



Large Infrastructure

Obstacles to infrastructure development: An example from South Africa

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Major obstacles to infrastructure development, not unique to Africa, are the corruption and politics often associated with large projects.

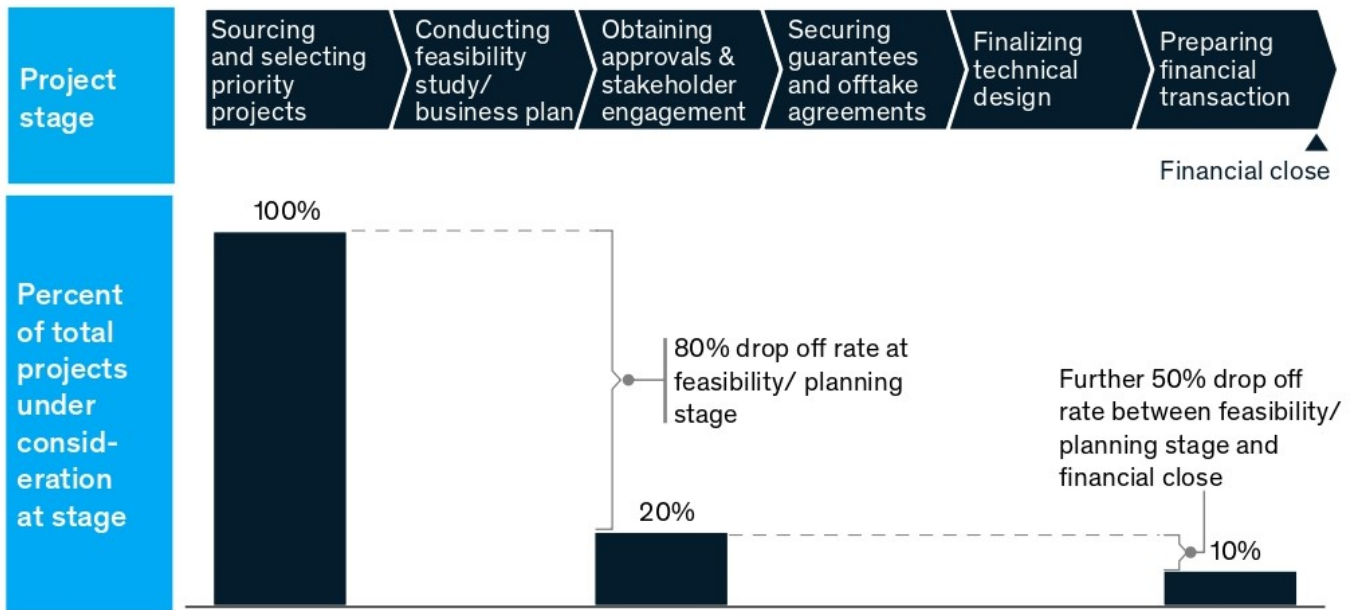
In South Africa, the [Medupi](#) and [Kusile](#) projects involved the construction of two 4.8 GW coal-fired, direct dry-cooled power stations. When the contracts were signed in 2007, with completion at the end of 2015, the estimated costs for Medupi were R80 billion. By 2018, it had increased threefold and completion was repeatedly delayed. Some of the primary reasons for the cost escalation included a fluctuating rand exchange rate affecting imports of components, substantial redesigns having to be done midway through the project, labour disputes and standing time. A week after Medupi was eventually finished, in August 2021, one of its units exploded, with a repair bill estimated at R1.5 billion required over the next two years. Construction of the equally large Kusile Power Station started in 2008 and was supposed to have been finished by 2014. The initial budget of around R81 billion had doubled by 2020, with completion now expected in 2024/25.

Both projects have been mired in controversy and corruption, particularly the manipulation of the associated contracts to provide coal at excessive costs and have landed the public electricity company, Eskom, with an unsustainable debt burden. Ironically, in 2001, Eskom was named power company of the year at the Financial Times Global Energy Awards in New York. At this time, South Africa had cheap surplus electricity; 15 years later South Africa was experiencing continued intermittent blackouts owing to insufficient electricity supply. In addition to self-enrichment by members of the governing party, the African National Congress, decisions about the procurement of additional electricity supply were delayed for several years. In the run-up to and during the hosting of the soccer World Cup in 2010, South Africa literally ran its power stations into the ground in an effort to keep the lights on. Due to delayed maintenance and insufficient new power generation, the country began facing shortages that resulted in [blackouts](#) occurring every third day of the year by 2015. The situation has worsened since then and is projected to last until 2027.

Even disregarding the seemingly ever-present disease of corruption, gearing [infrastructure projects](#) to the private sector is no easy task. [Project development](#) at the preparatory stages can amount to 5–12% of the project's total value and take up to seven years to complete. For [large projects](#) (involving millions or billions of dollars), this is a substantial cost, particularly if the result could conclude that the project is not commercially viable. Even when project preparation is done, the quality of the preparation and planning is often low, representing a large and expensive risk for private sector [investors](#).

Up to 90% of infrastructure projects in Africa fail at [the preparatory stages](#) and before financial close; 80% of projects fail at the feasibility stage when preliminary studies determine that the project is not financially or practically viable.

Chart 17: Africa's infrastructure pipeline



Closely connected to project preparation are the institutions and legal frameworks that should support these processes. Legal frameworks for public-private partnerships are poorly developed in much of Africa, and major potential institutional investors, such as pension funds, are often barred from investment in the sector owing to the high risk associated with countries that are considered below [investment grade](#).

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About the authors

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.

Dr Blessing Chipanda joined the African Futures and Innovation (AFI) programme in January 2023. Before joining the ISS he worked as an assistant lecturer/research assistant at the University of Pretoria, Department of Economics. He is particularly interested in tasks within the wider realm of international trade, development economics, public policy, monetary policy, and econometric modelling. Equally interested in economic and socio-economic activities that impact social welfare. Blessing has a PhD in economics from the University of Pretoria, South Africa.

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