

NEWS & FEATURES

Africa's Energy Revolution: Lighting Up Lives, Powering Progress, and Unleashing Youth Innovation

Published: 29 January 2025

The Role of Universal Energy Access in Doubling Productivity

By Geoffrey Kirenga

Imagine a world where 300 million more people—equivalent to the entire population of the United States—gain access to electricity for the first time. This bold vision of the 300 Africa Energy Summit aims to bring power to millions across Africa by 2030. But this isn't just about flipping a switch; it's about transforming lives, boosting economies, revolutionizing food systems, and unleashing the creative potential of Africa's youth. And the best part? The rest of the world stands to benefit too.

A Brighter Africa

Today, over 600 million Africans still live without reliable electricity. For many, this means no lights to study by at night, no power to run hospitals, and no energy to fuel businesses. The Mission 300 initiative seeks to change this by focusing on practical, sustainable solutions. African governments are stepping up, prioritizing decentralized renewable energy systems like solar mini-grids and off-grid solar panels. These technologies are perfect for remote villages and underserved areas, bringing power quickly and affordably without waiting for traditional grid infrastructure.

But it's not just about technology. Clear policies and strong regulations are needed to attract private investors and ensure projects are done right. By creating a stable environment for investment, African countries can accelerate energy infrastructure development, from power plants to transmission lines. Regional cooperation is also key. By working together, African nations can share resources, trade electricity across borders, and build larger, more efficient energy markets.

Transforming Africa's Food System:

One of the most transformative impacts of universal energy access will be on Africa's food system. Agriculture is the backbone of many African economies, employing over 60% of the population. Yet, the sector remains underdeveloped, with limited access to modern technologies, irrigation systems, and cold storage facilities. Reliable energy can change this.

Farmers can power irrigation systems with electricity, reducing dependence on erratic rainfall and boosting crop yields. Cold storage facilities can prevent post-harvest losses, accounting for up to 30% of African food. Agro-processing industries can flourish, adding value to raw produce and creating jobs. With digital tools and the internet, farmers can access real-time weather data, market prices, and best practices, transforming how they grow and sell their

products.

In Tanzania, President Dr Samia Suluhu Hassan has been a vocal advocate for enhancing the nation's energy infrastructure, with a strong emphasis on rural electrification and clean energy initiatives. She has highlighted the interconnection between energy access and national development, stressing that the rural electrification efforts are crucial for stimulating development in both rural and urban areas.

Energy access in SAGCOT has transformed agriculture for smallholder and anchor farmers. From irrigation that increases yields to solar-powered incubators that enhance poultry production, energy drives efficiency at every level. Cold storage reduces post-harvest losses, while digital tools connect farmers to markets. Renewable energy adds sustainability, setting a benchmark for agricultural and poultry advancements nationwide.

In Tanzania, the energy sector, particularly through rural electrification, is crucial in advancing the country's agricultural development. The Rural Energy Agency (REA) has made significant strides in rural electrification, achieving nearly complete village coverage ahead of its 2025 goal. This expansion has facilitated improved irrigation systems, enhanced agricultural productivity, and reduced post-harvest losses, directly contributing to economic growth and the development of rural areas.

The Agenda 10/30, a Tanzanian government strategy, envisions a transformative impact on Tanzania's agriculture, targeting modern inputs like improved seeds and industrial fertilizers, which are currently underutilized. The roadmap emphasizes increasing mechanization and expanding irrigation coverage, critical for enhancing land and input utilization efficiency. Energy is critical for its success.

This energy-driven agricultural revolution won't just feed Africa—it will help feed the world. By increasing food production and reducing waste, Africa can become a global breadbasket, contributing to global food security and stabilizing prices in international markets.

This energy-driven agricultural revolution won't just feed Africa—it will help feed the world. By increasing food production and reducing waste, Africa can become a global breadbasket, contributing to global food security and stabilizing prices in international markets.

Unleashing Africa's Youth Innovation Spirit:

Africa is the youngest continent in the world, with over 60% of its population under 25. This demographic powerhouse is brimming with untapped potential in science, technology, IT, and culture. Reliable energy access can unlock this potential, creating a wave of innovation that could reshape the global economy.

Young Africans can access the internet, learn coding, and develop cutting-edge technologies with electricity. Tech hubs in cities like Lagos, Nairobi, and Cape Town are already producing world-class startups in fintech, e-commerce, and renewable energy. By 2050, Africa's tech market will be worth over \$712 billion, driven by a growing middle class and increased connectivity.

In the sciences, energy access can power research labs, universities, and innovation centres, enabling breakthroughs in fields like medicine, agriculture, and renewable energy. Culturally, Africa's vibrant music, film, and art industries can reach global audiences, creating a new wave of cultural exports.

By 2050, Africa's consumer market is expected to exceed \$16 trillion, making it one of the world's largest and most dynamic markets. This growth will be fueled by a young, innovative population ready to lead the continent—and the world—into a new era of creativity and prosperity.

Why the World Should Care:

While the immediate benefits of Africa's energy revolution will be felt locally, the ripple effects will be global. A powered-up Africa means a more prosperous Africa. With reliable electricity, businesses can thrive, industries can grow, and new markets can emerge, creating opportunities for global trade and investment that benefit economies worldwide.

Africa's shift to renewable energy isn't just good for the continent—it's good for the planet. By reducing reliance on fossil fuels and embracing solar, wind, and hydropower, Africa can significantly lower its carbon footprint, contributing to global efforts to combat climate change.

Africa's energy challenges have sparked incredible innovation, from pay-as-you-go solar systems to mobile-based energy solutions. These innovations can be adapted and scaled globally, helping address energy poverty in other parts of the world.

Energy access is a cornerstone of development. By improving living standards, creating jobs, and reducing poverty, Africa's energy revolution can help stabilize regions and reduce the pressures that drive migration, fostering a more secure and interconnected world.

A Shared Journey:

The road to universal energy access won't be easy, but it's worth taking. African governments are leading the charge but can't do it alone. The international community—governments, businesses, and development organizations—must support this effort. By investing in Africa's future energy, we're not just helping a continent but building a better world for everyone.

As the sun rises over a newly electrified village, children can study, clinics can operate, farmers can grow more food, and young innovators can dream bigger. This is the promise of Mission 300—a promise that lights up lives, powers progress, transforms food systems, unleashes creativity, and connects us all.

SAGCOT, in partnership with Tanzania stakeholders, remains committed to being part of Tanzania's journey toward universal energy access and its transformative impact on the continent's food systems and beyond.

*Geoffrey Kirenga is the CEO of SAGCOT Centre, Tanzania.