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# Advancing Inclusive Climate Governance in Imo State, Nigeria:

## Transforming Challenges into Opportunities

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# INTRODUCTION

Located in the South-Eastern part of Nigeria, Imo State is vulnerable to the multifaceted impacts of climate change which are threatening the ecosystems, economies and livelihoods of millions of residents, particularly in rural communities. Increased incidents of flooding, erosion, acidic rains, warmer temperatures, heat waves, air pollution, diseases, biodiversity losses, etc. are not only on the rise, but also disrupting agricultural productivity, reducing crop yields, destabilizing energy systems and contributing to humanitarian crises. If properly harnessed, Imo State's huge natural gas deposits and renewable energy resources hold significant potential for mitigating the effects of climate change while safeguarding its natural ecosystems and improving the well-being of its citizens.

With a special focus on the 16-member Imo State Technical Committee on Climate Change (Climate Change Committee) tasked with the responsibility to develop a localized climate change policy, this paper highlights the imperative for a state-specific approach to climate action centered on inclusive policy development, institutional capacity building, and meaningful stakeholder engagement. The October 2024 inauguration of the Climate Change Committee through a collaboration between the Imo State Ministry of Environment and Sanitation and Spaces for Change (S4C), marks a significant step towards aligning the state's pursuit of sustainable environmental policies with national action plans and net-zero targets. Among other overarching objectives, it is hoped that the proposed policy will provide strategic direction for reducing the state's carbon footprints, incentivize renewable energy development, and prioritize nature-based solutions such as reforestation and ecosystem restoration. This is not just about policy development, but an opportunity to lead by example in subnational climate governance and also set a precedent for sustainable development in Nigeria.

# IMO STATE: HISTORICAL BACKGROUND AND CLIMATE TRENDS

Imo State, popularly known as the **Heartland of the Eastern Region of Nigeria,** lies within the humid tropics spanning latitudes 4°45'N to 7°15'N and longitudes 6°50'E to 7°25'E, covering an area of approximately 5,100 square kilometers.[1] Divided into 27 Local Government Areas and three political zones—Okigwe, Orlu, and Owerri—the state's administrative capital is Owerri which also doubles as its most populous city. Of Nigeria's 36 states, Imo ranks as the third smallest by land area but is the fourteenth most populous, with an estimated population

**1.** Okorie, F.C & Okeke, I.C. (2011). “Impacts of Climate Variability and Change on Environment: A Case Study of Imo State of Nigeria”, 1st World Sustainability Forum.

exceeding five million as of 2024.[2] Population density varies significantly, ranging from 230 to 1,400 people per square kilometer.[3] The state's geography features a blend of the Niger Delta swamp forests in the east and the drier Cross–Niger transition forests across the rest of its landscape.

While Nigeria ranks ninth (9th) globally in natural gas reserves, Imo State holds the largest share of about 200 trillion cubic feet.[4] With over 163 oil wells spread across 12 locations, major petroleum companies such as Addax, Chevron, Shell, Seplat Energy, Waltersmith, and Sterling operate within the state.[5] Besides its consistently-high surface air temperatures throughout the year, the state is endowed with abundant natural resources such as crude oil, natural gas, lead, zinc, a variety of economic flora, rivers and freshwater lakes. Imo is also home to several prominent water bodies, including the Awbana, Imo, Orashi, and Otamiri Rivers, as well as Oguta Lake in the western part of the state.[6] Oguta Lake is the largest natural, freshwater lake in southeastern Nigeria, located in a natural depression within the floodplain of River Niger with water surface area that varies from 180 to 300 ha depending on the season.[7] The South-east region, including Imo State, is endowed with economically exploitable tree species such as iroko, mahogany, obeche, bamboo, rubber trees, and oil palm, coupled with deposits of white clay, fine sand, and limestone.

The Igbo ethnic group constitutes over 95% of Imo's population, while minority groups such as the Hausa, Yoruba, and Ibibio communities are also present.[8] Christianity is the predominant religion. The state's economy is primarily driven by agriculture, trade, and public-sector employment. Agricultural production remains a key pillar, with palm oil serving as a staple for many households. Other major crops cultivated include cassava, cocoa, rubber, rice, vegetables, and fruits.[9] Additionally, poultry farming and aquaculture have expanded in recent years, contributing to food security and protein supply.[10]

## Climate Change in Imo State: Trends, Impacts and Challenges

The Intergovernmental Panel on Climate Change defines the term, "climate change" as a shift in the climate's condition, identifiable through changes in its average state or variability,

**2.** Niger Delta People, "Imo State Niger Delta People. Accessed December 1, 2024. https://nigerdeltapeople.com/imo-state/
**3.** Niger Delta People, "Imo State, ibid.
**4.** Raji Olatunji, CDD FACT CHECK: Imo state houses the largest gas reserves in West Africa (2023) Accessed via https://cddfactcheck.org/fact-check-imo-state-houses-the-largest-gas-reserves-in-west-africa/
**5.** Vanguard. "Exploring the resource control option – Imo State, by Futureview CEO, Elizabeth Ebi." Vanguard. Accessed December 1, 2024. https://www.vanguardngr.com/2015/06/exploring-the-resource-control-option-imo-state-by-futureview-ceo-elizabeth-ebi/
**6.** Niger Delta People, "Imo State, ibid.
**7.** Oguta Lake, Ramsar Sites Information Services, https://rsis.ramsar.org/ris/1757
**8.** Within Nigeria. 2024. "An Overview of Imo State Local Government Areas." Within Nigeria. Accessed December 1, 2024. https://www.withinnigeria.com/piece/2024/10/19/an-overview-of-imo-state-local-government-areas/
**9.** SAPZ, "Imo State." SAPZ. Accessed December 1, 2024. https://sapz.gov.ng/imo-state/
**10.** SAPZ, "Imo State." SAPZ. Accessed December 1, 2024. https://sapz.gov.ng/imo-state/

often determined using statistical methods.[11] Resulting from the cumulative effects of human activities, such changes persist over an extended period, typically spanning decades or more. Human activities that significantly contribute to greenhouse gas emissions include industrialization, fossil fuel combustion, gas flaring, urbanization, and changes in land use and agricultural practices.[12] Other actions that diminish carbon sinks include deforestation, land-use modifications, water pollution, and certain agricultural practices.[13] Consequently, numerous long-term changes in climate have been observed at continental, regional and ocean basin scales, including changes in arctic temperatures and ice, widespread changes in precipitation amounts, ocean salinity, wind patterns and aspects of extreme weather including droughts, heavy precipitation, heat waves and the intensity of tropical cyclones.[14]

World Health Organization (WHO) estimates that over 13 million annual deaths are preventable and attributable to environmental factors, including climate change.[15] As we shall see below, the impacts of climate change are acute in several parts of Imo State resulting in recurrent flooding, gully erosion, rising temperatures, erratic rainfall and extreme weather events. These trends are compounded by rapid urbanization, deforestation, and unsustainable land-use practices which cause major disruptions to critical infrastructure, agriculture, livestock, health and energy systems. The varying impacts of climate change in different parts of the state are examined below:

**Unpredictable & Intense Rainfall Patterns:** During its two distinct seasons—the wet season and the dry season—the mean minimum temperature in Imo State is 23.5°C, while the mean maximum temperature is 32.1° C.[16] The annual relative humidity averages 75%, reaching as high as 90% during the rainy season, supports luxuriant plant growth and ideally should produce the climax vegetation of the tropical rain forest.[17] Over the past three decades, steady rise in temperature coupled with unpredictable rainfall patterns have been observed in the state, disrupting agricultural cycles and water resources.[18] Annual rainfall ranges between 1,990 mm and 2,200 mm.[19] These climate variations, along with extreme weather events such

**11.** United Nations Framework Convention on Climate Change Fact sheet: Climate change science - the status of climate change science today (February 2011) Accessed via https://unfccc.int/files/press/backgrounders/application/pdf/press_factsh_science.pdf
**12.** Miller & Edwards, 2001, as cited in Onyeneke, R. U. & Madukwe, D. K. (2010). "Adaptation Measures by Crop Farmers in the Southeast Rainforest Zone of Nigeria to Climate Change", Science World Journal, 5(1).
**13.** Nzeh et al. (2016). "Climate Change and Agricultural Production in Nigeria: A Review of Status, Causes and Consequences", Nigerian Agricultural Policy Research Journal, 1(1):105
**14.** United Nations Framework Convention on Climate Change Fact sheet, ibid @ page 2
**15.** Ihejirika, Patience. 2024. "Climate Change: Nigeria's Health, Environment and Agriculture in Peril." Leadership News. Accessed November 30, 2024. https://leadership.ng/climate-change-nigerias-health-environment-and-agriculture-in-peril/
**16.** Britannica. "Imo | State, Nigeria." Britannica. Accessed December 1, 2024. https://www.britannica.com/place/Imo
**17.** Britannica. "Imo | State, Nigeria." Britannica. Accessed December 1, 2024. https://www.britannica.com/place/Imo
**18.** Vanguard. "Exploring the resource control option – Imo State, by Futureview CEO, Elizabeth Ebi." Vanguard. Accessed December 1, 2024. https://www.vanguardngr.com/2015/06/exploring-the-resource-control-option-imo-state-by-futureview-ceo-elizabeth-ebi/
**19.** Vanguard. "Exploring the resource control option – Imo State, by Futureview CEO, Elizabeth Ebi." Vanguard. Accessed December 1, 2024. https://www.vanguardngr.com/2015/06/exploring-the-resource-control-option-imo-state-by-futureview-ceo-elizabeth-ebi/

as flooding, severe storms, and rising sea levels, have exacerbated food insecurity, displaced households, and increased vulnerabilities.[20]

The significant rise in the frequency of extreme rainfall events over the past two decades has led to flash floods and severe erosion in areas such as Ideato South, Ideato North, Njaba, Mbaitoli, Nwangele, and Orlu.[21] According to the Nigeria Hydrological Services Agency (NIHSA), these challenges are compounded by the state's undulating terrain and sandy-loam soil composition, which make it highly susceptible to erosion and surface runoff. As studies have shown, approximately 16% of erosion incidents in Owerri Municipality could be attributed to intense rainfall events.[22]

**Figure 1: Gully erosion severes road to Owerri [Source: DailyPost]**

**Rising Temperatures:** The rising temperatures in Imo State align with global climate change trends, with studies indicating a substantial increase in heat levels over recent decades,[23] while highlighting how increasing heat and reduced rainfall are damaging crops and

**20.** Nwaeboh, A.V. & Egwuonwu, H.A. (2024). "PERCEIVED EFFECTS OF CLIMATE VARIABILITY ON CROP PRODUCTION IN IMO STATE, NIGERIA", Research Journal of Agricultural Economics and Development, 3(1).
**21.** National Hydrological Services Agency (NHISA). 2021. Annual Flood Outlook (AFO) Report. Accessed December 10, 2024. https://nihsa.gov.ng/wp-content/uploads/2021/05/2021-AFO.pdf
**22.** Okorie. F.C. (2014). "Analysis of 30 years rainfall variability in Imo State of southeastern Nigeria", in Proceedings of the 11th Kovacs Colloquium, Paris, France, June 2014, IAHS Publ. 366 (2015).
**23.** Baywood et al. (2024). "Impact Assessment of Urban Heat Island on Land Use/Land Cover in Owerri Metropolis Using Geospatial Technique", International Journal of Advances in Engineering and Management (IJAEM), 6 (9):462

disrupting local ecosystems.[24] Rapid urbanization, particularly in Owerri, has exacerbated the urban heat island effect, where the proliferation of paved surfaces and reduced vegetation leads to heat retention.[25] This not only intensifies local temperatures but also puts additional strain on infrastructure and urban living conditions.[26] Research has further linked the rising heat levels in Owerri to changes in land use patterns.[27] Higher temperatures have extensive environmental impacts such as accelerating the evaporation of soil moisture, reducing water availability for farming, and exacerbating water scarcity, especially in rural communities dependent on rain-fed agriculture.[28]

Studies have shown that rapid urbanization, coupled with limited green spaces, exacerbates the effects of climate change in urban centers.[29] Imo State's high population density further compounds the impact of rising heat levels and the urban heat island effect especially in the urban areas due to overcrowding and inadequate infrastructure. Not only that, climate-induced migration from neighboring states impacted by desertification has increased pressure on the state's already strained infrastructure, including housing, healthcare, and water supply systems.

**Rising Sea Levels:** Rising sea levels pose significant risks to low-lying areas such as those near Oguta Lake. The intrusion of saltwater into freshwater systems threatens drinking water supplies and agricultural irrigation while increasing the risk of flooding in these areas.[30] In 2022, thousands of people were rendered homeless as flood overran Abacheke in Ohaji/Egbema Local Government Area of Imo State.[31] The flood, attributed to the rise in water level around the Orashi river and Oguta lake, also submerged farmlands, cash crops, schools, churches, markets, cultivated farmlands, fishing facilities, interlinking access roads, and other sources of livelihood in the community.

**24.** Ajiere, S. , Diagi, B. E. & Edokpa, D.O (2021). “Impacts of Climate Variability on Sustainable Agriculture in Imo State, Nigeria”, Journal of Geographical Research, 4(1)
**25.** Baywood et al. (2024). “Impact Assessment of Urban Heat Island on Land Use/Land Cover in Owerri Metropolis Using Geospatial Technique”, International Journal of Advances in Engineering and Management (IJAEM), 6 (9): 462.
**26.** Baywood et al. (2024). Ibid.
**27.** Okey. N. & Victor. N. D. (2010). “Day-Time Surface Air Temperature Variations at Locations In Owerri Capital City; Indications of Urban Heat Island Build-up?”, Advances in Science and Technology, 4(2).
**28.** Bradford, J.B. et al. (2017). “Future soil moisture and temperature extremes imply expanding suitability for rainfed agriculture in temperate drylands”, Sci Rep 7.
**29.** UN-Habitat. World Cities Report 2020: The Value of Sustainable Urbanization. (2021). Accessed January 6, 2025, https://unhabitat.org/world-cities-report.
**30.** Ugbodaga, Kazeem. 2024. “NEMA sounds Alarm: Oguta Lake Water levels climbing, flood risk looms in Imo.” PMNews. Accessed December 10, 2024. https://pmnewsnigeria.com/2024/10/04/nema-sounds-alarm-oguta-lake-water-levels-climbing-flood-risk-looms-in-imo/
**31.** Daily Trust, Thousands displaced as flood sweeps 17 communities in Imo (October 2022) Accessed via https://dailytrust.com/thousands-displaced-as-flood-sweeps-17-communities-in-imo/

Figure 2: Flood Victims in Oguta Community, Imo State [Source: ChannelsTV]

**Deforestation and Environmental Degradation:** Nigeria tops the list of countries with the highest deforestation rate, with an annual loss of 3.7% of its forests.[32] Urbanization, deforestation, and unsustainable agricultural practices have contributed to widespread environmental degradation. The rapid expansion of the state capital—Owerri—has caused extensive changes in land use, leading to the destruction of floodplain ecosystems and natural vegetation.[33] The reported loss of 15.4 thousand hectares (kha) of tree cover between 2001 and 2023, representing a 15% decline in forest cover since the year 2000 has resulted in the release of approximately 10.1 million metric tons (Mt) of $CO_2$ equivalent into the atmosphere.[34] The loss of forest cover not only reduces the state's carbon sequestration capacity but also increases susceptibility to soil erosion and flooding. More so, widespread reliance on traditional biomass energy contributes to deforestation and air pollution, intensifying local and global climate challenges.[35]

**Low Agricultural Productivity:** Agriculture plays a critical role in Imo State's economy, with 60% of its population engaged in farming, both full-time and part-time.[36] Given the predominantly agrarian economy, agriculture serves as a primary source of food and income

**32.** USAID, "Nigeria: Climate Change Country Profile (November 2023)." ReliefWeb. Accessed November 28, 2024. https://reliefweb.int/report/nigeria/nigeria-climate-change-country-profile-november-2023
**33.** Baywood et al. “Impact Assessment of Urban Heat Island on Land Use/Land Cover in Owerri Metropolis Using Geospatial Technique.” 2024
**34.** Global Forest Watch, “Nigeria: Forest Data and Trends,” Global Forest Watch Dashboards. Accessed January 5, 2025. https://www.globalforestwatch.org/dashboards/country/NGA/17/
**35.** Federal Ministry of Environment. (2020). First Biennial Transparency Report. Accessed January 5, 2025. https://unfccc.int/sites/default/files/resource/Nigeria%20BTR1%20.pdf
**36.** World Bank. Imo State Rural Access and Mobility Project (RAMP-2, n.d.). Accessed January 6, 2025. https://documents1.worldbank.org.

for a large portion of the population. However, climate variability, such as prolonged dry spells and excessive rainfall, has negatively impacted agricultural productivity. Staple crops like cassava, yam, and maize are particularly affected by extreme weather conditions, with declines in yields due to waterlogging, soil erosion, and unpredictable rainfall patterns.[37] Cassava, for instance, is particularly vulnerable to changes in soil moisture, with extended dry spells and heavy rainfall impeding its growth and leading to crop losses.

Unpredictable weather patterns, particularly worse off in the rural communities, disrupt agricultural cycles and reduce crop yields, heightening food insecurity. Research indicates that 49% of rural farmers in the state report decreasing crop yields, 17% observe declining soil fertility, 17% encounter droughts, and 15% note an increase in heat waves as primary agricultural challenges.[38] Additionally, the state is experiencing significant fluctuations in temperature and rainfall, with rising temperatures and decreasing rainfall posing threats to farming practices that rely on predictable weather patterns.[39]

Soil degradation and erosion in local government areas like Orlu, Ideato, and Mbaitoli are aggravated by intense rainfall, resulting in the loss of fertile topsoil and reduced productivity. Flooding has also damaged farmlands, making it more difficult for farmers to sustain their crop production. As agricultural productivity declines, rural communities face greater economic hardship, leading to migration to urban areas such as Owerri in search of alternative livelihoods. This migration adds pressure to urban infrastructure and services, exacerbating the challenges of urbanization.

**Health Sector Impacts:** The World Health Organization (WHO) has identified climate change as a significant factor exacerbating global health challenges.[40] Climate change has contributed to an increase in climate-sensitive diseases in Imo State, especially vector-borne diseases like malaria. Irregular rainfall patterns, coupled with flooding and standing water, create optimal breeding grounds for mosquitoes, increasing malaria incidence. According to a study, 91% of malaria cases in Orlu were attributed to changes in rainfall patterns, revealing the significant health risks associated with the changing climate.[41] Additionally, an increase in rainfall variability and flooding has led to a rise in waterborne diseases such as cholera, dysentery, and typhoid, in flood-prone regions of Nigeria.[42] Rising temperatures have also

**37.** Food and Agriculture Organization (FAO). Climate Change and Food Security: A Framework Document. (2022). Accessed January 6, 2025. https://www.fao.org/3/i5188e/i5188e.pdf
**38.** Ozor et al. (2015). "Perceived impacts of climate change among rural farmers in Imo State, Nigeria", African Journal of Agricultural Research, 10 (14).
**39.** Ajiere, Diagi, & Edokpa (2021), Impacts of Climate Variability on Sustainable Agriculture in Imo State, Nigeria.
**40.** Ihejirika, Patience. 2024. "Climate Change: Nigeria's Health, Environment and Agriculture in Peril." Leadership News. Accessed November 30, 2024. https://leadership.ng/climate-change-nigerias-health-environment-and-agriculture-in-peril/
**41.** Okorie, F.C & Ezedike, C. (2014). "Influence of Climate Variability on Mosquitoes Bite in Orlu Area of Imo state Nigeria", Social Sciences, 3(6).
**42.** UNICEF. 2022. "More than 1.5 million children at risk as devastating floods hit Nigeria." UNICEF. Accessed January 9, 2025. https://www.unicef.org/press-releases/more-15-million-children-risk-devastating-floods-hit-nigeria

contributed to the increase in heat-related illnesses mainly affecting vulnerable populations like children and the elderly. These health risks are more pronounced in urban slums with inadequate sanitation infrastructure, where rising temperatures further exacerbate health challenges, placing a heavy burden on the healthcare system and affecting the well-being of the most vulnerable.

**Water Scarcity and Contamination:** Changes in rainfall patterns and more frequent flooding have led to water scarcity and contamination of freshwater sources, endangering both public health and agricultural productivity.[43] The availability of surface water has decreased, especially during the dry season, leading to increased competition for water. Rivers like Orashi and Mbano experience reduced flow during dry periods, intensifying water scarcity. Additionally, higher temperatures lead to increased evaporation, further depleting water supplies, particularly in rural communities. Flooding has also led to the contamination of freshwater sources, with pollutants such as waste and chemicals being carried into water bodies during floods, significantly compromising water quality and posing health risks to the public and agriculture.

**Involuntary Displacement and Loss of Livelihoods:** In addition to the economic losses arising from reduced agricultural yields and damage to farmlands, fishing communities have been negatively impacted by decreased river flow and increased pollution during dry periods. In August 2019, severe flooding from heavy rainfall in the Orsu-Obodo community of Oguta LGA submerged around 70 houses, displaced approximately 2,000 people, and destroyed farmlands.[44] About six local government areas (LGAs) in Imo State were also heavily affected by flooding, displacing 7,832 individuals and impacting 60,761 people across 10,228 households.[45] These adverse impacts of climate change enumerated above exacerbate existing socioeconomic vulnerabilities, particularly in rural and underserved communities that depend heavily on natural resources for their survival. On the other hand, urban centers like Owerri contend with heat stress, overstretched infrastructure, and the urban heat island effect, highlighting the dual pressures of environmental degradation and population growth.[46] The cumulative impact of these climate change issues underscores the urgent need for localized adaptation and mitigation strategies to protect the state's ecosystems, infrastructure, and livelihoods.

**43.** Arthur, J.C., Gökçekuş, H., & Kassem, Y. (2022). “Effects of Climate Change on Water Sources in Imo State, Nigeria”, WJERT, 8(5).
**44.** Okeoma, Chidiebube. 2019. “Flood submerges 70 houses, renders 2000 homeless in Imo.” Punch. Accessed January 9, 2025. https://punchng.com/flood-submerges-70-houses-renders-2000-homeless-in-imo/
**45.** International Organization for Migration (IOM). (2024). Displacement Tracking Matrix (DTM) Report: Post-Flood Situation Overview in Six LGAs of Imo State, 2024. Nigeria - Joint Post-Flood Assessment. Accessed January 9, 2025
**46.** Michael Igara Nmecha, Chijioke Uyo, C V Ekweogu, Enos Ihediohanma Emereibeole, ASSESSING THE EFFECTS OF IMPERVIOUS SURFACES ON URBAN HEAT ISLAND PHENOMENON IN OWERRI WEST, NIGERIA (October 2024) Accessed via https://www.researchgate.net/publication/384734939_ASSESSING_THE_EFFECTS_OF_IMPERVIOUS_SURFACES_ON_URBAN_HEAT_ISLAND_PHENOMENON_IN_OWERRI_WEST_NIGERIA

Figure 3: Submerged Houses in Imo State [Source: PremiumTimesNG]

## POLICY RESPONSES TO CLIMATE CHANGE IN IMO STATE

In order to mitigate climate change impacts, Imo State has taken several steps, including participating in national and state-led mitigation initiatives. The state is part of the Nigeria Erosion and Watershed Management Project (NEWMAP), a World Bank-assisted initiative aimed at addressing severe gully erosion and land degradation.[47] Through this project, the state government has focused on restoring degraded lands and improving community resilience, particularly in areas such as Orlu, Ideato, and Owerri West.

Although Imo State lacks a comprehensive legal framework to address the specific environmental challenges it faces, the state government launched the "Hope Green Revolution" in 2022, an initiative aimed at promoting environmental sustainability and green practices throughout the state.[48] During significant flooding events, state agencies have collaborated with federal bodies like the National Emergency Management Agency (NEMA) to provide relief and resettlement for displaced individuals.

**47.** Devex, “Nigeria Erosion and Watershed Management Project (NEWMAP).” Devex. Accessed January 9, 2025. https://www.devex.com/organizations/nigeria-erosion-and-watershed-management-project-newmap-123449?

**48.** Ukwu, JerryWright. 2022. “Gov Uzodimma Flags-off Hope Green Revolution for a Greener Imo.” Legit. Accessed January 9, 2025. https://www.legit.ng/nigeria/1501671-gov-uzodimma-flags-hope-green-revolution-a-greener-imo/

Determined to reverse the ugly impacts of high carbon emissions, Nigeria enacted the Climate Change Act in 2021, laying the legal foundation for actualizing the country's commitment to Paris Agreement, Nationally Determined Contributions (NDCs), Kyoto Protocol and the United Nations Framework Convention on Climate Change (UNFCCC).[49] While Nigeria's Climate Change Act provides a broad national framework, subnational laws and localized policies are essential for tackling region-specific issues such as erosion control, flood mitigation, and renewable energy expansion. Recognizing this gap, the Imo State Technical Climate Change Committee was established in October 2024 to spearhead the development of a state-specific climate change policy. The committee is tasked with identifying vulnerabilities, mobilizing resources, and proposing solutions tailored to the state's unique context.

Owing to several factors including the absence of a dedicated legal framework, Imo State ranks low among the 36 states in terms of climate governance, coming in 24th place on the Subnational Climate Governance Rating. This rating is based on factors such as climate institutions, policy, budget, implementation, and online visibility.

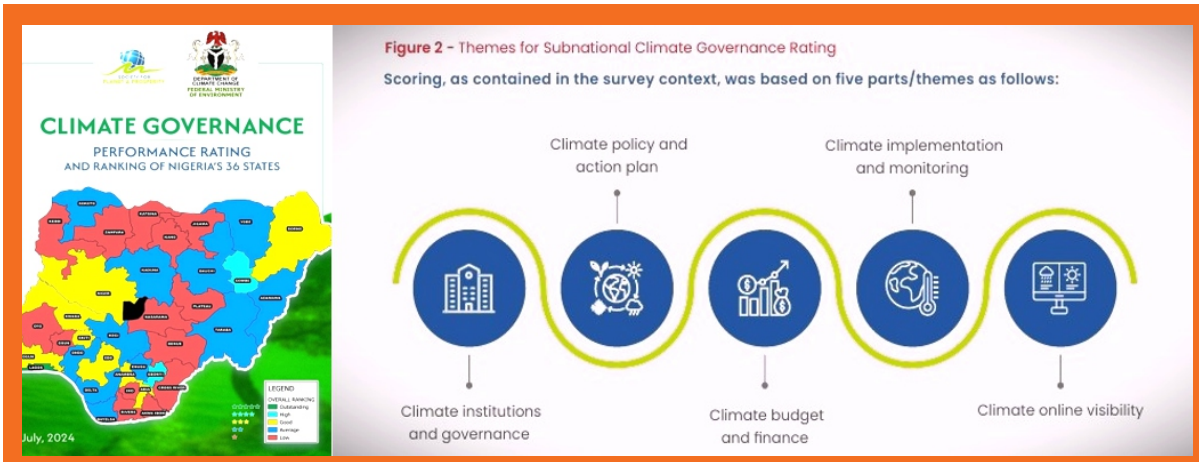


**Figure 4: Climate Governance Rating of the 36 Nigerian States**
**[Source: Department of Climate Change, Federal Ministry of Environment]**

**47.** Devex, "Nigeria Erosion and Watershed Management Project (NEWMAP)." Devex. Accessed January 9, 2025. https://www.devex.com/organizations/nigeria-erosion-and-watershed-management-project-newmap-123449?
**48.** Ukwu, JerryWright. 2022. "Gov Uzodimma Flags-off Hope Green Revolution for a Greener Imo." Legit. Accessed January 9, 2025. https://www.legit.ng/nigeria/1501671-gov-uzodimma-flags-hope-green-revolution-a-greener-imo/
**49.** President Muhammadu Buhari signed the Climate Change Act 2021 into law on the 18th of November 2021.

## Climate Mitigation Opportunities in Imo State

Effective responses to climate change in Imo State will require a combination of practical measures—such as renewable energy deployment, deforestation, and climate-smart agriculture—alongside robust institutional frameworks and community engagement. Renewable energy is a clean form of energy with little or no environmental pollution. Imo State has considerable untapped potential for renewable energy generation, offering a variety of opportunities that could enhance energy security (such as generating renewable energy from solar, small-scale hydro, wind and biomass), reduce environmental impacts, and foster economic growth. These abundant natural resources in Imo State present broad opportunities for investments in independent power plants, petrochemical industries and renewable energy products and services. By prioritizing these approaches, Imo State can enhance resilience, promote environmental sustainability and become a hotbed of clean energy generation consistent with national and global climate goals.

**Solar Energy:** Solar radiation levels in southeastern Nigeria rank among the highest in the country, providing a reliable basis for solar energy development.[50] Cities in southeastern Nigeria, including Imo, receive an average solar radiation between 3.5 and 5.5 kWh/$m^2$/day, presenting significant potential for solar applications.[51] Yet, solar energy is still underutilized, with solar-powered irrigation and water systems not adopted.[52] Imo State, like much of Nigeria, heavily relies on fossil fuels. Recent studies indicate that Imo's favorable solar radiation makes it highly suitable for deploying solar energy technologies, which could reduce reliance on fossil fuels and help address environmental concerns.[53]

Several oil and gas-rich communities in many parts of Ohaji-Egbema LGA like Ilile and Obitti experience land degradation, extensive pollution, and total blackout due to non-availability of electricity.[54] The transition to solar power can also help reduce the environmental degradation caused by the extraction of fossil fuels in these areas.

Solar-powered irrigation systems can revolutionize agriculture in Imo State, especially in Ohaji-Egbema communities where commercial and subsistence farming flourishes. In fact, the name 'Ohaji' ascribed to the local government means yam is found everywhere in the

**50.** Nwokocha, C.O. et al. (2009). "Estimation of Solar Radiation in South Eastern Nigeria", International Journal of Natural and Applied Sciences, 5(3).
**51.** Ikemba et al. (2024). "Analysis of solar energy potentials of five selected south-east cities in Nigeria using deep learning algorithms", Sustainable Energy Research, 11 (2).
**52.** Njoku, U.C., & Ubuoh, E. (2020). "Renewable Energy Potentials: A Substitute for Fossil Fuels Utilization in Imo State, Nigeria", International Journal of Environmental Chemistry and Ecotoxicology Research, 3(1):18.
**53.** Njoku & Ubuoh (2020), Renewable Energy Potentials: A Substitute for Fossil Fuels Utilization in Imo State, Nigeria.
**54.** Victoria Ibezim-Ohaeri et al, SPACES FOR CHANGE, Benefit-sharing Negotiations between Host Communities and Extractive Companies: A Case Study of Assa North Ohaji South (ANOH) Gas Development Project (2021) https://spacesforchange.org/new-report-benefit-sharing-negotiations-between-host-communities-and-extractive-companies-a-case-study-of-assa-north-ohaji-south-anoh-gas-development-project/

community; and springs from the fact that yams are produced in high quantity and of good quality.[55] By providing reliable water supply, solar-powered irrigation systems can help mitigate unpredictable rainfall patterns and prolonged dry spells, ensuring consistent crop cultivation and higher yields. Similarly, solar-powered boreholes can address water scarcity issues in both urban and rural areas. These systems offer a cost-effective and sustainable solution for providing clean water to communities, particularly where traditional electricity infrastructure is lacking or unreliable.

**Electricity Generation:** Following a long history of environmental destruction, youth restiveness, violent conflict and human rights abuses linked to fossil fuel extraction in the Niger Delta, including in Imo State, demands for access to electricity tops the list of community agitations. Electricity generation through solar energy and other renewable energy sources can provide a decentralized energy solution that reduces hostilities between companies and communities as well as dependence on Nigeria's overburdened national grid.

Imo State is endowed with rivers, including the Otamiri and Nworie Rivers, which present considerable potential for hydropower generation. Harnessing these resources could provide a reliable and sustainable energy source, especially for rural areas with limited access to the national grid. According to the International Renewable Energy Agency (IRENA), Nigeria's hydroelectric potential is estimated at around 24 GW, with approximately 3.5 GW classified as small hydropower potential.[56] Rivers such as the Otamiri, Nworie, and Mbano are particularly well-suited for small-scale hydropower projects,[57] given their favorable flow rates and head conditions. This potential, however, remains largely untapped. Small-scale hydropower plants could provide electricity to off-grid communities, powering essential services such as schools, healthcare centers, and irrigation systems. They help reduce dependence on fossil fuels, and are cheaper to install and maintain compared to large hydropower projects.

**Wind Energy:** Wind energy is a renewable and sustainable resource with varying potential across different regions of Nigeria. In Imo State, the wind energy potential is considered to be moderate, with the entire southeastern region experiencing average wind speeds ranging from 3.0 to 3.5 meters per second at a height of 10 meters above ground level.[58] While these wind speeds are relatively modest compared to other areas, they do increase during the harmattan season, from November to February, due to the dry and dusty northeasterly trade winds. This seasonal increase in wind speed offers short-term opportunities for harnessing

**55.** Victoria Ibezim-Ohaeri et al, ibid.
**56.** HydroReview. 2020. “Hydropower Capacity in Nigeria Could Reach 15.5 GW by 2050, IRENA Said.” HydroReview. Accessed January 15, 2025. https://www.hydroreview.com/africa/hydropower-capacity-in-nigeria-could-reach-15-5-gw-by-2050-irena-said/
**57.** Obi, L.E. and Law-Obi, F.N. (2016). "Small Hydropower Development: Key for Sustainable Rural Electric Power Generation in Imo State of Nigeria." International Journal of Advanced Research in Science, Engineering and Technology, 3(1).
**58.** Ajayi, O.O. (2010). “The Potential for Wind Energy in Nigeria.” Wind Engineering, 34 (3).

wind energy, particularly for small-scale applications.

Mechanical wind pumps can be used for agricultural irrigation and rural water supply, addressing the needs of off-grid areas. Small wind turbines could also be deployed for battery charging and powering low-energy devices, providing a sustainable electricity solution for rural communities. To fully tap into Imo's wind energy potential, a comprehensive wind resource assessment, involving thorough measurements and feasibility studies should be conducted across various locations to identify the most promising sites.

**Biomass Energy:** Biomass encompasses all organic materials produced through photosynthesis, such as land and water-based vegetation, trees, municipal waste, biosolids (sewage), animal waste, and agricultural residues.[59] Nigeria produces an estimated 144 million tonnes of biomass annually from various sources, including agricultural residues, animal waste, forest residues, and municipal solid waste.[60] Imo State has abundant biomass resources, particularly in the form of wood fuels used for both domestic and industrial heating and cooking purposes. However, a large portion of biomass materials, such as municipal waste and biosolids, is either discarded or incinerated, leading to pollution and underutilization of their energy potential.

To harness the energy potential from agricultural activities and urban waste in Imo State, biomass materials like cassava peels, rice husks, and palm fronds can be converted into energy. Even the large tons of solid waste from municipal cities like Owerri presents an opportunity for waste-to-energy projects, which can address pollution while generating electricity and heat. To fully unlock the biomass energy potential in Imo, it is necessary to conduct in-depth assessments to identify available biomass resources. Implementing policies that promote investment in biomass energy infrastructure, combined with public awareness campaigns on the benefits of biomass energy, will be key to fostering sustainable energy development in the region.

## Imo State as Nigeria's Leading Natural Gas Hub

Natural gas is integral to Nigeria's Energy Transition Plan (ETP) towards achieving net-zero emissions by 2060. Often regarded as a transition fuel, natural gas is viewed as a cleaner alternative to coal and oil, offering a means to reduce carbon emissions while meeting the growing energy demands of the population. Evidence shows that global demand for gas is expected to rise by 2040 as the world shifts away from more carbon-intensive fuels.[61] The ETP highlights several advantages of natural gas:

**59.** Njoku & Ubuoh (2020), Renewable Energy Potentials: A Substitute for Fossil Fuels Utilization in Imo State, Nigeria.
**60.** Jekayinfa, S.O., Orisaleye, J.I. and Pecenka, R. (2020). "An Assessment of Potential Resources for Biomass Energy in Nigeria." MDPI.
**61.** Stuart, Elliot. 2020. “IEA cuts 2040 global gas demand forecast, sector facing 'significant' uncertainty.” S &P Global. Accessed January 17, 2025. https://www.spglobal.com/commodity-insights/en/news-research/latest-news/natural-gas/101320-iea-cuts-2040-global-gas-demand-forecast-sector-facing-significant-uncertainty?

- Cleaner Energy Source: When combusted, natural gas releases far fewer greenhouse gases compared to coal and oil, making it a more environmentally friendly option for power generation and industrial use.[62]
- Energy Security: As a domestic resource, natural gas reduces reliance on imported fuels, thereby bolstering energy security.
- Economic Growth: The expansion of gas infrastructure can stimulate job creation, attract foreign investment, and generate revenue, particularly in gas-rich regions like Imo.
- Support for Renewable Energy Integration: Natural gas acts as a reliable backup for intermittent renewable sources like solar and wind, ensuring grid stability.

As natural gas is a key component of Nigeria's energy transition strategy, the huge natural gas reserves in Imo State, particularly in areas like Ohaji/Egbema and Oguta, positions the state as a crucial player in Nigeria's energy sector. The Assa North-Ohaji South (ANOH) Gas Project is a major gas development initiative in Imo State, spearheaded by Seplat Energy and the NNPC Gas Infrastructure Company (NGIC). With a production capacity of 300 million standard cubic feet per day (MMscfd), the project is set to significantly increase Nigeria's natural gas supply,[63] support domestic power generation, industrial growth, and potential export opportunities. The ANOH project promises to address the country's energy challenges but also enhance grid stability by complementing renewable energy sources like solar and wind.

The Gas Master Plan (GMP) mapped out the planned gas pipeline infrastructure needed in the country for connecting the gas networks in the western and eastern parts of the country, building new pipelines from the south to Ajaokuta, and to Abuja and then to the northern part of the country. The first part of the infrastructure required the construction of Central Processing Facilities (CPFs) in the Niger Delta region to process wet gas supply to onshore gas transportation networks and industrial plants and further to the Gas Master Plan, about 590km of gas pipelines have been completed and commissioned[64] and these pipelines include Imo River – Alaoji pipeline (24km).

Beyond its energy contributions, the ANOH and pipeline infrastructure projects can potentially bring substantial economic benefits to Imo State through investments in critical sectors like petrochemicals, fertilizers, and manufacturing, while creating local jobs. Additionally, these projects could reduce dependence on firewood and kerosene by

**62.** Nigeria Energy Transition Plan, https://energytransition.gov.ng
**63.** SHELL: SPDC ANNOUNCES FID ON ASSA NORTH GAS PROJECT - Targets 300 Million Cubic Feet Gas for Domestic Market https://www.shell.com.ng/media/2018-media-releases/spdc-announces-fid-on-assa-north-gas-project.html
**64.** https://www.nnpcgroup.com/GasAndPower/Pages/NGMC.aspx

increasing access to liquefied petroleum gas (LPG), which would help mitigate deforestation and improve public health. However, challenges such as gas flaring, infrastructure deficits, and community engagement must be addressed while retaining the use of natural gas. Implementing flare capture technologies to reduce flaring and ensuring local communities benefit through job creation and revenue-sharing mechanisms will be critical to the long-term success of the project.

## THE ROLE OF INTERNATIONAL OIL COMPANIES (IOCS) IN ACCELERATING ENERGY TRANSITION IN IMO STATE

Imo State is host to an array of indigenous and international oil companies (IOCs) like SEPLAT, Shell Petroleum Development Company (SPDC), Sterling Oil Exploration & Energy Production Company Ltd. (SEEPCO), Waltersmith Petroman Oil Limited etc. As the global energy landscape shifts towards sustainability, there is mounting pressure for IOCs to adapt their business models to help reduce carbon emissions, enhance energy security, and support the transition to renewable energy sources. Much of the gas extracted in Imo is either flared or inadequately integrated into the national energy grid. IOCs operating in the state are positioned to alter this pattern by promoting the use of natural gas as a low-carbon energy source.

**Investments in Critical Energy Infrastructure:** Natural gas is usually conveyed from the source point to its final point of utilization through underground pipelines. IOCs can help diversify the energy mix and also address the persistent electricity shortages by supporting the development of gas infrastructure—such as pipelines and liquefied natural gas (LNG) facilities—and expanding gas-fired power plants in Imo, thereby bolstering efforts to ensure a more reliable and sustainable energy supply for Imo's communities.

**Gas Flare Reduction:** Nigeria is one of the world's largest gas-flaring nations, contributing significantly to greenhouse gas emissions and other environmental hazards.[65] Keying into the World Bank's Zero Routine Flaring by 2030 initiative, Nigeria approved the Nigerian Gas Flare Commercialization Programme in 2016, to eliminate gas flaring through technically and commercially sustainable gas utilization projects developed by competent third-party investors. To achieve the "Zero Flare Policy" and increase domestic natural gas utilization, the $700Million Assa North and Ohaji South (ANOH) Gas Development Project, located in Imo State, is one of the seven flagship gas projects (7CGDP) initiated by the Federal Ministry of

**65.** World Bank, "Global Gas Flaring Tracker Report." WorldBank. Accessed January 17, 2025. https://www.worldbank.org/en/topic/extractiveindustries/publication/2023-global-gas-flaring-tracker-report

Petroleum and the Nigerian National Petroleum Corporation (NNPC) and is scheduled to deliver about 3.4billion standard cubic feet of gas per day.[66]

In furtherance of the government's gas flare-down objectives, IOCs in Imo State have a critical role to play in gas flare reduction. For instance, in its 2021 Corporate Responsibility Report, CHEVRON announced that its operations will now focus on methane, flaring and energy management while previously flared gas will be gathered for commercialization purposes in communities.[67] By investing in flare capture technologies, IOCs can mitigate the environmental impacts of gas flaring while converting waste into valuable energy resources. Technologies such as Gas-to-Power (GTP) and Gas-to-Liquids (GTL) systems could capture and convert flared gas into electricity or synthetic fuels.[68] These technologies would not only help reduce flaring but also contribute to the diversification of Nigeria's energy mix by providing alternative energy sources for both domestic use and export.

**Funding and Technical Support for Renewable Energy Projects:** Renewable energy production involves high operating costs and overheads resulting from the costs of connection, construction, upgrading of transmission/distribution lines, substations, and associated equipment.[69] In Imo State, lingering challenges such as infrastructure gaps, limited technical expertise, and insufficient financing are some of the obstacles slowing down the state's decarbonization efforts. This is where the technical expertise, financial capacity, and global experience of IOCs can make a transformative impact.

**Partnerships and Collaborations:** Through strategic collaborations, joint ventures, or direct investments, IOCs can support the development of renewable energy projects, industrial applications, and even transportation fuels in Imo State. For instance, given the abundant sunlight in the state, solar mini-grids or wind power projects could greatly improve energy access in off-grid and rural areas. Leveraging their experience in large-scale infrastructure projects, IOCs can offer crucial technical expertise in areas such as energy storage, grid integration, and the scaling of renewable technologies. Finally, financial investments by IOCs—whether through direct funding, grants, or public-private partnerships—can drive innovation, create jobs, and contribute to both the state and national long-term energy transition objectives.

**66.** The Energy Year: NNPC signs seven critical gas projects: https://theenergyyear.com/news/nnpc-signs-seven-critical-gas-projects/#:~:text=The%20projects%20include%20the%20181,198%20bcm%20(7%20tcf).
**67.** SPACES FOR CHANGE, ENERGY TRANSITION IN NIGERIA'S OIL-RICH COMMUNITIES (2022) Accessed via https://spacesforchange.org/energy-transition-in-nigerias-oil-rich-communities/
**68.** Abu, R., Patchigolla, K., & Simms, N. (2023). "A Review on Qualitative Assessment of Natural Gas Utilisation Options for Eliminating Routine Nigerian Gas Flaring." Gases, 3(1), 5-13.
**69.** Victoria Ibezim-Ohaeri, Policy Brief: Commentary on the Renewable Energy Feed-in Tariff (REFIT) Regulations (2015) https://spacesforchange.org/download/policy-brief-commentary-on-the-renewable-energy-feed-in-tariff-refit-regulations/

# WHAT IMO STANDS TO GAIN FROM A GREEN ECONOMY

By harnessing its abundant renewable energy resources, including its rich natural gas reserves, Imo State can usher in a green economy powered by industrial growth, clean energy solutions, and improvements in local infrastructure through the following ways:

**1. Industrialization and Economic Empowerment:** For countries like Nigeria with enormous power generation shortfalls, natural gas is used by homes for heating and cooking; industries for manufacturing essential products as varied as steel, medical equipment and fertilizer; grocery stores, hotels and restaurants for heat, power and dehumidification; trucks, buses and cars for clean fuel; and by utilities and power producers to generate reliable electricity with low emissions. The World Bank has recognized the role of natural gas in supporting industrialization, particularly in regions with substantial gas reserves.[70] Developing its natural gas resources will potentially trigger a boom in industrial projects that create jobs, diversify the local economy and increase access to electricity. Establishing natural gas-based industries in Imo such as petrochemicals and fertilizers, will create jobs, attract investments, and diversify the state's economy, reducing dependence on oil.

**2. Access to Clean Cooking Solutions:** About 30 million households and more than 100 million Nigerians are said to depend on firewood as a source of energy for cooking with its attendant collateral damage to human health and the environment.[71] Natural gas is key to providing cleaner cooking alternatives, such as liquefied petroleum gas (LPG), which can replace firewood and kerosene predominantly used by low-income women in Imo.[72] The World Health Organization (WHO) has extensively documented the health benefits of cleaner cooking technologies, and Nigeria has increasingly pushed for LPG expansion as part of its energy transition plan.[73]

**3. Community Development:** Stakeholder engagement and community development are crucial to the achievement of a stable climate for renewable energy activities. Community development thrives when local communities benefit from natural gas investments, secure decent jobs, enjoy the benefits of the green economy through fair revenue-sharing

**70.** World Bank (2015). Nigeria Economic Report. Accessed January 17, 2025. https://documents.worldbank.org/en/publication/documents-reports/documentdetail/684961468197340692/nigeria-economic-report
**71.** Oladeinde Olawoyin, Premium Times, More than 100 million Nigerians cook with firewood – official (April 29, 2017) Accessed via https://www.premiumtimesng.com/news/top-news/229935-100-million-nigerians-cook-firewood-official.html?tztc=1
**72.** Spaces for Change, Gender and Fossil Fuel Subsidy Reform in Nigeria: Findings and recommendations (RESEARCH REPORT) (2020) Accessed via https://spacesforchange.org/gender-and-fossil-fuel-subsidy-reform-in-nigeria-findings-and-recommendations-research-report/
**73.** World Health Organization (2022). WHO publishes new global data on the use of clean and polluting fuels for cooking by fuel type. Accessed January 17, 2025. https://www.who.int/news/item/20-01-2022-who-publishes-new-global-data-on-the-use-of-clean-and-polluting-fuels-for-cooking-by-fuel-type

mechanisms and social responsibility programs. The Electricity (Amendment) Act, 2024, seeks to address the development and environmental concerns of host communities and sets aside five percent (5%) of the actual annual operating expenditures of power generating companies (GENCOs) from the preceding year for the development of their respective host communities.[74] The recent amendment to the Electricity Act is a highly-welcomed legal protection for scores of Imo host communities of renewable energy sources and assets.

**4. Environmental Clean-Up and Accountability:** Extractive-affected communities are insisting on clean-ups and remediation as a precondition to fossil fuel phase-outs. In other words, the shift towards renewable energy should not erase memories of historical wrongdoings of corporations and governments. Corporations have often implemented community development or corporate social responsibility (CSR) projects in lieu of actual remedial compensation for the systematic destruction of the environment. Transition plans, including divestments by oil companies, must therefore contain specific timeframes for cleanup and remediation. To ensure that climate justice in Imo State is anchored on justice, policy proposals must provide processes and mechanisms for delivering effective legal remedies to communities that have borne the brunt of fossil fuel production for many decades.

## RECOMMENDATIONS FOR STRENGTHENING CLIMATE GOVERNANCE IN IMO

**1. Accelerating Stakeholder-Driven Law Development and Implementation:** While the committee is spearheading the drafting of a climate change law, it is essential to ensure that the law is inclusive, implementable, and aligned with Imo State's specific challenges. Public consultations must be expanded to engage marginalized communities, traditional leaders, women and youth groups as well as civil society organizations in meaningful dialogues. This approach will ensure that the policy reflects local realities and enjoys broad-based support. Furthermore, the state government must establish mechanisms for funding and enforcement to prevent the law from becoming symbolic without tangible impact.

**2. Strengthening Institutional Capacities for Implementation:** To effectively translate the climate change law into action, Imo State must invest in institutional capacity-building. This includes equipping the Imo State Ministry of Environment and Sanitation and other relevant agencies with the necessary resources, technical expertise, and capacity-building to implement and enforce climate regulations. Training programs and partnerships with national and international climate organizations as well as civil society organizations can enhance local capacity for project management, data collection, and climate resilience planning.

**74.** The Cable, JUST IN: 'GENCOs to develop host communities' -- Tinubu (2024) Accessed via https://www.thecable.ng/just-in-gencos-to-develop-host-communities-tinubu-assents-to-amendment-of-electricity-act/

**3. Scaling Up Nature-Based Solutions:** Imo State's unique geography, which includes significant areas affected by deforestation, gully erosion, and flooding, makes it well-suited for nature-based climate solutions. Farmers in Imo State are already adopting various climate change mitigation and adaptation strategies, such as crop rotation, mixed cropping, mulching, and creating water drainage channels.[75] Large-scale reforestation programs, alongside the restoration of degraded wetlands and floodplains, can simultaneously address biodiversity loss, reduce carbon emissions, and mitigate the impacts of extreme weather events. Prioritizing community-driven approaches incentivizes for local participation and ownership.

**4. Promoting Climate-Smart Agriculture and Livelihoods:** Agriculture remains a corner stone of Imo State's economy, yet it is highly vulnerable to climate variability. Beyond adopting climate-smart agricultural practices, the state should integrate agroforestry and sustainable land-use systems that enhance soil health and productivity. Additionally, developing value chains for climate-resilient crops, such as cassava and yam, will create new economic opportunities while reducing reliance on climate-sensitive farming practices.

**5. Expanding Renewable Energy Access:** A greater emphasis is needed on leveraging the state's renewable energy potential to meet local energy demands sustainably. Investments in solar energy for schools, health centers, and rural households would reduce reliance on unsustainable biomass fuels while improving energy access. Public-private partnerships and incentive mechanisms could accelerate the deployment of off-grid solar systems and mini-grids.

**6. Enhancing Climate Financing and International Partnerships:** Imo State must actively pursue climate finance opportunities to support its adaptation and mitigation initiatives. Engaging with international climate funds, such as the Green Climate Fund, will support the implementation of large-scale projects. Additionally, the state government should develop partnerships with international organizations and donor agencies to secure technical and financial assistance.

**7. Prioritizing Public Awareness and Education:** Sustained climate action requires a well-informed populace. The state government, in partnership with civil society need to upscale investments in educational campaigns that increase public understanding of climate change impacts and encourage sustainable practices. These efforts should include school-based programs, media campaigns, and community workshops to ensure that individuals across all demographic groups are empowered to contribute to climate resilience.

**8. Institutionalizing Monitoring and Accountability Mechanisms:** The success of any climate law or project depends on consistent monitoring and evaluation. In partnership with civil society, it is important for the Imo Climate Change Committee to develop a framework

**75.** Ajayi, A. R., & Akinmoladun, O. F. (2017). Climate Change Mitigation and Adaptation Strategies Used by Farmers in Imo State, Nigeria. Journal of Agricultural Extension, 21(2):1-12.

for tracking the implementation of the climate change law and associated programs, with regular reporting to stakeholders. Leveraging digital technologies such as climate data platforms can enhance transparency and decision-making.

# CONCLUSION

The establishment of the Imo State Climate Change Technical Committee marks a pivotal moment in the state's efforts to address the escalating threats posed by climate change. This initiative signals a growing recognition of the importance of localized, institutionalized climate action to mitigate the environmental and socioeconomic impacts of a rapidly changing climate. By prioritizing the development of a state-level climate policy, the committee has taken a significant step toward creating a structured framework for addressing the region's vulnerabilities and enhancing resilience.

Nonetheless, the complexity of climate challenges in Imo State necessitates a multi-pronged approach that goes beyond policy formulation. The state's unique vulnerabilities—characterized by deforestation, flooding, gully erosion, and agricultural disruption—require targeted, evidence-based interventions that are inclusive and community-driven. Addressing these challenges calls for a concerted effort to integrate renewable energy, climate-smart agricultural practices, and nature-based solutions into the state's development agenda. With emphasis placed on inclusivity, sustainability, and accountability, the recommendations outlined in this paper offer practical and strategic pathways to complement the efforts of the Climate Change Technical Committee, ensuring that climate policies translate into tangible outcomes for communities and ecosystems.

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