



Large Infrastructure

Obstacles to infrastructure development: An example from the DR Congo

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Financial feasibility can also be undermined by inefficient use of revenues or the inability to collect them. Poor delivery of infrastructure for utilities such as electricity and water can lead to up to 50% of wastage, while illegal connections to these utilities can also contribute to costs without contributing revenue. Furthermore, 70–90% of utility bills go uncollected across Africa, representing a major loss of expected revenues. These inefficiencies can turn potential profit-making enterprises into loss-making assets, scaring off potential funders.[1]

Many of these challenges are reflected in the ambitions of the Grand Inga Hydropower Project in the DR Congo.[2] Electricity supply in rural parts of the country is almost non-existent, with an average rate of around 1% compared to 42% in urban areas. The power supply is unstable and characterised by recurring outages even in urban areas. For example, it is estimated that in Kinshasa about 21% of those who have access to electricity receive fewer than four hours of power per day, and on average, electricity shortages occur 10 days per month in the country. Owing to this unreliable electricity supply, about 60% of firms in the DR Congo have backup generators, compared to 43%, on average, in sub-Saharan Africa. These frequent electricity shortages penalise the productive sectors of the economy and hamper productivity and growth.

In addition, the state power utility, *Société Nationale d'Électricité* (SNEL) is highly inefficient. Almost half of the electricity produced is lost during transmission and distribution owing to the equipment being outdated or not maintained.[3]

Of the country's 100 GW hydroelectric potential, less than 2.7 GW has been installed and only 1.1 GW is being exploited. This power is mainly generated by the Inga I and Inga II dams, which operate at around 50% of their capacity due to a lack of maintenance. The World Bank has been leading efforts to rehabilitate turbines at Inga I and II, but the project is incomplete.

Against this backdrop, the Grand Inga hydropower scheme has an expected capacity of 44 GW of electricity and could meet the entire need of the country, with large amounts exported elsewhere. The project is estimated to cost US\$80 billion.

Inga III, which is estimated to cost US\$14 billion, will generate 4.8 GW of electricity, and its entry into service was initially scheduled for 2024 or 2025. However, the implementation of the project, which has been on the cards for several decades, was recently again significantly delayed. In 2016, the World Bank suspended its funding because the then-president, Joseph Kabila, decided to bring the project oversight committee into his presidency, and it lacked transparency as a result. The project is still ongoing, albeit at a very slow pace. The Inga III project is now estimated to come on stream in 2030 at the earliest, dependent on a partnership with South Africa.

Endnotes

1. African Development Bank, *African Economic Outlook 2018*, 2018.
2. This section on the DR Congo is taken from K Yeboua, J Cilliers and S Kwasi, *Waking the sleeping giant: Development pathways for the Democratic Republic of the Congo to 2050*, Institute for Security Studies, 26 March 2021.
3. There are some mini-grids, albeit very limited. For example, Synoki, Hydroforce and Virunga operate mini-grid hydroelectric projects and their market share of the electricity sector is estimated at 6%. Only 3.66 MW of solar photovoltaics had been installed by the end of 2017.

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Dr Jakkie Cilliers is the ISS's founder and former executive director. He currently serves as chair of the ISS Board of Trustees and head of the African Futures and Innovation (AFI) programme at the Pretoria office of the Institute. His 2017 best-seller *Fate of the Nation* addresses South Africa's futures from political, economic and social perspectives. His three most recent books, *Africa First! Igniting a Growth Revolution* (March 2020), *The Future of Africa: Challenges and Opportunities* (April 2021), and *Africa Tomorrow: Pathways to Prosperity* (June 2022) take a rigorous look at the continent as a whole.

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