

How improved infrastructure can help SA unlock its economic potential

By [Bongani Mthombeni-Möller](#)

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Infrastructure challenges in South Africa are mounting in what is turning out to be a perfect storm. Power cuts, water shortages and potholes are all too common.



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The South African Institution of Civil Engineering (SAICE) highlighted these challenges in its 2022 state of infrastructure report that revealed that South Africa is at risk of becoming a “failed state”.

The report assessed 32 different infrastructure segments and found only 15 to be “satisfactory” or above (graded C or above), with the remaining segments falling into being “at risk of failing” (D) or “unfit for purpose” (E).

South Africa’s overall infrastructure rating was a D, indicating that infrastructure is not coping with normal demand and is poorly maintained.

All of this is important as President Cyril Ramaphosa prepares to unveil his 2023 State of the Nation Address.

Looking East

If South Africa is to improve its economic prospects, it will have to make more concerted effort in better maintaining its infrastructure as well as building new

infrastructure.

A shining example of this is Indonesia, which in the year 2013 found itself in a precarious economic situation. Back then, Indonesia was listed among Morgan Stanley’s “fragile 5 economies”. Interestingly, South Africa was also part of this list, which further included Brazil, India and Turkey.

But ever since Joko Widodo, popularly known as Jokowi, became president of Indonesia in 2014, the country has completely turned a corner.

Indonesia today is regarded as an economic success story with GDP growth of over 5% in 2022. The country is expected to grow at a similar rate this year.

A key facet to Widodo’s success has been to focus on improving infrastructure, particularly during his first term.

During his tenure thus far, his government has constructed more than 2,000 toll roads, compared to around 700 in the prior 40 years. In addition, Indonesia today has 16 new airports, 18 new sea ports, and 38 new dams. This point emphasises the critical role that leadership (and the right leadership) plays in infrastructure, and economic turnaround.



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Turning things around

Infrastructure holds the key to better days in SA. The key question, though, is how we start to fast-track our infrastructure development and maintenance.

In my view, there are three factors that can be considered: driving up gross fixed capital formation, establishing a centralised master plan and maintaining our existing infrastructure better and consistently through planning and with technology.

Gross fixed capital formation is investment that is ploughed into the economy in plants, machinery, equipment and buildings.

In May 2023, South Africa's Presidency presented an inaugural draft Country Investment Strategy or CIS which reiterated a target of achieving 30% for the gross fixed capital formation to GDP ratio by the year 2030.

In 2021, this figure was just 15% while the highest percentage in democratic South Africa was in 2008 at 23.5%.

More needs to be done to drive this figure up, but doing so requires a new impetus and focus. As part of his 2023 State of the Nation Address, the president should provide an update on what specifically is being done to drive up gross fixed capital formation.



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Developing an integrated master plan

When it comes to improving its infrastructure rollout programme, government should also consider developing a cohesive integrated master plan that connects all sectors of the economy and society, from health through to infrastructure, telecommunications, education and more.

If a new stretch of road is being developed in a town or village, that road should be planned in such a way that it ties into other critical needs of the town or village's residents. The road could, for example, connect to a new hospital, thereby providing greater health access.

This plan should further seek to create greater cohesion among South Africa's road, rail and ports infrastructure in order to drive up efficiencies.

As part of this plan, we should look at how privatisation and regulated third-party access, for instance, with our rail network can help us drive up exports while taking strain off our roads.



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Utilising digital twins

Finally, a third key measure involves taking a closer look at how we monitor and manage the state of our infrastructure.

A solution to achieving a better level of monitoring is by using a technology called 'digital twins'. A digital twin is a digital replica of physical assets, such as buildings, roads and much more. By sharing data between the virtual and real-world environment, governments and key stakeholders can pre-empt issues through proactive maintenance.

In last year's SONA, the president made mention of the word 'infrastructure' 19 times in his speech. This year, we'll all be watching what he says more carefully and looking for leadership on how we can tackle our current challenges and emerge as a winning nation.

ABOUT THE AUTHOR

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