# UNEP launches second phase of electricity networks initiative in Africa



The United Nations Environment Programme (UNEP), in collaboration with the International Energy Agency (IEA) and with support from the Italian government, has launched the second phase of the Demand-Driven Electricity Networks Initiative (3DEN). This new phase focuses on accelerating the digitalisation of power systems and agriculture across various African nations.

Phase two of the 3DEN initiative aims to address pressing infrastructure challenges and improve digital literacy while promoting resource efficiency in agriculture. The initiative will initially target seven African countries: Ethiopia, Kenya, Morocco, Nigeria, South Africa, Tanzania, and Tunisia, with Brazil also included as a participant.

Key objectives of phase two include funding projects that enhance the digitalisation of both agricultural practices and urban energy networks. The initiative also seeks to implement innovative strategies that strengthen resilience and profitability within the agricultural sector. This will enable farmers and agribusinesses to make informed, data-driven decisions while minimising the usage of essential natural resources.

To achieve its goals, the 3DEN initiative is looking to support a variety of technological advancements. Among these are:

* Precision agriculture: This approach leverages sensors and data analytics to optimise crop yields while reducing resource usage, thereby minimizing waste in critical inputs such as water and fertiliser.
* Smart irrigation: Digital irrigation solutions can automatically adjust water levels based on real-time data, which is particularly vital in many parts of Africa that experience water scarcity.
* Digital marketplaces and blockchain technology: Such platforms enhance market access and pricing transparency for farmers. Blockchain, specifically, can provide traceability throughout the supply chain, improving quality and safety standards.

Speaking on the initiative, Dechen Tsering, acting interim director of UNEP’s Climate Division, stated, “Action to address global warming and its impacts is not strong enough or fast enough. Cutting emissions from the power sector is crucial to catch up and protect people and the planet, which is why 3DEN can make a real difference. Smart technologies allow greater efficiency in power systems and make it easier to integrate renewable sources into grids, which can deliver power to millions more people without increasing emissions. UNEP is grateful to Italy for its support and looks forward to delivering a stronger impact in the second phase, including by backing African farmers to grow more with fewer resources.”

Alessandro Guerri, director general for European and international affairs and sustainable finance at the Italian Ministry of Environment and Energy Security, remarked, “With the launch of the second phase of the 3DEN initiative, Italy reaffirms its unwavering commitment to fostering innovative, inclusive, and sustainable solutions for the energy transition. This effort is strengthened by the pivotal collaboration of the International Energy Agency and the United Nations Environment Programme, whose expertise and leadership play a crucial role in shaping global strategies.”

The first phase of the 3DEN initiative commenced in 2021 with the goal of promoting the adoption of smart technologies for optimising energy consumption, which in turn helps conserve energy, reduces costs, and curbs greenhouse gas emissions. Notable achievements from phase one include pilot projects across Brazil, Colombia, India, and Morocco. In Brazil, smart digital tools were deployed to enable residents in social housing to effectively manage their energy usage, leading to decreased costs and waste. Colombia's sizable demand-response initiative engaged over 100,000 users, effectively reducing power interruptions and emissions. Additionally, India’s digital twin project for electric distribution grids improved operational reliability and reduced costs, benefiting approximately 20,000 consumers, while Morocco's advanced energy monitoring systems resulted in a significant 25% reduction in energy consumption for a local company.

Italy has been a major contributor to the 3DEN initiative, investing €20 million (approximately $20.7 million) since its inception in 2020.

Source: [Noah Wire Services](https://www.noahwire.com)

## Bibliography

1. <https://www.unep.org/technical-highlight/unep-italy-expand-effort-harness-digitalization-environmental-and-humanitarian> - Corroborates the launch of the second phase of the 3DEN initiative, the focus on Africa, and the objectives of improving digital literacy and resource efficiency in agriculture.
2. <https://www.unep.org/technical-highlight/unep-italy-expand-effort-harness-digitalization-environmental-and-humanitarian> - Details the key technological advancements supported by the 3DEN initiative, including precision agriculture, smart irrigation, and digital marketplaces with blockchain technology.
3. <https://www.unep.org/technical-highlight/unep-italy-expand-effort-harness-digitalization-environmental-and-humanitarian> - Quotes Dechen Tsering, acting interim director of UNEP’s Climate Division, on the importance of the 3DEN initiative in addressing global warming and integrating renewable sources into power grids.
4. <https://www.unep.org/technical-highlight/unep-italy-expand-effort-harness-digitalization-environmental-and-humanitarian> - Includes remarks from Alessandro Guerri on Italy’s commitment to the 3DEN initiative and its role in fostering sustainable solutions for the energy transition.
5. <https://www.unep.org/technical-highlight/unep-italy-expand-effort-harness-digitalization-environmental-and-humanitarian> - Describes the achievements of the first phase of the 3DEN initiative, including pilot projects in Brazil, Colombia, India, and Morocco.
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9. <https://3den.energy-base.org> - Outlines the launch of the call for proposals for the second phase of the 3DEN initiative, targeting specific African countries and Brazil, and the application process and timeline.
10. <https://3den.energy-base.org> - Explains the alignment of the 3DEN initiative with Italy’s ‘Piano Mattei’ and the ‘Rome Process’, focusing on sustainable development and energy transition in Africa.
11. <https://3den.energy-base.org> - Provides contact information and details for submitting proposals and seeking clarifications on the application process.
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