

China-Africa cooperation is paving the way for Africa' s energy transition

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The 2024 Summit of the Forum on China-Africa Cooperation (FOCAC) has emphasized the need to build a 'China-Africa Community with a Shared Future'. To jointly advance modernization in the Global South, China pledges to commit 360-billion-yuan (US\$50.70 billion) fresh investments in Africa over the next three years to scale up infrastructure projects and create at least one million jobs in the African continent. For energy transition in particular, China is prepared to launch 30 additional clean energy projects in Africa, to cooperate on nuclear technology, and to tackle power deficits that have slowed down the industrialization efforts on the African continent (Ministry of Justice of the People's Republic of China, 2024).

China's support can potentially shape the future of Africa's energy transition. The launching of the new clean energy projects will possibly provide African countries with a positive development trajectory towards climate-resilient economic structures through clean energy projects dubbed 'small and beautiful'. China has been a significant financier of energy projects in Africa over the last decade. Chinese wind turbine and hydroelectric power manufacturers have already established themselves across South Africa, Zambia, Kenya, Ethiopia, Egypt, and other African renewable energy markets. For example, the De Aar Wind Power Project in South Africa financed by China (figure 1) generates 760 million kWh of electricity annually and Kafue Gorge Lower Hydropower Station in Zambia (figure 2) has generated 8.802 billion kWh cumulative power as at mid-2024. China has also invested substantially in modernized agribusiness in Africa by training over 8,000 people from 54 African countries on using fungus grass to cultivate mushroom (The Ministry of Foreign Affairs of the People's Republic of China, 2024). China's green development initiatives in Africa are paving the way for a sustainable future with over 100 clean energy projects been implemented under the FOCAC, and over 50% of public funding for Africa's clean energy sector provided by China in the past decade. In 2023, Chinese new energy vehicle (NEV) exports to Africa grew by 291% year-on-year, and more than 1,000 small hydropower stations have been built by China in Africa.



Figure 1: The De Aar Wind Power Project in South Africa (Source: Energy Capital & Power)



Figure 2: Kafue Gorge Lower Hydropower Station in Zambia (Source: Renew Africa)

China's remarkable presence in Africa with trade and investment is creating jobs and driving economic growth of African countries. For this reason, China emerged as the number one trading partner with Africa for 15 consecutive years, with US\$282.1 billion record high China-Africa trade in 2023, and over 1.1 million local jobs created by Chinese companies in Africa from 2021 to 2023 (The Ministry of Foreign Affairs of the People's Republic of China, 2024). Also, China's infrastructure projects in Africa are upgrading physical connectivity, fostering economic growth, and bringing communities closer. For example, China has helped African countries to build and upgrade 10,000 km railways, 100,000 km roads, 66,000 km transmission lines, and 200,000 km fiber-optic cables by the end of 2023.

The African continent is endowed with numerous natural resources, vast plain, rivers, and is geographically positioned with sufficient sun rays during most part the year. As such, Africa has the potential to develop substantial renewable energy sources with enormous possibilities in solar, wind and hydro power. However, due to insufficient investment in the renewable energy sector and inadequate infrastructure development, the rapidly growing demand for electricity in Africa is not met. The total renewable energy capacity in Africa only stood at 62 gigawatts as at the end of 2023 (Statista, 2024). Notwithstanding that the African continent is having abundant renewable resources, it faces a huge energy access deficit. The access to electricity and clean cooking facilities remains a problem in many countries of the continent. Currently, over 600 million Africans, accounting for about 53% of the continent's population have no access to electricity (DLA Piper, 2024). China-Africa collaboration has the potential to address some of these clean energy adoption challenges in Africa. Currently China is the largest producer and exporter of such renewable energy technologies as solar PV cells and wind turbines, which means that it can offer the necessary hardware for the African energy transition at relatively low prices. More so, through technical cooperation partnership built through FOCAC, Chinese experts can assist in building capacity of local technicians and knowledge sharing of such areas as grid management, policies on renewable energy, climate change adaptation and early warning systems of extreme weather events exacerbated by climate change.

The transition to renewable energy in Africa is imperative for extending the reach of electricity, cutting emissions and achieving sustainable development goals. China has demonstrated its preparedness through investments and technical cooperation to help Africa overcome financial and technical capacity constraints in the spirit of the FOCAC solidarity principles. The China-Africa cooperation provides Africa with a golden chance to take advantage of its natural resource endowment to scale up its energy transition.

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