Journal of Law, Policy and Globalization
ISSN 2224-3240 (Paper) ISSN 2224-3259 (Online)
Vol.139, 2024

The Consumption Fuel Subsidy is a Clog to Renewable Energy Development in Nigeria

Noah A. Izoukumor
Associate Lecturer, University of the West of England Coldharbour Ln, Stoke Gifford, Bristol BS16 1QY.
Email: noah.izoukumor@uwe.ac.uk

The author(s) received no financial support for the research, authorship and/or publication of this article.

Abstract
In 2022, the Nigerian government has earmarked $15.7 billion for fuel subsidies, a substantial portion of its projected $25 billion revenue for the year. This allocation raises concerns about the feasibility of financing renewable energy initiatives outlined in the Paris Agreement. The significant expenditure on fuel subsidies leaves limited resources for investments in renewable energy and critical social infrastructure such as education and healthcare. This article contends that Nigeria's fuel subsidy programme contradicts the objectives of the Paris Agreement, hindering the widespread adoption of renewable energy. To align with climate change targets set in the Paris Agreement, Nigeria must reduce its subsidy allocations, bolster support for renewable energy, and increase incentives for sustainable energy development at the national level.
Keywords: Fuel Subsidies, Paris Agreement, Nigeria, and Renewable Energy
DOI: 10.7176/JLPG/139-09
Publication date: January 31st 2024

Key policy insights:

- Over half of Nigeria's government revenue is allocated to the fuel subsidy budget, potentially impeding investments in renewable energy.
- The Nigerian subsidy programme is incompatible with the Paris Agreement as it contributes to increased CO2 emissions and hampers substantial development in renewable energy.
- Beyond its inconsistency with the Paris Agreement, the programme is marred by fraud and dishonest practices.
- Therefore, it is imperative for the Nigerian government to scale down the subsidy programme and channel resources into renewable energy development.

1. Introduction

Renewable energy stands as a crucial element in the global effort to mitigate greenhouse gas emissions and is widely regarded as the cornerstone of sustainable development.[1] The Intergovernmental Panel on Climate Change (IPCC) emphasizes the pivotal role of renewable energy in providing sustainable energy services and, notably, in addressing climate change.[2] This is attributed to the significantly lower carbon dioxide (CO2) emissions associated with renewable energy technologies compared to fossil fuels.[3]

Numerous national governments, in alignment with the Paris Agreement's goal of limiting global warming to 1.5 degrees Celsius, have committed to substantial renewable energy deployment. Nigeria, as an example, has set ambitious targets, including the installation of 13,000 MW of solar photovoltaic power plants by 2030, enhancement of the national electricity grid, and a 2% annual improvement in energy efficiency (30% by 2030).[4] The cost to achieve these domestic commitments in Nigeria is estimated at approximately $142 billion over the next decade,[5] a figure four times higher than the country's entire 2020 budget of $35 billion.[6]

While the commitment to renewable energy is clear, the substantial funding required poses a challenge, particularly when considering Nigeria's practice of fuel subsidies. In 2022, Nigeria allocated $15.7 billion for fuel subsidies,[7] constituting over half of its projected total revenues of $25 billion.[1] This reliance on fuel

[1]Z. Elum, and A. Momodu, 'Climate change mitigation and renewable energy for sustainable development in Nigeria: A discourse approach' (2017) 76 Renewable and Sustainable Energy Reviews, 72-80 at 72 75.
[2]W. Moomaw and K. Urama, 2011: Introduction. In IPCC Special Report on Renewable Energy Sources and Climate Change Mitigation 2011 (eds)], Cambridge University Press, Cambridge, United Kingdom and New York, NY, USA. at 167.
[3]Ibid at 167.
[4]Federal Republic of Nigeria (2018) First Biennial Update Report (BUR1) of the Federal Republic of Nigeria under the United Nations Framework Convention on Climate Change (UNFCCC) 11.
[5] Federal Ministry of Environment Department of Climate Change National Climate Change Policy for Nigeria 2021 – 2030 at p. 39.
[6] Aljazeera, 'Nigeria's parliament passes record budget for 2020' (2019) < available at https://www.aljazeera.com/ajimpact/nigeria-parliament-passes-record-budget-2020-191205181608971.html > Accessed 2nd April 2023.
[7] D. Elumoye and E. Addeh, 'Nigeria's $15.7bn 2022 Fuel Subsidy Projection to Exceed All 36 States' Budget (This Day news Paper 2022) available at Report: Nigeria's $15.7bn 2022 Fuel Subsidy Projection to Exceed All 36 States' Budget – THISDAYLIVE accessed 22nd May 2023.

subsidies, largely driven by consumption, constrains the available funding for renewable energy development. The allocation of fossil fuel subsidies not only reduces the financial resources earmarked for renewable energy but also raises concerns about the compatibility of such subsidies with the Paris Agreement. Therefore, this paper critically examines Nigeria's fossil fuel subsidy programme, shedding light on its adverse impact on renewable energy development within the country.

2. The link between fossil fuel and greenhouse gas emissions

The Earth's atmosphere is experiencing a rise in temperature,[2] with global temperatures having increased by 0.3°C to 0.6°C in the past century, as reported by the Intergovernmental Panel on Climate Change (IPCC).[3] A significant contributor to this warming trend is the use of fossil fuels, encompassing oil, gas, and coal.[4] These fossil fuels release substantial amounts of greenhouse gases, including carbon dioxide (CO2), methane (CH4), and nitrous oxide (N2O). According to the IPCC, fossil fuel emissions have been responsible for 86% of carbon dioxide emissions observed over the last century.[5]

This underscores the imperative need to curtail fossil fuel consumption at the national level to mitigate greenhouse gas emissions, aligning with the goals of the 2015 Paris Agreement. The Paris Agreement seeks to limit the global temperature increase to below 2 degrees Celsius above pre-industrial levels.[6] Despite this imperative, several governments worldwide paradoxically endorse and subsidize fossil fuel usage.[7] Notable examples include Denmark, where subsidies target oil extraction,[8] and India, where fossil fuel subsidies are directed toward Kerosene and liquid petroleum.[9] The Indian government, recognizing the need for reform, has initiated subsidy reforms since 2013.[10] In the United Kingdom, fossil fuel subsidies, according to the Organisation for Economic Co-operation and Development, manifest as tax breaks for oil and gas production.[11]

In the case of Nigeria, the focus of this article, the approach to fossil fuel subsidies differs. Unlike subsidies for oil production seen in other countries, Nigeria's fossil fuel subsidy programme is primarily oriented toward consumption.[12] This article critically examines Nigeria's fossil fuel subsidy programme in the subsequent discussion.

3. Fossil fuel subsidy

The World Trade Organization defines subsidies as financial contributions from the government, encompassing grants, loans, incentives, and tax breaks provided to beneficiaries.[13] Subsidies aim to confer benefits either on consumers or producers.[14] When the government makes it less costly for producers to develop resources, it is termed a production subsidy.[15] Conversely, a consumption subsidy focuses on reducing energy prices to facilitate access, especially for disadvantaged consumers, such as ensuring affordability of electricity for the poor.[16] A clear indicator of a consumer subsidy is observed when the price of gasoline is lower than the standard rate.[17] Subsidies, in general, are not inherently detrimental economic tools; they can benefit both consumers and producers.

However, subsidies become problematic when they contribute to environmental harm, particularly if they

[1] Focus Economics, Fiscal Balance in Nigeria available at Nigeria Fiscal Balance - Nigeria Economy Forecast & Outlook (focus-economics.com) > accessed 22nd May 2023.
[2] United State Environmental Protection Agency available at Climate Change | US EPA > accessed 20 June 2023.
[3] J. Houghton and J. Ephraums, Climate Change, Intergovernmental Panel on Climate Change (The IPCC scientific assessment, Mass, Cambridge 1990); J Ralph, Cicerone and Paul Nurse Climate Change Evidence & Causes; An overview from the Royal Society and the US National Academy of Sciences (Q and A).
[4] K. Mach and M. Mastrandrea, Climate change 2014: impacts, adaptation, and vulnerability. Vol 1 Eds. Christopher Field, and Vicente Barros. (Cambridge and New York: Cambridge University Press 2014) 8.
[5] Working Group I contribution to the Sixth Assessment Report of the Intergovernmental Panel on Climate Change available at <IPCC_AR6_WGI_Full_Report_smaller.pdf > at p. 19.
[6] Article 2 UN General Assembly, United Nations Framework Convention on Climate Change/ Adopted at the COP 21 in Paris, France, 12 December 2015 FCCC/CP/2015/L.9/Rev.1 accessed 13th November 2018.
[7] J. Skovgaard and H.van Asselt, 'The politics of fossil fuel subsidies and their reform: Implications for climate change mitigation (2019) 10 (4) Wiley Interdisciplinary Reviews: Climate Change, at 581.
[8] . Skovgaard, 'The economisation of climate change: How the G20, the OECD and the IMF address fossil fuel subsidies and climate finance.' (Cambridge University Press 2022) at 75.
[9] Ibid 95-105.
[10] Ibid 95-105.
[11] Ibid 95-105.
[12] N. Izoukumor, 'Nigeria's legal responses to climate change obligations' (Doctoral dissertation 2022) at 170 to 210.
[13] See Article 1.1 of Agreement on Subsidies and Countervailing Measures, WTO available at WTO | legal texts - Marrakesh agreement > accessed 2nd April 2023.
[14] Ibid Article 1 (b).
[15] J. Timperley, 'Explainer: The challenge of defining fossil fuel subsidies' (Carbon Brief 2017) available at < Explainer: The challenge of defining fossil fuel subsidies | Carbon Brief > accessed 4th February 2023.
[16] Ibid.
[17] Ibid.

promote the consumption or production of fossil fuels leading to increased greenhouse gas emissions. This concern is underscored in the 2015 report of the Organisation for Economic Co-operation and Development, which states that:

> Measures that directly promote the production or unabated consumption of fossil fuels are prime examples of policies that run counter to mitigation objectives. As fossil fuel subsidies reduce the effective carbon price, they make it difficult to make the necessary shift toward low-carbon energy sources. In this sense, it belongs to a wider set of environmentally harmful subsidies...[1]

Various intergovernmental organizations and academics advocate for fossil fuel reform, particularly targeting consumer subsidies prevalent in many developing countries.[2] The concern arises because government spending on consumer subsidies often surpasses allocations for critical sectors like health and education. Consequently, countries like Indonesia have initiated significant efforts to reform consumer subsidies.[3] The Nationally Determined Contributions (NDCs) submitted by several developing countries, including Indonesia, Ukraine, and Nigeria, acknowledge the need to eliminate harmful subsidies.[4] NDCs represent the actions that countries plan to take at the national level to address climate change under the Paris Agreement.[5] For instance, Nigeria's NDC explicitly states that 'removing consumer and production subsidies for fossil fuels can help stabilize government budgets.'[6] The essential point is that inefficient subsidies, whether in production or consumption, contributing to increased greenhouse gas emissions, pose a threat to fulfilling emission reduction commitments outlined in the Paris Agreement.

4. Legal Framework of fossil fuel subsidies

The 2015 Paris Agreement remains silent on the issue of fossil fuel subsidies and the imperative to phase out fossil fuels at the national level. This omission can be attributed to the stance of oil- and gas-dependent nations, including Saudi Arabia and other Organization of the Petroleum Exporting Countries (OPEC) members. These nations argued that a climate change agreement should not supersede an energy treaty, emphasizing the sovereign power of each country to regulate energy domestically.[7] Moreover, oil and gas-dependent countries expressed concerns that phasing out fossil fuels would adversely impact the economies of developing nations.[8]

However, preceding climate change agreements like the United Nations Framework on Climate Change Convention (UNFCCC) in 1992 and the 1997 Kyoto Protocol underscored the necessity of phasing out fossil fuel subsidies. Article 4 of the UNFCCC emphasizes the significance of considering Parties whose economies heavily rely on revenue from fossil fuels during the implementation of the Convention. This implies that developed nations should offer support, including funding, technology, and insurance, to countries heavily dependent on fossil fuels, making the transition to renewables challenging.[9] Similarly, the Kyoto Protocol urges Parties to implement national-level policies phasing out incentives, taxes, and subsidies in greenhouse gas emission sectors conflicting with its objectives.[10]

After the Kyoto Protocol and UNFCCC, the discussion on the necessity to eliminate subsidies for fossil fuels did not arise until the Glasgow Conference of the Parties in 2022, commonly known as COP26. COP26 introduced a deliberation on the imperative to phase out fossil fuel subsidies. The Glasgow Climate Change Conference urges Parties 'to accelerate efforts towards the phasedown of unabated coal power and phase out of

[1] OECD (2015), OECD Companion to the Inventory of Support Measures for Fossil Fuels 2015, at P. 12 available at OECD Companion to the Inventory of Support Measures for Fossil Fuels 2015 | READ online (oecd-ilibrary.org) > accessed 12th May 2023.
[2] P. Brink and F. Oosterhuis, 'The way forward: reforming EHS in the transition to a green economy. In Paying the Polluter (Edward Elgar Publishing 2014); H. Pereira, 'How the WTO can help tackle climate change through fossil fuel subsidy reform (2018) International Centre for trade and sustainable development at 24; B. Ram and C. Engineer, 'Renewable energy development in Africa-challenges, opportunities, way forward (2006) South Africa Regional Office, African Development Bank at 17 and 18.
[3] See Ministry of Finance, Republic of Indonesia, Indonesia's Effort to phase out and rationalize its fuel subsidies, A self-report on G20 of peer review of inefficient fossil fuel subsidies that encourage wasteful consumption in Indonesia Available at https://www.oecd.org/fossil-fuels/publication/Indonesia%20G20%20Self-Report%20IFFS.pdf > Accessed 12th May 2023.
[4] C. Elliott and M. Hoffmann, 'Credibility dilemmas under the Paris agreement: explaining fossil fuel subsidy reform references in INDCs.' (2022) 22(4) International Environmental Agreements: Politics, Law and Economics, 735-759; Nigeria's Intended Nationally Determined Contribution (Submitted by The Federal Government of Nigeria Being a Requirement by Conference of Parties to the United Nations Framework Convention on Climate change (COP-UNFCCC) in Preparation for the Adoption of Climate Change Agreement at the Paris Conference on Climate change coming up in December 2015 Prepared by the Federal Ministry of Environment 15.
[5] F. Taibi and S. Konrad, 'Pocket Guide to NDCs under the UNFCCC (ECBI 2018) 1-2.
[6] Above n. 12 at p. 15.
[7] H. van Asselt and K. Kulovesi, 'Fossil fuel subsidies and the global climate regime.' (2018) The politics of fossil fuel subsidies and their reform, pp.140-155.
[8] J. Depledge, 'Striving for no: Saudi Arabia in the climate change regime (2008) 8(4) Global Environmental Politics, pp.9-35; J. Barnett, 'The worst of friends: OPEC and G-77 in the climate regime' (2008) 8 (4) Global Environmental Politics pp.1-8.
[9] Article 4 (8) h of the United Nations Framework Convention on Climate Change.
[10] Article 2 (1) (a) v of the Kyoto Protocol.

inefficient fossil fuel subsidies.'[1]
This sentence in the COP26 draft encapsulates multiple meanings and technical intricacies. Firstly, the draft does not specify a particular deadline for the gradual elimination of fossil fuels. Secondly, while the proposal mentions the 'phasedown of unabated coal,' it does not explicitly address oil and gas as components of fossil fuels slated for phase-out. To comprehend COP26's intent regarding the necessity to phase out fossil fuels, it is essential to dissect the sentence into two components: 1. Accelerating efforts towards the phasedown of unabated coal power and 2. Phasing out inefficient fossil fuel subsidies.

4.1 To accelerate efforts toward the phasedown of unabated coal power
The sentence 'to accelerate efforts towards the phasedown of unabated coal power' is unambiguous since it explicitly mentions coal in the draft. Therefore, the intent of the Parties at COP 26 was to reduce the utilization of coal as an energy source. However, certain terms in the sentence, such as 'phasedown' and 'unabated,' require clarification. The term 'phasedown' signifies a gradual reduction in coal consumption, contrasting with a 'phase-out,' which implies a complete cessation of coal usage.[2] Meanwhile, 'unabated' clarifies that not all forms of coal-fired power are subject to phase-out. This suggests that the use of coal-fired power might be permissible if emissions from coal are reduced or if accompanied by carbon capture and storage facilities. In summary, COP 26 did not specify a particular year for the complete phase-out of coal power, and the use of coal power is not entirely prohibited.[3] What is prohibited, however, is the unabated or persistent use of coal power.

4.2 To phase out inefficient fossil fuel subsidies
The concluding line in the COP 26 draft concerning fossil fuels simply states the need to 'phase out inefficient fossil fuel subsidies.' The proposal does not specify which fossil fuel subsidies fall under the category of efficient or inefficient. There has been a contention that the use of the term 'inefficient' in the COP 26 draft introduces a potential loophole, allowing countries to persist in subsidizing fossil fuels since the term 'inefficient' is not clearly defined in the draft.[4]

As mentioned earlier, COP 26 did not explicitly include oil and gas in the list of fossil fuels slated for phase-out. This raises the question of whether the phrase 'to phase out inefficient fossil fuel subsidies' should encompass the existing subsidy schemes for oil and gas, given that the draft did not explicitly mention them. It appears that this phrase could be broadened to encompass subsidies in the oil and gas sector, potentially impeding countries' efforts to meet the 1.5 degrees Celsius targets outlined in the Paris Agreement. As emphasized by the IPCC, fossil fuels contribute to 86% of carbon dioxide emissions over the past century, with both the oil and gas sectors directly responsible for these emissions.[5] Therefore, it is reasonable to infer that COP26 implicitly addresses inefficient subsidies in the oil and gas sectors that could hinder the Parties' efforts to achieve the climate change targets set forth in the Paris Agreement.

5. Attempt to phase out fossil fuel subsidies around the world

Germany and the Netherlands have initiated the process of phasing out fossil fuels, particularly coal, in the energy sector.[6] Several other nations have taken measures to limit fossil fuel production, such as denying oil exploration licenses to companies seeking them.[7] Notably, Costa Rica and Denmark have established the Beyond Oil & Gas Alliance to align oil and gas production with the 1.5 degrees Celsius target outlined in the Paris Agreement.[8] Investors and financial institutions are also divesting from fossil fuel funds, with the EU's largest pension fund disengaging from investments in oil, gas, and coal.[9] Furthermore, during the COP 26 climate change conference in Glasgow, approximately 34 banks declared their commitment to cease financing fossil fuels.[10] Beyond government actions, citizens worldwide have played a pivotal role in restraining the expansion

[1] See Paragraph 20 Decision -/CP.26 Glasgow Climate Pact The Conference of the Parties 2021 available at COP26 cover decision (unfccc.int) > accessed 25th April 2023.
[2] H. VanAsselt, 'Breaking a Taboo: Fossil Fuels at COP26' (2022) EJIL Blog available at Breaking a Taboo: Fossil Fuels at COP26 – EJIL: Talk! (ejiltalk.org) > Accessed 13th May 2023.
[3] Ibid.
[4] Ibid.
[5] Above n.12 at p. 19
[6] Overview: National coal phase-out announcements in Europe Status January 2021 available at Overview-of-national-coal-phase-out-announcements-Europe-Beyond-Coal-January-2021.pdf (beyondfossilfuels.org) accessed 25th April 2023.
[7] M. Lazarus and H. van Asselt, 'Fossil fuel supply and climate policy: exploring the road less taken' (2018) 150 (1-2) *Climatic Change* pp.1-13.
[8] Beyond Oil and Gas Alliance available at < Beyond Oil & Gas Alliance (beyondoilandgasalliance.org) > Accessed 25th April 2023.
[9] EU's Biggest Pension Fund to Dump $17 Billion in Fossil Fuels available at EU's Biggest Pension Fund to Dump $17 Billion in Fossil Fuels - Bloomberg accessed 25th April 2023.
[10] UN Climate Change UK Conference available at Statement on International Public Support for the Clean Energy Transition - UN Climate Change Conference (COP26) at the SEC – Glasgow 2021 (ukcop26.org) > accessed 25th April 2023.

of fossil fuels through protests[1] and legal actions.[2]

Despite these global efforts to curtail fossil fuel subsidies, current statistics reveal that fossil fuel subsidies persist as a primary energy source in numerous countries. National governments play a pivotal role as the primary supporters and financiers of fossil fuel subsidies. The global estimate for fossil fuel subsidies reached $5.7 trillion in 2020, and projections indicate a further increase in 2025.[3] At the national level, Nigeria stands out as a country that allocates a significant portion of its revenue to fossil fuel subsidies. The subsequent analysis delves into the specifics of the fossil fuel subsidy situation in Nigeria.

6. The background to Nigeria's fossil fuel subsidy programme

Nigeria produces about 1,737.4 million barrels of oil per day. [4] Paradoxically, despite this significant production capacity, the country relies on importing over 80% of refined petroleum due to the non-operational status of existing petroleum processing facilities.[5] The inability of these facilities to function has compelled the Nigerian government to depend entirely on traders or sellers for the importation and supply of refined petrol.[6] Given the pivotal role of petroleum in driving economic activities in Nigeria, [7] any adjustment in petrol prices directly impacts the cost of living.[8] Consequently, the Nigerian government, in 1977, established the Price Control Act to regulate the price of petrol within the country.[9] This legislation imposes stringent penalties on traders who sell above the stipulated regulated price.[10] However, a challenge stemming from this regulation is the reluctance of market operators to import petroleum products and sell them at the regulated price due to the potential lack of profitability.[11] Consequently, traders may withdraw from petrol sales, leading to insufficient petroleum products and potential economic stagnation. [12]

In order to avert a potential shortfall in petroleum products, the Nigerian government implements subsidies for these products. This entails the government compensating petrol traders for the variance between the regulated price of imported petrol and the anticipated price in the open market. This practice enables citizens to purchase petroleum products at a set or reduced price. [13] For instance, if the regulated price of petroleum is $5 per litre, and the anticipated open market price, including shipping costs, is $8 per litre, the government pays the $3 difference to ensure that citizens can acquire petrol at the regulated rate of $5 per litre. Essentially, Nigeria's fuel subsidy functions as a consumption subsidy, necessitating government payments to importers to facilitate the sale of petrol at an affordable price for the public.

7. The Adverse impacts of the fuel subsidy

The Nigerian government's long-standing subsidy programme has given rise to several adverse impacts. Some of the primary negative consequences include, but are not limited to the following: Firstly, it has resulted in insufficient budget allocations for crucial areas such as renewable energy and social infrastructure development in Nigeria. Secondly, the fuel subsidy programme is deemed incompatible with the Paris Agreement, hindering the nation's alignment with climate change goals. Thirdly, the programme's envisioned goals of ensuring accessible and affordable petroleum products while contributing to the stabilization of the economy have not been successfully achieved. Lastly, transparency issues plague the subsidy programme, with notable allegations of corruption involving marketers and government officials responsible for its implementation, representing a significant challenge. These points will be critically elaborated upon in the subsequent sections.

7.1 Fuel subsidies are incompatible with the Paris Agreement

The primary objective of the Paris Agreement is to limit the temperature increase to 1.5 °C above pre-industrial levels, urging the participating nations to foster the development and promotion of renewable energy while enhancing national energy sources. [14] In line with this commitment, Nigeria has pledged to advance renewable

[1] R. Hersher, 'Key Moments In The Dakota Access Pipeline Fight' (2017) available at Key Moments In The Dakota Access Pipeline Fight : The Two-Way : NPR > accessed 25th April 2023.
[2] C/09/571932 / HA ZA 19-379 the association Vereniging Milieudefensie, in Amsterdam, and The Other Parties It Represents **V** Royal Dutch Shell PLC in The Hague, Available at ECLI:NL:RBDHA:2021:5339, District Court of The Hague, C/09/571932 / HA ZA 19-379 (english version) (rechtspraak.nl) accessed 12th April 2023.
[3] International Monetary Fund available at < Fossil Fuel Subsidies (imf.org) > accessed 25th April 2023
[4] Organisation of the Petroleum Exporting Countries available at< OPEC: Nigeria > accessed 31 March 2023
[5] P. Omontuemhen, 'Nigeria's Refining Revolution' (PWC 2017) 1-16.
[6] G. Okeowo, Nigeria's Petrol Subsidy Regime Dilemma of the world's most populous black nation (BudgIT 2019) available at < http://fixouroil.com/wp-content/uploads/2019/03/Nigerias-Petrol-Subsidy-Regime_BudgIT.pdf > Accessed 11th March 2023.
[7] M. Nwachukwu, and H. Chike, 'Fuel subsidy in Nigeria: Fact or fallacy (2011) 36(5) Energy 2796-2801.at 2797
[8] Ibid at 2797.
[9] See First Schedule of the Price Control Act of Nigeria 1977.
[10] Ibid section 6.
[11] Above n. 50.
[12] Ibid.
[13] SDN, Spotlight Issue Nigeria's Fuel Subsidy (2015) < available at https://www.stakeholderdemocracy.org/wp-content/uploads/2015/09/SPOTLIGHT-ISSUE-NIGERIA'S-FUEL-SUBSIDY-HC.pdf > Accessed 12 May 2023.
[14] Article 2 (a) UN General Assembly, United Nations Framework Convention on Climate Change/ Adopted at the COP 21 in Paris, France,

energy, setting specific targets such as increasing the capacity of solar photovoltaic power plants by 13,000 MW by 2030, upgrading the national electricity grid, improving energy efficiency by 2% annually (30% by 2030), and pursuing other initiatives.[1] However, Nigeria's fossil fuel subsidy programme, aimed at reducing petroleum prices, contradicts these commitments, and may undermine the demand for renewable energy within the country. For example, Nigeria faces a significant challenge in electricity production, leading to widespread power outages across the country.[2] Approximately 70% of the rural population lacks access to the national grid, exacerbating the issue.[3] In urban areas, businesses experience an average of 6 to 7 hours of power failure, resulting in substantial financial losses.[4] To address this, a considerable portion of the Nigerian population relies on off-grid electricity generation,[5] constituting around 50% of the total electricity consumption.[6] Primarily fueled by fossil fuels, such as gasoline generators, this off-grid reliance contributes to air pollution and the emission of greenhouse gases.[7] This scenario implies that increased access to affordable petroleum products may drive the growth of the gasoline generator market, thereby increasing greenhouse gas levels.

Several nations, including the UK, are taking decisive steps to transition away from traditional fuel-powered vehicles. The UK plans to prohibit the sale of petrol, diesel, and hybrid cars between 2032 and 2040, aligning with its ambitious goal of achieving net-zero emissions by 2050.[8] Similarly, France aims to ban the sale of gasoline and diesel cars by 2040.[9] Norway, already a global leader in electric vehicles, intends to phase out diesel and gasoline cars by 2050.[10] The Netherlands is working toward making all new cars emission-free by 2030,[11] boasting the highest number of charging points per capita globally.[12] India has declared an exclusive focus on selling electric cars for the next 13 years,[13] while Costa Rica has authorized a permanent ban on the sale of gasoline and diesel cars.[14] Other countries, including Australia, Denmark, Ireland, Japan, Portugal, Korea, and Spain, have established deadlines for the sale of petrol and diesel cars.[15] In contrast, Nigeria faced a setback in April 2019 when a legislative proposal to phase out gasoline cars by 2035 was overwhelmingly rejected by the Nigerian Senate.[16] The Senate argued against the shift to electric cars, citing potential negative impacts on the country's oil production. Although the Bill was withdrawn in 2019,[17] Nigeria continues to support the fuel subsidy, despite rising greenhouse gas emissions since the Paris Agreement commitments in 2015, with emissions reaching 120.34 Mton in 2021 and 127.03 Mton in 2022.[18] The crucial issue at hand is that Nigeria's fuel subsidy fails to encourage the advancement of renewable energy sources and the adoption of electric cars. Consequently, the subsidy programme lacks alignment with the Paris Agreement, which seeks to reduce

12 December 2015 FCCC/CP/2015/L.9/Rev.1 accessed 13th May 2023.

[1] Federal Republic of Nigeria (2018) First Biennial Update Report (BUR1) of the Federal Republic of Nigeria under the United Nations Framework Convention on Climate Change (UNFCCC) 11.

[2] W. Ebhota and P. Tabakov, 'Power Inadequacy, the Thorn in Economic Growth of Nigeria.' (2018) International Journal of Applied Engineering Research12602-12610 at 12602.

[3] M. Oseni, 'Improving households' access to electricity and energy consumption pattern in Nigeria: Renewable energy alternative (2012)16 (6) Renewable and Sustainable Energy Reviews,3967-3974 at 3967.

[4] G. Occhiali and G. Falchetta, 'The Changing Role of Natural Gas in Nigeria: A policy outlook for energy security and sustainable development, Working Paper, No. 010.2018, (2018) Fondazione Eni Enrico Mattei (FEEM) Milano at 8.

[5] K. Ley and A. Ghatikar, 'The Nigerian Energy Sector: An Overview with a Special Emphasis on Renewable Energy, Energy Efficiency and Rural Electrification' 2015 Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ) GmbH, Nigerian Energy Support Programme (NESP) 34.

[6] Gasoline generators are mostly used for domestic power back up whenever there is power outage. See B. Nwankwojike, and M. Egwuagu, 'Life Cycle Cost Analysis of Residential Power Backup Gasoline Generators in Nigeria' (2019) 23 (12) Journal of Applied Sciences and Environmental Management 2259-2261; R Cervigni and M Henrion, Low-Carbon Development: Opportunities for Nigeria (eds., 2013 The World Bank) 77.

[7] Federal Ministry of Environment Abuja, Nigeria (Special Climate Change Unit) (2010) 'National Environmental, Economic and Development Study (NEEDS) For Climate Change in Nigeria 25 available https://unfccc.int/sites/default/files/nigerianeeds.pdf > Accessed 20th June 2023.

[8] Carbon Brief clear on climate, Budget 2020: Key climate and energy announcements, available at < Budget 2020: Key climate and energy announcements - Carbon Brief > Accessed 12th March 2023.

[9] France to ban sales of petrol and diesel cars by 2040 (The Guardian News Paper 2019) available at France to ban sales of petrol and diesel cars by 2040 | Automotive industry | The Guardian > Accessed 12th March 2023.

[10] See Euronews. Green available at Norway, Germany, UK: Which European countries have the biggest share of electric cars? | Euronews Accessed 12th March 2023.

[11] See Netherland Enterprise Agency available at Electric transport in the Netherlands | RVO.nl Accessed 12th March 2023.

[12] See Driving Mobility for Europe available at Electric cars: Half of all chargers in EU concentrated in just two countries - ACEA - European Automobile Manufacturers' Association Accessed 12th March 2023.

[13] World Economic Forum, 'India will sell only electric cars within the next 13 years' (2017) available at India will sell only electric cars within the next 13 years | World Economic Forum (weforum.org) Accessed 12th March 2023.

[14] National Decarbonization Plan, government of Costa Rica 2018-2050. Available atNationalDecarbonizationPlan.pdf (unfccc.int) Accessed 12th March 2023.

[15] The International Energy Agency (IEA), Clean Energy Ministerial, and Electric Vehicles Initiative (EVI) (June 2020).

[16] Y. Omotayo, ' Senate rejects Ben Bruce's Bill to phase petrol cars by 2030' > Senate rejects Ben Bruce's bill to phase out petrol cars by 2035 - Legit.ng > Accessed 3rd November 2023 .

[17] Ibid.

[18] European Union, EDGAR - Emissions Database for Global Atmospheric Research; CO2 emissions of all world countries 2022 report, available at EDGAR - The Emissions Database for Global Atmospheric Research (europa.eu) Accessed 3rd November 2023 .

greenhouse gas emissions by 2030.

7.2 Low budget for the development of renewable energy sources

The Nigerian government's expenditure on subsidies significantly surpasses allocations for critical public sectors like healthcare, education, and renewable energy. To illustrate, the 2020 budget earmarked approximately ₦8.7 billion ($16 million) for energy-related projects,[1] covering all energy sources, including coal research and development, without specifying a distinct allocation for renewable energy development.[2] While the exact amount for renewable energy remains undisclosed, this analysis contends that the budgetary provision for overall energy development in 2020 is notably inadequate when compared to other nations' investments in renewables. For instance, China committed $100 billion to renewable energy in 2018, with $56.4 billion dedicated to wind power in 2019 and an estimated $41 billion invested in solar power in 2018, excluding biomass and other advanced technologies.[3] The UK invested $5.9 billion in wind power alone in 2018, excluding other renewable technologies.[4] This indicates a deficiency in Nigeria's commitment to financing renewable energy initiatives at the national level. The limited funding for renewable energy projects is closely tied to the fact that over half of the country's total revenues are allocated to subsidizing fossil fuel. In 2022, Nigeria's fuel subsidy budget stands at $15.7 billion, while the overall revenue projection for the same year is $25 billion.[5] This implies that more than half of the projected revenues will be channeled into fuel subsidies, leaving only a minimal budget for critical social infrastructure like hospitals, schools, homes, roads, and notably, the development of renewable energy—a crucial aspect for fulfilling Nigeria's obligations under the Paris Agreement.

Nigeria's inadequate investment in renewable energy is also underscored in the country's Sustainable Energy for All Action Agenda (SE4ALL).[6] This global initiative aims to enhance access to modern energy, double energy efficiency, and increase the share of renewable energy in the energy mix. The SE4ALL points out that the Nigerian government allocates substantial funds to fossil fuel subsidies,[7] while incentives for the development of renewable energy remain severely limited.[8] This imbalance underscores that the financial commitment to fossil fuels by the Nigerian government far outweighs its investment in renewable energy.

7.3 Unfulfilled Goal of the fuel subsidy programme

The initial purpose of the fossil fuel subsidy in Nigeria was to enhance the citizens' quality of life by reducing petrol prices, thus reducing transportation costs, lowering production expenses, and fostering economic improvement. However, the practical implementation of subsidies reveals a lack of positive impact on both the impoverished masses and the Nigerian economy.[9] Despite the substantial allocation of a significant portion of the national budget to fuel subsidies,[10] it has become evident that many Nigerians still struggle to afford transportation fares, and locally produced goods remain financially out of reach for the average citizen. The ineffectiveness of fuel subsidies for the average Nigerian stems from their application as a blanket reduction of fuel prices, benefiting both low- and high-income individuals, with the affluent, owning multiple cars, enjoying the same subsidized petrol prices as the less privileged.[11] This approach, often argued to disproportionately favour the wealthy,[12] contradicts the original intent of the subsidy, as highlighted in Nigeria's Nationally Determined Contributions (NDC) under the Paris Agreement. The NDC acknowledged that eliminating subsidies for fossil fuels, particularly those benefiting the rich, could contribute to stabilizing government budgets.[13] Consequently, the subsidy programme appears not only counterproductive to the advancement of renewable

[1] Federal Republic of Nigeria, 2020 Appropriation 942- 971 (budget office of the federation federal republic of Nigeria available at 2019 Budget Analysis - Budget Office of the Federation - Federal Republic of Nigeria > accessed 5th 2023.
[2] N, Izoukumor, 2022. Nigeria's legal responses to climate change obligations (Doctoral dissertation).
[3] NS Energy, Top 10 countries for clean energy capacity investment in 2019 available at < Top 10 countries for clean energy capacity investment in 2019 (nsenergybusiness.com) > Accessed 22 May 2023.
[4] Ibid.
[5] Above n. 8
[6] Federal Republic of Nigeria Sustainable Energy for All Action Agenda (Se4all-Aa) Adopted by Interenergy And Energy Efficiency (ICREEE) Ministerial Committee on Renewable (2016) at 57 available https://www.seforall.org/sites/default/files/NIGERIA_SE4ALL_ACTION_AGENDA_FINAL.pdf > accessed 6th January 2023.
[7] Ibid at p. 57.
[8] ibid.
[9] D. Ighakpe, 'Nigeria's High Cost of Living' (This Day News Paper 2023) available at NIGERIA'S HIGH COST OF LIVING - THISDAYLIVE Accessed 12 June 2023.
[10] Ibid.
[11] E. Igwu, 'Why Nigerian Politicians Are Car Collectors' (Sahara Repoters 2016) available at Why Nigerian Politicians Are Car Collectors By Emmanuel Ugwu | Sahara Reporters Accessed 12 June 2023.
[12] Ministry of Finance, Republic of Indonesia, Indonesia's Effort to phase out and rationalize its fuel subsidies, A self-report on G20 of peer review of inefficient fossil fuel subsidies that encourage wasteful consumption in Indonesia at 13 available at https://www.oecd.org/fossil-fuels/publication/Indonesia%20G20%20Self-Report%20IFFS.pdf > accessed 2nd May 2023; W. Whitley and L. van der Burg, 'Fossil fuel subsidy reform in sub-Saharan Africa: from rhetoric to reality (Working Paper Washington DC 2015) at p. 5.
[13] Above n. 28 p. 15.

energy but also falls short of achieving its intended objectives, particularly in supporting the economically disadvantaged segments of the population.

7.4 Corruption in the subsidy programme

The subsidy programme in Nigeria lacks transparency, and the entire process is marred by mismanagement. For instance, between 2007 and 2014, subsidies disbursed to importers surged from ₦188 billion to ₦971.1 billion ($1.2 billion to $6.4 billion), despite the absence of evidence indicating a corresponding increase in petrol consumption during this period.[1] An investigation conducted by the Nigerian government revealed significant amounts of misappropriated funds during this timeframe. A committee, established by the Nigerian government to scrutinize fuel subsidy funds, exposed an excess payment of more than ₦232 billion ($1.5 billion) to importers for services that were not rendered.[2] Again, the Nigerian government asserts that Nigerians daily consume 60 million liters of petrol.[3] However, these figures face criticism for several reasons. Nigeria's population is approximately 200 million, comparable to Pakistan's 225.2 million people.[4] Strikingly, Pakistan's daily petrol consumption is only 14 million liters, significantly less than the reported consumption in Nigeria. This incongruity raises suspicions about the honesty of the agencies overseeing the fuel subsidy programme, suggesting that some individuals may be benefiting from the programme through dishonest practices.

The deficiency in the subsidy system is glaring, prompting the Nigerian government to acknowledge the need for its removal.[5] In 2012, an attempt to eliminate the subsidy faced opposition from Nigerians, stirred by the opposition political party.[6] Following the party's victory in the 2015 election, the new government recognized the fraudulent aspects of the subsidy programme but ultimately backtracked on removing it. In 2020, amid falling oil prices due to the COVID-19 pandemic,[7] the government announced its intent to halt fuel subsidies,[8] citing revenue losses.[9] Subsequently, the finance minister reiterated the government's plan to end fuel subsidies, reinforced by the passage of the Petroleum Industry Act 2021, aiming for cessation around 2022. However, political considerations, particularly concerns about potential voter backlash and inflation, influenced the decision to delay subsidy removal until after the 2023 general election held on February 25, 2023.[10] Despite the new president's announcement of subsidy removal in his inaugural speech,[11] uncertainties persist regarding the government's steadfast commitment, given the looming threat of indefinite strikes by labor and trade unions in response to subsidy removal.[12]

This study contends that the substantial advancement of renewable energy in Nigeria will face significant impediments if fossil fuel subsidies persist. Such persistence could jeopardize Nigeria's adherence to climate change commitments in the future. The World Bank underscores that addressing fossil fuel subsidies is imperative for effectively combating climate change.[13] Many scholars argue that eliminating detrimental subsidies is essential for meeting the goals of the Paris Agreement.[14] Nigeria's Nationally Determined Contributions affirm the necessity of phasing out consumer fuel subsidies as a strategic direction for the country.[15] Even scholars who may have initially supported fuel subsidies in Nigeria now recognize their unsustainability[16] and advocate for their elimination.[1]

---

[1] SDN, Spotlight Issue Nigeria's Fuel Subsidy (Stakeholder Democracy 2015) at p. 14 available at < SPOTLIGHT-ISSUE-NIGERIA'S-FUEL-SUBSIDY-HC.pdf (stakeholderdemocracy.org)> Accessed 10th April 2023.

[2] Ibid 14.

[3] The Cable, 'NNPC's '60m litres' daily petrol consumption figure wrong, says Customs.' (The Cable 2022) available at NNPC's '60m litres' daily petrol consumption figure wrong, says Customs (thecable.ng) Accessed 10th April 2023.

[4] S. Akhtar, 'Cheaper petrol for the poor' (Tribune 2023) available at Cheaper petrol for the poor (tribune.com.pk) Accessed 10th April 2023.

[5] Nigeria Climate Transparency Report Nigeria's Climate Action and Responses to The Covid-19 Crisis (Climate Transparency 2020) 1 available at < Nigeria-CT-2020.pdf (climate-transparency.org)> accessed 31st 2023.

[6] E. Onyeji, 'Why Buhari, opposition leaders rejected removal of fuel subsidy in 2012 – APC leader' (Premium Times 2016) available at Why Buhari, opposition leaders rejected removal of fuel subsidy in 2012 – APC leader | Premium Times Nigeria (premiumtimesng.com) > Accessed 10th April 2023.

[7] Above n. 94.

[8] E. Bala gbodgo, Oil Crash Spurs Nigeria to End Fuel Subsidies, Risk Backlash (Bloomberg 2020) available at Oil Crash Spurs Nigeria to End Fuel Subsidies, Risk Backlash - Bloomberg > accessed 3rd March 2023.

[9] Ibid.

[10] A. Majekodunmi, 'The political economy of fuel subsidy removal in Nigeria (2013) 2 (7) International Journal of Management and Social Sciences Research, 76-81 at 81.

[11] 'Fuel Subsidy Is Gone', President Tinubu Declares In Inaugural Speech available at 'Fuel Subsidy Is Gone', President Tinubu Declares In Inaugural Speech – Channels Television (channelstv.com) > accessed 22nd June 2023.

[12] Labour threatens strike against Tinubu's govt in June over fuel subsidy (Vanguard News Paper 2023) available at Labour threatens strike against Tinubu's govt in June over fuel subsidy (vanguardngr.com) accessed 22nd May 2023.

[13] The World Bank, Reforming Fossil Fuel Subsidies for a Cleaner Future. Available at https://www.worldbank.org/en/news/feature/2017/11/21/reforming-fossil-fuel-subsidies-for-a-cleaner-future >Accessed 14 may 2023 .

[14] R. Jackson and G. Peters, 'Persistent fossil fuel growth threatens the Paris Agreement and planetary health (2019) 14(12) Environmental Research Letters at 7; P. Brink and F. Oosterhuis, 'The way forward: reforming EHS in the transition to a green economy. In Paying the Polluter (Edward Elgar Publishing 2014) 20.

[15] Above n.28 p. 15.

[16] Above n.26.

In order for the Nigerian Government to fulfill its commitments under the Paris Agreement, a critical step is to curtail its expenditure on fossil fuels and channel substantial investments into renewable energy. Successful examples from other nations demonstrate that those achieving advancements in renewable energy concurrently increase their budgetary allocations for renewable energy development or explore internal fundraising mechanisms to meet the growing demand for renewable energy. Costa Rica serves as a noteworthy illustration, with approximately 98.1 percent of its energy derived from renewable sources and only 1.9 percent from fossil fuels.[2] In 2019, Costa Rica successfully executed a national decarbonization plan, aiming to transform into a zero-emission country by 2050.[3] This achievement was facilitated by Costa Rica's decision to disband its army in 1948, leading to significant savings from the national defense budget. These funds were redirected toward social programmes and the development of renewable energy sources. [4]

This work posits that Nigeria has the potential to increase its renewable energy production by implementing strategic measures. Key among these measures is the reduction of detrimental subsidies, accompanied by the earmarking of funds from the subsidy programme for investment in renewable energy and other vital social infrastructures. The subsequent section outlines ways in which Nigeria can reduce its subsidy expenditure.

8. Reduce fossil fuel subsidies and invest in the development of renewable energy sources.

A limited number of countries have initiated the gradual removal of fossil fuel subsidies. For instance, the Indonesian government enacted a presidential law that abolished petroleum subsidies and advocated for biodiesel as a viable alternative energy source.[5] Commencing in 2016, the Indonesian government implemented a 20% blending requirement for biodiesel. [6] These strategic measures enabled Indonesia to significantly reduce its fuel subsidies, reducing the figure from $13.6 billion in 2014 to $1.6 billion in 2015.[7] Consequently, the government found itself in a position to allocate more funds towards education and other critical infrastructure projects.

The Nigerian Minister of Petroleum declared that the discontinuation of fuel subsidies could result in savings of ₦1 trillion ($50 billion). [8] In light of this, the Nigerian government should seriously consider reducing its fuel subsidy programme and reallocating these funds to invest in the advancement of renewable energy and other crucial social initiatives. To achieve this, the parliament could initiate an amendment to the Price Control Act, excluding petroleum from its provisions. Subsequently, the government could channel the saved funds into expanding social intervention programmes such as the Conditional Money Transfer Programme and Government Entrepreneurship and Empowerment Programmes to encompass a more extensive portion of the population. Drawing inspiration from the Indonesian government's approach after abolishing fuel subsidies, Nigeria could ease potential tensions by implementing targeted social support programmes like Unconditional Money Transfers, directly benefiting the economically disadvantaged.[9] Similar strategies were successful in Ukraine, where a 470% increase in gas tariffs prompted the government to enhance the social safety net.[10] This system allowed citizens to apply for social assistance to counteract the negative impacts of rising gas prices,[11] leading to a notable increase in the number of people covered by the safety net, from 1 million to 7 million. [12]

This article posits that by expanding and fortifying its social intervention programmes, particularly the Conditional Money Transfer Programme and Government Empowerment Programmes, the Nigerian government can gradually reduce its subsidy budget. Any economic hardships experienced by the public due to subsidy reductions could be alleviated through these social intervention programmes. Consequently, the Nigerian government stands to save substantial amounts from fossil fuel subsidies, providing an opportunity to invest in renewable energy and other critical social infrastructure developments. Nevertheless, several challenges persist in the potential reduction of subsidies, including the risk of triggering inflation through panic buying and the likelihood of protests organized by trade unions, citizens, and subsidy advocates, leading to social disorder. The

[1] M. Nwachukwu, and H. Chike, 'Fuel subsidy in Nigeria: Fact or fallacy (2011) 36(5) Energy 2796-2801.At 2797.
[2] M. Gallucci, Costa Rica ran almost entirely on renewable energy in 2016 (Mashable UK 2017) available at Costa Rica ran almost entirely on renewable energy in 2016 (mashable.com) > accessed 2ND April 2023.
[3] A. Vogt, National Decarbonization Plan 2018- 2050 available at < NationalDecarbonizationPlan.pdf (unfccc.int) > accessed 6th April 2023.
[4] D. Barash, Costa Rica's peace dividend: How abolishing the military paid off (Los Angeles Times 2013) available at Costa Rica's peace dividend: How abolishing the military paid off - Los Angeles Times (latimes.com) accessed 6th April 2023.
[5] Regulation N0.191/2014.
[6] Ministry of Finance, Republic of Indonesia, Indonesia's Effort to phase out and rationalize its fuel subsidies, A self-report on G20 of peer review of inefficient fossil fuel subsidies that encourage wasteful consumption in Indonesia at 18 Available at https://www.oecd.org/fossil-fuels/publication/Indonesia%20G20%20Self-Report%20IFFS.pdf > accessed 2nd 2023.
[7] Ibid at 22.
[8] A. Adamu, Nigeria to save N1 trillion with subsidy removal, says Sylva (Guardian Newspaper 2020) available at Nigeria to save N1 trillion with subsidy removal, says Sylva | The Guardian Nigeria News - Nigeria and World NewsNigeria — The Guardian Nigeria News – Nigeria and World News > Accessed 11 May 2023.
[9] Above n. 111 p. 28.
[10] The World Bank, Reforming Fossil Fuel Subsides for a Cleaner Future. Available at https://www.worldbank.org/en/news/feature/2017/11/21/reforming-fossil-fuel-subsidies-for-a-cleaner-future >Accessed 14 August 2023 .
[11] Ibid.
[12] Ibid.

Indonesian government, in its experience, faced substantial civil protests when withdrawing subsidies.[1] Their assessment revealed that diesel and kerosene subsidies were still maintained but with a strict focus on public transport services and impoverished farmers.[2] Recognizing this, the Nigerian government might encounter similar or heightened challenges if it opts for a complete removal of fuel subsidies. Beyond these anticipated difficulties, corruption emerges as a significant concern, particularly in terms of how the funds saved from subsidies will be effectively utilized for the development of renewable energy sources. Despite these concerns, this study recommends a gradual reduction of subsidies as a strategy to foster the advancement of renewable energy sources in Nigeria.

9. Conclusion

This article has elucidated the correlation between fossil fuel subsidies and greenhouse gas emissions. Despite this correlation, the Paris Agreement remains silent on fossil fuel subsidies due to opposition from countries heavily reliant on oil and gas. At COP 26, discussions revolved around the imperative to phase out inefficient fossil fuel subsidies, yet no specific date was stipulated for this phase-out. Several international financial institutions are making strides to decrease the financial support allocated to fossil fuel production. Despite these efforts, compelling evidence indicates a rise in national fossil fuel subsidy budgets.

This study critically unveils that Nigeria allocates more than half of its total revenues to subsidize consumption-based fossil fuels. The Nigerian government has expended significant sums on fossil fuel subsidies, with analyses revealing a lack of transparency and instances of fraud within the programme. Not only is the fuel subsidy programme lacking in transparency and tainted by fraud, but it also stands in stark contradiction to the goals of the Paris Agreement, particularly hindering progress in renewable development.

Furthermore, despite its initial intent to assist the less privileged, the fuel subsidy programme has proven ineffective in practice. The considerable financial resources earmarked for the programme, which could have been directed towards constructing essential social infrastructure, have instead been channeled into a consumption-based fossil fuel subsidy programme. As long as the fossil fuel subsidy persists in Nigeria, the widespread adoption of renewable energy will face severe impediments, negatively impacting the country's climate change obligations. Therefore, there is a pressing need to gradually reduce the fuel subsidy programme and reallocate funds toward renewable energy and other crucial social infrastructures in Nigeria.

References

Articles

- Barnett, J. (2008), "The worst of friends: OPEC and G-77 in the climate regime*" Global Environmental Politics*, *8*(4), 1-8.
- Depledge, J. (2008), "Striving for no: Saudi Arabia in the climate change regime*" Global Environmental Politics*, *8*(4), 9-35.
- Ebhota, W. S., & Tabakov, P. Y. (2018), "Power inadequacy, the thorn in economic growth of Nigeria*" International Journal of Applied Engineering Research*, *13*(16), 12602-12610.
- Elliott, C., Bernstein, S., & Hoffmann, M. (2022), "Credibility dilemmas under the Paris agreement: explaining fossil fuel subsidy reform references in INDCs. *International Environmental Agreements:" Politics, Law and Economics*, *22*(4), 735-759.
- Elum, Z. A., & Momodu, A. S. (2017), "Climate change mitigation and renewable energy for sustainable development in Nigeria: A discourse approach." *Renewable and Sustainable Energy Reviews*, *76*, 72-80.
- Field, C. B., & Barros, V. R. (Eds.). (2014). "*Climate change 2014–Impacts, adaptation and vulnerability: Regional aspects*." Cambridge University Press.
- Houghton, J. T., Jenkins, G. J., & Ephraums, J. J. (1990), "Climate change: the IPCC scientific assessment." *American Scientist;(United States)*, *80*(6).
- Izoukumor, N. (2022), "*Nigeria's legal responses to climate change obligations"* (Doctoral dissertation).
- Jackson, R. B., Friedlingstein, P., Andrew, R. M., Canadell, J. G., Le Quéré, C., & Peters, G. P. (2019), "Persistent fossil fuel growth threatens the Paris Agreement and planetary health*" Environmental Research Letters*, *14*(12), 121001.
- Lazarus, M., & van Asselt, H. (2018), "Fossil fuel supply and climate policy: exploring the road less taken*" Climatic Change*, *150*(1-2), 1-13.
- Ley, K., Gaines, J., & Ghatikar, A. (2015), "*The Nigerian energy sector: An overview with a special emphasis on renewable energy, energy efficiency and rural electrification"* Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ) GmbH, Nigerian Energy Support Programme (NESP).
- Mitigation, C. C. (2011), "IPCC special report on renewable energy sources and climate change

[1] J. Rentschler, and M. Bazilian,'Reforming fossil fuel subsidies: drivers, barriers, and the state of progress. Climate Policy, 17(7), pp.891-914.
[2] Above n.111 p. 17.

mitigation." *Renewable Energy*, *20*(11).
- Nwachukwu, M. U., & Chike, H. (2011), "Fuel subsidy in Nigeria: Fact or fallacy*"* *Energy*, *36*(5), 2796-2801.
- Nwankwojike, B. N., Nwosu, J. O., & Egwuagu, M. O. (2019) "Life Cycle Cost Analysis of Residential Power Backup Gasoline Generators in Nigeria*"* *Journal of Applied Sciences and Environmental Management*, *23*(12), 2259-2261.
- Occhiali, G., & Falchetta, G. (2018), "The changing role of natural gas in Nigeria*"*.
- Oseni, M. O. (2012), "Improving households' access to electricity and energy consumption pattern in Nigeria: Renewable energy alternative*"* *Renewable and Sustainable Energy Reviews*, *16*(6), 3967-3974.
- Pereira, H. (2017). "*How the WTO can help tackle climate change through fossil fuel subsidy reform: Lessons from the fisheries negotiations*." ICTSD.
- R Cervigni and M Henrion, Low-Carbon Development: Opportunities for Nigeria (eds., 2013 The World Bank) 77
- Ralph J, Cicerone and Paul Nurse Climate Change Evidence & Causes; An overview from the Royal Society and the US National Academy of Sciences (Q and A).
- Ram, B. (2010) "Renewable energy development in Africa-challenges, opportunities, way forward"
- Rentschler, J., & Bazilian, M. (2017). "Reforming fossil fuel subsidies: drivers, barriers and the state of progress*"* *Climate Policy*, *17*(7), 891-914.
- Skovgaard, J. (2021), "*The economisation of climate change: How the G20, the OECD and the IMF address fossil fuel subsidies and climate finance*." Cambridge University Press.
- Skovgaard, J., & van Asselt, H. (2019). "The politics of fossil fuel subsidies and their reform: Implications for climate change mitigation." *Wiley Interdisciplinary Reviews: Climate Change*, *10*(4),581.
- Skovgaard, J., & Van Asselt, H. (Eds.). (2018). *The politics of fossil fuel subsidies and their reform*. Cambridge University Press.
- Taibi, F. Z., & Konrad, S. (2018), "Pocket Guide to NDCs under the UNFCCC*"*.
- ten Brink, P., Withana, S., & Oosterhuis, F. (2014). 13. "The way forward: reforming EHS in the transition to a green economy. *Paying the Polluter" Environmentally Harmful Subsidies and their Reform*, 281.
- VanAsselt H. (2022), "Breaking a Taboo: Fossil Fuels at COP26 *"*EJIL Blog available at Breaking a Taboo: Fossil Fuels at COP26 – EJIL: Talk! (ejiltalk.org)
- Whitley, S., & Van der Burg, L. (2015), "Fossil fuel subsidy reform in sub-Saharan Africa: from rhetoric to reality. *Overseas Development Institute." http://newclimateeconomy. report/workingpapers/wp-content/uploads/sites/5/2016/04/FFS-Reform-in-Africa_NCE-ODI_final. pdf. T. MOERENHOUT.*

Internet sources

- Agreement on Subsidies and Countervailing Measures, WTO available at WTO | legal texts - Marrakesh agreement
- Akhtar. S, (20230 'Cheaper petrol for the poor' (Tribune) available at Cheaper petrol for the poor (tribune.com.pk)
- Aljazeera, 'Nigeria's parliament passes record budget for 2020' (2019) < available at https://www.aljazeera.com/ajimpact/nigeria-parliament-passes-record-budget-2020-191205181608971.html >
- Beyond Oil and Gas Alliance available at < Beyond Oil & Gas Alliance (beyondoilandgasalliance.org)
- Carbon Brief clear on climate, Budget 2020: Key climate and energy announcements, available at < Budget 2020: Key climate and energy announcements - Carbon Brief
- D. Elumoye and E. Addeh, 'Nigeria's $15.7bn 2022 Fuel Subsidy Projection to Exceed All 36 States' Budget (This Day news Paper 2022) available at Report: Nigeria's $15.7bn 2022 Fuel Subsidy Projection to Exceed All 36 States' Budget – THISDAYLIVE
- Driving Mobility for Europe available at Electric cars: Half of all chargers in EU concentrated in just two countries - ACEA - European Automobile Manufacturers' Association
- EU's Biggest Pension Fund to Dump $17 Billion in Fossil Fuels available at EU's Biggest Pension Fund to Dump $17 Billion in Fossil Fuels - Bloomberg
- Euronews. Green available at Norway, Germany, UK: Which European countries have the biggest share of electric cars? | Euronews
- European Union, EDGAR - Emissions Database for Global Atmospheric Research; CO2 emissions of all world countries 2022 report, available at EDGAR - The Emissions Database for Global Atmospheric Research (europa.eu)
- Federal Ministry of Environment Abuja, Nigeria (Special Climate Change Unit) (2010) 'National Environmental, Economic and Development Study (NEEDS) For Climate Change in Nigeria 25 available https://unfccc.int/sites/default/files/nigerianeeds.pdf

- Federal Ministry of Environment Department of Climate Change National Climate Change Policy for Nigeria 2021 – 2030 at p. 39.
- Federal Republic of Nigeria (2018) First Biennial Update Report (BUR1) of the Federal Republic of Nigeria under the United Nations Framework Convention on Climate Change (UNFCCC) 11.
- Federal Republic of Nigeria (2018) First Biennial Update Report (BUR1) of the Federal Republic of Nigeria under the United Nations Framework Convention on Climate Change (UNFCCC) 11.
- Federal Republic of Nigeria Sustainable Energy for All Action Agenda (Se4all-Aa) Adopted by Interenergy And Energy Efficiency (ICREEE) Ministerial Committee on Renewable (2016) at 57 available https://www.seforall.org/sites/default/files/NIGERIA_SE4ALL_ACTION_AGENDA_FINAL.pdf >
- Federal Republic of Nigeria, 2020 Appropriation 942- 971 (budget office of the federation federal republic of Nigeria available at 2019 Budget Analysis - Budget Office of the Federation - Federal Republic of Nigeria
- Focus Economics, Fiscal Balance in Nigeria available at Nigeria Fiscal Balance - Nigeria Economy Forecast & Outlook (focus-economics.com)
- France to ban sales of petrol and diesel cars by 2040 (The Guardian News Paper 2019) available at France to ban sales of petrol and diesel cars by 2040 | Automotive industry | The Guardian
- G. Okeowo, Nigeria's Petrol Subsidy Regime Dilemma of the world's most populous black nation (BudgIT 2019) available at < http://fixouroil.com/wp-content/uploads/2019/03/Nigerias-Petrol-Subsidy-Regime_BudgIT.pdf >
- International Monetary Fund available at < Fossil Fuel Subsidies (imf.org)
- Ministry of Finance, Republic of Indonesia, Indonesia's Effort to phase out and rationalize its fuel subsidies, A self-report on G20 of peer review of inefficient fossil fuel subsidies that encourage wasteful consumption in Indonesia Available at https://www.oecd.org/fossil-fuels/publication/Indonesia%20G20%20Self-Report%20IFFS.pdf >
- Ministry of Finance, Republic of Indonesia, Indonesia's Effort to phase out and rationalize its fuel subsidies, A self-report on G20 of peer review of inefficient fossil fuel subsidies that encourage wasteful consumption in Indonesia at 13 available at https://www.oecd.org/fossil-fuels/publication/Indonesia%20G20%20Self-Report%20IFFS.pdf >
- Ministry of Finance, Republic of Indonesia, Indonesia's Effort to phase out and rationalize its fuel subsidies, A self-report on G20 of peer review of inefficient fossil fuel subsidies that encourage wasteful consumption in Indonesia at 18 Available at https://www.oecd.org/fossil-fuels/publication/Indonesia%20G20%20Self-Report%20IFFS.pdf >
- National Decarbonization Plan, government of Costa Rica 2018-2050. Available atNationalDecarbonizationPlan.pdf (unfccc.int)
- Netherland Enterprise Agency available at Electric transport in the Netherlands | RVO.nl Accessed 12th March 2023.
- Nigeria Climate Transparency Report Nigeria's Climate Action and Responses to The Covid-19 Crisis (Climate Transparency 2020) 1 available at < Nigeria-CT-2020.pdf (climate-transparency.org)>
- Nigeria's Intended Nationally Determined Contribution (Submitted by The Federal Government of Nigeria Being a Requirement by Conference of Parties to the United Nations Framework Convention on Climate change (COP-UNFCCC) in Preparation for the Adoption of Climate Change Agreement at the Paris Conference on Climate change coming up in December 2015 Prepared by the Federal Ministry of Environment 15.
- NS Energy, Top 10 countries for clean energy capacity investment in 2019 available at < Top 10 countries for clean energy capacity investment in 2019 (nsenergybusiness.com)
- OECD (2015), OECD Companion to the Inventory of Support Measures for Fossil Fuels 2015, at P. 12 avalable at OECD Companion to the Inventory of Support Measures for Fossil Fuels 2015 | READ online (oecd-ilibrary.org) >.
- Organisation of the Petroleum Exporting Countries available at< OPEC: Nigeria
- Paragraph 20 Decision -/CP.26 Glasgow Climate Pact The Conference of the Parties 2021 available at COP26 cover decision (unfccc.int).
- SDN, Spotlight Issue Nigeria's Fuel Subsidy (2015) < available at https://www.stakeholderdemocracy.org/wp-content/uploads/2015/09/SPOTLIGHT-ISSUE-NIGERIA'S-FUEL-SUBSIDY-HC.pdf
- The Cable, 'NNPC's '60m litres' daily petrol consumption figure wrong, says Customs.' (The Cable 2022) available at NNPC's '60m litres' daily petrol consumption figure wrong, says Customs (thecable.ng)
- The World Bank, Reforming Fossil Fuel Subsides for a Cleaner Future. Available at https://www.worldbank.org/en/news/feature/2017/11/21/reforming-fossil-fuel-subsidies-for-a-cleaner-future.
- The International Energy Agency (IEA), Clean Energy Ministerial, and Electric Vehicles Initiative (EVI)

(June 2020).

- Timperley J, (2017) "Explainer: The challenge of defining fossil fuel subsidies" (Carbon Brief 2017) available at < Explainer: The challenge of defining fossil fuel subsidies | Carbon Brief.
- UN Climate Change UK Conference available at Statement on International Public Support for the Clean Energy Transition - UN Climate Change Conference (COP26) at the SEC – Glasgow 2021 (ukcop26.org)
- UN General Assembly, United Nations Framework Convention on Climate Change/ Adopted at the COP 21 in Paris, France, 12 December 2015 FCCC/CP/2015/L.9/Rev.1 accessed 13th May 2023.
- UN General Assembly, United Nations Framework Convention on Climate Change/ Adopted at the COP 21 in Paris, France, 12 December 2015 FCCC/CP/2015/L.9/Rev.1 accessed 13th November 2018.
- Working Group I contribution to the Sixth Assessment Report of the Intergovernmental Panel on Climate Change available at <IPCC_AR6_WGI_Full_Report_smaller.pdf > at p. 19.
- World Economic Forum, 'India will sell only electric cars within the next 13 years' (2017) available at India will sell only electric cars within the next 13 years | World Economic Forum (weforum.org)