

Southern African countries can do better at infrastructure: what the choices might look like

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Countries in southern Africa are under a crushing burden brought about by a confluence of factors. These include the unprecedented growth in the number of young people, the remarkable speed of urbanisation and the rise of informal settlements in urban centres.

The physical infrastructure needed to meet these challenges requires exceptional solutions. But these call for alternative approaches. These include deep collaboration between member states and the private sector. And the development of a robust relationship between economic and social infrastructure, on the one hand, and the underlying policy framework that drives decisions on the other.

Research by the South African Institute of International Affairs highlights scenario options for the future of infrastructure in the region. And issues guidance on how to avoid the undesired options.

Infrastructure projects take a long time to come to fruition - often in the order of one or two decades. This introduces a whole range of uncertainties. To better navigate uncertainty, upheaval and inevitable change decision makers should employ strategic foresight. It's an approach that helps the development of alternative futures and options that better anticipate and prepare for new opportunities and challenges. Strategic foresight spurs new thinking about the best policies to address long term opportunities and challenges through proactive and adaptive policy innovation.

Our mission is to share knowledge and inform decisions.

About us

Any infrastructure plan needs thorough stress testing to determine its viability against a range of future scenarios. Foresight builds the capacity to learn about change as quickly as possible and to be flexible enough to respond to that change in creative and effective ways.

The scenarios present potential infrastructure pathways. Each is briefly unpacked according to four quadrants. These are regenerative infrastructure, exploitative infrastructure, fossil fanatics and building backwards.

Regenerative infrastructure

Under this scenario, political decision-making creates regional climate policy certainty. In turn this leads to effective implementation of green infrastructure developments. Governments and the private sector partner on projects aimed at inclusive, low-carbon, green alternatives that adapt to changing socio-economic conditions.

The relationship between government, academia and the private sector creates an interactive system to promote green and more effective technologies. In turn this accelerates efforts to combat climate change.

The intelligent infrastructure that's developed serves society's needs better. This is because services are "always-on". And infrastructure is only used on an as-needed basis to eliminate waste.

High-tech initiatives deliver modern infrastructure. These mitigate the effects of climate change. New technology-based infrastructure assets support infrastructure, manufacturing and services in a region that's more integrated.

At the same time, domestic and international private finance is crowded in. This allows for an influx of investments. At the same time recognition of distinct yet mutually reinforcing and overlapping infrastructure types eases the fiscal constraints facing governments.

Coordinated efforts by finance ministries and national and local governments incorporate the management of non-tariff barriers.

This includes customs, physical and administrative infrastructure.

Governments recognise the importance of regional trading and begin breaking down barriers.

Fossil fanatics

Under this scenario countries infrastructure developments in the region remain untransformed.

Non-tariff barriers remain stubbornly in place. Regional trade suffers from inadequate infrastructure and bureaucratic processes at borders. More local and international businesses close due to low demand. Member states and citizens are left to fend for themselves. And many member states adopt protectionist policies to prevent economic refugees from entering pockets of growth with employment potential.

A hobo protectionist mentality is adopted. This is a defensive policy to shield a country's businesses from foreign competition. Tariffs and quotas are imposed on imported goods and services. Short-sighted politicians try to develop and foster domestic industries. But capacity constraints reinforce regional poverty.

Politicians collude with corrupt individuals and sophisticated organisations to create patronage networks by selling access to state infrastructure development. Regional democracies and institutions are weakened through corrupt rackets and the strong political will for corrupt activities.

The illusion of steps towards sustainable and resilient infrastructure is created. But the sole purpose is to secure networks of patronage. Infrastructure assets are in the hands of shadow state actors.

Exploitative infrastructure

Under this scenario there are low levels of policy reform and political will. This leaves the private sector and citizens to develop decentralised infrastructure solutions. Examples include green, off-grid energy and new technology water and sanitation models.

The private sector drives practical models to reach distant townships and rural areas. For their part, governments resist development because the cost of last-mile solutions is prohibitive.

Citizens flock to flourishing regions where corporations become quasi-state actors.

New innovations, products and models are rolled out by climate-conscious oligarchs in isolation. There's no overarching policy, regulatory governance and institutional frameworks. The result is the creation of monopolies.

New technological developments help to drive better designed infrastructure assets. But merger and acquisition systems don't exist because they are in the hands of oligarchs. These individuals hold more political power than many individual countries. The unencumbered oligarchs take de facto control of infrastructure assets due to weak regional and national institutional guidance and governance.

Building backwards

Under this scenario owners of fossil-powered infrastructure refuse to relinquish control. This happens despite government efforts to transform through policy reform. There is no adoption of practical models to develop climate-resilient infrastructure that will reach distant townships and rural areas. This is partly due to prohibitive costs.

Governments promote innovative, green, off-grid energy and water and sanitation. But citizens and private players consider these too expensive. The result is increased inequality.

Education systems emphasise old curriculum approaches. There is a high supply of old-economy jobs and skills. But employers don't need traditional skills. This leads to massive unemployment.

Various developments tip the scales towards robotics. Corporations employ robots, leaving governments with a useless class of workers.

Next steps

To achieve the preferable scenarios and divert the unpreferable ones, member states should start by focusing on greater regional interconnectedness and collaboration. And on improving their ability to discover new possibilities for innovation, resilience, and preparedness for future global shocks.

Education systems should implement new economy skills development. Examples include digital modalities, green skills coupled with creativity, complex problem solving, people management and critical thinking skills.

Regional trade and value chains should be encouraged. The African Continental Free Trade Area presents a unique opportunity for intra-regional collaboration. In particular, for eliminating non-tariff barriers.

There should also be more collaboration between the regional body's secretariat and member state ministries, academia, and the private sector.

Member states should reverse the trend away from the self-interests of leaders and national protectionism. They should use their collective economic power to transform the networked nature of infrastructure assets to create more cooperative and resilient economies.

This will change the narrative of African states relying on foreign investment and financial aid where the opportunity costs exceed the economic value in the long term.

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1. **Lesley Wentworth**
Managing Director, University of KwaZulu-Natal



2.

Deon Cloete

Head SAIIA Futures Programme, South African Institute of International Affairs

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