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Africa hydropower solar power home



Overview

What role does hydropower play in Africa's Development?

Hydropower's role in Africa's development is growing, but it starts from a low base. Approximately 10% of the continent's technical potential has been harnessed to date, yet the sector already delivers around 20% of electricity generation from a total installed capacity of 43.5GW of conventional hydropower.

What is the Africa hydropower modernisation programme?

Modernising existing assets is also a strategic priority. The African Development Bank has launched the Africa Hydropower Modernisation Programme, backed by an initial budget US\$9.72 million. It will support the modernisation of 12 privately led projects in eight countries.

Are Africa's hydropower projects achieving Final Investment Decision (FID)?

Africa has a significant pipeline of approved hydropower projects, but a key challenge remains reaching final investment decision (FID) and progressing to construction. More than 18.5GW of projects have secured approval but are not yet under construction.

Is solar energy a viable alternative to large hydropower in Southeast Asia?

Siala, K., Chowdhury, A. K., Dang, T. & Galelli, S. Solar energy and regional coordination as a feasible alternative to large hydropower in Southeast Asia. Nat. Commun. 12, 4159 (2021). Dashiell S. L., Buckley M., Mulvaney D. Green Light Study: Economic and Conservation Benefits of Low-Impact Solar Siting in California [Internet].

Why is the southern African region a conflict based on hydropower?

The Southern African region epitomizes the conflicts arising from the significant expansion of hydropower and the potential tradeoffs in developing wind and solar projects.

What is Africa's first gold-certified hydroelectric project?

A major sustainability milestone was also achieved in 2024, when Zambia's 180MW Ngonye Falls Hydroelectric Project became Africa's first gold-certified project under the Hydropower Sustainability Standard. Boston Hydro Project, South Africa. Credit: Serengeti Energy

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