

Center for Global Sustainability

2035 NDC Assessment: Nigeria

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This analysis is part of the Center for **Global Sustainability (CGS): Country Climate Ambition Project**, which presents a set of detailed, country-specific analyses in a consistent, robust, and integrated approach with the goal of informing individual country ambition and supporting the Paris Agreement's NDC process. With in-depth assessments of key emitting countries, the Country Climate Ambition project provides the latest summary—with regular updates—of analyses on plausible, High Ambition country pathways that are based on CGS's field-leading modeling, data-driven empirical analyses, deep country knowledge, international research collaboration, and strategic policy engagements. For additional analysis and information, please see our website: https://country-ambition.cgs.umd.edu/.

Summary

This assessment shows that Nigeria's 2035 Nationally Determined Contribution (NDC) reflects an improved level of ambition relative to the previous 2030 NDC, as it sets an absolute reduction target relative to a historical baseline rather than a target based on an uncertain business-as-usual BAU scenario. Nigeria's 2035 NDC commits to reducing greenhouse gas (GHG) emissions by 32.2% (including Land Use, Land Use Change, and Forestry (LULUCF)) from 2018 levels, which corresponds to a 32% from 2023 levels. Although the NDC projects significant reductions in non-LULUCF emissions, the power sector targets do not align with this ambition and fail to account for existing renewable energy deployment trends.

In September 2025, Nigeria released its 2035 NDC, which commits to reducing GHG emissions (including Land Use, Land Use Change, and Forestry (LULUCF)) by 32.2% from 2018 levels and achieving net-zero emissions by 2060.[1] Additional targets in the NDC include reaching 50% renewable electricity generation by 2030; expanding renewable capacity (including 5.7 GW for solar, 10.4 GW hydro, 17 GW gas, and 2.5 GW of demand side management); reducing fugitive emissions (leaks and venting) by 60%; and lowering the deforestation rate by 60%.[1]

Emissions in Nigeria declined in 2020 due to the COVID-19 pandemic and have been gradually increasing since, without yet reaching pre-pandemic levels. According to Nigeria's 2024 Biennial Transparency Report (BTR),[2] total GHG emissions peaked at 625 $MtCO_2e$ in 2019 and declined by 11% to 554 $MtCO_2e$ in 2022 (including LULUCF, using the IPCC AR5 GWP-100). As of 2022, LULUCF accounted for 41% of total emissions, followed by energy at 36%, according to the BTR.[2] In contrast, global inventories (PRIMAP-hist data and CEDS) indicate that methane was the largest source of emissions (excluding LULUCF) in 2023, accounting for 53% of the total emissions (mainly from oil and gas production), followed by transportation (18%), and N_2O emissions (10%).[3,4]

Energy sector trends in Nigeria show that off-grid diesel and petrol generators make up 80% of the country's operational electricity capacity.[5] As of 2024, fossil fuels dominated on-grid electricity generation, accounting for 77% (entirely from gas), while renewables contributed 23% of total generation, with less than 1% from solar and 23% from hydro.[6] Installed capacity stood at 17 GW for gas, 10.4 GW for hydro, and 0.1 GW for solar.[6]

According to our analysis, **Nigeria's 2035 NDC translates to a 32% reduction from 2023, or 38% and 30% reduction by 2035 from 2019 and 2022 levels**, respectively, using PRIMAP-hist and the national inventory.[3,2] The target is framed as an absolute reduction from a historical baseline, representing an improvement over the 2030 NDC, which only included reductions relative to a BAU scenario (20% unconditionally or 47% conditionally by 2030, including LULUCF).[7] While the 2035 NDC does not formally increase ambition for 2030, its target trajectory implies a lower 2030 emission value than the conditional 2030 NDC target.

Under the 2035 NDC, 68% of total emissions reductions are expected to come from LULUCF, while 32% are expected from non-LULUCF sectors. Using the 2018 emissions data presented in the 2035 NDC and the sectoral breakdown from the BTR, **non-LULUCF emissions are estimated to decline by 20% from 2018 levels by 2035 under the new target**. This level of reduction is broadly consistent with high ambition, although significant uncertainties remain for LULUCF emissions.

However, the power sector targets do not fully align with an ambitious mitigation strategy, as they prioritize adding more gas capacity than solar. This approach seems inconsistent given the cost-competitiveness of solar and battery storage compared to both existing diesel generation and new gas-fired power. At the same time, imports of batteries, solar and grid equipment, and electric vehicles are increasing rapidly and have already supported nearly 2 GW of renewable additions from China in 2025,[8] highlighting strong potential for accelerated low-carbon deployment.

References

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