

Large Infrastructure

The origins of Africa's infrastructure deficit

The origins of Africa's infrastructure deficit

Colonial powers were not concerned about connecting Africa's people and promoting regional trade. Infrastructure that could serve military purposes, provide access to mineral deposits and connect agriculturally rich areas with the coast were prioritised. This resulted in sub-Saharan Africa's pre-independence railroads being built primarily to provide the shortest and cheapest route from extraction points to ports for shipping cargo to Europe, rather than connecting towns. [1] Only places with a significant and permanent European settlement, particularly South Africa, saw any meaningful roll-out of infrastructure designed to improve the welfare of the local population, and then only for the colonist minority.

After independence, most railroads fell into disuse because they were often not suited to new development priorities owing to conflict, mismanagement and changes in national priorities. Generally, attention shifted from rail to roads. This shift was accompanied by a lack of attention to basic infrastructure such as sanitation that could facilitate human development or cross-border connecting infrastructure to advance regional integration. With advances in medicine keeping communicable diseases at bay, instead of effective sanitation, water and health (WaSH) infrastructure, urbanisation proceeded in much of Africa with limited additional basic infrastructure, discussed in the theme on health/WaSH.

Yet the impact of colonial railways persisted, with locations along these routes becoming more developed and urbanised than towns not close to rails. In summary, the 'railroads built during the colonial period strongly predicted the current location of cities.' Similarly, many African cities still depend on creaking water, electricity and sanitation infrastructure, which often predate independence more than half a century ago.

Post-colonial Africa has subsequently also had its fair share of so-called white elephant projects, where a large development (such as a factory or power station) was constructed as the political pet project of an incumbent leader. This was a particular problem during the 1980s after the (ultimately overly) ambitious Lagos Plan of Action was adopted. Projects were often initiated without proper economic analysis or consideration of potential synergies or regional cooperation. This approach resulted in inappropriate or an oversupply of infrastructure, saddling governments with unsustainable debt levels.

The situation eventually led to the International Monetary Fund (IMF) and the World Bank imposing various structural adjustment programmes in the 1980s, which sought to adjust a country's economic structure, improve international competitiveness and restore its balance of payments. The latter intention inevitably discouraged government expenditure, including on infrastructure, with the result that Africa actually regressed from already low rates of access to key indicators (such as WaSH).

Africa's general low population density has, until quite recently, largely precluded the development of economies of scale. Infrastructure development was also primarily considered and planned on a project-by-project basis and so has generally lacked the integrated, systemic approach evident in more developed regions.

Spending on infrastructure began rising again with the commodity boom in the first decade of the 2000s, with many of Africa's development ambitions consisting of grandiose urban projects driven by local politicians and global investors. The visions typically reflect images of Dubai, Singapore or Shanghai, with glass skyscrapers and landscaped freeways that suggest fashionable smart cities. For example, the Nairobi 2030 Metro Strategy, which was unveiled by the Kenyan government in 2008, aimed to make Nairobi a world-class African metropolis. Another is Hope City in Ghana—a US\$10 billion IT hub to be built outside Accra. Launched by President John Mahama in 2013, the project proposed to build Africa's tallest building within three years.

Endnotes

1. For example, the so-called Lunatic Express, from Kisumu (Lake Victoria) to the port of Mombasa, built between 1886 and 1901, literally bypassed all the highly populated areas.

Donors and sponsors







Reuse our work

- All visualizations, data, and text produced by African Futures are completely open access under the Creative Commons BY license. You have the permission to use, distribute, and reproduce these in any medium, provided the source and authors are credited.
- The data produced by third parties and made available by African Futures is subject to the license terms from the original third-party authors. We will always indicate the original source of the data in our documentation, so you should always check the license of any such third-party data before use and redistribution.
- All of our charts can be embedded in any site.

Cite this research

Jakkie Cilliers and Blessing Chipanda (2025) Large Infrastructure. Published online at futures.issafrica.org. Retrieved from https://futures.issafrica.org/thematic/11-large-infrastructure/ [Online Resource] Updated 14 January 2025.



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, head of the African Futures and Innovation (AFI) programme at the Pretoria oce of the Institute, and is an extraodinary professor at the University of Pretoria. 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.

About African Futures & Innovation

Scenarios and forecasting can help Africa identify and respond to opportunities and threats. The work of the African Futures & Innovation (AFI) program at the Institute for Security Studies aims to understand and address a widening gap between indices of wellbeing in Africa and elsewhere in the world. The AFI helps stakeholders understand likely future developments. Research findings and their policy implications are widely disseminated, often in collaboration with in-country partners. Forecasting tools inspire debate and provide insights into possible trajectories that inform planning, prioritisation and effective resource allocation. Africa's future depends on today's choices and actions by governments and their non-governmental and international partners. The AFI provides empirical data that informs short- and medium-term decisions with long-term implications. The AFI enhances Africa's capacity to prepare for and respond to future challenges. The program is headed by Dr Jakkie Cilliers.