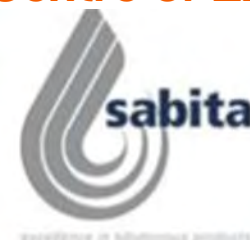




ROAD PAVEMENTS FORUM

PROGRESS ON MANDATE REGARDING ISSUES SUCH AS THE PIPELINE OF STRATEGIC PRIORITY INFRASTRUCTURE PROJECTS, IMPROVED PROJECT DELIVERY AND PROJECT FINANCE MECHANISMS

Dr. Hubert Joynt (Programme Manager: ISA Centre of Excellence)



PRESENTATION OUTLINE

Introduction slides (Mandate of ISA)

Transport Sector

Freight road vs rail freight

Trade openness index

Road Access Index (RAI)

Urban Rural Peri urban study

Gross Fixed Capital Formation (GFCF)

Location Quotient and Growth Performance Index

SIPs (Overview and Status)

Project Pipeline (Overview and Status)

Project Prep (Overview, current pipeline & Bid window) & Finance mechanism

Construction Development Index (CDI)

Risk barometer

Interesting insights from benefits realisation

MANDATE OF INFRASTRUCTURE SOUTH AFRICA (ISA)

Economic Reconstruction & Recovery Plan: “A single window of entry will be created by establishing Infrastructure South Africa (ISA): a central government agency responsible for coordinating and driving the infrastructure investment programme. This will help fast-track the delivery of projects”

INFLUENCE INFRASTRUCTURE STRATEGY & PLANNING



National Infrastructure Plan 2050

-developed through intense consultation with key stakeholders

Address **policy, regulatory and legislative** impediments

CLOSE INFRASTRUCTURE INVESTMENT GAP



Build **private sector confidence** in the capacity and capability of the state to deliver **bankable public infrastructure projects**

Enhance the **quality and efficacy** of the preparation phases of public infrastructure projects

Accountability and transparency status and progress of catalytic infrastructure projects

CLOSE INFRASTRUCTURE FUNDING GAP



Innovative funding models for public infrastructure

Strategic partnerships with the private sector– DFIs, MDBs etc

Focus on – **PPPs, Blended Finance & alternative delivery models** for social infrastructure

TECHNICAL SERVICES AND THOUGHT LEADERSHIP



Building **scale and impact** through implementation – provide technical support for the planning, preparation and implementation of strategic infrastructure projects

Scan infrastructure environment, provide **thought leadership** through publications and promote best practices

TRANSPORT SECTOR: GVA VS EMPLOYMENT

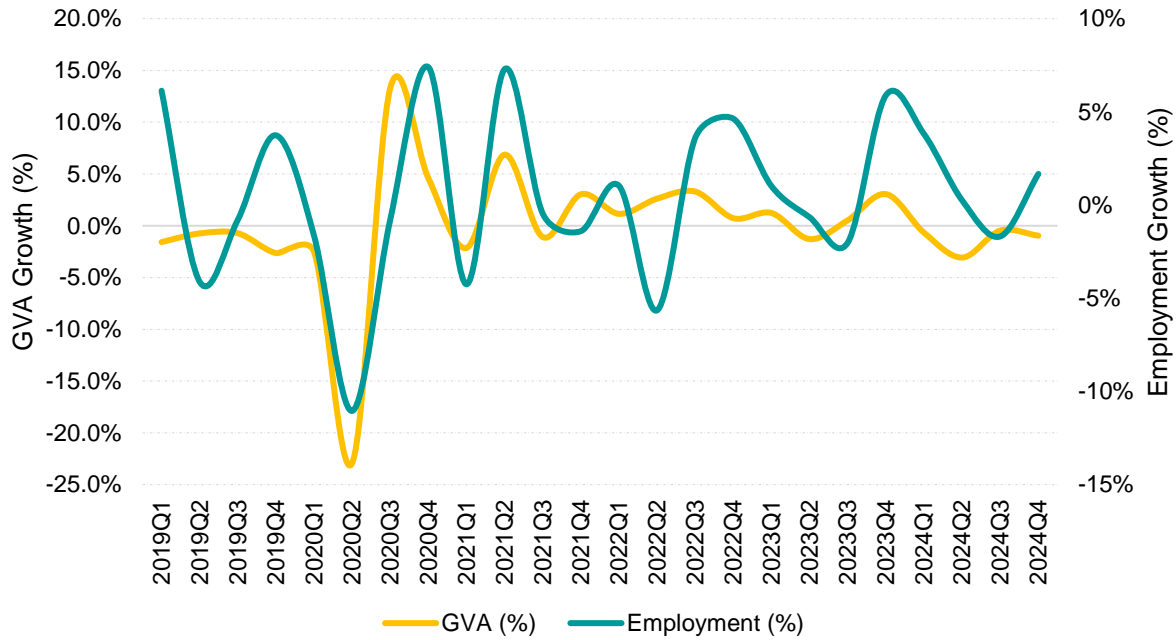
The average % growth is about 2,4% For the last 10 years

Total Transport Sector GVA in 2024Q4 R371 In billions

The Transport Sector employs approximately 1 064 002 People

In 2024Q4, GVA decreased by 1,0% Q-Q

Transport GVA and Employment



The transport sector significantly contributes to the movement of goods and services, promoting economic expansion and generating employment opportunities. The graph represents a noteworthy correlation between Gross Value Added (GVA) growth and employment growth.

There is a 0.5% decline in the transport sector's growth in the third quarter of 2024, followed by another decrease of 1% in the fourth quarter of 2024. Employment increased by 1.7 % during the fourth quarter of 2024. Employment is a lagging indicator.

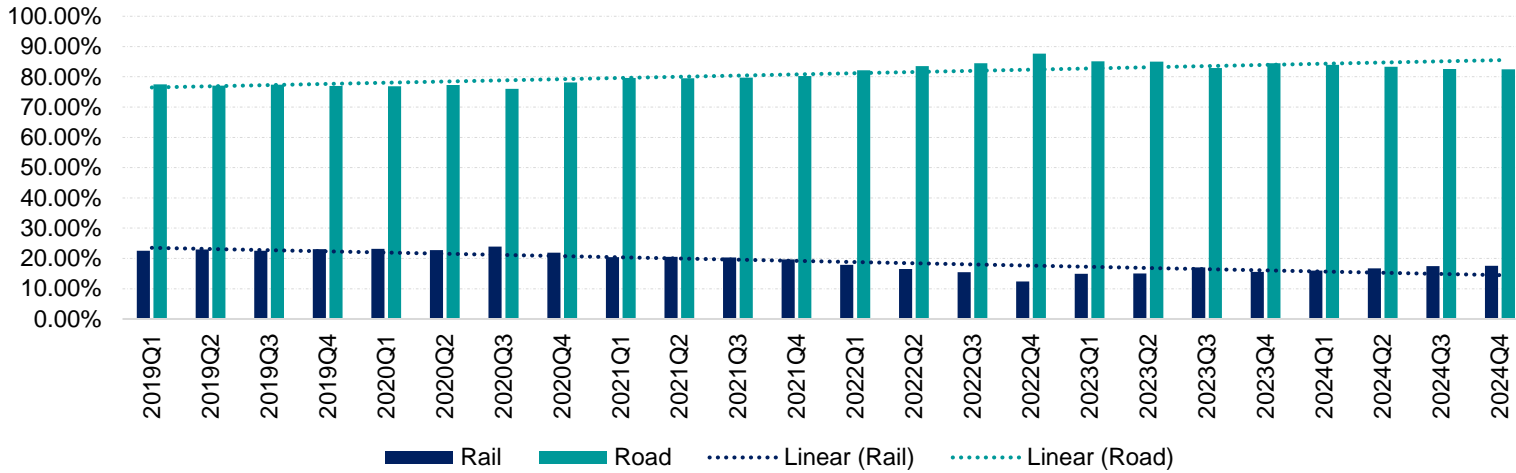
Economic growth in South Africa generally results in increased employment. On average, the transport sector contributes approximately 8% to the overall economy, while employment in this sector accounts for around 6% of the country's total employment. Although the transport sector's contributions to construction are relatively small, its catalytic impact is significant.

Source: StatsSA



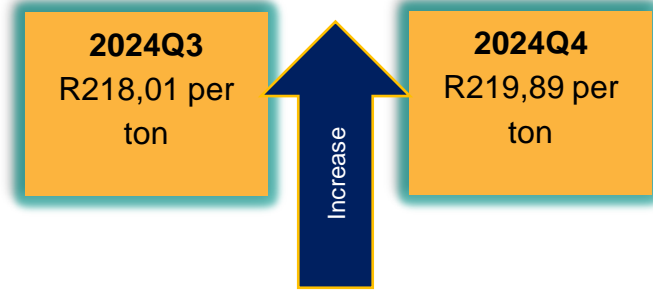
TRANSPORT SECTOR: LAND TRANSPORT STATISTICS

Percentage Contribution of Rail and Road payload Volumes to total Seasonally Adjusted, 2019Q1- 2024Q1

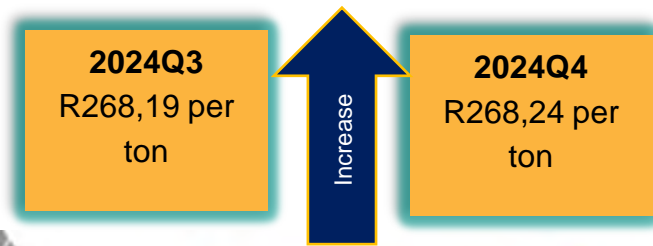


Source: StatsSA

REAL COST OF ROAD TRANSPORT



REAL COST OF RAIL TRANSPORT



Source: StatsSA

The latest survey from Statistics South Africa's Land Transport shows a 2.5% decrease in the total volume of goods in the third quarter of 2024 (payload in tons), and in 2024 Q4, it continued to decrease by 1.4%. Specifically, land transport decreased by 1,6%; in contrast, rail transport volumes decreased by 0,7% in the fourth quarter of 2024. In 2024 Q4, rail income in constant prices decreased by 1.43%, and road income decreased by 1.5%.

The graph depicts the percentage contribution of rail and road transport to the total payload for the fourth quarter of 2024. **The rail freight contribution increased from 17.4% to 17.56%, while the road freight contribution decreased slightly from 82.6% to 82.44%.** Despite this slight decrease, road transport remains the primary contributor to the total freight.



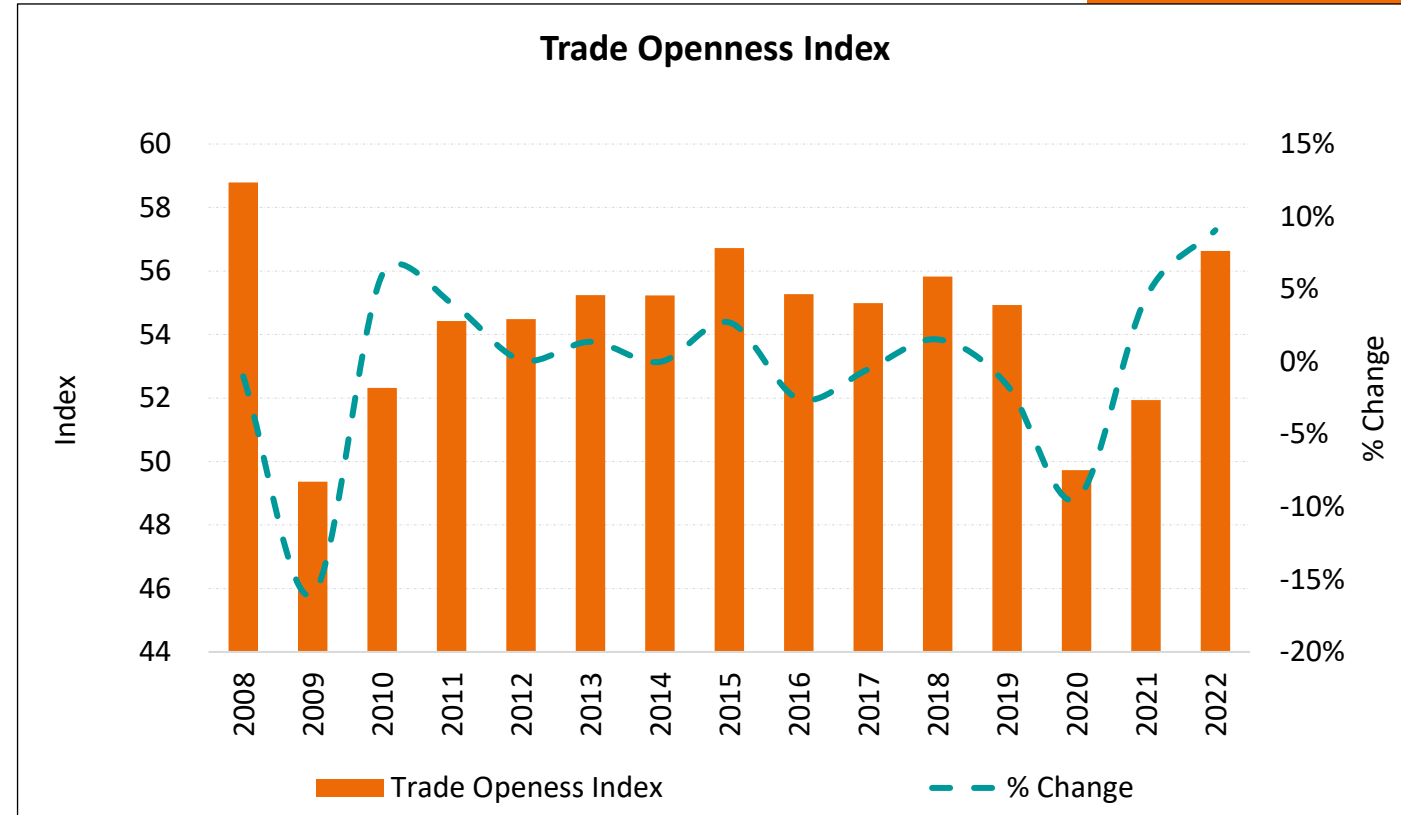
TRADE OPENNESS INDEX

“Trade openness is an indispensable enabler of growth, job creation and poverty reduction” Brookings Institute

- $(X+Z)/GDP$ = Proxy for trade openness, measuring how engaged South Africa is with the world’s trading system.
- A long-term upward trend is visible (very flat).
- Recovered to pre-2020 levels.
- Trade openness has a positive effect on GDP growth in both the short and long run.
- **Between 1994 and 2022 = CAGR of 0.87%**

IMPACT ON INFRASTRUCTURE

Improved investment in infrastructure



Source: SARB & Own calculations

ROAD ACCESS INDEX



ROAD PAVEMENTS FORUM



Description: The Rural Access Index (RAI) calculates the percentage of rural residents who live within 2 kilometres of an all-season or all-weather road. A spatial analysis using satellite-derived data & geospatial data was conducted to determine South Africa's RAI at the ward level in urban and rural areas.

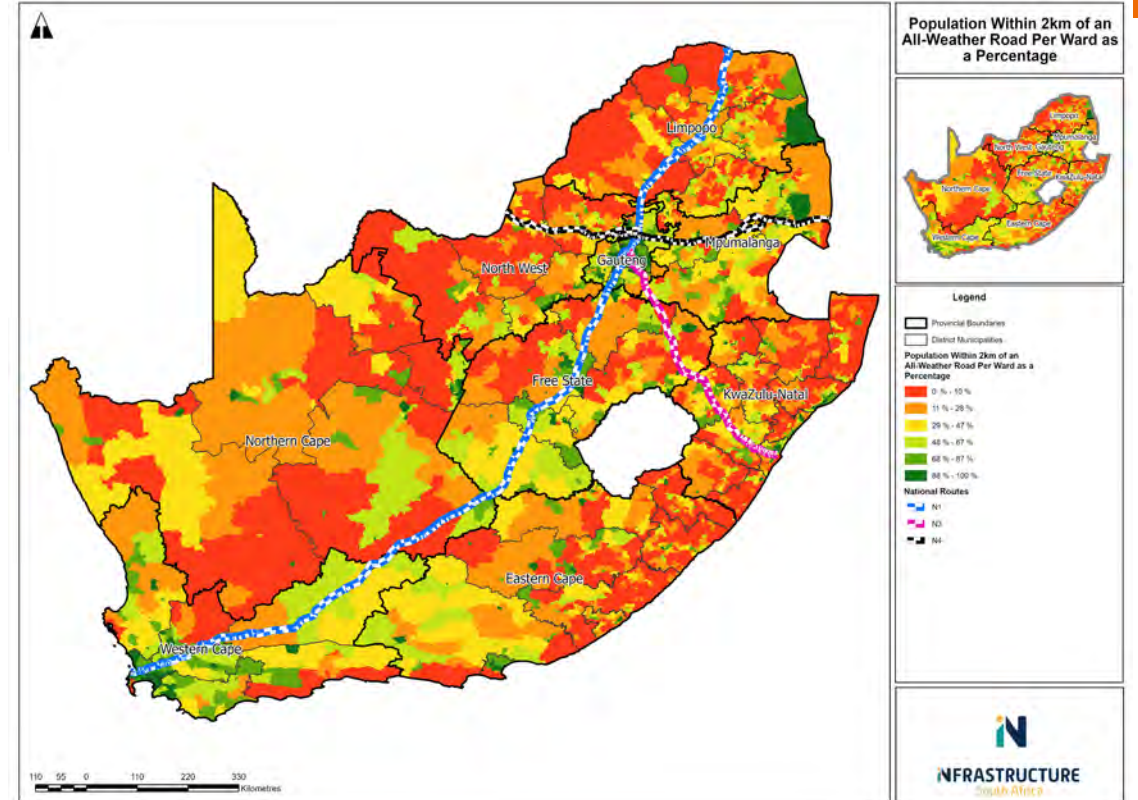
$$AI = \left(\frac{\text{Number of Houses within 2KM of an all Weather Road in a Ward}}{\text{Total Number of Houses in a ward}} \right) \times 100$$



Outcome: 68% of the population located in urban municipalities are located within the threshold while only 30% of the population located in rural municipalities are within the threshold.



Interesting Insights: Kwa-Zulu Natal and Eastern Cape province have the highest number of District municipalities in the top 10 lowest RAI



Source: Quantec & ISA



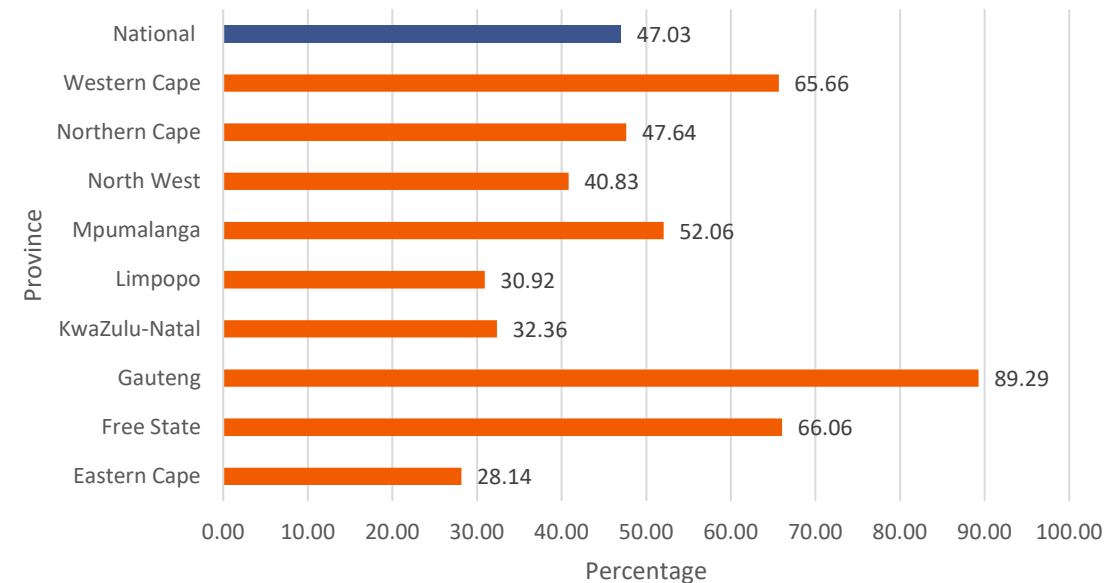
RURAL ACCESS INDEX



ROAD PAVEMENTS
FORUM

No	District Municipality	Province	RAI: Percentage of population within 2km of an all-weather road
1	Ugu	KwaZulu-Natal	9%
2	Umkhanyakude	KwaZulu-Natal	11%
3	Alfred Nzo	Eastern Cape	12%
4	Eden	Western Cape	15%
5	Amathole	Eastern Cape	15%
6	Zululand	KwaZulu-Natal	17%
7	John Taolo Gaetsewe	Northern Cape	19%
8	Sekhukhune	Limpopo	19%
9	O.R. Tambo	Eastern Cape	19%
10	Ngaka Modiri Molema	North West	22%

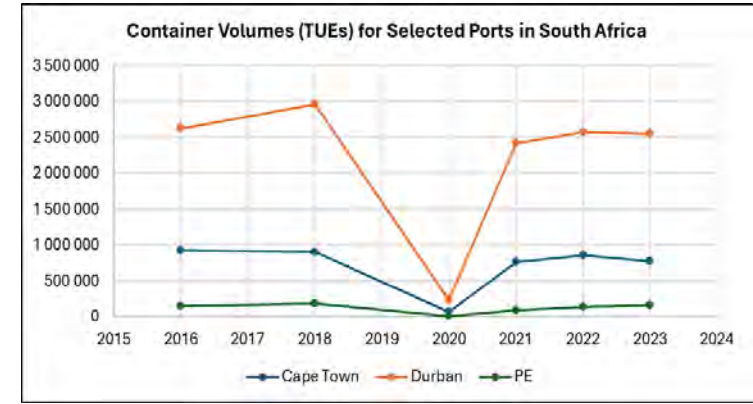
Percentage of population within 2km of an all weather road



LOGISTICS AND PORT PERFORMANCE IN SA



PERFORMANCE INDICATOR	FOCUS AREA	DATA REQUIREMENTS	RESULTS
Trade Openness Index (TOI)	The sum of imports and exports relative to the GDP of the country	The total imports, exports and GDP of the country in constant prices	Good performance - The figure reflected that the 2022 TOI of 56% was higher than the pre-Covid years of 2018/19. The trendline also reflected an upward growth since 2020.
Logistics Performance Index (LPI)	Logistics Performance Index Reports	The LPI scores for South Africa including a specific focus on international shipments	Good performance - Since 2018 the LPI score improved from 3,38 to 3,70 in 2023. This implies that SA is rated as a logistics-friendly destination that is ranked 18th best out of 139 countries (Good performance).
Global container port rankings	The Container Port Performance Index reports	Global rankings of containers ports of the three selected ports	Poor performance - Cape Town port was ranked the worst container port with its rank at 405. All three ports fell between 57 and 100 places compared to the previous assessment
Growth Performance Index of Ports (GPIP)	Growth Performance Index of global trade for selected South African ports	Individual port and total port trade volumes	Mixed performance - The Port of Port Elizabeth is a lagging port and Durban is a leading port. Cape Town had mixed results. Good performance for Durban and poor performance for the Port of Port Elizabeth.
Container Market Size	Income from freight transportation by type of commodity including containers	Freight transportation income at current and constant prices	Poor performance – This is underlined by the fact that the container market is at its lowest level (4,6%) of the total market share.



Source: Joynt, H, 2024 – Journal of Transport and Supply Chain Management

Source: Joynt, H, 2024 – Journal of Transport and Supply Chain Management



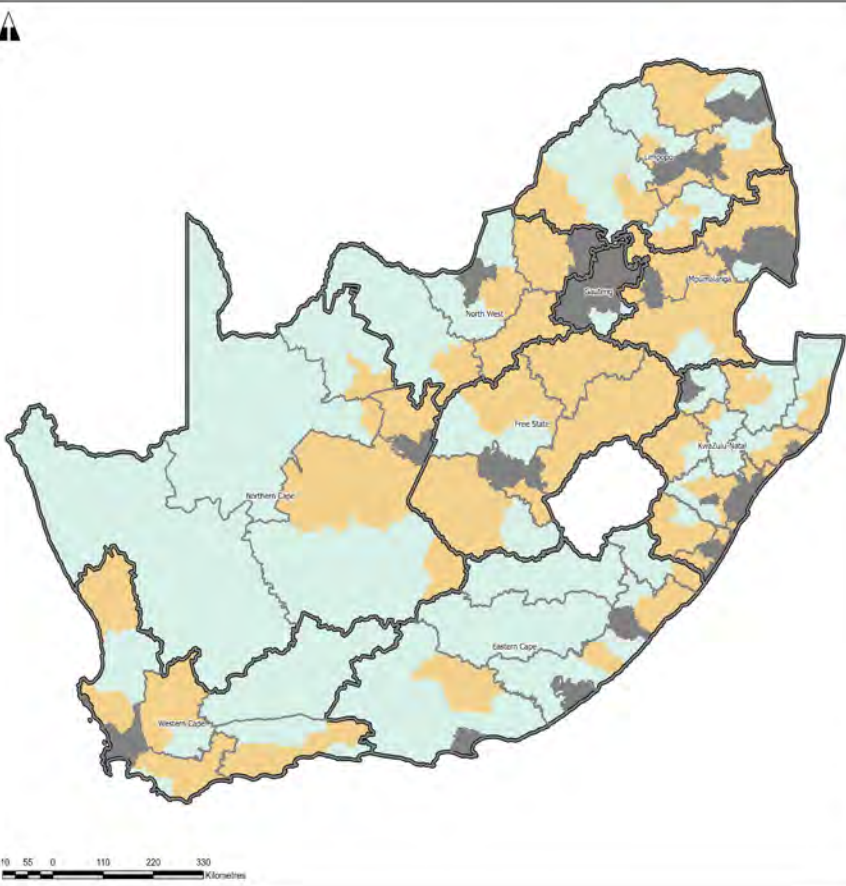
URBAN, RURAL, PERI-URBAN CLASSIFICATION



ROAD PAVEMENTS FORUM

1995 MAP

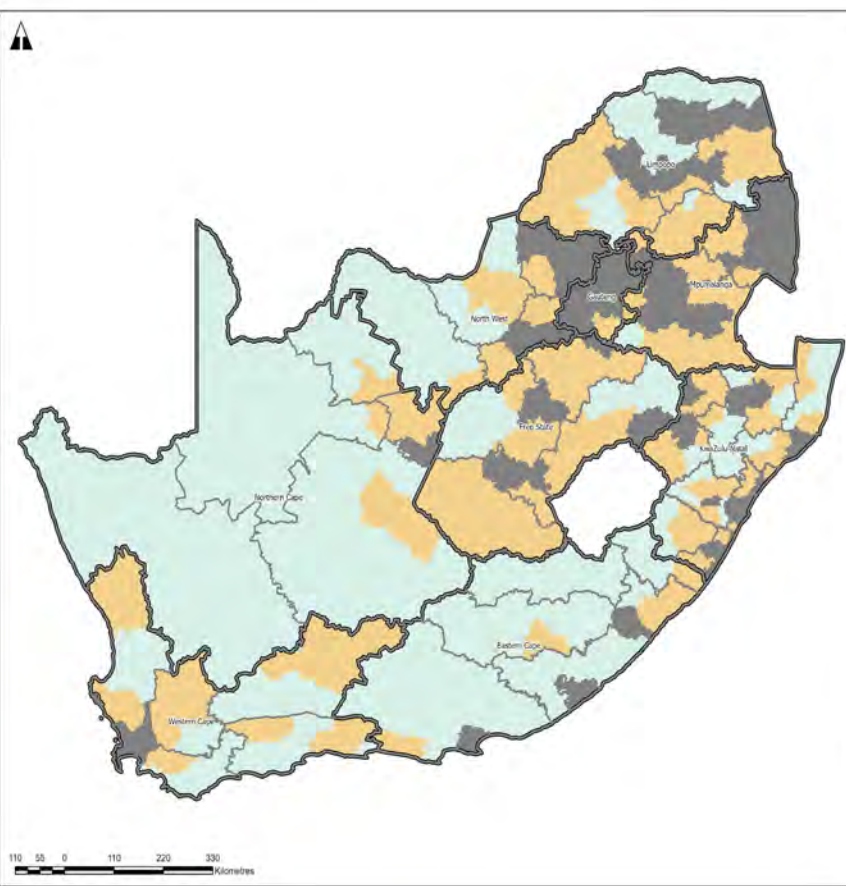
2021 MAP



Urban, Peri-Urban and Rural Classification (1995)

Legend

- District Municipalities
- Provincial Boundaries
- Class 1995**
 - Urban
 - Peri-Urban
 - Rural



Urban, Peri-Urban and Rural Classification (2021)

Legend

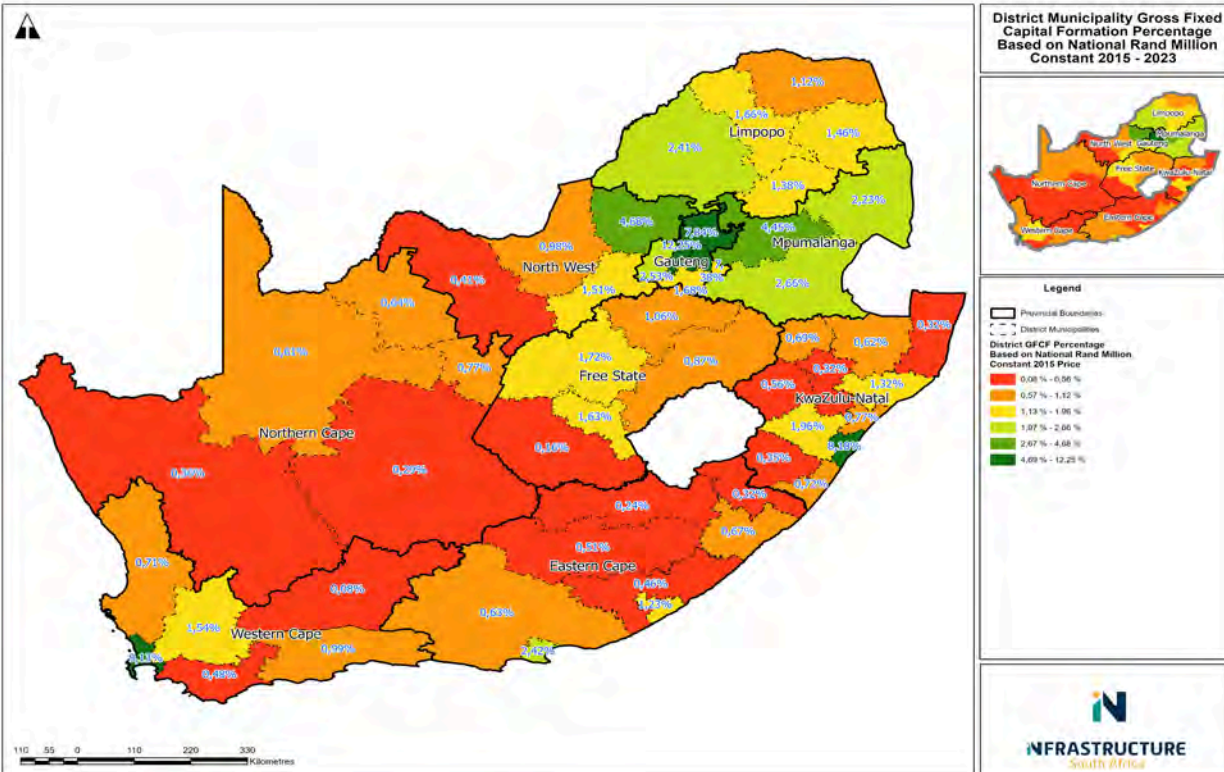
- District Municipalities
- Provincial Boundaries
- Class 2021**
 - Urban
 - Peri-Urban
 - Rural

Source: Infrastructure South Africa and Quantec

Source: Infrastructure South Africa and Quantec

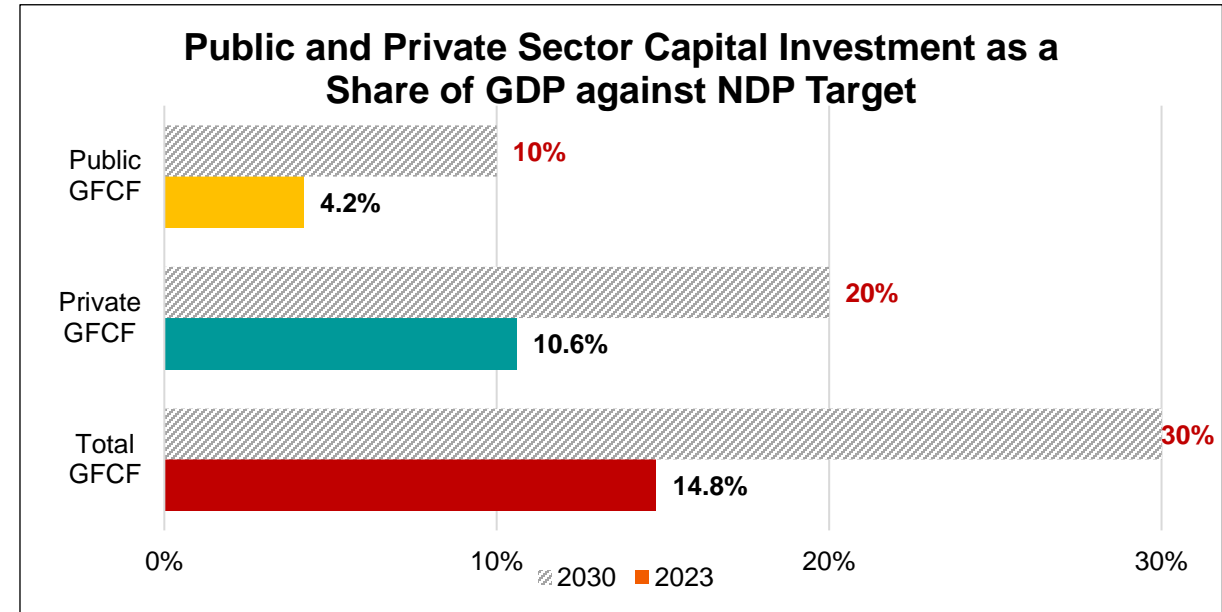


INFRASTRUCTURE INVESTMENT LANDSCAPE



Source: Infrastructure South Africa and Quantec

16 – 20 megaprojects are needed to go to market every single year to reach the NDP target.
30% - GFCF % GDP



Source: StatsSA

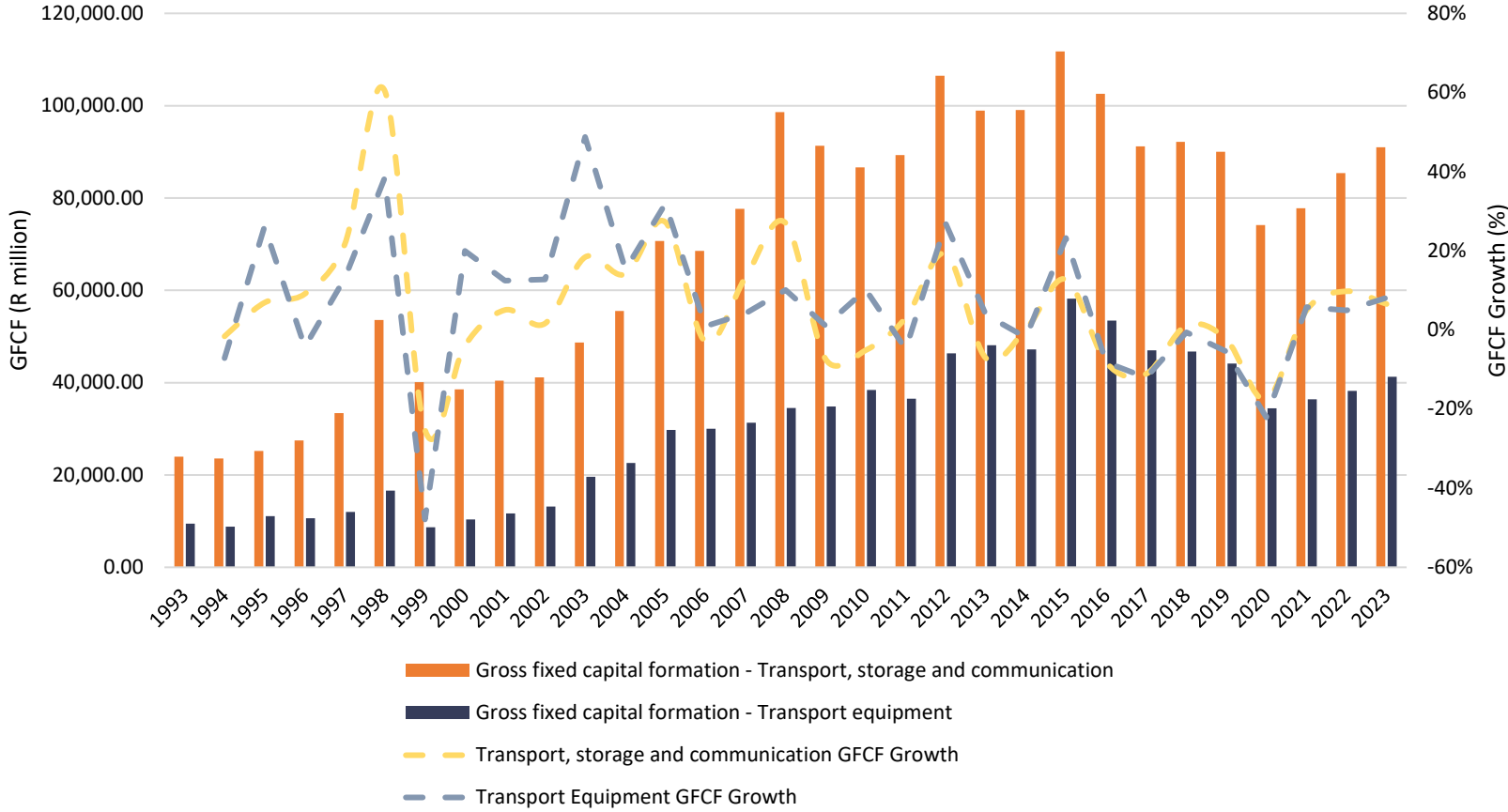
- Estimates show that the total GFCF (funding gap) is at R2.7 trillion (nominal).
- This means that for the next 6 years, R449 billion is required to reach the 30% NDP target.



GROSS FIXED CAPITAL FORMATION (GFCF)



Gross Fixed Capital Formation at constant price 2015



Gross Fixed Capital Formation comprises fixed asset acquisitions minus disposals by resident producers in an economy. The **total GFCF was R91 billion** in 2023. The total GFCF growth was **7%** in 2023, which decreased from 10% growth in 2022.

The asset category **Transport Equipment GFCF** was around **R41 billion** and saw an **8% increase** in 2023.



LOCATION QUOTIENT (LQ) & GROWTH PERFORMANCE INDEX (GPI)

Transport, storage and communication	Location Quotient (LQ) relative to nation		Growth Performance Index (GPI) relative to nation	
	2014	2023	10 Year	5 Year
Western Cape	1,24	1,22	99,29	99,98
Eastern Cape	0,68	0,71	102,88	103,78
Northern Cape	1,15	1,12	96,86	99,68
Free State	0,87	0,97	106,03	108,37
KwaZulu-Natal	1,24	1,14	92,45	91,73
North West	0,71	0,78	110,63	111,34
Gauteng	1,09	1,10	101,79	101,07
Mpumalanga	0,60	0,58	96,17	97,77
Limpopo	0,65	0,71	107,97	107,72

Location Quotient – This is an indicator of the comparative advantage (a value greater than 1) of a specific sector when compared to the aggregate economy.

- **KwaZulu-Natal had the highest LQ in 2014, at 1.24, and in 2023, at 1.14.**

The Growth Performance Index measures the growth in a specific sector of the economy compared to the growth achieved in the same sector within the provincial and national economy. An index larger than 100 indicates a leading sector.

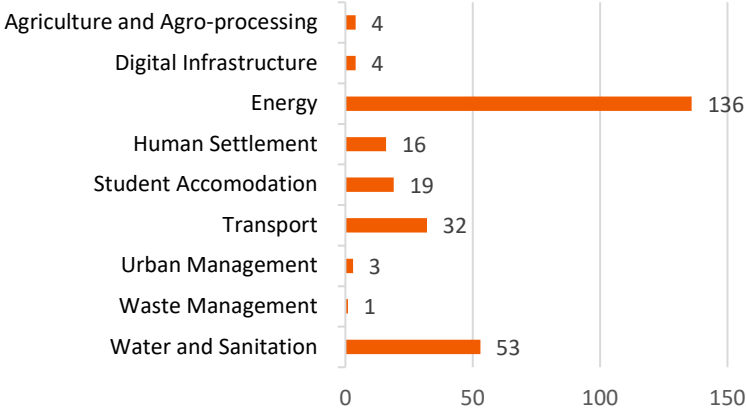
- **The North West Province had the highest GPI in both the last 10 years and the last 5 years in the Transport, Storage, and Communication sector.**

SIP PROJECT PIPELINE OVERVIEW

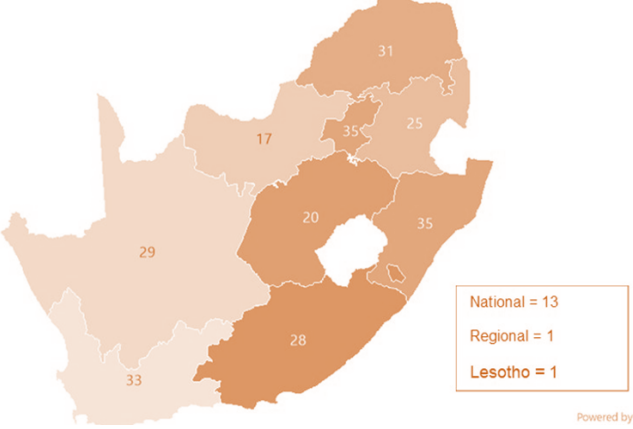


ROAD PAVEMENTS FORUM

Sector Distribution



Spatial Distribution

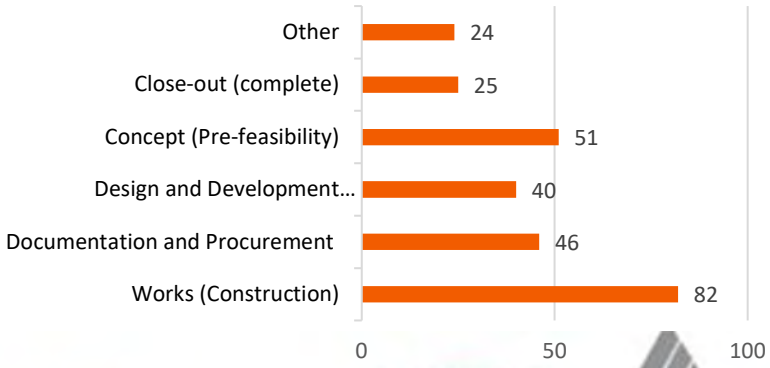


Number of Projects
268

Est Project Capital Value
R 3 Trillion

Projects in Construction
82

Project Stage



PROJECT PIPELINE 24/25 FY OVERVIEW



ROAD PAVEMENTS FORUM

Projects Registered to date (24/25 FY)

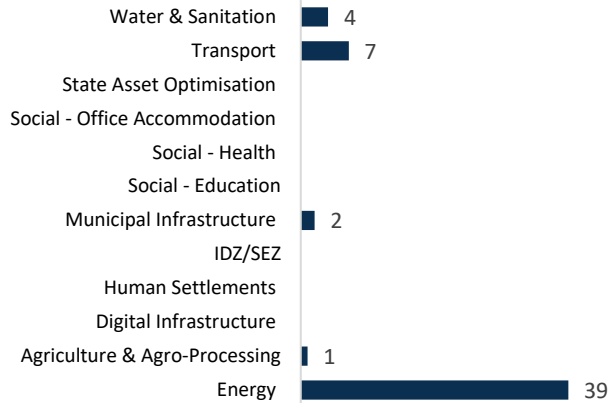
53

Est Project Capital Value
R 787 Billion

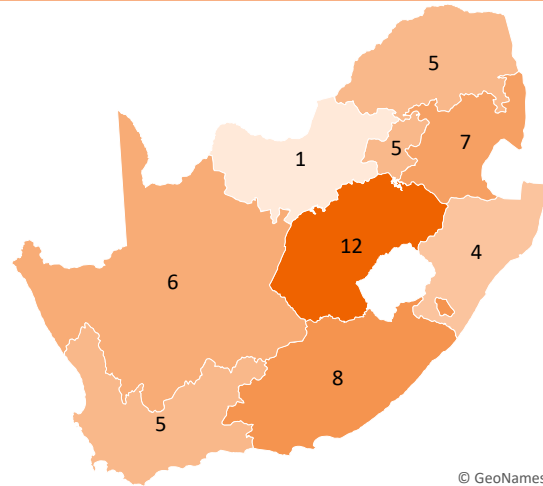
Value of Private Sector
R755 Billion

Value of Public Sector
R32,4 Billion

Sector Distribution

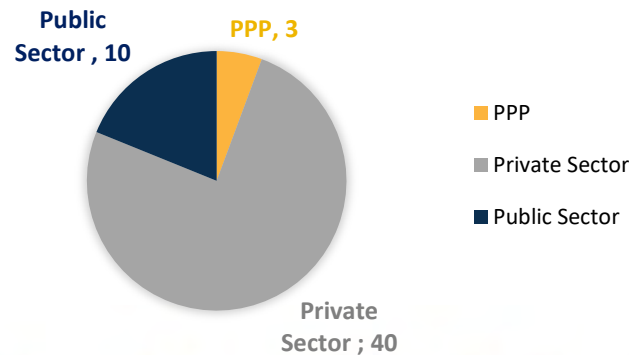


Spatial Distribution

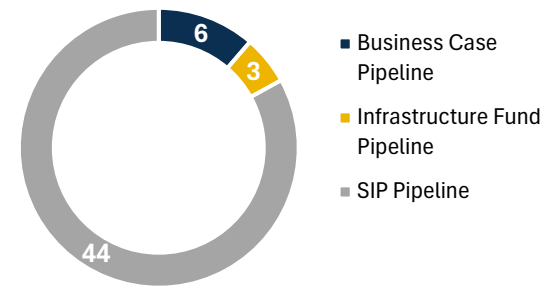


Powered by Bing
© GeoNames, Microsoft, TomTom

Project Structure



Project Pathway



PROJECT PREPARATION (CURRENT PIPELINE)

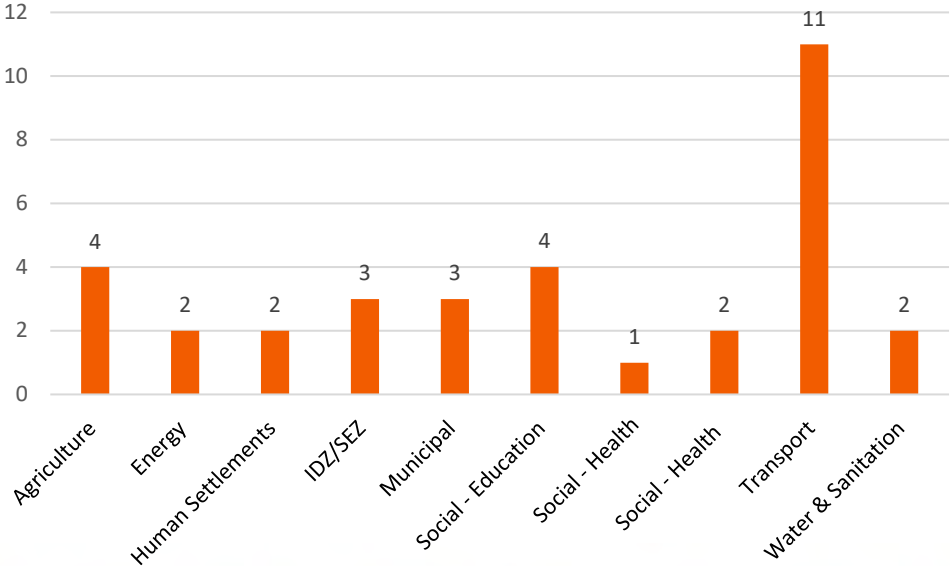


ROAD PAVEMENTS FORUM

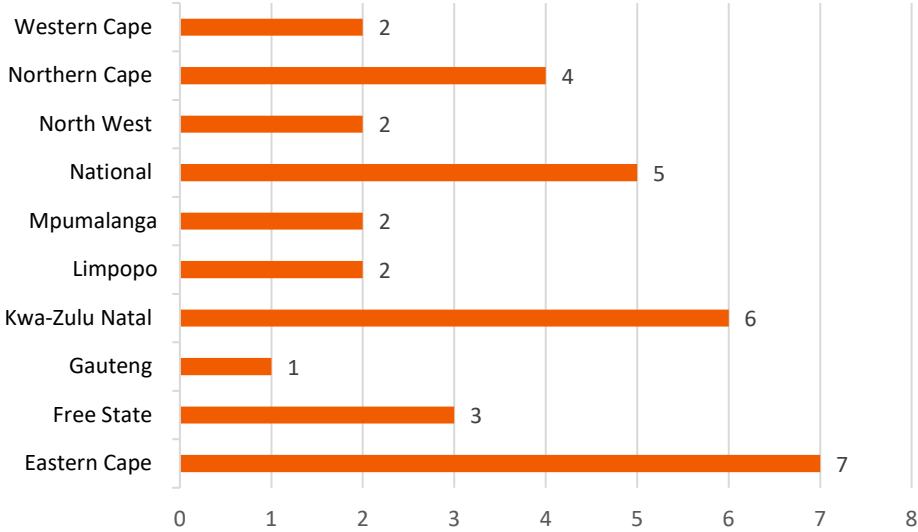
Number of Projects
35

Est Project Capital Value
R 196 Million

Sector Distribution



Spatial Distribution



PROJECT PREPARATION (BID WINDOW)

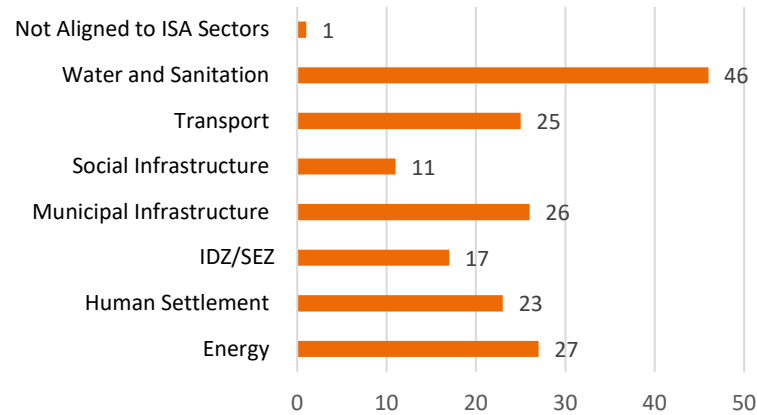
Number of Projects
176

Est Project Capital Value
R 1,5 Trillion

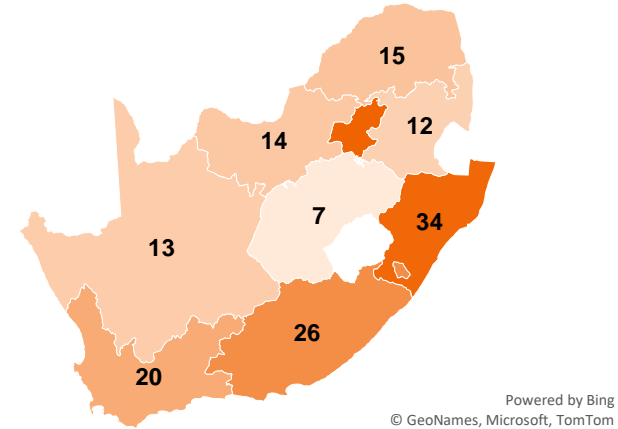
Est Project Prep Value
R73 Billion

Average Prep Duration
23 Months

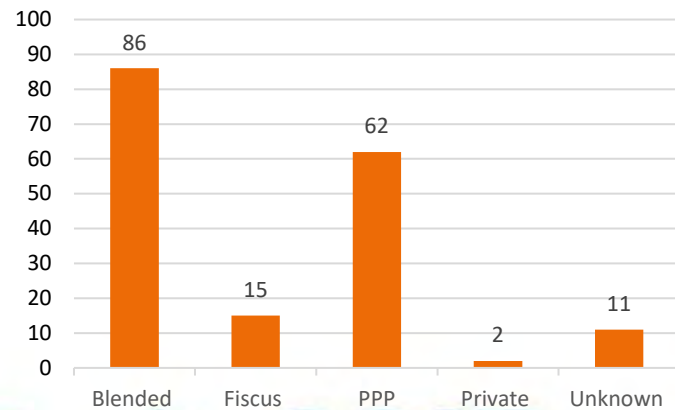
Sector Distribution



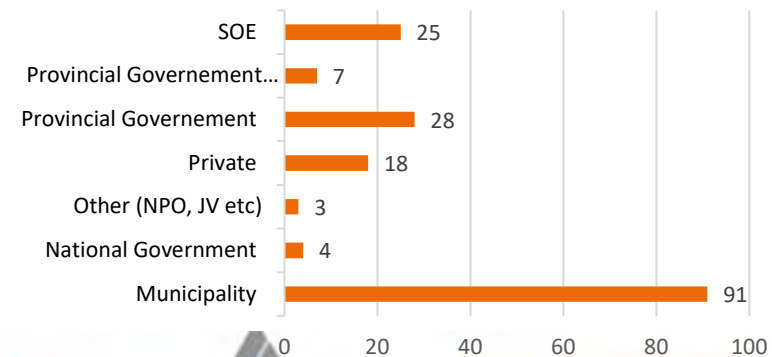
Spatial Distribution



Funding Modality



Entity Type



INFRASTRUCTURE FINANCE LANDSCAPE: ALTERNATIVE SOLUTIONS

Innovative approaches to leverage private sector financing is necessary to close the infrastructure investment gap

- To mobilise other sources of financing, ISA engages **Multilateral Development Banks (MDBs), local and international Development Finance Institutions (DFIs) and Development Agencies** through the Development Partners Forum (DPF) on a quarterly basis.
- The DPF is chaired by the Minister of Public Works and Infrastructure and provides an opportunity for **robust engagements on the status of the projects and understanding the opportunities for investment.**
- The Forum also creates an opportunity to leverage potential grants and concessional financing for project sponsors.

Development Partners Forum



- **ISA explores innovative financing mechanisms such as blended finance**, which is the strategic use of development finance to attract private investments for sustainable development.
- Blended finance plays a key role in bringing **risk adjusted returns in line with investment requirements** leveraging strategic public finance to mobilise private financing.
- ISA oversees the **Infrastructure Fund**, a blended finance fund that leverages private sector finance for public sector infrastructure investment projects and programmes. The Fund is capitalised with a commitment of R100 billion over 10 years and it intends to catalyse R1 trillion (~\$55 bn) of infrastructure delivery within SA.

Blended Finance

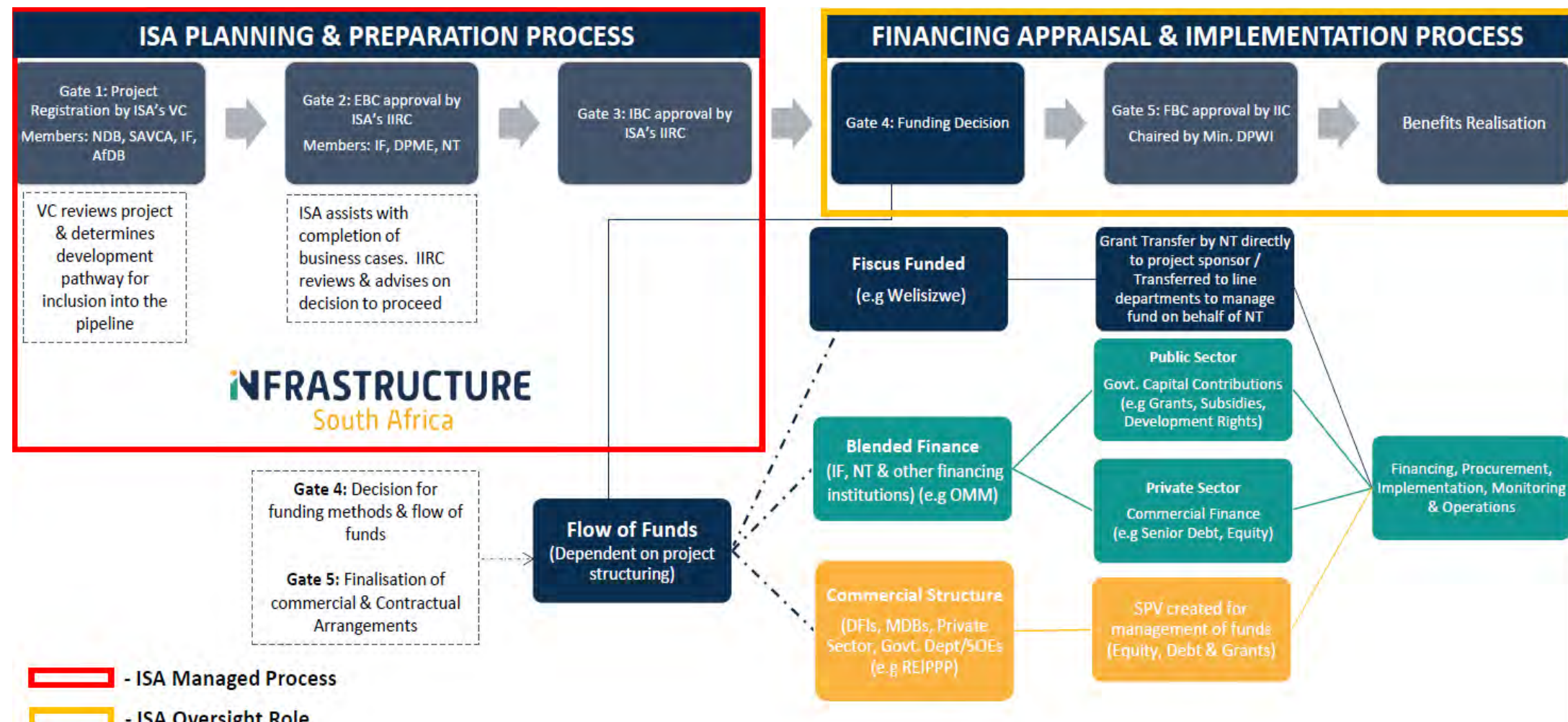


- Amendments to Regulation 28 of the Pension Funds Act **permits retirement funds to invest** an overall limit of 45% in infrastructure projects.
- **Leveraging Institutional Investors:** ISA encourages co-investment between pension funds, sovereign wealth funds, and insurance companies, to invest in infrastructure projects of interest to them.
- South Africa has an **exceptionally innovative and sophisticated financial market**, worth R13 trillion in assets. SA institutional investors account for about 60% (R7.758 trillion) of the country's total assets.

Institutional Investors

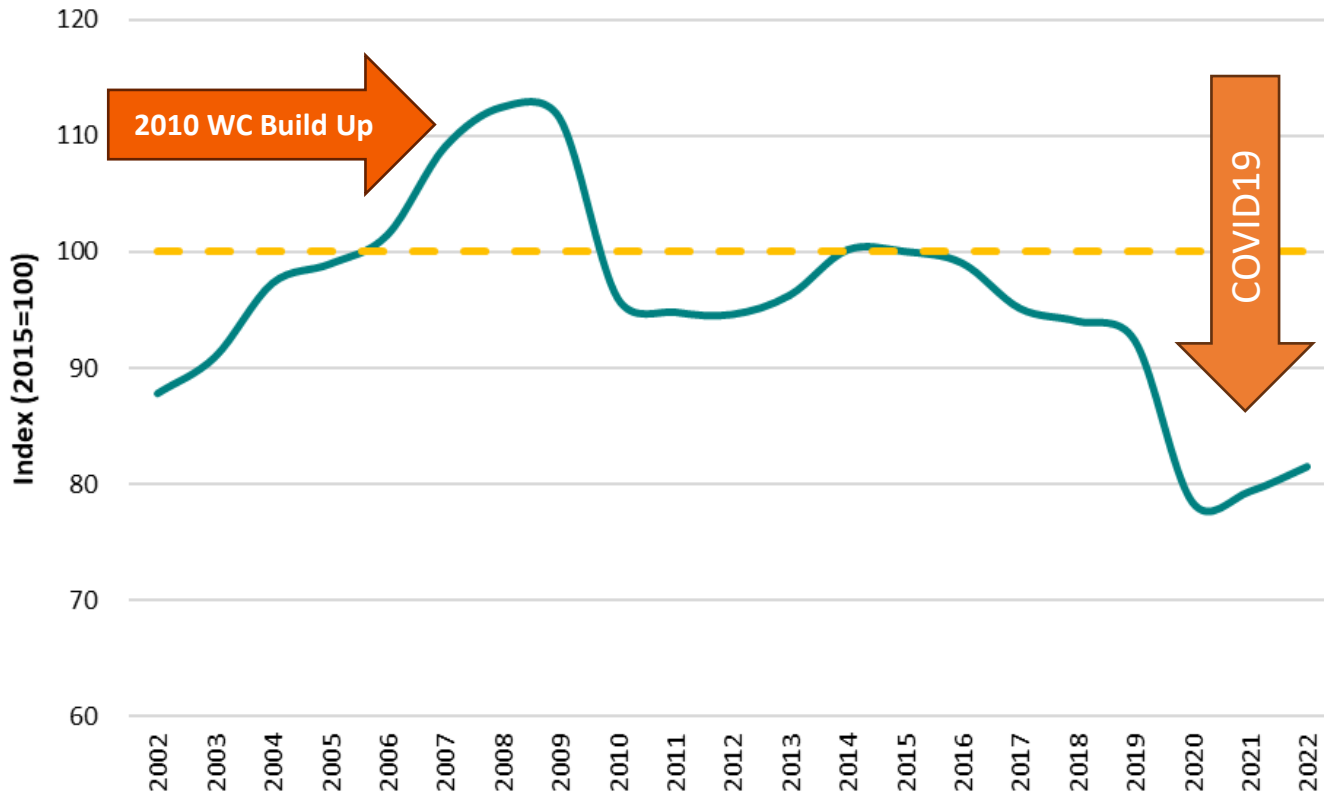


INFRASTRUCTURE FUNDING AND FINANCING: FLOW OF PROJECT FUNDS



CONSTRUCTION DEVELOPMENT INDEX FOR SOUTH AFRICA

Construction Development Index for South Africa



Source: Infrastructure South Africa and SAICE

Average CDI Over the Years

Year	2002	2008	2014	2020	2022
Avg CDI	87,77	112,44	100,14	78,42	81,47

- CDI is formulated to assign **equal weighting to the indicators**
 - *Gross Fixed Capital Formation (GFCF)*
 - *Gross Value Added (GVA)*
 - *Labour and Capital Productivity*
 - *Employment in Construction*
 - *Buildings Completed*
 - *Real Construction Cost (per m²)*
- The figure shows the overall decline in the CDI for South Africa.
- CDI was highest during the build-up to the 2010 World Cup, highest in 2008 with an index of 112,4.
- Notable decline in the CDI since 2009 with largest concern being the decline from 2016.

ISA INFRASTRUCTURE RISK BAROMETER REPORT

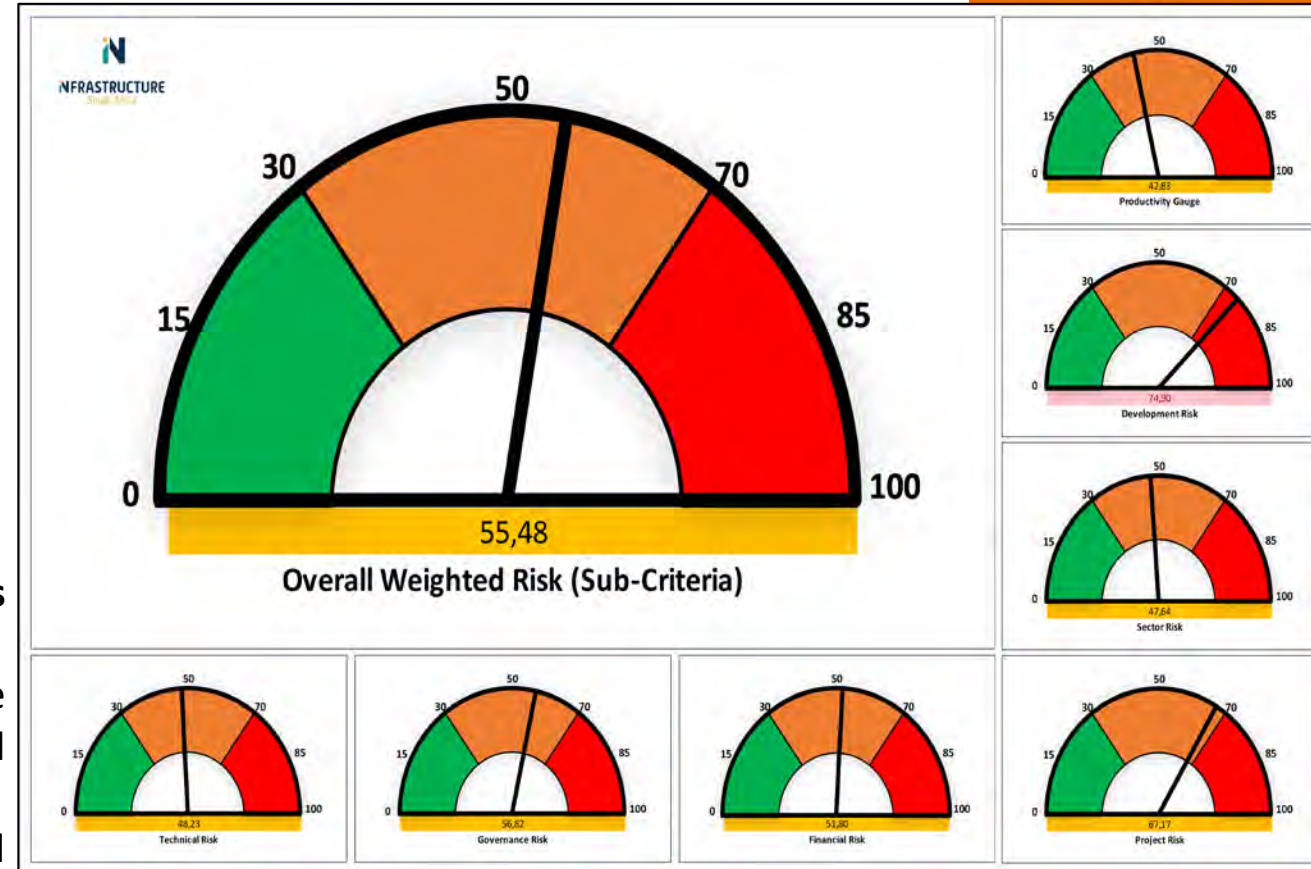


ROAD PAVEMENTS FORUM

- Seven (7) criteria were evaluated resulting in the following:

Evaluation Criteria	Risk Index	Risk Rating
Technical Risk	48,23	Medium Risk
Governance Risk	56,42	Medium Risk
Financial Risk	51,80	Medium Risk
Productivity Risk	42,83	Medium Risk
Developmental Risk	74,90	High Risk
Construction Risk	47,03	Medium Risk
Project Risk	67,17	Medium Risk

- Illustrates the **need to address infrastructure challenges holistically** to improve risk considerations.
- Reduction of risk** within the infrastructure environment can be catalysed and achieved through **effective governance** and ensuring **proper coordinated efforts** among the stakeholders.
- Dire need for interventions** towards effective, efficient, and sustainable infrastructure development.



BENEFITS REALISATION LESSONS LEARNT

- Maintaining **staff retention in critical** positions is essential as the project evolves. This continuity helps to preserve institutional knowledge related to the project's objectives throughout its development. High turnover in these key positions can often lead to delays or changes in project scope.
- An external stage-gate review of the design and plans ensures that the implementing organisation upholds high standards in project technical design and output.
- Periodic external socio-economic studies allow the project implementing organisation to monitor the potential impacts of the project as it progresses.