

Financing Mitigation Activities in Developing Countries: Nigeria's Energizing Education Programme (EEP)

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UCCRN Case Study Docking Station (2025)
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Keywords	Mitigation financing, policy, practice, public resources, climate investment
City Population	4,103,000
City Area	449 km ²
City GDP	26.4 billion USD
Climate Zone	BSh (hot semi-arid)
ARC3.3 Linkages	Financing Climate Action Element

Introduction. The effectiveness of adaptation and mitigation approaches to climate change impacts on developing countries' populations, ecosystems, and economies as well as all over the globe calls for strategic complementarity and alignment. One of the major existing concerns for African developing countries is that of energy security, which will be exacerbated should global warming rise above 1.5°C, intensifying the possibilities of higher cooling energy demand. African developing nations will be significantly impacted in many ways such as the loss of livelihoods, decreased productivity, decreased water security, and the degradation of human health and well-being. The continued dependence on energy for many productive economic activities and processes necessary for the urbanization underway in Africa, and the developing world in general, has various climate impacts (UNECA, 2018).

These impediments and limitations arise from high poverty or low level of income, inadequate accessibility to financial resources and high aspiration to attain a moderate living standard. Institutional systems are often inadequately prepared for handling the pressures of managing adaptation and mitigation strategies to ensure adequate access to the needed finances for climate-related investments and other responses to climate risks. However, not all hopes are lost in this direction as the Nigerian Government, through a number of programmes, have demonstrated workable sector-specific frameworks in sectors such as education.

This case study of the successful implementation of the Bayero University Kano (BUK) Solar Project as one of the

beneficiaries of the first phase of the Energizing Education Programmes (EEP) in Nigeria, provides a useful insight into the impacts of climate finance in cities of developing countries. It also highlights some of the barriers to accessing climate investments at community/municipality levels such as the current governance structure and system, and the integral role technical and community actors and other enabling factors play in finding pathways to climate resilient investment and sustainable development in cities.



Figure 1: *The BUK Solar Project*

History and Overview. As centers of higher learning and training, universities are the citadel of innovation in most countries. The challenge of energy in Nigeria has been a bedeviling one over the years as successive governments failed to adequately address the issue. Nigeria's current administration, having signed and ratified the Paris Agreement on climate and committed to the UN's SDGs, have initiated several programmes to harness the economy towards sustainable development, particularly in the areas that provide solutions to existing challenges like energy. Access to clean energy (SDG 7), has been a very important approach for Nigeria's dual-purpose channel of resource utilization. Addressing clean energy usage at the university level has the potential to generate spill-over effects in different dimensions of sustainable development, and the possibility of wider community adoption. The EEP is a key component of the greater Nigeria Electrification Project being implemented by Rural Electrification Agency – REA, with the support of the World Bank and the African Development Bank (REA, 2016).

Context and Drivers. The EEP is an initiative of the Federal Government of Nigeria (FGN), to provide sustainable and clean power supply to 37 Federal Universities and seven University Teaching Hospitals across Nigeria. The project includes the provision of an independent power plant, upgrading existing distribution infrastructure, street lighting to improve security within the universities’ campuses, as well as the development of a world class training centre on renewable energy for each university. The project is being implemented by the REA and developed in Phases (REA, 2016). Phase 1 will deliver 28.5MW to nine Federal Universities and one University Teaching Hospital, using solar hybrid and/or gas-fired captive power plants.

Analysis, Evaluation and Implementation. The BUK Solar Power Project, which at the time of its commissioning was the largest off-grid solar power plant in Africa, was part of Nigeria’s goal to develop independent power plants, rehabilitating existing distribution infrastructure to supply clean, safe and reliable power to federal universities and teaching hospitals (Adewale, 2019). The BUK Solar Power Project was the second project commissioned under Phase 1 of the EEP that will deliver clean and sustainable energy to nine federal universities and one university teaching hospital in the next four years, using solar hybrid and/or gas-fired captive power plants. With the 7.1 megawatts solar power plant, 55,815 students and 3,077 staff of the institutions will have access to electricity. REA is the implementing agency of the Federal Government charged with electrification of un-served and underserved communities.

In general, the first Phase of the EEP has benefited 127,000 students and 28,000 staff in universities, 4,700 staff in teaching hospitals (including 819 doctors), powered 2,850 street-lights, and resulted in the decommissioning of hundreds of generators. It is fully funded by the FGN and within this phase, there are seven solar hybrid projects currently receiving funding from the Green Bond issued by the FGN. Subsequent phases are to be funded by the Nigeria Electrification Project which is an FGN project in partnership with the World Bank and the African Development Bank.

Identifying access to constant power supply in educational institutions and healthcare facilities in Nigeria represents a major challenge as well as a barrier to effective learning, institutional operations, and student residency. The successful implementation of the BUK Solar Power Project as well as other universities’ EEP projects in the first phase of EEP has bolstered the EEP Phase II, which will implement this initiative in another seven Federal Universities and two University Teaching Hospitals, across all six geopolitical zones (REA, 2022). The EEP Phase II beneficiary institutions are as follows:

S/N	Location	State	Region
1.	Federal University of Agriculture, Abeokuta	Ogun	South-West
2.	Michael Okpara University of Agriculture, Umudike	Abia	South-East
3.	University of Calabar & Teaching Hospital	Cross River	South-South
4.	University of Maiduguri & Teaching Hospital	Borno	North-East
5.	University of Abuja	F.C.T	North Central
6.	Federal University Gashua	Yobe	North-East
7.	Nigerian Defense Academy	Kaduna	North-West

Table 1: *EEP Phase II beneficiary institutions*

The utilization of a Green Bond for the funding of the second phase by the FGN, with the support of the World Bank, has earmarked \$105 million for the continuation of the programme’s implementation. This has multidimensional benefits as far as climate action and SDGs are concerned including improving access to clean energy, improving performance and productivity, and ensuring energy security. Green Bonds have been one of the foremost financing instruments being promoted globally and Nigeria is left behind in this regard, though dominance of the Government in the Green Bond affairs may be the main concern (Department of Climate Change, 2020).

With the UN acknowledging the world’s first fully-certified sovereign green bond issued on 18th Dec. 2017, Nigeria became the first country on the African continent and the fourth globally to issue a security that raises funds for environmental projects after the launch of its first (\$25.8 million, 13.48%, 5 years) and second (\$36.1 million, 14.5%, 7 years in 2019) tranches of the oversubscribed Sovereign Green Bond programme. These were the results of the collaborative efforts of the Ministry of Environment, the Debt Management Office, the Nigerian Exchange Limited (NGX), as well as other key stakeholders in deepening the green bond market for generating the much-needed long-term capital to meet Nigeria’s NDCs of reducing greenhouse gas emissions and ending gas flaring by 2030 (NGX, 2021).

These developments were followed by the emergence of the corporate green bond market with N15 billion, a 15.5 percent five-year fixed rate senior unsecured green bond by Access Bank, and N8.5 billion, 15.6 percent 15-year guaranteed fixed rate senior green infrastructure bond by North South Power Company, further increasing the investible instruments and deepening and expanding the Nigerian green bond market (in excess of N55 billion), even as all the corporate and sovereign green bonds are currently listed on NGX (Oji, 2021).

Future Implementation and Conclusions. Subsequent phases of the initiative will see to the implementation of the projects until all the targeted objectives are achieved, with the hope of triggering replication in other sectors, aside from education. The benefits are enormous for both the beneficiaries and their adjacent communities, particularly with regards to the financ-

ing mechanism that is now being adopted by the private sector with the emergence and rapid growth of the corporate green bond market. What the future holds for both climate and sustainable development, particularly if the adoption rate is maintained or intensified, is much to be desired and may be replicated by other African countries, or the developing world at large.

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Additional Data

- **Population Density:** 8,222 people/km²
 - **Gross National Income (GNI):** 1,930 USD (Lower-Middle Income)
 - **Gini Coefficient:** 35.1
 - **Human Development Index (HDI):** 0.548 (Low)
 - **Type of Climate Intervention:** Mitigation
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