



RWANDA AND TANZANIA

Renewable energy at the centre of economic success and local transformations

By Karabo Mokgonyana, Power Shift Africa

For two African countries, a combination of effective national strategy and community-centred development has led to success in the renewable energy transition.

Rwanda

Rwanda's journey towards a sustainable energy future is a remarkable example of how strategic policy implementation, aligned financing and capacity building can drive significant progress in the renewable energy sector. The country's ambitious Energy Policy of 2015 has been central to this transition, guiding Rwanda in its quest to decarbonise its energy sector and ensure universal access to electricity. The policy framework has enabled Rwanda to set clear targets and develop the necessary institutional frameworks to oversee the expansion of renewable energy

One of the most impressive outcomes of Rwanda's energy policy is the dramatic increase in electricity connectivity. In 2013, only 16% of the population had access to electricity. However, by 2024, this figure has soared to 74%, a testament to the country's commitment to expanding access to clean and reliable energy. This achievement is particularly notable given Rwanda's challenging topography and the dispersed nature of its rural population. Rwanda's electrification strategy has been twofold: expanding the national grid and promoting off-grid solutions.

Rwanda has embraced off-grid solar solutions to reach rural communities. The government has supported

initiatives like the Scaling Up Renewable Energy Program (SREP) and partnerships with companies such as Ignite Power, which has distributed over 100,000 solar home systems across the country. These systems have provided electricity to thousands of households that were previously without power, demonstrating Rwanda's commitment to innovative, decentralised energy solutions.

The impact of Rwanda's renewable energy transition can be vividly seen in communities like those in Nyabihu, where the Giciye 4MW small-scale hydropower plant has transformed the lives of local residents. Before the plant's construction, the area had limited access to electricity and many households relied on kerosene lamps, which were costly and posed health risks. The introduction of hydropower has not only provided clean, reliable electricity but has also spurred economic growth. Small businesses, such as local mills and welding shops, have flourished, creating jobs and improving the standard of living for many families. The availability of electricity has also enhanced educational opportunities, with students now able to study at night, leading to better academic performance.

Rwanda's renewable energy transition has been significantly bolstered by support from multilateral development banks (MDBs). The World Bank, through its International Development Association (IDA), has played a crucial role in funding key energy projects, such as the Rwanda Renewable Energy Fund (REF), which has provided financing to expand off-grid solar solutions, particularly in rural areas. This initiative has enabled private companies to distribute solar home

systems and mini-grids, directly contributing to Rwanda's impressive electrification rates.

Despite this progress on renewable energy, MDBs should however be aware of the restrictive civic and democratic space in Rwanda and continued recording of human rights violations¹ in the country which undermines justice and inclusion for its citizens.

Tanzania

Tanzania's renewable energy journey has been guided by the Power System Master Plan and the National Energy Policy, both of which prioritise energy security, sustainability, and universal access. These policies emphasise the diversification of Tanzania's energy mix, focusing on scaling up renewables including wind, and solar energy. The establishment of the Rural Energy Agency (REA) and the Tanzania Electric Supply Company (TANESCO) has enhanced institutional capacity to implement these ambitious energy goals.

Tanzania has set clear renewable energy targets, aiming to achieve at least 75% electricity access by 2033. This includes a substantial focus on integrating renewable energy into the national grid and promoting off-grid solutions. The country has been successful in attracting both public and private investments in renewable energy, allowing Tanzania to gradually decarbonise its energy supply while fostering economic growth. In 2015, less than 40% of the population had electricity, but by 2023, this figure had increased to 56%, largely due to government efforts and international support.

Tanzania's renewable energy expansion has been supported by funding and technical assistance from multilateral development banks such as the World Bank and the African Development Bank (AfDB). The World

Bank's support through its Tanzania Rural Electrification Expansion Program (TREETP) has enabled the development of decentralised solar solutions and mini-grid systems in rural areas. Partnerships with international development agencies have also facilitated knowledge exchange and capacity building, equipping Tanzania with the tools needed to implement its renewable energy agenda. Through these collaborations, Tanzania has been able to address challenges related to infrastructure development, financing, and technical expertise.

For example, in the Mwanza region adoption of off-grid solar solutions has dramatically improved living conditions in rural villages. Before the deployment of solar systems, households in these areas relied on kerosene lamps and firewood, both of which posed health hazards and environmental concerns. With solar home systems, families now enjoy clean, affordable energy, which has boosted household productivity and enhanced access to education and healthcare. Solar mini-grids in the area have powered local health centres, ensuring that clinics can operate vital equipment like vaccine refrigerators, contributing to better health outcomes.



Endnote

¹ Rwanda: Civic and democratic space under total control of one party, the RPF, International Federation for Human Rights, 21 July/2022. <https://www.fidh.org/en/region/Africa/rwanda/civic-and-democratic-space-under-total-control-of-rpf>

Photo credits:

Page 1: "Electricity brings the computer to the home for Masai children" by the U.S. Agency for International Development, 2014. Licensed under CC BY-NC 4.0. Modified from the original. Retrieved from <https://flic.kr/p/uvuhck>. Accessed in October 2024.