JORAS, 12 (2023) pp. 35-46

Nigeria and the Question of Climate Justice

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Abstract
The world has witnessed series of natural disasters that are driven by climate change, and in most cases, the result of anthropogenic activities. Nigeria, alongside other countries of the world, faces the threatening consequences of climate change and other forms of environmental degradation. The present report, which takes the form of a case study, is a response to the question of the general level context of Nigeria's struggle with the challenges of climate change. It has analyzed Nigeria's Nationally Determined Contributions (NDC) through the lens of climate justice, considering the wider policy frameworks at the national level. It, therefore, touched on the national effort towards keeping 1.5C alive, transition to green energy, the provision for food sovereignty, the capacity of the government to finance for mitigation, adaptation, losses and damages, and finally, the promotion and protection of the roles and rights of indigenous peoples and local communities in the preservation of biodiversity. This paper applied a hybrid methodology, which includes collection of data from national and international sources, and from the empirical research of Nigerian scholars. These were analyzed critically and presented thematically. It submitted that, while the Nigerian state is doing her own bit in the direction of climate justice, there is still much to be done, which require more national commitment and international collaboration.

Keywords: Nigeria, Climate Change, Justice, Environment, Biodiversity

Introduction

Climate change constitutes one of the greatest threats not only to human existence but to sustainable human development. It is globally agreed to be real and caused by both natural and anthropogenic factors (IPCC Report 2013). This report, however, focuses more on anthropogenic activities in Nigeria that are bringing about variable rainfall, episodic flooding, drought, desertification in some parts of the country, abnormal rise in sea levels, land degradation, etc.

(Haider 2019), and the broad question of Nigeria's efforts towards adapting to and mitigating climate change. Nigeria is located in West Africa, having a total area of 356,669 sq mi, making it the 32nd largest country in the world. It is bordered in the north by Niger, in the east by Chad and Cameroon, in the South by the Gulf of Guinea of the Atlantic Ocean and the West by the Republic of Benin (Ajayi et al 2023).

As a result of anthropogenic activities, it has been observed that the Green House Gasses (GHG) have been rising since the Industrial Revolution. This comes from Fossil Fuel that produces carbon dioxide (CO2) (Savacool 2017 and Elum et al 2017), which constitutes two-third of the green house gasses (Crippa et al 2019 and Nwozor 2013). The recognition of this threat led to several conferences and bilateral agreements with commitment from states to deal with the causative factors. This report focuses on Nigeria's commitment to this global vision and effort. It will report on Nigeria's effort towards keeping 1.5C alive, transition to clean energy, food sovereignty within the context of climate change, financing for mitigation and the contribution of indigenous approaches to the conservation of biodiversity.

Nigeria and the 1.5C Commitment

At the Conference of the Parties (COP26) held in Glasgow on 13th November 2021, the nearly 200 countries in attendance including Nigeria, had a climate pact in which they agreed to limit temperature rises to 1.5C and revisit and strengthen their current emissions targets to 2020 known as Nationally Determined Contributions (NDCs). The progress on this will be determined by a yearly round table report on global progress (Yinka 2021).

The credentials of Nigeria in relation to domesticating international agreements is quite impressive. Apart from being a party to the UNFCCC in 1994, ratifying the Kyoto Protocol in 2004 and implementing the requirements of the protocols and agreements which includes setting up administrative machinery and implementing associated projects (Nwozor 2021), Nigeria, following the agreement at COP26, has signed the Climate Change Bill into law with the hope of developing adaptation and mitigation plans. However, there are several factors that affect the translation of these plans into action. The first is the absence of an accurate data due to poor technology systems and adequate commitment to reporting current emission level. This is further compounded by a weak legislation that is necessary for ensuring increment of climate-friendly activity (Caleb 2018).

The approval of the Petroleum Industrial Bill by the federal government, which will attract new investments into oil and gas is not in line with the Paris agreement, and thus not a good sign. Another difficulty is the inability of the

Nigerian government to diversify its economy from an entire dependence on non-renewable fossil energy (Caleb 2018). There is also the factor of lack of community ownership of the project as a result of a poor commitment on the part of the government to work closely with local communities, civil societies, stakeholders and developing partners (Olugbenga 2021). This is not unconnected with the poor coordination among federal government's ministries and agencies which shows that climate change is not currently mainstreamed into policy plans and targets (Climate Action Tracker 2022). The amount allocated to climate change related matters in the budget is not strong enough for an effective positive action.

More so, the plan of the country to expand its domestic, regional and export gas markets, the plan to revive its coal domestic production through the 2018 National Energy Policy, poor reliable electricity grid that makes citizens spend much on generators, shows indices of dilemma that is at odd with Nigeria's resolve to reduce its emissions by 20% by 2030 and 47% conditionally on international support (Climate Action Tracker 2022).

Transition to Clean Energy

There is a global emphasis on the need for transitioning from the present energy system dominated by fossil fuel to green energy. In this regard, Nigeria has met the requirements for participating in Clean Development Mechanism (CDM) projects (tasked with the responsibility of reducing GHG emissions) (Akinyele et al 2014). In 2006, Nigeria established a Designated National Authority (DNA) tasked with the evaluation, endorsement and approval of CDM projects based on national sustainable development criteria, tracking CMD projects and giving UNFCCC an annual report (Adejuwon 2015). The Nigeria's Department of Climate Change under the Ministry of Environment has at least eleven CDM and six national/regional projects under the Program of Activities (POA). Through this, she had recorded notable emission reductions, for instance, from 2015 to 2021, Nigeria has recorded annual emission reduction of 6,967 gigagram and 215 gigagram respectively. Nigeria has consistently made submission of reports in this regard in 2003 and 2014 to UNFCCC.

Going by to the 2022 Global Gas Flaring Tracker Report, Nigeria has improved in reducing gas flaring. This is also seen when viewed against the report of gas flaring in 1991 which was at 4% (13% of the world's total volume of flared gas) with Nigeria as second after Russia. It is hoped that if the country works on her inefficient methods of exploiting its non-renewable energy resources and the survival strategies adopted by its teaming population, it will further drop below the first 10 countries.

Table 1: Gas flaring volumes 2016-2020 (billion cubic meters)

No.	Countries	2016	2017	2018	2019	2020	Changes from 2019-2020
1	Russia	22.37	19.92	21.28	23.21	24.88	1.66
2	Iraq	17.73	17.84	17.82	17.91	17.37	-0.54
3	Iran	16.41	17.67	17.28	13.78	13.26	-0.52
4	USA	8.86	9.48	14.07	17.29	11.81	-5.49
5	Algeria	9.10	8.80	9.01	9.34	9.32	-0.02
6	Venezuela	9.35	7.00	8.22	9.54	8.59	-0.95
7	Nigeria	7.31	7.65	7.44	7.83	7.20	-0.63
8	Mexico	4.78	3.79	3.89	4.48	5.77	1.28
9	China	1.96	1.56	1.82	2.02	2.72	0.70
10	Oman	2.82	2.60	2.54	2.63	2.52	-0.11

Source: NOAA (2020), Payne Institute (2020) and Colorado School of Mines (2019), GGFR (2020)

According to the 2022 Global Gas Flaring Tracker Report, Nigeria ranks 7th among the 10 countries with highest gas flaring who contribute 75 percent of the world's gas flaring. Ahead of Nigeria are Russia, Iraq, Iran, the United States, Venezuela, Algeria. The three countries behind Nigeria include: Mexico, Libya, and China. Although the country has remained in the top seven flaring countries, it has nonetheless steadily reduced its flaring: flaring has declined from over 25 bcm in 2000 to close to 7 bcm in 2020, while oil production has remained essentially flat at around 2 million barrels a day.

These notwithstanding, the commitment of Nigeria is heavy at the level of policies and agreements without sufficient action towards implementation. A major flaw in the CDM and POA projects, according to Nwozor (2021), is their lack of effort towards developing the green energy potentials of Nigeria. There is also the problem of incapacity of Nigeria to put in place sufficient technologies to ensure the achievement of national targets on green renewable energy (Ole 2016). At the moment, there are efforts towards expanding the country's hydorcarbon reserves, the use of inorganic fertilizer is still very high, the improper disposal of industrial wastes are seen in most major cities.

These notwithstanding, the policies of the country emphasizes its commitment towards mainstreaming renewable energy in line with global aspirations (Nwozor 2021). Given the rising population and deficit in development,

Nigeria will require international support to translate these policies into action as she is still far from achieving her target of transition to green energy by 2030.

Food Sovereignty and Changing Climate

Nigeria has consistently made efforts towards food sufficiency in the past (Laura 2020). These attempts, however, have done very little to address the underlying causes of declining agricultural capacity. In 2018, an estimated 25 million Nigerians were undernourished. This is up by 180% given the records of the previous decade. Out of an annual demand for wheat of 3 million tons, only about 100,000 are produced in the country. This is based on poor financial aid to farmers, extreme temperatures and unpredictable precipitation patterns, recent Jihadist insurgency and its offshoots in the North Eastern and North Western parts of the country already experiencing decline in agricultural production by almost 55%, poor mechanized system of farming, dependence on rain for agriculture or on the natural weather conditions of localities (Medugu et al 2008 and Abaje et al 2013), increased desert encroachment in the northern part of the country, erosion, flood, environmental degradation in the southern part of the country (Firdaus et al 2019; Edame et al 2011; FAOUN 2008; FAO 2008; IFAD 2008; UNICEF 2008; WFP 2008; WHO 2008), poor storage (Ogunpaimo 2021) and huge increase in population growth (Korir et al 2018; Ikudayisi et al 2019; Adeniyi et al 2019).

From the data reported by the Global Food Security Ranking in 2022, Nigeria ranks the 97th county out of the 113 countries on record.

Table 2: 2021 Global Food Security Ranking

No.	Country	Year	Trends
1	Nigeria	2012	39.0
2	Nigeria	2013	2.1
3	Nigeria	2014	-1.6
4	Nigeria	2015	1.4
5	Nigeria	2016	1.5
6	Nigeria	2017	-0.5
7	Nigeria	2018	-1.4
8	Nigeria	2019	2.1
9	Nigeria	2020	1.4
10	Nigeria	2021	0.1

Source: GFSR (2021)

Even though the overall trend is positive at +2.3, it is still not enough to ensure food security. In fact, the Federal Ministry of Agriculture lamented that 65% of the population of Nigeria is food insecure (El-Ladan 2014). With Nigeria's population projected to double by 2050 to 400 million (Obiezu 2020), the country lives with a catastrophy in view.

Climate Finances

The challenges that come with climate change require finances to tackle (Lobell 2014). Unfortunately, most developing countries like Nigeria do not have enough finances to tackle the challenges of climate change (Lim et al 2005; Moser 2010). More so, the World Bank formerly expects a financial cost of 10-40 billion dollars annually for developing countries, and currently 140-300 billion dollars annually (WDR 2010; UNEP 2016; Barr et al 2010). This posses a serious challenge to countries like Nigeria.

Table 3: Aggregate budget expenditures for adaptation (2013–2020)

NO.	Year	Total Naira	Share of Total adaptation budget	Share of adaptation budget to GDP
1	2013	10,753,404,222	34.05%	0.0168%
2	2014	2,591,421,756	8.20%	0.0038%
3	2015	238,646,377	0.76%	0.0003%
4	2016	1,786,363,620	5.66%	0.0026%
5	2017	6,122,821,038	19.39%	0.0088%
6	2018	1,099,037,404	3.48%	0.0016%
7	2019	4,986,075,679	15.79%	0.0069%
8	2020	4,006,552,629	12.69%	0.0057%
	Total	**31,584,322,725**		

Source: *Oyimadu and Uche (2021)*

From the foregoing budgetary allocation for tackling climate change and the financial allocation expected by the World Bank, it is obvious that many developing economies like Nigeria cannot deal with the issue of climate change without external aid. This explains why a major source of the flow of financial resources for adaptation mostly comes from developed countries. However, most times, the requirements for accessing these international sources of funds require stringent conditions. This notwithstanding, from the dimension of

funding, Nigeria cannot fund the adaptation of climate change alone and will, therefore, require external assistance from developed economies and Non-Governmental Organizations.

Indigenous Peoples and Biodiversity Conservation

Indigenous knowledge systems are a significant resource which contribute greatly towards increased efficiency, effectiveness and sustainability of the environment. So far, the major way through which the Nigerian government promotes and accounts for the roles and rights of indigenous peoples and local communities is through representation in governance through the local heads of communities and villages. Through them, the voices of the local people are heard, and through through them the government communicates with them in the language that they understand better.

Regarding the contributions of indigenous knowledge systems to the preservation of the environment, the following are notable:

I. their conceptualization of nature as mother, source of life, nourisher, supporter and teacher, brings a new perspective to the understanding of nature (Kanu 2012).

II. motherhood also introduces the concepts of respect, love, care, empathy, support, patience, etc., which are indispensable for the promotion of the good health of the environment (Kanu 2012).

III. the understanding of nature as manifestations of great spirits, means that they are not just considered as things or properties. They are spiritual personalities deserving of respect and care (Kanu 2021).

IV. traditional rites, rituals and festivals become become opportunities for the renewal of nature, as in the case of planting of trees (Kanu 2021).

V. the environment is understood as a part of the human world. Its destruction would have direct consequences on the health of the human person (Kanu 2021).

In view of the necessary roles of indigenous peoples in the preservation of the environment, there is need for the government to recognize their role in conservation, and thus, include them in discussions about climate change. They need to be given the opportunity to speak for themselves.

Conclusion

Nigeria as a country is currently experiencing the severe consequences of the mismanagement of the environment, which is posing a serious threat our

collective existence (Kanu 2021). In the face of the foregoing, Chiras avers that: "Together, the problems of overpopulation, depletion, and pollution have created an ecological crisis – a threat to the integrity of natural systems of which humans are part, and, therefore, a threat to the survival of human life" (p. 5). The present report is a contribution to knowledge in the form of a case study as it focuses on Nigeria's experience and efforts toward dealing with the challenges of climate change. It analyzed Nigeria's Nationally Determined Contributions through the lens of climate justice, considering the wider policy frameworks at the national level.

This piece remains a very significant contribution to studies in climate change, and its speciality and focus on the Nigerian state has allowed for a broader study that gives a peculiar picture of the situation of climate justice in Nigeria. It strongly believes that while the Nigerian state has committed in the direction of climate justice, there is still much to be done. Climate justice will be achievable if the government gives it the consideration due to it. This effort, however, will remain insufficient without the interventions of developed economies and Non-governmental Organizations.

REFERENCES

Abaje, I.; Ati, O.; Iguisi, E.; Jidauna, G. (2013). Droughts in the sudano-sahelian ecological zone of Nigeria: Implications for agriculture and water resources development. *Glob. J. Hum. Soc. Sci. B Geogr. Geo Sci. Environ*. 13, 1–10.

Adejuwon, S. A. (2021). *Clean Development Mechanism implementation in Nigeria: Monitoring of sustainable development, Nigeria.* Accessed on 2/6/2022 from https://www.google.cm/nigeria.acp-cd4cdm.org%2Fmedia%2F333523%2Fcdm-sd-monitoringnigeria_adejuwon.pdf.

Ade Ajayi, J.F.; Kirk-Greene, A.H.M.; Udo, R.K.; Falola, T.O. (2021). *Nigeria.* Accessed on 2/6/2022 from https://www.britannica.com/place/Nigeria.

Akinyele D. O. et al. (2015). *Clean development mechanism projects for developing countries: Potential for carbon emissions mitigation and sustainable development*. A paper presented at the 18th National Power Systems Conference, Guwahati, India.

Adeniyi, D.A.; Dinbabo, M. F. (2019). Factors Influencing Household Food Security Among Irrigation Smallholders in North West Nigeria. *J. Rev. Glob. Econ.* 8. 291–304.

Crippa, M. et al (2019). *Fossil CO2 and GHG emissions of all world countries: 2019 Report.* Luxembourg: Publications of the Office of European Union.

Nwozor, A. (2013). The new development gulf: Climate change and the new face of African dependency. *J. Sustain. Dev. Africa. 15. 12.* 162-173.

Caleb Adebayo (2018). *Why Nigeria must stay below the 1.5C limit,* The Sun Newspaper, 23rd March.

Colorado School of Mines (2021). Mines by the numbers 2019-202. Accessed on 2/6/2022 from https://www.mines.edu/about/by-the-numbers.

Edame, G.E.; Ekpenyong, A.; Fonta, W.M.; Duru, E. (2011). Climate change, food security and agricultural productivity in Africa: Issues and policy directions. *Int. J. Humanit. Soc. Sci.* 1, 205–223

El-ladan, I. (2014). *Climate change and food security in Nigeria. In Proceedings of the International Conference on Possible Impacts of Climate Change on Africa.* Institute of African Research and Studies, Cairo University, Cairo, Egypt, 18–20 May.

Elum Z. A. et al, (2017). Climate Change mitigation: The potential of agriculture as a renewable energy in Nigeria. *Environ. Sci. Pollut. Res. 24. 4. 3260-3273.*

First Biennial Update Report (2021). The Report of the *Federal Republic* of *Nigeria under* the United Nations Framework Convention on. Climate Change (*UNFCCC*). Accessed on 2/6/2022 from https://unfccc.int › resource › Nigeria BUR1_Final

Firdaus, R.R.; Gunaratne, M.S.; Rahmat, S.R.; Kamsi, N.S. (2019). Does climate change only affect food availability? What else matters? *Cogent Food Agric.* 5, 1707607

FAO; IFAD; UNICEF; WFP; WHO (2018). *The State of Food Security and Nutrition in the World 2018: Building Climate Resilience for Food Security and Nutrition.* Food & Agriculture Organization: Rome, Italy.

FAO (2008). *Climate Change and Food Security: A Framework Document.* Food and Agriculture Organization of the United Nations: Rome, Italy.

Global Gas Flaring Reduction (2020). World Bank. Accessed on 2/6/2022 from https://www.worldbank.org/en/programs/gasflaringreduction.

Global Food Security Ranking (2021). Accessed on 2/6/2022 from https://impact.economist.com/sustainability/project/food-security-index/Index

Haider, H. (2019). Climate change in Nigeria: Impacts and responses. *K4D Help. Rep. 1-38.*

Ikudayisi, A.; Okoruwa, V.; Omonona, B. (2019). From the lens of food accessibility and dietary quality: Gaining insights from urban food security in Nigeria. *Outlook Agric.* 48, 336–343.

Intergovernmental panel on climate change (2013). The physical science basis working group I Contribution to the Fifth Assessment Report of the Intergovernmental Panel on Climate Change. Cambridge: Cambridge University Press.

Kanu, I. A. (2012). African eco-spirituality: Nature and sources. In I. A. Kanu (Ed.). *African ecological spirituality: Perspectives on anthroposophy and environmentalism. A Hybrid of Approaches (*pp. 1-22*).* Maryland, USA: Association for the Promotion of African Studies.

Kanu, I. A. (2012). Ala deity and environmental sustainability. In I. A. Kanu (Ed.). *African eco-theology: Meaning, forms and expressions (*pp. 109-122*).* Maryland, USA: Association for the Promotion of African Studies.

Kanu, I. A. (2012). African eco-philosophy: Nature and foundations. In I. A. Kanu (Ed.). *African eco-philosophy: Cosmology, consciousness and the environment (*pp. 1-18*).* Maryland, USA: Association for the Promotion of African Studies.

Kanu, I. A. (2012). Ecological significance of Mmuo Mmiri (Water Spirit) in Igbo Philosophy and Religion. In I. A. Kanu (Ed.). *African eco-philosophy: Cosmology, consciousness and the environment (*pp. 31-42*).* Maryland, USA: Association for the Promotion of African Studies.

Kanu, I. A. (2012). Igbo-African market days and the conservation of the eco-system. In I. A. Kanu (Ed.). *African indigenous ecological knowledge systems: Religion, philosophy and the environment* (pp. 41-56). Maryland, USA: Association for the Promotion of African Studies.

Kanu, I. A. (2012). Sacred animals as an Igbo-African ecological knowledge system. In I. A. Kanu (Ed.). *African indigenous ecological knowledge systems: Religion, philosophy and the environment* (pp. 1-18). Maryland, USA: Association for the Promotion of African Studies.

Kanu, I. A. (2012). Sacred trees/plants: The greening of Igbo-African religion. In I. A. Kanu (Ed.). *African indigenous ecological knowledge systems: Religion, philosophy and the environment* (pp. 73-96). Maryland, USA: Association for the Promotion of African Studies, 2012.

Kanu, I. A. (2012). Amadioha and the quest for ecological balance. In I. A. Kanu (Ed.). *African eco-theology: Meaning, forms and expressions* (pp. 181-192*).* Maryland, USA: Association for the Promotion of African Studies.

Kanu, I. A. (2022). *Igbo-African Eco-Spirituality: An Indigenous Response To Modern Ecological Crisis*. A paper presented at the Inaugural Conference organized by Harvard University (Divinity School) on Ecological Spiritualities, from April 27th – 30th.

Korir, L.; Rizov, M.; Ruto, E. (2018). *Analysis of Household Food Demand and Its Implications on Food Security in Kenya: An Application of QUAIDS Model.* In Proceedings of the Agricultural Economics Society, 92nd Annual Conference 2018, Coventry, UK, 16–18.

D. Lobell, B., (2014). **Climate change adaptation in crop production: beware of illusions.** *Global Food Security, 3. 2.* 2014. 72-76.

B. Lim, E. Spanger-Siegfried, I. Burton, E. Malone, S. Huq (2005). ***Adaptation Policy Frameworks for Climate Change: Developing Strategies, Policies and Measures.*** United Nations Development Programme, New York.

Laura Leddy (2021). *Nigeria, Climate Change and the future of food. ASP American Security Project.* Accessed on 2/6/2022 from https://www.americansecurityproject.org/nigeria-climate-change-and-the-future-of-food.

Medugu, I.N.; Majid, M.R.; Choji, I. (2008). A comprehensive approach to drought and desertification in Nigeria. *Manag. Environ. Qual. Int. J.*

Moser, S.C., Ekstrom, J.A. (2010). **A framework to diagnose barriers to climate change adaptation.** *Proc. Natl. Acad. Sci.*, 107. 51. 2010. 22026-22031.

Nwozor, A. (2021). *Transition to green energy and sustainable development in Nigeria: A perspective and evaluative analysis*. A paper presented at the IOP Conference Series: Earth and Environmental Science Organized by the Electrochemical Society, 10-14.

Nigeria, Climate Action Tracker (2022). Accessed on 2/6/2022 from http.//:www.climatectiontracker.org

NOAA (2020). Climate Change Report. Accessed on 2/6/2022 from https://www.cnbc.com/2021/08/26/noaa-2020-climate-change-report-record-sea-levels-greenhouse-gases.html

Oyimadu, O. O. and Uche D. S. (2021). Evaluating the Nigerian government's financial obligations to climate change adaptation strategies. *Climate services. 24.* 1-14.

Ogunpaimo, O., Oyetunde Z., Surajudeen, J. (2021). Impact of climate change adaptation on household food security in Nigeria- A difference-in-difference approach. *Sustainability. 2021. 13. 1444.*

Olugbenga Adanikin (2021). *Nigeria highly vulnerable to climate change- British High Commissioner. International Centre for Investigative Reporting (ICIR).*

Ole, N. C. (2016). The Paris agreement 2015 as a primer for developing Nigerian off-grid solar electricity. *African. J. Int. Comp. Law. 26. 3.* 426-451.

Obiezu, T. (2022). *Nigeria's population projected to double by 2050*. Accessed on 2/6/2022 from https://www.voanews.com/a/nigeria-population-

projected-to-double-by-2050/4874956.html#:~:text=The%20U.S.%20Census%20Bureau%20says,people%20in%20Nigeria%20in%202050..

UNDP. (2016). *The Adaptation Finance Gap Report.* Retrieved from Accessed on 2/6/2022 from https://orbit.dtu.dk/ws/files/177810752/50313_UNEP_GAP_report_2016_v5_SB.pdf; UNEP.

World Development Report (2010). *Development and Climate Change*, World Bank, Washington DC.

Yinka Okeowo (2021). *COP26 keeps 1.5C alive and finalises Paris Agreement: Nigeria introduces Climate Change Bill.* TechEconomy. Accessed on 2/6/2022 from https://techeconomy.ng/2021/11/cop26-keeps-1-5c-alive-and-finalises-paris-agreement-nigeria-introduces-climate-change-bill.