renewable energy sector in Nigeria, exploring their effectiveness and shortcomings. The article will also assess the implications of these frameworks on the country's broader sustainable development goals.

The scope of the analysis will be confined to Nigeria, with specific attention given to relevant legal instruments such as the Electric Power Sector Reform Act, the National Renewable Energy and Energy Efficiency Policy, and international agreements like the Paris Climate Agreement. These policy instruments will be critically evaluated to understand their impact on renewable energy development, addressing issues such as regulatory barriers, financial incentives, and public-private partnerships.

The structure of the article is as follows: Section one provides an overview of the global and Nigerian energy landscape, setting the stage for understanding the need for renewable energy transition. Section two focuses on the legal and policy frameworks currently in place, with a detailed analysis of their strengths and weaknesses. Section three examines case studies of renewable energy projects in Nigeria, identifying the challenges and opportunities they present. Finally, the article concludes with recommendations for improving the legal and policy frameworks to foster a more conducive environment for renewable energy development, contributing to the achievement of sustainable development goals.

1.1 The Interplay of Renewable Energy, Law, and Sustainable Development

The nexus between renewable energy, legal frameworks, and sustainable development is a critical area of inquiry in the global response to climate change and socio-economic inequality. This intersection is especially pertinent for developing countries like Nigeria, which grapple with acute energy deficits, environmental degradation, and the need for inclusive economic growth. Understanding this interplay begins with a clear exposition of the foundational concepts that underpin it.

Renewable energy refers to energy derived from naturally replenishing resources such as solar, wind, biomass, geothermal, and hydropower. These energy sources are fundamentally different from fossil fuels in that they do not deplete finite reserves or emit significant greenhouse gases when harnessed. As such, renewable energy represents a cleaner, more sustainable alternative for meeting rising energy demands while mitigating climate change impacts. Its regenerative nature makes it ideal for long-term energy security and environmental sustainability. In the context of Nigeria, where the energy infrastructure is fragmented and largely dependent on fossil fuels, this article focuses primarily on solar, wind, and biomass as the most feasible and rapidly deployable renewable energy options, given their adaptability to both rural and urban contexts. Although hydropower remains a component of the global renewable energy mix, its limited geographical viability and ecological concerns reduce its prominence in Nigeria's renewable energy strategy.²

Sustainable development, as articulated in the 1987 *Brundtland Report* and reiterated in the United Nations 2030 Agenda for Sustainable Development, is defined as development that meets the needs of the present without compromising the ability of future generations to meet their own needs.³ It encapsulates three interconnected pillars: economic development, social inclusion, and environmental protection a framework commonly referred to as the “triple bottom line.” These dimensions are formalised in the 17 Sustainable Development Goals (SDGs), which provide a comprehensive roadmap for global sustainability efforts. Of particular relevance is Goal 7, which aims to ensure access to affordable, reliable, sustainable, and modern energy for all. Renewable energy is a critical enabler of this goal, as it facilitates the decarbonisation of energy

² International Renewable Energy Agency (IRENA), *Renewable Energy Market Analysis: Africa and its Regions* (IRENA 2022) 16.

³ World Commission on Environment and Development, *Our Common Future* (Oxford University Press 1987); United Nations, *Transforming Our World: The 2030 Agenda for Sustainable Development*, A/RES/70/1 (UN 2015).

systems, enhances energy access, and promotes long-term socio-economic stability.⁴

To translate these aspirations into tangible outcomes, legal and policy frameworks are indispensable. These frameworks constitute the totality of laws, regulations, guidelines, and institutional mechanisms that govern the development and implementation of renewable energy initiatives. At the national level, they encompass sector-specific legislation, such as electricity and energy efficiency laws, as well as broader instruments related to land use, taxation, and environmental protection. Internationally, agreements like the Paris Agreement impose commitments on states to reduce greenhouse gas emissions and increase reliance on clean energy sources.⁵ Furthermore, policy instruments such as renewable energy roadmaps, climate strategies, and fiscal incentive regimes serve to guide the implementation of legal mandates. Together, these frameworks are instrumental in attracting investment, fostering innovation, ensuring regulatory clarity, and integrating sustainability into national development planning.

The relationship between renewable energy and sustainable development is both symbiotic and multidimensional, spanning environmental, economic, and social domains. From an environmental perspective, renewable energy directly addresses the challenge of ecological degradation by reducing carbon emissions, minimizing air and water pollution, and conserving biodiversity. Traditional fossil fuel-based energy systems are among the primary drivers of climate change, contributing to increased global temperatures, erratic weather patterns, and resource depletion. By shifting to renewable energy, countries can mitigate these risks and uphold their environmental responsibilities under various multilateral environmental agreements.⁶ In Nigeria, the negative environmental impacts of oil extraction in regions such as the Niger Delta

⁴ UN General Assembly, *Resolution adopted by the General Assembly on 25 September 2015: 70/1. Transforming our world: the 2030 Agenda for Sustainable Development* (2015) Goal 7.

⁵ Paris Agreement (adopted 12 December 2015, entered into force 4 November 2016) UNTS 54113.

⁶ Intergovernmental Panel on Climate Change (IPCC), *Climate Change 2023: Synthesis Report* (2023) 15–17.

ranging from gas flaring to oil spills underscore the urgency of transitioning to cleaner energy sources.

Economically, renewable energy stimulates growth through job creation, market diversification, and the reduction of import dependency. The renewable energy sector is inherently labour-intensive, with employment opportunities in research, manufacturing, installation, and maintenance. This is particularly advantageous for developing economies with large unemployed youth populations. Moreover, as technological advancements drive down the costs of renewable technologies, clean energy has become increasingly competitive with conventional sources, thereby offering cost-effective pathways for national electrification and energy security.⁷ For Nigeria, where reliance on imported petroleum products places a considerable strain on foreign exchange reserves, the expansion of local renewable energy markets presents a sustainable alternative for economic resilience.

From a social standpoint, the deployment of renewable energy contributes significantly to improved quality of life, especially in energy-poor regions. Decentralised renewable technologies such as mini-grids and standalone solar systems are well suited for rural electrification, where national grid extension is financially and logistically impractical. This enhances access to basic services like education, healthcare, and potable water, thereby reducing social disparities and promoting inclusive development. Furthermore, renewable energy projects often involve community engagement and ownership, which foster social capital and strengthen democratic participation in resource governance.⁸ In a country like Nigeria, where over 85 million people lack access to electricity, renewable energy serves not merely as a technical fix but as a vehicle for social justice.⁹

⁷ International Energy Agency (IEA), *World Energy Outlook 2022* (IEA 2022) 99–105.

⁸⁸ Robert D Bullard, *Dumping in Dixie: Race, Class, and Environmental Quality* (3rd edn, Westview Press 2000);

⁹ DS Olawuyi, *The Human Rights-Based Approach to Carbon Finance* (Cambridge University Press 2022) 113–115.

Crucially, the achievement of these benefits hinges on the enabling role of law and policy. Legal instruments serve as the backbone of the renewable energy transition by providing stability, predictability, and enforceability in energy governance. Effective laws establish regulatory frameworks that define standards, licensing procedures, and compliance obligations. Policy measures, on the other hand, create economic incentives such as feed-in tariffs, tax holidays, and subsidies that make renewable energy projects financially viable. For instance, laws that mandate renewable energy quotas or guarantee power purchase agreements (PPAs) can de-risk investment and promote scalability.¹⁰ Additionally, Nigeria's alignment with international frameworks like the Paris Agreement reflects its commitment to integrate climate objectives into national development policy, although implementation remains a significant challenge. The facilitation of public-private partnerships (PPPs) through legal guarantees and risk-sharing mechanisms is also vital for scaling up large renewable projects and attracting private capital.¹¹

1.2 Theoretical Underpinnings of Renewable Energy and Sustainable Development

The advocacy for renewable energy and the pursuit of sustainable development are deeply rooted in a constellation of interrelated theoretical frameworks that offer normative and analytical foundations for understanding the transition to cleaner energy systems. These frameworks spanning from sustainable development theory and environmental justice to innovation and systems transition theory provide critical insights into the values, dynamics, and policy imperatives that shape the legal and institutional responses to energy challenges, particularly in a developing country context such as Nigeria.

At the core lies sustainable development theory, which articulates the imperative of meeting present needs without compromising the ability of

¹⁰ Fatima Denton, 'Climate Change, Energy and Sustainable Development: The Imperative for Africa' (2002) 6 *Energy Policy* 1105.

¹¹ DS Olawuyi, *The Human Rights-Based Approach to Carbon Finance* (Cambridge University Press 2022) 113–115.

future generations to meet theirs. This theory, which emerged from the landmark *Brundtland Report*, integrates three foundational pillars: environmental protection, social equity, and economic development. Within the context of energy governance, it underscores the importance of promoting renewable energy technologies as a pathway to ecological sustainability and long-term economic resilience. As fossil fuel dependence continues to generate unsustainable environmental externalities, renewable energy offers a viable alternative that supports resource conservation and climate mitigation objectives. The theory also embraces the precautionary principle, which holds that in situations where activities may pose serious or irreversible environmental harm, precautionary measures should be taken even in the absence of full scientific certainty.¹² This principle justifies proactive legal and policy interventions in favour of renewable energy adoption, particularly in fragile ecological contexts such as the Niger Delta, where energy exploitation has historically caused substantial environmental degradation.

Closely aligned with sustainable development is the theory of environmental justice, which critiques the unequal distribution of environmental risks and benefits and calls for inclusive and equitable energy solutions. This framework draws attention to the social dimension of energy transitions, especially the ways in which marginalized communities often in rural or low-income urban areas bear a disproportionate burden of energy poverty and environmental harm. In the Nigerian context, where access to electricity remains highly unequal and often exclusionary, environmental justice theory insists on energy policies that are sensitive to the needs of vulnerable populations. This includes the design of legal frameworks that promote equitable access to clean energy, ensure fair pricing, and incorporate participatory governance in energy planning.¹³ Environmental justice also mandates that renewable

¹² World Commission on Environment and Development, *Our Common Future* (Oxford University Press 1987) 43; Principle 15, *Rio Declaration on Environment and Development* 1992.

¹³ Robert Bullard, *Dumping in Dixie: Race, Class, and Environmental Quality* (3rd edn, Westview Press 2000); Jacqueline Patterson, 'Energy Democracy and Environmental Justice' (2015) 6 Environmental Justice 17.

energy projects must avoid replicating historical patterns of exclusion and must instead be harnessed to correct structural inequalities by broadening access to modern energy services.

Further supporting this discourse is the theory of innovation and technological transition, which examines the mechanisms by which societies shift from one technological regime to another. This body of theory is especially relevant in the context of renewable energy, which is not only a technological challenge but also a legal, institutional, and cultural transformation. Innovation theory highlights the centrality of research and development, entrepreneurship, and knowledge diffusion in driving the adoption of renewable energy technologies. However, the successful deployment of such innovations does not occur in a vacuum. It is shaped by the presence of enabling legal instruments, regulatory clarity, fiscal incentives, and coordinated policy support that reduce barriers to entry and investment.¹⁴

Complementary to innovation theory is technological transition theory, particularly the socio-technical systems approach, which sees the energy transition as a shift in complex, interconnected systems involving technology, institutions, behaviours, and infrastructures. This approach recognises that moving from a fossil-fuel-based energy regime to one based on renewable energy requires systemic change. This includes reconfiguring the energy market, reforming grid infrastructure, establishing new regulatory norms, and addressing vested interests that favour the status quo. In Nigeria, the persistence of subsidies for fossil fuels, regulatory inertia, and weak institutional capacity are all indicative of system lock-ins that inhibit energy transition. Technological transition theory thus encourages a holistic and multi-scalar legal response that integrates national policy goals with international climate commitments

¹⁴ Carlota Perez, *Technological Revolutions and Financial Capital: The Dynamics of Bubbles and Golden Ages* (Edward Elgar 2002); International Energy Agency, *Policies for Renewable Energy Technology Innovation* (IEA 2020).

while ensuring that the legal framework facilitates innovation, decentralisation, and market flexibility.¹⁵

Together, these theoretical perspectives offer a robust foundation for analysing the legal and policy landscape surrounding renewable energy in Nigeria. They highlight the multifaceted nature of energy transitions and the necessity of designing laws and policies that reflect ecological imperatives, social justice concerns, and technological realities. In this light, an effective legal framework for renewable energy must be not only environmentally sound and socially inclusive but also innovation-oriented and systemically transformative. By anchoring legal reforms in these theories, Nigeria can better align its energy policies with sustainable development objectives and pave the way for a more equitable and resilient energy future.

2.0 ANALYSIS OF THE LEGAL FRAMEWORK FOR RENEWABLE ENERGY PROJECTS

A comprehensive and coherent legal framework is indispensable to accelerating the deployment of renewable energy in Nigeria. The evolution of such a framework underpins national efforts to transition towards sustainable and low-carbon energy systems. In Nigeria, the legislative and regulatory structures guiding renewable energy development are gradually taking shape, yet significant gaps remain. This section analyses key statutes, regulations, and case law that form the legal bedrock for renewable energy projects. It assesses the framework's effectiveness by examining its strengths, weaknesses, and the practical challenges confronting developers and policymakers. Critical thematic issues such as licensing and permitting, investment incentives, grid

¹⁵ Frank W Geels, 'Technological Transitions as Evolutionary Reconfiguration Processes: A Multi-Level Perspective and a Case-Study' (2002) 31 *Research Policy* 1257; DS Olawuyi, 'Energy Transition and Legal Reform in Nigeria: Bridging the Gap between International Commitments and Domestic Realities' (2021) 9 *Nigerian Journal of Energy Law and Policy* 45.

connection, land rights, and environmental compliance are also considered.

The Electric Power Sector Reform Act 2005 (EPSRA) is central to Nigeria's energy sector reform. It dismantled the vertically integrated National Electric Power Authority (NEPA) and facilitated the emergence of independent power producers (IPPs), including those focused on renewable energy. The Act empowered the Nigerian Electricity Regulatory Commission (NERC) to regulate generation, transmission, and distribution, while promoting market liberalisation and private sector participation.¹⁶ Complementing this is the National Renewable Energy and Energy Efficiency Policy 2015 (NREEEP), which provides Nigeria's strategic roadmap for renewable energy. It sets ambitious goals, including a 30% renewable energy share in the electricity mix by 2030, and recommends financial incentives, public-private partnerships, and institutional capacity-building as mechanisms for scaling adoption.¹⁷

Furthermore, NERC has issued various regulatory instruments, such as the Licensing of Power Generators Regulations, which delineate licensing procedures for small, medium, and large-scale renewable power producers.¹⁸ These instruments establish the technical, environmental, and commercial conditions under which licenses are granted, renewed, or revoked. Environmental protection is addressed through the Environmental Impact Assessment Act 1992, which mandates that infrastructure projects, including renewable energy installations, must undergo an environmental impact assessment (EIA).¹⁹ This requirement, though vital for ensuring environmental integrity, often suffers from poor enforcement and bureaucratic inefficiencies that delay project execution.

The Investment and Securities Act 2007 and the Nigerian Investment Promotion Commission Act 2004 offer additional legal instruments for

¹⁶ *Electric Power Sector Reform Act 2005*, Cap E7 LFN 2004.

¹⁷ Federal Ministry of Power, *National Renewable Energy and Energy Efficiency Policy (NREEEP)* (2015).

¹⁸ Nigerian Electricity Regulatory Commission (NERC), 'Licensing of Generation' (2018).

¹⁹ *Environmental Impact Assessment Act 1992*, Cap E12 LFN 2004.

attracting foreign direct investment into the renewable sector. These statutes provide incentives such as tax holidays, capital allowances, and protection against expropriation, aiming to mitigate investment risk in a capital-intensive sector.²⁰ Jurisprudence on renewable energy is still nascent in Nigeria; however, certain cases provide interpretative guidance. For example, *A.G. Lagos State v A.G. Federation* (2004) 18 NWLR (Pt. 905) 156 clarified the constitutional distribution of powers over electricity regulation between the federal and state governments, thereby affecting state-level initiatives in renewable energy development.²¹ Similarly, in *Shell Petroleum Dev. Co. v NNPC* (2011) 9 NWLR (Pt. 1252) 507, while the core issue was contractual in the oil sector, the case highlighted the importance of well-drafted contracts and regulatory compliance, principles equally applicable to the renewable sector.²²

Globally, judicial decisions also offer instructive precedents. In *PreussenElektra AG v Schleswag AG* (C-379/98) [2001] ECR I-2099, the European Court of Justice upheld the legality of feed-in tariffs for renewable energy under EU law, reinforcing the principle that state support mechanisms can lawfully promote green energy without breaching market rules.²³ The decision in *Massachusetts v Environmental Protection Agency* 549 US 497 (2007) affirmed regulatory authority over greenhouse gases, thereby legally enabling energy policy reforms that support renewable energy.²⁴ These rulings provide Nigeria with comparative insights on harmonising investment protection, environmental standards, and energy reform objectives.

Despite its notable strengths, the Nigerian legal framework exhibits several weaknesses. While the policy environment is generally supportive, regulatory enforcement remains inconsistent. Developers often face delays in licensing and permit approvals due to overlapping agency mandates and bureaucratic bottlenecks. The lack of coherence between federal, state, and local regulations leads to legal uncertainty, particularly around land

²⁰ *Nigerian Investment Promotion Commission Act 2004*, Cap N117 LFN 2004.

²¹ *A.G. Lagos State v A.G. Federation* (2004) 18 NWLR (Pt. 905) 156.

²² *Shell Petroleum Dev. Co. v NNPC* (2011) 9 NWLR (Pt. 1252) 507.

²³ *PreussenElektra AG v Schleswag AG* (C-379/98) [2001] ECR I-2099.

²⁴ *Massachusetts v Environmental Protection Agency* 549 US 497 (2007).

acquisition and property rights, which are critical for projects like solar farms and wind installations.²⁵

Moreover, Nigeria's aging grid infrastructure and limited transmission capacity constrain the integration of renewable energy. Though the EPSRA permits private grid operation and embedded generation, practical implementation is hindered by the absence of robust grid connection standards and high technical losses.²⁶ The EIA regime, while essential for sustainability, is often undermined by delays in approval processes and weak post-approval monitoring. Regulatory bodies lack adequate resources to oversee environmental compliance, making the EIA process vulnerable to inefficiency and manipulation.²⁷

Incentives under the NIPC Act and NREEEP are useful but often underutilised due to procedural complexity and limited awareness among developers. The high initial capital costs of renewable projects, compounded by currency instability and lack of access to low-interest finance, further discourage investment.

Nigeria's legal and policy framework for renewable energy, though promising in its intent, requires significant reforms to become a functional enabler of green energy transition. Strengthening regulatory institutions, harmonising legal instruments, reforming grid infrastructure, and improving access to incentives are essential for leveraging renewable energy in achieving Nigeria's sustainable development goals.

²⁵ O Olaniyan, 'Legal Issues in Land Use for Renewable Energy Projects in Nigeria' (2022) 5(1) *Nigerian Energy Law Journal* 21.

²⁶ A Akinyele and A Adegboyega, 'Renewable Energy and Grid Challenges in Nigeria' (2021) 43(4) *Energy Policy Journal* 113.

²⁷ O Ajayi, 'Strengthening EIA Implementation for Renewable Energy Projects in Nigeria' (2020) 9(2) *Journal of Environmental Law and Policy* 49.

2.1 Evaluation of Nigerian Legislation and Regulatory Practices

Nigeria's legal and regulatory landscape for renewable energy has undergone significant reform in recent years, but it still presents challenges that undermine the country's ability to fully exploit its vast renewable energy potential. Central to the recent transformation is the enactment of the Electricity Act 2023, which repealed the long-standing Electric Power Sector Reform Act 2005. The new legislation introduces a decentralised electricity market, granting states, private actors, and sub-national entities greater autonomy in generating, transmitting, and distributing electricity, including from renewable sources. This marks a critical departure from the previous centralised regime that had stifled innovation and investment in the sector.²⁸

One of the Act's most significant contributions is its express recognition of renewable energy as a viable source for national electrification. Section 142 of the Act mandates the Nigerian Electricity Regulatory Commission (NERC) to promote the development and utilisation of renewable energy and sets the foundation for the issuance of Renewable Energy Purchase Obligations (REPOs). While this is a welcome innovation, the law still lacks detailed enforcement mechanisms and incentives strong enough to compel distribution companies and investors to commit to large-scale renewable energy projects. The Act also empowers state governments to enact their own electricity laws, a move that could catalyse localised investment in solar mini-grids and off-grid solutions especially in rural areas suffering from acute energy poverty.²⁹

Beyond primary legislation, Nigeria's National Renewable Energy and Energy Efficiency Policy (NREEEP) 2015 serves as the cornerstone policy document for driving sustainable energy goals.³⁰ NREEEP articulates strategic targets, such as achieving 23% of electricity from renewables by 2025 and 36% by 2030. However, the policy remains non-binding, and implementation has been patchy. A major impediment is the

²⁸ *Electricity Act 2023*, s 63

²⁹ *Electricity Act 2023*, s 68

³⁰ *National Renewable Energy and Energy Efficiency Policy (NREEEP) 2015*

absence of a statutory framework to give the policy legal effect, thereby weakening its ability to attract investment or enforce compliance. Additionally, regulatory agencies such as the Rural Electrification Agency (REA) and NERC suffer from institutional inefficiencies and limited capacity, resulting in delays in licensing, approval, and monitoring of renewable energy projects.³¹

The Feed-in Tariff (FiT) mechanism introduced by NERC under the Multi-Year Tariff Order (MYTO) regime was intended to incentivise renewable energy generation by guaranteeing fair prices for electricity fed into the grid. However, the implementation has been largely ineffective due to tariff uncertainties, lack of investor confidence, and financial instability of the distribution companies (DisCos), many of which are unable to honour Power Purchase Agreements (PPAs) (NERC, 2015).³² Moreover, the regulatory environment continues to suffer from overlapping mandates, weak inter-agency coordination, and legal ambiguity, which collectively deter private sector participation and frustrate international development partners.

The Environmental Impact Assessment Act 1992 (EIA Act), while forming the cornerstone of environmental regulation in Nigeria, provides only a general framework for evaluating the environmental implications of development projects, including those related to renewable energy. Its provisions are not tailored to the unique features and potential risks associated with renewable technologies such as biomass, wind, and solar power. As a result, the environmental assessment of renewable energy projects is frequently treated as a bureaucratic exercise rather than a substantive evaluation process, thereby undermining its effectiveness in protecting ecological integrity and ensuring social sustainability.³³

³¹ Oyeniyi Abe Olujobi, 'Legal and Institutional Framework for Renewable Energy Development in Nigeria: Challenges and Prospects' (2021) 12 *Journal of Sustainable Development Law and Policy* 1, 19.

³² Nigerian Electricity Regulatory Commission (NERC), *Regulation on Feed-In Tariff for Renewable Energy Sourced Electricity in Nigeria* (2015).

³³ S Ajibade, 'Sustainability and the Legal Framework for Renewable Energy in Nigeria' (2019) 27(1) *Nigerian Journal of Environmental Law* 35.

Notably, Section 2 of the EIA Act mandates that all projects likely to significantly affect the environment must undergo an environmental impact assessment before commencement. However, the legislation does not provide specific guidelines for renewable energy projects, leaving much discretion to regulatory authorities. This legislative vagueness results in inconsistent application and enforcement, with many renewable energy developments proceeding without rigorous scrutiny or adequate public consultation.³⁴ Moreover, the Federal Ministry of Environment lacks the technical capacity and institutional coordination to effectively monitor and evaluate such projects, especially those implemented in remote or ecologically sensitive areas.³⁵

The limitations of the current legal framework are particularly evident in biomass and hydro-based renewable projects, which can have considerable environmental and social impacts. For instance, large-scale biomass projects may result in deforestation, air pollution from combustion processes, and competition for land and water resources, yet these impacts are often overlooked due to the general assumption that all renewable energy is inherently 'green'.³⁶ Similarly, mini-hydro installations, though classified as clean energy, can disrupt aquatic ecosystems, alter water flow patterns, and affect downstream communities without proper ecological safeguards.³⁷

Furthermore, the absence of a dedicated legal framework means that concepts such as cumulative environmental impact, lifecycle emissions, and circular waste management—essential to the long-term sustainability of renewable energy—are rarely integrated into project planning and approval processes. This regulatory gap also results in weak mechanisms for ensuring community participation, benefit-sharing, and socio-

³⁴ DS Olawuyi, *The Human Rights-Based Approach to Carbon Finance* (Cambridge University Press 2021) 146–150.

³⁵ S Nnaji, 'Institutional Gaps in Nigeria's Environmental Impact Assessment Regime: A Call for Reform' (2020) 13(2) *African Journal of Environmental Law and Policy* 110.

³⁶ T Oke, 'Environmental Risks of Biomass Energy and Legal Inadequacies in Nigeria' (2022) 16 *Journal of Sustainable Development Law and Policy* 67.

³⁷ T Ogunleye, 'Hydropower and the Environment: Evaluating Nigeria's Legal and Policy Framework' (2018) 5(3) *Journal of Energy and Natural Resources Law* 219.

economic inclusion. Rural communities, where most off-grid projects are deployed, are often excluded from decision-making processes, leading to social tensions and local resistance.³⁸

The regulatory framework's shortcomings are compounded by Nigeria's fragmented institutional architecture, where responsibilities for environmental management are divided among multiple agencies with overlapping mandates and limited coordination. The National Environmental Standards and Regulations Enforcement Agency (NESREA), established under the NESREA Act 2007, has a role in enforcing environmental compliance, but its enforcement capacity is constrained by inadequate resources and jurisdictional conflicts.³⁹ Additionally, although Nigeria has ratified international environmental agreements such as the Paris Agreement, domestic legal reforms to align national legislation with these commitments remain inadequate and poorly implemented.⁴⁰

To address these gaps, Nigeria must move towards the development of a coherent and context-specific environmental legal framework for renewable energy projects. This should involve the revision of the EIA Act to include detailed procedural and substantive requirements for various renewable energy technologies, along with clear guidelines for stakeholder engagement and benefit-sharing. Drawing on comparative best practices, such as the use of Strategic Environmental Assessment (SEA) frameworks in South Africa and India, would also enhance the robustness and inclusiveness of environmental governance in Nigeria's energy transition.

The legal recognition of carbon markets and green financing instruments is also limited, despite the growing importance of climate finance in scaling up renewable energy deployment. While Nigeria's Climate Change Act

³⁸ O Fagbohun, 'Community Participation in Environmental Decision-Making in Nigeria: Myth or Reality?' (2017) 11(1) Nigerian Law Journal 44.

³⁹ A Olawale, 'NESREA and the Enforcement of Environmental Laws in Nigeria: An Appraisal' (2019) 20 Environmental and Planning Law Review 95.

⁴⁰ A Ogunjuyigbe, 'Paris Agreement Implementation and Nigeria's Renewable Energy Law Reform Agenda' (2021) 9(2) Energy Law Review 121.

2021 provides for the establishment of a carbon budget and climate governance mechanisms, its operationalisation remains nascent. The absence of strong linkages between climate legislation and energy regulation creates a fragmented regime that falls short of achieving the holistic integration needed for sustainable energy transitions.⁴¹

In summary, although Nigeria's legislative landscape for renewable energy is evolving positively particularly with the enactment of the Electricity Act 2023 it still requires further legal refinement, institutional coherence, and practical enforcement to create an enabling environment for large-scale investment and equitable energy access. Stronger alignment between law, policy, and climate obligations is essential if Nigeria is to realise its ambition for sustainable development through clean energy.

3.0 ANALYSIS OF POLICY MECHANISMS FOR RENEWABLE ENERGY PROJECTS

The successful advancement of renewable energy projects in Nigeria hinges not only on a coherent legal framework but also on effective policy mechanisms that support and direct such initiatives.⁴² These policy instruments are essential for creating an enabling environment that attracts investment, drives innovation, and fosters growth in the renewable energy sector. Within this context,⁴³ Nigeria has adopted various policies, plans, and regulatory frameworks aimed at aligning its energy goals with both national priorities and international climate commitments.⁴⁴

Among the most pivotal policy instruments is the National Renewable Energy and Energy Efficiency Policy (NREEEP) of 2015. This policy establishes a strategic vision for the integration of renewable energy sources into Nigeria's energy mix, targeting a 30% contribution from

⁴¹ *Climate Change Act 2021*, ss 6–9

⁴² Federal Ministry of Environment, *Renewable Energy Master Plan (REMP)* (Abuja, 2005).

⁴³ Nigerian Electricity Regulatory Commission (NERC), *Mini-Grid Regulation 2016* <https://nerc.gov.ng/index.php/library/documents/Regulations> accessed 1 May 2025.

⁴⁴ Damilola S Olawuyi, *The Human Rights-Based Approach to Carbon Finance* (Cambridge University Press 2021) 138–142.

renewable sources to national electricity generation by 2030. NREEEP further promotes energy efficiency through measures such as the adoption of improved appliances and energy-saving technologies and encourages private sector investment by providing incentives and clear regulatory frameworks.⁴⁵

Complementing the NREEEP is the Renewable Energy Master Plan (REMP) of 2005, which serves as a comprehensive roadmap for the long-term integration of renewable energy into the national grid. It prioritises energy sources such as solar and biomass, reflecting Nigeria's resource endowment, and outlines strategies for sustainable deployment.⁴⁶ These policies are supported by the regulatory efforts of the Nigerian Electricity Regulatory Commission (NERC), which oversees licensing for independent power producers (IPPs), including those focusing on renewables. NERC also regulates tariffs and other pricing mechanisms that aim to make renewable energy economically viable.⁴⁷

Further embedding renewable energy into national development goals, the Economic Recovery and Growth Plan (ERGP) of 2017 emphasises energy infrastructure development and aims to reduce the country's reliance on fossil fuels. It seeks to make the energy sector more competitive and accessible, especially through diversified generation capacity, which includes renewable sources.⁴⁸ In terms of specific policy mechanisms, renewable energy targets such as the NREEEP's 30% goal serve as important directional tools. They signal government commitment and provide predictability for investors. However, these targets are not currently backed by enforceable timelines or comprehensive implementation strategies, which limits their efficacy in driving substantial progress.

⁴⁵ Federal Ministry of Power, *National Renewable Energy and Energy Efficiency Policy (NREEEP)* (2015).

⁴⁶ Energy Commission of Nigeria, *Renewable Energy Master Plan (REMP)* (2005).

⁴⁷ Nigerian Electricity Regulatory Commission, *Regulations for the Licensing of Electricity Generation* (2010).

⁴⁸ Federal Government of Nigeria, *Economic Recovery and Growth Plan (ERGP)* (2017).

One of the most prominent tools used globally to stimulate renewable energy development feed-in tariffs (FITs) has been introduced in Nigeria but with limited effectiveness. While FITs are intended to provide long-term financial assurance to producers by guaranteeing fixed electricity prices, their application in Nigeria has faced issues such as delayed payments and regulatory uncertainty. These challenges have deterred potential investors and undermined the intended stability of the pricing regime.⁴⁹

Incentives such as tax holidays, import duty exemptions on renewable energy equipment, and accelerated depreciation allowances are provided to lower investment barriers. These fiscal policies are designed to make renewable energy projects more financially attractive. Nevertheless, their implementation has often been hampered by bureaucratic delays, inconsistent policy application, and high initial capital requirements, particularly for small-scale or community-based projects.⁵⁰

Public awareness and education also play a crucial role in the diffusion of renewable energy technologies. Campaigns and programmes such as the National Energy Efficiency Action Plan have aimed to raise awareness about the economic and environmental benefits of renewables. Yet, these initiatives have not been sufficiently widespread or impactful, especially in rural areas where energy poverty is most pronounced. Enhanced public engagement is necessary to create grassroots demand and facilitate behavioural change that supports the uptake of clean energy.⁵¹

A recurring challenge in the implementation of renewable energy policies in Nigeria is the lack of coordination among key stakeholders. Multiple ministries and agencies including the Ministry of Power, the Ministry of Environment, and NERC are involved in policy formulation and execution, yet they often operate in silos. This fragmentation leads to

⁴⁹ Nigerian Electricity Regulatory Commission, *Renewable Energy Feed-In Tariff (REFIT) Regulations* (2015).

⁵⁰ Federal Inland Revenue Service, *Tax Incentives for Renewable Energy Projects in Nigeria* (2021).

⁵¹ Energy Commission of Nigeria, *National Energy Efficiency Action Plan (NEEAP)* (2015).

inefficiencies, duplicated efforts, and conflicting regulations. A more unified and holistic approach is needed to streamline activities, harmonise objectives, and improve overall governance of the renewable energy sector.⁵²

In evaluating the effectiveness of these policy mechanisms, several strengths are apparent. Nigeria's frameworks such as the NREEEP and REMP provide strategic alignment with global climate goals and reflect a comprehensive vision for clean energy transition. Financial and fiscal incentives have also laid the groundwork for investment attraction. Moreover, regulatory developments have contributed to creating a more structured and predictable environment for renewable energy deployment.⁵³

Nonetheless, significant weaknesses persist. Chief among these is the lack of stable and enforceable pricing models, particularly in the absence of fully functional FIT schemes. High capital costs and limited access to financing continue to obstruct renewable energy adoption, especially in marginalised communities. Furthermore, inadequate policy coordination and limited public engagement represent ongoing gaps that hinder the holistic implementation of energy reforms.⁵⁴

To overcome these challenges, Nigeria must reinforce its policy frameworks with concrete timelines, improve regulatory clarity, and ensure the effective implementation of fiscal incentives. Public engagement should be scaled up, and a coordinated governance structure should be established to integrate efforts across ministries and levels of government. Only through these measures can renewable energy policy mechanisms significantly contribute to Nigeria's sustainable development aspirations.

⁵² C Chukwuma, 'Challenges of Policy Coordination in Nigeria's Renewable Energy Sector' (2020) 5 *Nigerian Energy Law Review* 67.

⁵³ A Olayemi, 'Policy Instruments for Promoting Renewable Energy in Nigeria: A Review' (2021) 12 *African Journal of Energy Policy* 142.

⁵⁴ Damilola S Olawuyi, 'Energy Law and Policy in Nigeria: Pathways to Sustainable Development' (2018) 6 *Journal of Sustainable Energy Law* 89.

3.1 Comparative analysis of Nigeria's Renewable Energy Legal and Policy Framework with those of other Developing Countries

In evaluating Nigeria's renewable energy legal and policy landscape, it is instructive to compare its structure and evolution with those of other developing nations. Such a comparative analysis offers insights into best practices, regulatory gaps, and potential pathways for strengthening Nigeria's energy transition in alignment with global sustainability goals.

India presents a notable case of robust legal and institutional support for renewable energy. Its National Solar Mission, launched under the broader National Action Plan on Climate Change (NAPCC), provides a coordinated framework for the development and deployment of solar energy technologies.⁵⁵ The mission is backed by clear regulatory incentives such as Renewable Purchase Obligations (RPOs), feed-in tariffs, and viability gap funding mechanisms, which have attracted significant domestic and international investment.⁵⁶ Importantly, India's Electricity Act 2003 allows both central and state electricity regulatory commissions to set renewable energy targets and create supportive financial instruments.⁵⁷ This multi-tiered approach has enabled India to achieve rapid expansion in solar and wind capacity, while maintaining coherence between national and sub-national energy strategies.

In contrast, Nigeria's Electricity Act 2023, though comprehensive, is still in its early phase of implementation. It offers mechanisms such as feed-in tariffs, renewable energy purchase obligations, and a decentralised licensing regime that empowers states to independently pursue renewable energy initiatives.⁵⁸ However, challenges remain in policy coherence,

⁵⁵ Government of India, *National Action Plan on Climate Change* (Prime Minister's Council on Climate Change, 2008) https://moef.gov.in/wp-content/uploads/2017/08/NAP_E.pdf accessed 1 May 2025.

⁵⁶ International Renewable Energy Agency (IRENA), *Renewable Energy Market Analysis: South and Southeast Asia* (IRENA 2019) 37.

⁵⁷ Electricity Act 2003 (India), ss 61(h), 86(1)(e).

⁵⁸ Electricity Act 2023 (Nigeria), ss 88–92.

technical capacity, and access to finance, which limit large-scale deployment of clean technologies.

Kenya provides another instructive example. With over 70% of its electricity generated from renewable sources mainly geothermal and hydro Kenya has established itself as a regional leader in clean energy.⁵⁹ The country's Energy Act 2019 codifies obligations for renewable energy development and creates a Renewable Energy Feed-in Tariff (REFiT) system to attract private investment.⁶⁰ Kenya also demonstrates successful integration of public-private partnerships (PPPs), particularly in its geothermal sector, where government collaboration with international financiers and local communities has been critical to project success.⁶¹ Compared to Nigeria, Kenya's experience reveals the value of a stable policy environment, long-term investment plans, and effective stakeholder engagement.

South Africa, while heavily reliant on coal, has recently accelerated its renewable energy commitments through the Renewable Energy Independent Power Producer Procurement Programme (REIPPPP).⁶² This initiative is grounded in competitive bidding and transparent power purchase agreements, which have attracted over USD 15 billion in renewable energy investment since 2011.⁶³ Although Nigeria's Electricity Act 2023 allows for similar procurement frameworks, the Nigerian model lacks the procedural transparency and consistency that REIPPPP has developed over time. Moreover, South Africa's constitutional recognition of environmental rights under section 24 of its Constitution lends stronger

⁵⁹African Development Bank, *Kenya's Renewable Energy Sector* (AfDB 2020) <https://www.afdb.org/en/documents/document/kenya-renewable-energy-2020> accessed 1 May 2025.

⁶⁰ Energy Act 2019 (Kenya), Part V.

⁶¹United Nations Environment Programme (UNEP), *Green Economy Success Stories: Kenya* (UNEP 2018) 14.

⁶² Department of Mineral Resources and Energy (South Africa), *Renewable Energy IPP Procurement Programme (REIPPPP)* <https://www.ipp-renewables.co.za> accessed 1 May 2025.

⁶³ South African Renewable Energy Council (SAREC), *Annual Report 2021* 22.

legal backing to its energy policies, reinforcing judicial support for sustainability.⁶⁴

Brazil provides further comparative value, particularly in the integration of bioenergy. Its legal framework, anchored in the National Energy Policy Law 1997 and subsequent regulatory reforms, supports biodiesel and ethanol through mandates, subsidies, and robust R&D funding.⁶⁵ Brazil's Proinfa programme also demonstrates effective state intervention in catalysing wind and biomass energy adoption through long-term power purchase agreements.⁶⁶ Nigeria, by contrast, has yet to develop a comprehensive national strategy for bioenergy, despite its abundant biomass resources.

From this comparative survey, it is evident that Nigeria stands to benefit from adopting a more coordinated and enforceable national renewable energy policy framework. While the Electricity Act 2023 is a positive development, learning from India's regulatory integration, Kenya's geothermal PPPs, South Africa's transparent procurement systems, and Brazil's biofuel mandates could significantly enhance Nigeria's capacity to deliver on its sustainable development goals.

3.2 Judicial and Administrative Decisions

The evolving legal and policy framework for renewable energy in Nigeria has been significantly shaped by a combination of judicial pronouncements and administrative reforms, particularly following the enactment of the Electricity Act 2023. These developments are critical to understanding the direction of Nigeria's sustainable energy transition,

⁶⁴ *Constitution of the Republic of South Africa* 1996, s 24.

⁶⁵ *Federal Law No 9.478/1997* (Brazil), National Energy Policy Law.

⁶⁶ Empresa de Pesquisa Energética (EPE), *Proinfa Programme: Lessons and Outcomes* (EPE 2021).

especially within the broader context of climate change mitigation and sustainable development imperatives.

Judicial decisions have increasingly engaged with issues of regulatory authority, environmental protection, and constitutional rights, offering important insights into the interpretive stance of Nigerian courts. One landmark case in this context is *Centre for Oil Pollution Watch v Nigerian National Petroleum Corporation*, where the Supreme Court expanded the traditional rules of *locus standi*, allowing public interest litigation in environmental matters and affirming that individuals and civil society organisations could seek environmental justice on behalf of affected communities.⁶⁷ This decision entrenched environmental rights within Nigeria's jurisprudence and provided a strong legal basis for promoting renewable energy as a cleaner and more sustainable alternative to fossil fuel-based energy systems.

In *Ibadan Electricity Distribution Company v Nigerian Electricity Regulatory Commission*,⁶⁸ the Federal High Court addressed the issue of regulatory overreach, ruling that NERC had exceeded its statutory powers by interfering in the internal corporate decisions of a private electricity distribution company. The court emphasised the need for regulatory restraint and legal certainty principles essential for investor confidence and for the stability of Nigeria's nascent renewable energy market.

More recently, in *Manufacturers Association of Nigeria v Abuja Electricity Distribution Company & Others*,⁶⁹ the Federal High Court declined jurisdiction on the grounds that the plaintiff had failed to exhaust administrative remedies provided under the Electricity Act 2023. This ruling reflects judicial support for the dispute resolution mechanisms

⁶⁷ *Centre for Oil Pollution Watch v Nigerian National Petroleum Corporation* (2019) 5 NWLR (Pt 1666) 518 (SC).

⁶⁸ *Ibadan Electricity Distribution Company v Nigerian Electricity Regulatory Commission* Suit No FHC/ABJ/CS/665/2018 (Fed High Ct, 15 March 2019).

⁶⁹ *Manufacturers Association of Nigeria v Abuja Electricity Distribution Company & Others* Suit No FHC/L/CS/2024/223 (Fed High Ct, unreported, 5 February 2024). Electricity Act 2023, s 1.

established under the Act and reinforces the principle of procedural compliance, which is crucial for regulatory coherence and the effective governance of renewable energy initiatives.

On the administrative front, the Electricity Act 2023 has emerged as a cornerstone legislative instrument. It repealed prior energy laws and introduced a unified framework for electricity governance, with a specific mandate for the development of renewable energy.⁷⁰ The Act empowers the Nigerian Electricity Regulatory Commission (NERC) to establish feed-in tariffs, renewable energy purchase obligations, and incentives for off-grid solutions, particularly in underserved rural communities.⁷¹ These mechanisms institutionalise sustainability objectives and integrate clean energy into national development strategies.

At the sub-national level, state governments are also adopting innovative approaches. For example, Abia State has implemented a solar-powered solution for its Ministry of Justice complex, a move that exemplifies sub-national contributions to climate goals and demonstrates the decentralised energy potential enabled by the new electricity framework.⁷² Such initiatives reflect the practical application of the Electricity Act 2023 and align with Nigeria's commitments under international climate agreements such as the Paris Agreement.

Together, these judicial and administrative developments signal a growing convergence between law, policy, and sustainability in Nigeria. Courts are increasingly adopting a rights-based approach to environmental and energy justice, while regulatory agencies and state governments are reinforcing this momentum through strategic implementation. This synergy provides the institutional scaffolding necessary to support Nigeria's transition to a renewable energy future and achieve critical

⁷⁰ Electricity Act 2023, s 1.

⁷¹ *ibid* ss 88–92.

⁷² Wikipedia, 'Attorney General of Abia State' https://en.wikipedia.org/wiki/Attorney_General_of_Abia_State accessed 1 May 2025.

Sustainable Development Goals, particularly SDG 7 (affordable and clean energy) and SDG 13 (climate action).

4.0 IMPLICATIONS FOR SUSTAINABLE DEVELOPMENT

The transition to renewable energy is not merely a strategic energy reform but a pivotal component of broader sustainable development objectives. In the Nigerian context, the legal and policy landscape governing renewable energy projects has profound implications for environmental protection, social advancement, and economic growth. These frameworks influence not only the trajectory of the country's climate mitigation strategies but also its capacity to alleviate poverty, expand energy access, stimulate job creation, and ensure equitable development. Thus, analysing the intersection between renewable energy governance and sustainable development reveals both opportunities and critical tensions that require careful policy navigation.

From an environmental perspective, renewable energy development offers significant contributions to climate change mitigation. Technologies such as solar, wind, and hydroelectric power emit minimal or no greenhouse gases, positioning them as sustainable alternatives to fossil fuel-based energy systems. Nigeria's National Renewable Energy and Energy Efficiency Policy (NREEEP), which aims to achieve a 30% share of renewables in electricity generation by 2030, signals a commitment to reducing the national carbon footprint in alignment with international climate agreements such as the Paris Accord.⁷³ However, realising these targets depends on the effective implementation and enforcement of supportive legal and policy frameworks. Without robust institutional mechanisms and incentives, the country risks falling short of its climate ambitions.

In addition to mitigating climate change, renewable energy contributes to pollution reduction by displacing the combustion of fossil fuels, which are responsible for harmful emissions such as sulphur dioxide and nitrogen

⁷³ Federal Ministry of Power, *National Renewable Energy and Energy Efficiency Policy (NREEEP)* (2015).

oxides. These pollutants not only degrade air quality but also impose severe public health burdens. Moreover, renewable technologies generally require less water, reducing strain on freshwater resources and minimising water pollution.⁷⁴ As such, the expansion of renewables, supported by coherent legal regimes, holds the potential to safeguard Nigeria's ecosystems and enhance environmental sustainability. However, careful project planning is imperative to avoid negative ecological consequences, particularly in the case of large-scale hydropower installations or wind farms that may disrupt biodiversity or community livelihoods.⁷⁵ This necessitates legal safeguards such as environmental impact assessments and mitigation strategies within energy policy.

On the social front, renewable energy development plays a transformative role in improving energy access, especially in rural and underserved communities. Traditional grid-based energy infrastructure has struggled to penetrate remote regions in Nigeria, but decentralised renewable systems such as solar home systems or mini-grids offer scalable solutions to bridge this gap. These technologies advance Sustainable Development Goal 7, which calls for universal access to affordable and reliable energy.⁷⁶ Moreover, the ability of communities to generate and manage their own power through decentralised systems enhances energy democracy and resilience. Legal and policy frameworks that facilitate licensing, financing, and technical support for small-scale projects are therefore crucial in promoting inclusive energy access.⁷⁷

Enhanced energy access also supports poverty reduction by enabling critical services such as education, healthcare, and small-scale enterprise. The availability of reliable electricity improves school performance, ensures the functionality of health clinics, and empowers local economies. Initiatives like the Solar Power Naija Programme exemplify how

⁷⁴ A Olayemi, 'Policy Instruments for Promoting Renewable Energy in Nigeria: A Review' (2021) 12 *African Journal of Energy Policy* 142.

⁷⁵ Damilola S Olawuyi, 'Energy Law and Policy in Nigeria: Pathways to Sustainable Development' (2018) 6 *Journal of Sustainable Energy Law* 89.

⁷⁶ United Nations, *Sustainable Development Goal 7: Ensure Access to Affordable, Reliable, Sustainable and Modern Energy for All* <https://sdgs.un.org/goals/goal7> accessed 1 May 2025.

⁷⁷ Nigerian Electricity Regulatory Commission, *Mini-Grid Regulation* (2016).

renewable energy can directly improve living conditions and spur economic activity in off-grid areas.⁷⁸ However, the success of such programmes depends on the design of legal and institutional arrangements that ensure affordability, accessibility, and local engagement.

Equally significant is the potential for renewable energy policies to promote social equity. If designed with an inclusive lens, these policies can prioritise historically marginalised groups and redistribute the socio-economic benefits of energy development. For example, targeting energy access interventions in gender-sensitive ways may help alleviate the disproportionate burden of energy poverty borne by women.⁷⁹ Inclusive policy frameworks must therefore address affordability, ensure fair access to technology, and institutionalise participatory decision-making processes to realise the equity potential of renewable energy.

Economically, the renewable energy sector has the capacity to stimulate broad-based growth. Legal and policy incentives such as tax reliefs, subsidies, and streamlined permitting processes can attract domestic and foreign investment in clean energy infrastructure. This, in turn, can catalyse the growth of a green economy that supports technological innovation and local entrepreneurship.⁸⁰ Furthermore, by diversifying Nigeria's economic base away from the volatility of fossil fuel markets, renewable energy development contributes to long-term macroeconomic stability.⁸¹

Job creation represents another important economic benefit of renewable energy expansion. From construction and manufacturing to operations and maintenance, the sector provides employment opportunities across various skill levels. Community-based renewable projects are especially promising in this regard, offering prospects for rural job creation and vocational development. Nevertheless, the scale and sustainability of

⁷⁸ Rural Electrification Agency, *Solar Power Naija Programme* (2021).

⁷⁹ UN Women, *Gender Equality and Energy Access* (2019).

⁸⁰ Federal Inland Revenue Service, *Tax Incentives for Renewable Energy Projects in Nigeria* (2021).

⁸¹ *Ibid.*

employment gains depend on the efficacy of legal and policy instruments in stimulating demand, building human capital, and supporting small businesses.⁸²

In terms of investment, the Nigerian renewable energy sector has attracted growing interest from international financial institutions and private investors seeking sustainable returns. However, investment flows are highly sensitive to the regulatory environment. Legal frameworks must therefore ensure transparency, predictability, and regulatory coherence to create investor confidence and enable capital mobilisation for clean energy projects.⁸³

The synergies between renewable energy and other sustainable development goals are numerous. Electrification of schools and hospitals improved agricultural productivity through solar-powered irrigation, and enhanced gender equality via energy-enabled livelihoods are just a few examples of the multi-sectoral benefits of renewable energy. Integrated policy design can thus amplify the developmental impact of energy investments and contribute to a more cohesive sustainability agenda.⁸⁴

Nevertheless, trade-offs are inevitable. Large-scale hydropower, while offering substantial generation capacity, may displace communities or disrupt ecosystems. Similarly, allocating arable land to bioenergy production may compromise food security. Such tensions highlight the need for legal and policy frameworks that balance competing development objectives, incorporate inclusive planning processes, and implement safeguards to minimise negative consequences.⁸⁵

While the legal and policy frameworks for renewable energy in Nigeria hold transformative potential for sustainable development, realising these

⁸² CC Chukwuma, 'Employment Opportunities in Nigeria's Renewable Energy Sector: Legal and Institutional Imperatives' (2020) 5 *Nigerian Energy Law Review* 112.

⁸³ *Ibid.*

⁸⁴ World Bank, *Nigeria Energy Investment Risk Assessment* (2022).

⁸⁵ International Renewable Energy Agency (IRENA), *Renewable Energy and Jobs – Annual Review* (2023).

potential demands strategic design, effective implementation, and continuous policy refinement. A coherent and inclusive legal architecture that aligns energy reform with environmental protection, social equity, and economic resilience will be central to Nigeria's sustainable development trajectory.⁸⁶

5.0 CONCLUSION AND RECOMMENDATIONS

This article has demonstrated the pivotal role of legal and policy frameworks in advancing renewable energy development and achieving sustainable development goals in Nigeria. As the world increasingly moves towards cleaner energy, Nigeria's legal and policy infrastructure will be critical in determining how effectively the country can transition to a low-carbon economy. While progress has been made, there is a need for more coordinated, transparent, and efficient policies that align with international best practices to overcome existing barriers.

The importance of a well-structured legal and policy framework in driving the renewable energy transition cannot be overstated. The future of Nigeria's energy sector depends not only on the availability of renewable resources but also on the strength of the legal and policy mechanisms that guide their deployment. As Nigeria seeks to meet its energy needs while fostering sustainable development, the alignment of renewable energy initiatives with broader environmental, social, and economic goals will be crucial.

Based on this analysis, the following recommendations are proposed to enhance the legal and policy landscape for renewable energy projects in Nigeria:

It is recommended that licensing and permitting processes be streamlined by simplifying the application process for renewable energy projects, reducing bureaucratic hurdles, and providing clear, predictable timelines

⁸⁶ Energy Commission of Nigeria, *Renewable Energy Master Plan (REMP)* (2005).

for approvals. The implementation of one-stop shops for permits and approvals is also advised to facilitate faster and more efficient project development.

To strengthen policy coordination and implementation, the establishment of a centralized agency or task force is necessary to oversee renewable energy development and ensure better coordination between federal, state, and local government entities. The development of a national renewable energy strategy with clear, measurable targets that align with the Paris Agreement and Agenda 2030 for sustainable development is also crucial.

Expanding financial support and incentives is another key recommendation, including increasing financial incentives such as tax credits, subsidies, and low-interest loans, to attract both local and international investments in renewable energy. The introduction of innovative financing models, such as green bonds and public-private partnerships (PPPs), is also recommended to reduce the upfront costs of renewable energy projects.

It is recommended that environmental impact assessment (EIA) procedures be strengthened to ensure that renewable energy projects do not negatively affect ecosystems or communities. Prioritizing the development of small-scale and decentralized renewable energy systems is also advised to reduce the risks of displacement and minimize environmental impacts. Furthermore, policies should be developed to encourage private sector innovation and participation in renewable energy projects. This can be achieved through mechanisms such as feed-in tariffs or power purchase agreements (PPAs) that guarantee stable and predictable revenue streams for developers. Creating a favourable regulatory environment to support startups and SMEs in the renewable energy space, particularly in technology development and service delivery, is also important.

Finally, to enhance legal and regulatory stability, the legal framework should be strengthened to provide long-term stability for investors and project developers. This includes ensuring contract enforcement, dispute

resolution mechanisms, and intellectual property protection in the renewable energy sector. Laws and policies should also be regularly reviewed and updated to ensure they remain relevant in a rapidly changing global energy landscape.