



Joining up the dots in Nigeria

Fabian Homi Nbuba, solar engineer in Shimankar community, Shendam

How GEAPP is bringing together financial capital, political delivery, venture support and innovation to reach a tipping point for energy access in Africa's most populous nation.

Nigeria is the definition of a scale play. Opportunity, need and urgency. The country with the world's largest unelectrified population¹ is also the country with the second highest youth unemployment figure. By unlocking the first, you solve for the second, driving jobs and economic prospects. There's a carbon benefit too. Nigerians currently access 50GW+ electricity through diesel and gasoline generators. Moving from diesel to renewables will bring significant emissions reductions and numerous health benefits.

Today, the main grid in Nigeria produces 4GW of actual operating capacity. In order to achieve universal electrification by 2030, the country needs 350GW², which will require at least \$25bn of investment across mini grids, standalone solar, and grid extension. GEAPP's vision is to get Nigeria's Distributed Renewable Energy sector moving forward sustainably and at scale while the main grid is improved and extended in reach.

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2030 targets of the Nigeria Country Programme³:

Off grid



Jobs enabled through GEAPP investments



New connections reaching 12.5m people

Grid connected



Renewable capacity for people and businesses



Annual CO₂ reduced

Funding mobilised



Direct GEAPP investment (provisional)



Finance to be unlocked with GEAPP's catalytic funding

Getting off-grid electricity supply to be financially viable at scale demands a comprehensive approach with multiple factors working in coordination across the whole country system. One of the notable aspects of GEAPP as a single organisation is our ability to deliver multiple interventions at speed, analysing which aspects of the system are being addressed, which are not and working with partners to diagnose what needs to be done collectively and simultaneously. GEAPP has been working with partners in Nigeria since 2021, including:

- **Partnering with the Nigerian government and SEforALL** to scope and fund the cross-government Energy Transition Office, which leads a mixture of energy sector planning, enabling environment unlocks in policy and regulation and effective delivery and implementation.
- **Partnering with The World Bank** to codesign the \$750m DARES — Distributed Access through Renewable Energy Scale-Up — project, focused on results-based financing for renewable energy access, along with funding essential preparatory work through ESMAP¹.
- **Partnering with All On**, the energy venture funder and incubator to fund, strengthen and scale the venture building space by providing small developers with seed capital, working capital funding, venture building skills and support. All On also manages a \$25m working capital facility for equipment trade financing, connected to the DART programme (described below).
- **Then joining them up with our aggregated procurement platform DART** in partnership with Odyssey, which takes small developers' procurement needs and aggregates them to bring effects of scale: better pricing, better terms, better lead times. That's important because DRE developers in sub-Saharan Africa pay >3x the global average price for lithium-ion batteries and >20% extra for solar panels. To date, DART has created savings of up to 30% for solar equipment - savings that help developers become profitable and lower prices for customers. Our vision is that as DART scales and replicates in other countries, it helps accelerate domesticated supply chain manufacturing creating visible and scaled market demand.

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- **Partnering with Chapel Hill Denham and ARM-Harith⁵**, two innovative Nigerian financial institutions, to design and implement local currency platforms to increase the supply of Naira-denominated debt and equity for off-grid energy developers, which improves their commercial viability and scalability versus funding in foreign currency.
- **GEAPP also partners with RMI and the Rural Electrification Agency on the demand side**, growing the productive use of mini grid renewable energy supply. Unless there's such revenue-generating off-take demand, the business models for entrepreneurial developers will fail. In agriculture, for example, GEAPP is working with productive-use agricultural offtake like irrigation as part of the Energizing Agriculture Program (EAP), while in markets and communities GEAPP is financing productive appliances such as freezers to help entrepreneurial businesses grow.

Nigeria's Distributed Renewable Energy ecosystem needs these multi-faceted and simultaneous solutions so the whole value chain starts to connect, progress, scale and sustain with energy developer businesses becoming viable and self-sufficient, and offtake growing on the demand side as access to electricity drives growth. In Nigeria, where MSMEs are the biggest source of both formal and informal jobs and therefore the engine of growth, that's the breakthrough unlock that GEAPP brings.



Azeez Omotunde, shop owner at Ayanbore Market near Lagos

¹ Source: ESMAP Nigeria Tracking SDG 7, <https://trackingsdg7.esmap.org/country/nigeria>

² <https://nigeria-iep.sdg7energyplanning.org/>

³ GEAPP 2030 targets are informed by country-specific impact dashboards; these are refined and adjusted to reflect accurate monitoring and evaluation of project activities.

⁴ Energy Sector Management Assistance Program

⁵ Approval for ARM-Harith project in progress.