

NO ONE LEFT IN THE DARK: ACHIEVING ENERGY JUSTICE IN NIGERIA



We have the chance to build this new energy economy in ways that reflect our deepest values of inclusion, diversity, and equal opportunity for everyone—Van Jones.

1.0. Introduction

Heat! Sweltering heat, baked soil, little rain and a people nearly breaking under the glare of the unforgiving sun and its attendant effects on the environment. This is the reality of Nigeria—a country where over 85 million of her people lack access to electricity; and where the serenity of the night is long lost to the drum of petroleum-based generators which pump tons of carbon into the atmosphere, ripping the fragile ozone layer to shreds and ushering in unprecedented heat.¹ This trend—if left unchecked—spells disaster.

It is clear that survival necessitates a transition in Nigeria's energy policies and efforts to ensure energy justice and equity for everyone while simultaneously slowing or halting the galloping climate change that has befallen her. Energy justice is defined as a multi-layered, human-centric theoretical approach that challenges injustice and inequality in the energy sector.² Thus, achieving true energy justice and equity in Nigeria requires affordable, decentralized renewable energy, community-driven initiatives, regulatory safeguards, and a fair transition for oil sector workers.

2.0. The Energy Crisis in Nigeria

Since her independence, Nigeria has held the title of the most populous country in Africa with an estimated 45 million people in 1962.³ Since then, there has been an astronomical increase in her population to over 236 million people.⁴ It stands to reason that for the country and all her inhabitants to function optimally, a tremendous amount of energy is required.

Unfortunately, Nigeria's energy infrastructure has been unable to cope with the energy demands of the nation, creating an energy crisis. This crisis is the outcrop of Nigeria's overreliance on crude oil as a primary a source of both income and power since the 1970s and an inefficient electricity service industry.⁵ Nigeria's power generation capacity is less than demand, and her transmission infrastructure is aged, leading to frequent collapse.⁶ The centralized grid also leads to huge rural-urban disparities in energy access.⁷ This deepens economic inequalities and limits development potential.

Climate change is exacerbated by the use of fossil fuels in Nigeria's energy mix and emissions from generators and firewood. This worsens the energy crisis by affecting water in

¹ The World Bank, 'Nigeria to Improve Electricity Access and Services to Citizens' (*World Bank*, 5 February 2021) <<u>https://www.worldbank.org/en/news/press-release/2021/02/05/nigeria-to-improve-electricity-access-and-services-to-citizens</u>> accessed 22 March 2025.

² Ramit Debnath and others, 'Words against Injustices: A Deep Narrative Analysis of Energy Cultures in Poverty of Abuja, Mumbai and Rio de Janeiro' (2021) 72 Energy Research & Social Science 101892.

³ Natonal Population Commission, 'History of Population Census in Nigeria' (*nationalpopulation.gov.ng*) <<u>https://nationalpopulation.gov.ng/census-enumeration</u>> accessed 24 March 2025.

⁴ Worldometer, 'Nigeria Population' (*Worldometers*, 2025) <<u>https://www.worldometers.info/world-population/nigeria-population/</u>> accessed 30 March 2025.

⁵ Mgbeodichinma Eucharia Onuoha and Isa Olalekan Elegbede, 'The Oil Boom Era: Socio-Political and Economic Consequences' in Prince E Ndimele (ed), *The Political Ecology of Oil and Gas Activities in the Nigerian Aquatic Ecosystem* (Academic Press 2018).

⁶ Adeyinka Adebayo and Kenneth Ainah, 'Addressing Nigeria's Electricity Challenges: Past, Present, and Future Strategies' (2024) 2 American Journal of Applied Sciences 1

<<u>https://www.researchgate.net/publication/383743075_Addressing_Nigeria</u>> accessed 22 March 2025.

⁷ K Kaygusuz, 'Energy Services and Energy Poverty for Sustainable Rural Development' (2011) 15 Renewable and Sustainable Energy Reviews 936.

hydroelectric dams, increasing extreme weather conditions that destroy infrastructure, and causing heat waves to boost electricity demand.⁸ Unless there is urgent reform and investment in renewable power, Nigeria's energy and climate crisis may become her undoing.

3.0. The Potential of Renewable Energy Sources

Charles Darwin Darwin once said, "It is not the strongest of the species that survives, nor the most intelligent. It is the one most adaptable to change."⁹ In an attempt to avert catastrophe with the earth's temperature reach a record 2.30 degrees Celsius in 2024,¹⁰ Nigeria adopted the Paris Agreement in 2015, promising to reach her net-zero goals (2050–2070).¹¹ In order for this to become a working reality, renewable energy development is given topmost priority.

The Nigerian environment is richly blessed with an abundance or renewable energy alternatives. Northern Nigeria is blessed with high solar irradiation, which can be used in large-scale solar power schemes, and its agriculture provides biomass and biogas opportunities.¹² The Middle Belt has large rivers like Niger and Benue, which are appropriate for large and small-scale hydropower solutions.¹³ Coastal and Niger Delta areas are fairly potential for wind energy, especially in Delta and Lagos, and biomass from the oil palm and fishing industries.¹⁴ For better results, hybrid systems can be used for all zones.

4.0. Ensuring Energy Equity and Just Transition for Oil Sector Workers: Policies, Funding and Community-Based Solutions

The transition to renewable energy is just half the battle; ensuring equal access and affordability completes the process. Unreliable and expensive electricity is what most Nigerians, particularly rural residents, have to deal with.¹⁵ Thus, just transition must prioritize economic inclusion and sustainability, to avoid inducing energy poverty during the transition.

The Electricity Act 2023 further encourages decentralized and privatized electricity generation, by which private companies and states can develop independent power projects. Thus, decentralized mini-grids offer a viable solution for rural areas, with localized access to power not dependent on the unstable national grid. These renewable projects can be set up

⁸ Chinazaekpere Ofodile, Salihu Abdulkadir and Patrick Igiligi, 'Climate Change and Energy Security in Nigeria: Analyzing the Role of Renewable Energy Solutions Institution: IGreen Republic' (2024) 10 International Journal of Agriculture and Earth Science

<<u>https://iiardjournals.org/get/IJAES/VOL.%2010%20NO.%2010%202024/Climate%20Change%20and%20Energ</u> y%2056-79.pdf> accessed 28 March 2025.

⁹ Charles Darwin, On the Origin of Species (Macmillan Collector's Library 2017).

¹⁰Roxana Bardan, 'Temperatures Rising: NASA Confirms 2024 Warmest Year on Record' (*NASA*10 January 2025) <<u>https://www.nasa.gov/news-release/temperatures-rising-nasa-confirms-2024-warmest-year-on-record/</u>>.

¹¹ UNFCCC, 'The Paris Agreement' (*United Nations Climate Change*2015) <<u>https://unfccc.int/process-and-meetings/the-paris-agreement</u>>.

¹² SL Habib and others, 'Unlocking Nigeria's Solar PV and CSP Potentials for Sustainable Electricity Development' (2012) 3 International Journal of Scientific and Engineering Research.

¹³ SA Fatounde, JA Olowonubi and MC Ibegbulam, 'Small Hydropower (SHP) Development in Nigeria: An Assessment, Challenges, and Opportunities' (2023) 7 International Journal of Physical Sciences Research 11 <<u>https://eajournals.org/ijpsr/wp-content/uploads/sites/81/2023/09/Small-Hydropower.pdf</u>> accessed 30 March 2025.

¹⁴ Ibid.

¹⁵ Setu Pelz and others, 'Electricity Supply Quality and Use among Rural and Peri-Urban Households and Small Firms in Nigeria' (2023) 10 Scientific Data 273 <<u>https://www.nature.com/articles/s41597-023-02185-0</u>> accessed 28 March 2025.

using community-owned cooperatives and be run by them collectively.¹⁶ Their efforts can be supported by government subsidies and microfinance centres.

Furthermore, there must be a just transition as well for oil workers, whose destiny is wrapped up in fossil fuel. There must be training programs, vocational training, and incentives to take them into renewable energy. Solar panel industry work, hydropower maintenance, and biofuel production can provide such alternative employment opportunities.¹⁷ This will also retain local expertise and encourage indigenous innovation in energy technology.

Alongside the Climate Change Fund, Nigeria requires diversified instruments of finance to support an equitable energy transition. Green bonds will attract investors seeking sustainable projects, raising funds for renewable energy infrastructure¹⁸; public-private partnerships (PPPs) enhance innovation and efficiency in energy schemes; also international climate financing from institutions like the World Bank and the Green Climate Fund can provide grants and low-interest loans.¹⁹

Finally, there is a need for regulatory frameworks to prevent exploitation in the privatized system. Private investors may favour profitability over affordability without sufficient regulation.²⁰ Policies need to implement fair pricing, protect consumers, and retrain erstwhile oil industry employees.

5.0. Conclusion

Energy injustice in Nigeria is not only an environmental need but a social and economic one. The path ahead is through decentralised renewable energy, affordability measures, just transitions for oil workers, and long-term financial investment. By accessing regional renewable resources, investing in community-driven projects, and establishing regulatory safeguards, Nigeria can construct an inclusive and robust energy system. Policymakers, investors, and citizens must act now to ensure that no Nigerian is left in the dark, committing to a cleaner, more inclusive, and more sustainable energy future.

<<u>https://earth.org/power-to-the-people-an-overview-of-community-energy/</u>> accessed 28 March 2025. ¹⁷ Stefan Ellerbeck, 'How Renewable Energy Transition Is Creating a Green Jobs Boom' (*World Economic*

¹⁹ World Bank Group, 'Climate Finance' (*World Bank*13 November 2024) <https://www.worldbank.org/en/news/factsheet/2024/11/12/climate-finance>.

¹⁶ Megan Snaith, 'An Overview of Community Energy and Its Benefits' (*Earth.Org*2 February 2024)

*Forum*13 January 2023) <<u>https://www.weforum.org/stories/2023/01/renewable-energy-transition-green-jobs/</u>>.

¹⁸ Shuangshuang Fan and Muhammad Shahbaz, 'Carbon Neutrality and Green Finance' [2023] Elsevier eBooks 217.

 ²⁰ Isa Aminu and Zainab Brown Peterside, 'The Impact of Privatization of Power Sector in Nigeria: A Political Economy Approach' (2014) 5 Mediterranean Journal of Social Sciences.