

INTEGRATED REPORT

ENGINEERING A BETTER FUTURE
TRANSFORMING SOUTH AFRICA'S ROADS

2022/2023

VOLUME 1

SANRAL





The South African National Roads Agency SOC Limited

Integrated Report 2022 /2023

The 2022/2023 Integrated Report of the South African National Roads Agency SOC Limited (SANRAL) covers the period 1 April 2022 to 31 March 2023 and describes how the Agency gave effect to its statutory mandate during this period.

The report is available in print and electronic formats and is presented in two volumes:

- **Volume 1:** Integrated Report is a narrative and statistical description of major developments during the year and of value generated in various ways.
- **Volume 2:** Annual Financial Statements contain the corporate governance report in addition to the financial statements. In selecting qualitative and quantitative information for the report, the Agency has strived to be concise but reasonably comprehensive and has followed the principle of materiality – content that shows the Agency's value creation in the short, medium and long term.



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Themba Mhambi

A MESSAGE FROM THE BOARD CHAIRPERSON

It is our privilege, as the Board of the South African National Roads Agency Limited, SOC (SANRAL), to present the 2022/23 Integrated Report of an organisation whose mandate is at the heart of the socio-economic development of our country.

As in the past three financial periods, we have received an unqualified audit opinion from the Auditor-General of South Africa (AGSA), albeit with some findings. This is, overall, a positive outcome, but it comes with a caveat relating to some staticity on our part – as evidenced by repeat findings on too consistent a basis. This lack of propulsion in aspects of our work requires decisive action, especially as the AGSA invariably provides us with sound advice on required remedial actions, but we have a history of poor responsiveness thereto. Our CEO has accordingly been Board-mandated to remedy this situation by establishing a dedicated Audit War Room to focus, on a 24-hour basis if necessary, on timeously resolving every organisational lapse posing the risk of negative audit findings for SANRAL.

We present, herein, a story of two accounting authorities, the first being a Board whose term had ended in August 2021, but which was requested by the then Minister of Transport to continue on a caretaker role until a new Board was appointed in January 2023. As Ms Lungile Madlala exited the previous Board, Ms Phumzo Noxaka and Ms Refilwe Buthelezi joined the new Board. As a chartered accountant and an engineer respectively, they bring much-needed skills, together with new perspectives and insight, into an accounting authority where continuity has been assured, especially considering the loss occasioned by Ms Madlala's exit. We therefore wish to express our gratitude to Ms Madlala for the governance and technical expertise she rendered to SANRAL and its Board during her tenure.

A remarkable aspect of both Boards is their passionate commitment to maintaining and sustaining established businesses in the road infrastructure consulting and construction space while simultaneously concretely supporting the growth and development of small to medium-sized firms, especially ones owned by Black people, women, the youth, people with disabilities and military veterans.

The Board is unequivocal in its position that the above must be implemented without any compromise on the quality of SANRAL-built and maintained infrastructure. We are obliged to build world-class road infrastructure and maintain it in a condition second to none. This stance is based on our understanding of our mandate and marching orders from Mr Fikile Mbalula, who was the Minister of Transport for the greater part of the year under review, and Ms Sindisiwe Chikunga, MP, his successor from 7 March 2023. As our executive authorities past and present, they have both emphasised transformation within a context of excellence in performance, the safeguarding of existing capacity and the empowerment of the previously marginalised. We thank them for their guidance in this regard, and we wish former Minister Mbalula well in his new and nationally critical role as Secretary-General of the governing party of South Africa. At the same time, we welcome Minister Chikunga and Mr Lisa Mangcu, MP, the new Deputy Minister.

It is because of our successive executive authorities' consistent and uncompromising commitment to the construction and maintenance of quality road infrastructure that we have been able to ensure that only 0.32% of our roads are in a very poor state; 9,11%

in a poor state; 39.71% in a fair state; 39.08% in a good state; and 11.78% in a very good state. Of course, as our coverage increases, as it inexorably is doing, from our current 23,559km towards our target of 35,000km, these percentages will initially be negatively affected, but our engineers have a mitigation strategy in place to actually exceed even the current state of affairs.

Our fulfilment of our mandate of building quality new infrastructure and maintaining our existing one in excellent condition is operationally in the hands of our new CEO, Mr Reginald Demana, who assumed office on 1 January 2023, following Ms Lehlohonolo Memeza's exceptional 13-month stint as Acting CEO at a time when obstacles were routinely placed on our road to making SANRAL benefit all levels of South African society. Mr Demana's credentials in engineering, financial markets and business development bode well for a SANRAL faced with challenges of greater financial efficiency, an expanding road network and the need for transformation.

To reinforce our service delivery-oriented outlook, the Board has tasked the CEO with focusing on keeping our project pipeline flowing; provincialising SANRAL to better align with government's District Development Model (DDM); balancing participation in SANRAL's projects between established business and designated groups; developing Black industrialists for a presence throughout our value chain; securing an improved audit outcome for the organisation; and modernising SANRAL in line with the demands of today's technological revolution.

Improvements in expenditure management, consequence management, annual financial statements, performance and annual reporting during the year under review should catapult us to the clean audit we owe to the nation. Adverse findings pertaining to our road asset infrastructure management and lapses in reporting validly on performance against predetermined objectives concern us as the accounting authority and will be addressed with single-minded determination and decisiveness, including through the Audit War Room earlier alluded to.

A COMMITMENT TO GOOD GOVERNANCE

For good governance, the Board is continuing with a robust committee architecture for greater

oversight; a review of our policies and procedures for alignment with our internally and externally directed people empowerment agenda; an interrogation of our supply chain management regime; positioning the organisation to support government wherever our mandate, resources and capacity allow; and strengthening accountability.

All of the above are anchored by an unwavering sense of independence, as evidenced by our decision - during the year under review - to cancel five multibillion-rand construction tenders due to unauthorised reductions in subcontracting percentages, as well as a violation of a Board resolution on conflicts of interest.

DRIVING ECONOMIC RECOVERY

Good governance must lead to delivery on our mandate to build safe and sustainable roads for our communities. Building good road infrastructure must be accompanied by SMME development and job creation in support of our country's economic recovery. Our contribution to national economic recovery must visibly, tangibly and materially empower designated groups such as women, the youth and people with disabilities.

Accordingly, despite the economic challenges exacerbated by the COVID-19 pandemic, as SANRAL we have been able to continue creating business and employment opportunities for many. In the reporting period, based on the current means of measurement, Black-owned SMMEs accounted for 88% of the contracts awarded and 94% of the value of work performed. SANRAL created 11,366 jobs, with 8,135 positions filled by men and 3,231 by women. A significant number of young people were also employed, with 3,735 young men and 1,701 young women benefitting. Additionally, 85 people with disabilities were employed.

In terms of SANRAL's contract participation goals, 30% is reserved for targeted enterprises, with 5% each allocated to businesses owned by women, the youth and people with disabilities. The N2 Wild Coast Road



project is a perfect example of our strong commitment to localisation. By the end of January 2023, R75.6 million (excluding VAT) had been spent on wages and 80% of the 528 staff on site were local people. A total of R454 million had been paid to 120 SMMEs from the surrounding local municipalities.

In his February State of the Nation Address, President Cyril Ramaphosa commended SANRAL for its R18 billion investment in road construction contracts and highlighted our mega-bridge projects in the Eastern Cape. The President noted the positive impact on job creation, skills development and poverty relief in nearby rural communities.

Recognising SANRAL's efficiency and expertise, government has also entrusted the Agency with overseeing the Vala Zonke pothole repair campaign and ongoing efforts to fix flood-damaged roads in KwaZulu-Natal. These, we must emphasise, we execute in partnership with the respective municipalities and provincial governments. We don't take government's commendation and these partnerships for granted.

MAKING A POSITIVE IMPACT

Our Horizon 2030 strategy, and indeed the King IV Report on Corporate Governance, require us, as a public institution, to place stakeholder engagement at the heart of our work with communities and relevant interest groups. Every SANRAL project must therefore embrace localisation in the form of the procurement of goods and services from local SMMEs and the employment of local labour. No SANRAL project must pass local communities by.

We are also proud of our skills development initiatives and interventions, including our bursary and scholarship programmes straddling educational levels from Matric to SETA-based training to the professional registration of engineers. These cut across all disciplines, from Mathematics, to Accounting, to Business and beyond to ICT and engineering. These interventions have brought immeasurable relief to learners from many underprivileged families across the country. Our hope is that these young people will eventually, in line with government's stated objective, take their own families and communities out of the spiral of poverty, unemployment and inequality.

That's our story and we are proud to narrate it. It is a good story to tell but subsequent chapters should be better. The good in it is in no small measure due to our former Minister, Mr Mbalula, his then Deputy Minister and now our Minister Ms Chikunga, and our current Deputy Minister Mr Mangcu. The guidance and the support of executive authorities is the defining element of the state of state-owned entities at any given time, as indeed is the amount and the quality of accountability they demand from those entities.

We therefore thank our executive authority and her office, principally the chief of staff, for our cooperative relationship. At the operational level, our success is due to our executive department's stewardship in matters linking us. The Director-General, Adv James Mlawu, and his DDGs have been a critical pillar in this regard. Siyabonga, Minister, DG, DDGs and all your officials.

We also thank the Minister of Finance, Mr Enoch Godongwana, MP, and the Acting DG of National Treasury, Mr Ismail Momoniat, both of whom – from a governance and operational standpoint respectively – often have concurrent responsibilities with their counterparts in the transport portfolio with regard to SANRAL. Our continued 'going concern' status is due to their, and their officials', continuous efforts to maintain SANRAL's solvency, liquidity and resources at levels required to keep this organisation ticking and sustainable so that it may continue to produce the quality infrastructure it exists to build. Siyabulela, Minister Godongwana.

Together with the Minister and the DG of Transport, Minister Godongwana and Acting DG Momoniat have been instrumental in helping SANRAL weather the Gauteng Freeway Improvement Project (GFIP) storm, including the infamous e-tolls challenge. We remain hopeful, and indeed convinced, that discussions between National Treasury and the Gauteng government will lead to a positive and long-awaited resolution of outstanding matters pertaining to e-tolls.

To navigate our way through relationships with the offices entrusted with oversight in relation



to us, we rely on our own CEO, his executives, all levels of management, our professionals, and their subordinates – all of whom consistently go above and beyond the call of duty to ensure that our mandate is fulfilled. Ri a livhuwa, CEO and our entire staff.

All of the officials of SANRAL would be hard-pressed to maintain this multibillion rand organisation on an even keel were we not held critically but constructively accountable by the AGSA. We are grateful to the AG, as the accounting authority, for alerting us to our lapses while recognising our successes. Hakhensa, AG.

Parliament's Portfolio Committee on Transport, of course, holds us accountable on behalf of the general populace – and it is a barometer of that populace's experience of SANRAL. Its interrogation of our plans and performance continues to be invaluable to our delivery on our mandate. We are indebted, and therefore say 'baie dankie', to the Honourable Members.

As Board members we rely on one another's skills, knowledge and experience to collectively steer this organisation in a direction we believe is in its best interests and therefore ultimately the best interests of its owners, the people of South Africa. We refer in particular to our road users and our other stakeholders, all of whom we thank as much as we thank one another.

The next chapter of this story is in motion. Expect it to be better than the one through which we have taken you here.

THEMBA MHAMBI
Chairperson





Reginald Demana

A MESSAGE FROM THE CEO

It is a great pleasure to introduce SANRAL's 2022/23 Integrated Report. As the newly appointed Chief Executive Officer, I am filled with a sense of excitement and responsibility and look forward to leading the Agency towards achieving its mission and objectives.

I would like to acknowledge the sterling work done by Ms Lehlohonolo Memeza as Acting CEO for most of the period under review in this report. Her dedication and commitment were instrumental in maintaining SANRAL's efficiency as an organisation. Ms Memeza has since been appointed Chief Corporate Affairs Officer where she continues to impart her extensive knowledge and experience.

There have been other considerable changes in leadership during the period under review. The then Minister of Transport, Fikile Mbalula, announced the re-appointment of most of the SANRAL Board members at the end of 2022. In March 2023, Mr Mbalula was appointed Secretary-General of the African National Congress and this resulted in Ms Sindisiwe Chikunga being appointed as Minister of Transport (previously Deputy Minister of Transport) and Mr Lisa Mangcu as Deputy Minister (previously Chairperson of the Portfolio Committee on Transport). It is already clear that we will enjoy a good working relationship. I thank them both for their support and confidence in the Agency.

SANRAL's role in infrastructure development takes on added importance as South Africa grapples with growing the economy and increased freight transport on the roads as a result of inefficient rail infrastructure.

SANRAL's efforts continue to be guided by our Horizon 2030 strategy, which outlines our vision and the strategic interventions required to fulfill our mandate. This year's Integrated Report has undergone some restructuring to align it with the framework of this guiding document, reflecting its four pillars: Roads, Road Safety, Stakeholders and Mobility.

Despite some challenges, SANRAL was able to award tenders valued at R51 billion in the 2022/23 financial year. The Board approved a strategy to improve SANRAL's supply chain management processes in December 2022, which led to more efficient evaluations of tenders.

However, various delays caused SANRAL to award fewer projects than it could have. A February 2022 Constitutional Court judgment declaring the country's Preferential Procurement Regulations to be invalid led to the suspension of all tender advertisements. SANRAL could only resume tender advertisements in August 2022, causing a delay of 174 tenders.

ROADS

SANRAL's mandate is to finance, improve, manage and maintain the national road network. Spanning 23,559km and with a carrying value of R420 billion, this is widely recognised as one of South Africa's most significant infrastructure assets.

The network continues to expand with each passing year as we assume responsibility for additional provincial roads that require maintenance and upgrades. This expansion becomes necessary when provinces face challenges in maintaining their roads. A significant example of this is the Moloto Road R573 project stretching across Gauteng, Mpumalanga and Limpopo, which is estimated to cost around R10 billion upon its completion in 2028.

Several other major projects are also underway. Notably, we are currently working on the N2 Wild Coast Road project in the Eastern Cape, which will not only reduce the travel distance within the province but also between the Eastern Cape, KwaZulu-Natal (KZN) and the Western Cape. The N2/N3 project in KZN will see upgrades to several sections along both roads, as well as their intersections. Apart from resolving chronic traffic congestion by creating greater mobility through the construction of additional traffic lanes, upgrading of the N2 and N3 will result in increased safety. Several projects across the country, each costing several billion



rands – such as N2 Ermelo to KZN border, N1 North from Bela Bela to Musina, N2 and N1 improvements in the Western Cape (including the Huguenot Tunnel), and N1 South in the Free State – are in various stages of project development as we continue to prioritise investments in the main economic corridors of South Africa. In addition, about R14 billion has been set aside for improvements on roads recently transferred to SANRAL by the Northern Cape province and this spend will be spread over the next three years.

In the toll concessions, the Karino Exchange on the N4, between Gauteng and Mozambique, was completed towards the end of 2022 at a cost of R375 million.

Several road construction projects are underway by TRAC, Bakwena and N3TC in various sections of the concession routes. TRAC has initiated preparations for the transfer of the roads back to SANRAL when the concession period ends in 2028.

Our roads infrastructure investment programme created more than 11,000 jobs in the period under review. While this achievement fills us with pride, we acknowledge that we need to do significantly more in the years ahead.

*The effects of climate change and the shifts in global weather patterns were felt in South Africa in 2022. In May 2022, KZN experienced floods that ravaged homes and infrastructure, leaving a trail of destruction behind. SANRAL was appointed as the lead agency in rebuilding and repairing flood-damaged roads in the province. Working with the provincial department, SANRAL is making steady progress to restore some normality to the road infrastructure in the province. On *30 July 2023 for example, the Minister of Transport led the reopening of Umhlali River Bridge on the N2 following of floods-related damages. This is an important milestone for the province as the Umhlali River Bridge is an important conduit for goods, services and people traffic to and from the main economic centres of Ballito, Umhlanga and Durban respectively.*

In August 2022, the National Department of Transport (NDoT) launched Operation Vala Zonke. This national campaign aims to repair potholes through a collaborative effort between all nine provinces and 278 municipalities, including eight metropolitans, 44 districts and 226 local municipalities. SANRAL was appointed as the coordinating agency to drive the campaign, which included the harmonisation of all data and information on potholes and providing the technology and technical knowledge to ensure effective campaign delivery.

The SANRAL Pothole App was launched to allow the public to easily report potholes. In line with our Roads Repair and Maintenance Policy, SANRAL has swiftly responded to and fixed some of the potholes reported on the national road network. The App provides a centralised, consolidated view of all reported potholes. This enables focused engagements between the NDoT and relevant authorities for repairing the identified potholes. However, a broader intergovernmental effort is required to address this issue on a much larger scale. Recently on *31 July 2023, in an effort to accelerate Operation Vala Zonke, the Minister of Transport opened the National Roads War Room, a physical facility established at SANRAL's Central Operations Centre in Samrand, with the aim of bringing all key role players under one roof for better and efficient coordination of roads maintenance issues nationally.

MOBILITY

SANRAL's Mobility pillar recognises the critical role of road infrastructure in facilitating public transport and the movement of freight. This is particularly important in light of the challenges faced by rail transport and the growing reliance of businesses on efficient road networks.

To reduce congestion at toll roads, SANRAL is actively promoting electronic payment options for road users. Currently, 87% of the 23,559km of roads under our control are non-tolled, while the remaining 13% are tolled.

For many years, SANRAL has experienced revenue losses due to the unresolved issue of e-tolls on the Gauteng Freeway Improvement Project (GFIP). We are optimistic about the commitment made by the Minister of Finance to address this issue and look forward to a positive outcome from the ongoing negotiations between the affected parties.

ROAD SAFETY

SANRAL's Road Safety pillar goes beyond the construction of safer and more efficient roads to include a range of programmes focused on improving the attitudes and behaviour of road users.

These programmes include educating the public on road laws and regulations, collaborating with law

enforcement agencies to ensure compliance, as well as leveraging new technologies and innovative solutions to promote safe road usage.

Our efforts in this pillar also extend to improving road management systems through extensive research into road safety programmes worldwide.

STAKEHOLDERS

SANRAL's Stakeholders pillar prioritises consultation with all our stakeholders, especially those who may be affected by our projects. We recognise the importance of considering our impact, particularly in rural and marginalised areas, to ensure that our projects benefit surrounding communities.

The Stakeholders pillar aims to achieve proactive and continuous engagement with stakeholder groups within the roads agency, to ensure efficient planning that aligns with stakeholder and community interests. Through continuous engagement with stakeholders, we are able to assess our impact on the communities we serve. These engagements also allow us to monitor client satisfaction with regards to our mandate of improving road infrastructure. Our stakeholder engagement strategy is wide-ranging, including in-person interactions. We maintain continuous communication with South Africans through our media relations, marketing and advertising efforts. We also conduct extensive research to understand and address the needs of our stakeholders.

We pay special attention to areas where sensitive traditional or environmental issues may arise, such as on the N2 Wild Coast Road project. For such projects to be successful, it is crucial to secure the support and involvement of local communities.

In the period under review, we held 297 roundtable discussions with key stakeholders around the country. This was against an annual target of 260 discussions.

TRANSFORMATION

At SANRAL, we believe our role goes beyond building and maintaining national roads. Our Transformation Policy guides our contributions to the economic transformation of the country and the upliftment of communities, particularly in rural areas.

As we work to develop a more inclusive and equitable roads sector, the pursuit of transformation serves as the foundation for each of our Horizon 2030 pillars. Black suppliers, professionals and contractors are encouraged to participate as much as possible in projects that SANRAL commissions through the clear participation goals set forth in our Transformation Policy.

The policy mandates that we allocate 30% of project spend to local community development, with priority given to women and the youth. A notable example is the N3 project in KZN and the Free State, where a significant portion of the project spend was directed towards youth- and women-owned businesses, while local labour also benefitted these groups.

SANRAL also launched SMME pre-tender training as part of our efforts to empower SMMEs. The training was directed towards civil engineers with a Construction Industry Development Board (CIDB) grading of 1 to 4 who had active membership, complied with SARS tax regulations and were registered with the Companies and Intellectual Property Commission.

SANRAL's commitment to education is evident in our efforts to provide opportunities for learning and skills development.

In the reporting period, we successfully placed 275 interns, against our annual target of 200. We also awarded bursaries to 154 students and scholarships to 260 high school learners. We take pride in our Technical Excellence Academy, where engineering graduates can receive specialised training.

While it is important to acknowledge our transformation successes, we are also mindful that more needs to be done to ensure broader participation in the economy by all South Africans. As an organisation, we will continue to prioritise transformation as a fundamental enabler across all our pillars.

In closing, I wish to express my gratitude to the SANRAL Board, under the leadership of Chairperson Mr Themba Mhambi, for entrusting me with this important position. I am committed to fulfilling the Agency's mandate and working with the Board to strengthen our governance mechanisms. I also want to thank SANRAL's competent and committed management and staff who continue to serve South Africa in their different roles.

Lastly, I express my gratitude to all our road users for their support and trust in SANRAL. Please continue to provide us with your feedback so we can improve our roads for the benefit of everyone.

Together, we can build a better South Africa.



REGINALD DEMANA
Chief Executive Officer

**This message includes some information that falls outside the period covered by this Integrated Report. While these additions provide valuable insights into our organisation's broader activities, they should not be considered as part of the current financial or operational performance for the reporting period [2022-23].*





COMPANY OVERVIEW

VISION

Ensuring our national road transport system delivers a **better South Africa for all**.

MISSION

Delivering a **safe, efficient, reliable and resilient national road transport system** for the benefit of all the people of South Africa.

PRINCIPAL TASKS AND OBJECTIVES

PLAN

Plan, design, construct, operate, maintain and rehabilitate South Africa's national roads.

GENERATE

Generate revenue from the development and management of assets.

UNDERTAKE

Undertake research and development to advance knowledge in the design and construction of roads and related fields.

ADVISE

Advise the Minister of Transport on matters relating to South Africa's roads.



BUSINESS PILLARS

SANRAL's long-term strategy, Horizon 2030, defines four business pillars that serve to integrate its operations and activities across the Agency and deliver different forms of value.

Roads Pillar

This pillar consolidates all functions pertaining to the financing, planning, development, improvement and maintenance of national roads.

This area of business includes the management of toll roads and the road engineering and maintenance aspects of road safety.

There is an emphasis on road solutions that embrace innovative technology.

Road Safety Pillar

This pillar embraces a holistic approach to road safety, including research and data collection on collisions, public awareness and road safety education, improved road incident management systems, development of engineering standards for safe roads and strengthening of partnerships for law enforcement.

Stakeholders Pillar

This pillar focuses on communication activities to build partnerships, manage community expectations of major road projects and influence public opinion in relation to SANRAL.

The pillar lays the foundation for the economic participation of small businesses and rural communities in construction projects.

Mobility Pillar

The focal point of this pillar is on road infrastructure to enable public transport and intermodal transport solutions, increase access to strategic locations, integrate regions, facilitate seamless cross-border movement and enhance urban planning.



BUSINESS AND STRATEGY

SANRAL's long-term strategy, also known as Horizon 2030, has formally seen its fifth-year anniversary in the public domain since its launch on 29 September 2017. The growth and development path for SANRAL articulated in Horizon 2030 seeks to build on the Agency's core strengths and successes, and to dynamically respond to an ever-changing environment. It is therefore not an easy exercise to pinpoint formally when implementation began, though significant processes unfolded from 1 April 2018.

This year also marked the third year of implementation of the new Strategic Plan 2020–2025, which was informed by government's seven Apex Priorities, the National Development Plan and the Medium-Term Strategic Framework. The plan also incorporates relevant elements of the Department of Transport's strategic thrusts. The next two years will be critical as they will see the conclusion of the 2019–2024 Medium-Term Strategic Framework, with 2024/25 marking the start of the planning for the seventh administration.



HORIZON 2030: IMPLEMENTATION STATUS AND PLANS

SANRAL continues to implement its long-term strategy – Horizon 2030 – albeit under extremely challenging conditions and persistent headwinds both locally and globally. The strategy continues to assist the organisation by articulating its long-term growth trajectory.

Among the realities SANRAL needs to confront is that the operating environment has significantly changed, along with fresh challenges exacerbated by the escalating demands placed on the Agency. The year was marked by a series of

unfortunate events that included the KwaZulu-Natal and Eastern Cape flood damage, which tested the resilience of the transport sector and SANRAL's ability to respond to such adverse events. Infrastructure bottlenecks, constrained fiscal space, challenges in the rail sector, declining commodity prices and depressed sentiment are just some of the realities that, in combination, require SANRAL to act with greater urgency, take prudent investment decisions and accelerate infrastructure investment.

SANRAL also needs to adjust to a future marked by the rapid expansion of the national road network through incorporation. This should be seen in the context of broader development initiatives such as the Department of Transport's Operation Vula Zonke pothole repair programme, which will see SANRAL playing a more pronounced role.

The growth of the SANRAL network should ideally be undertaken in a sustainable manner given the various resource constraints. However, such an expansion path may not be entirely possible in light of prevailing demands and challenges. The transport sector as a whole also faces some turbulent headwinds, with adverse events significantly changing modal choice and reducing options for users.

The rising prevalence of heavy vehicles on the network coincides with the growing need for efficient rail transport. Along with poor driver behaviour and a deterioration in road condition, this is a detrimental combination that compromises road safety. Consequently, ensuring the integrity of the network is a key priority for SANRAL, as evidenced by the overall condition index (OCI) of our roads, among other indicators.

The global economy faces significant challenges. These include the negative impacts of Russia's war in Ukraine and the tightening of monetary policy as central banks worldwide respond to inflationary pressures. The risk of stagflation is becoming more pronounced, with economies around the globe experiencing contraction. South Africa has not escaped these impacts and we are seeing rising interest rates and costs of living, concerns around energy security, rising unemployment and declining real household incomes.

In light of these various challenges and internal constraints, implementation of Horizon 2030 has not been progressing at the desired pace, though it continues as multi-year programmes unfold. The difficult local and global situation also highlights the importance of forging strategic partnerships, maximising efficiency, building on strengths, value creation and adapting to a dynamic environment.

Horizon 2030: Initiatives and taking stock

- In terms of business development, the timing of the revision of commercial terms, pro-forma and contracts has not been optimal. However, there have been noteworthy achievements in stabilising these alternative revenue streams.
- The year marked the approval of the Five-Year Information and Communication Technology (ICT) Strategy.
- Progress on the account-based ticketing pilot to support government's plans to reconfigure public transport continues. MoAs have been concluded and pilot testing is underway.

- The rollout of flagship infrastructure projects such as the N2, N3 and N2 Wild Coast has seen solid progress even in the face of various risks on the ground, which have needed constant management.
- Government's resolution of the GFIP – often referred to as e-tolls – has brought much-needed certainty and the focus now falls on concluding the resolution in light of the direction provided by our political principals.
- The harsh realities of climate change mean that SANRAL's infrastructure increasingly needs to adapt to become more robust and resilient. The Agency needs to adopt proactive mitigation measures as far as possible.
- Partnerships are being explored in the area of electrical and autonomous vehicle technology to leverage institutional knowledge and strategic positioning.
- Amendment of the SANRAL Act is at an advanced stage, with critical milestones achieved.
- The role of transformation cannot be understated and going forward a review will be undertaken to widen its impact on the ground.
- The rollout of the SANRAL Operating Model will be accelerated by revising the approach and decoupling certain activities.
- Consultation and implementation of the 2030 National Roads Plan will be a key focus for the Agency over the medium term.





BOARD OF DIRECTORS - NON-EXECUTIVE DIRECTORS



Themba Mhambi

Chairperson

- Teachers' Certificate (English, History, Guidance)
- BA (English, Education, History)
- BA Honours (English)
- MA (English, Creative Writing Concentration)



Rob Haswell

- BA
- BA Honours (Geography)
- MSc (Geography)



Lungile Madlala

(until 8 January 2023)

- NDip (Civil Engineering)
- BTech (Civil Engineering)
- BSc Honours (Applied Science)
- Honours (Civil Engineering and Transportation Engineering)

BOARD OF DIRECTORS - NON-EXECUTIVE DIRECTORS



Thamsanqa Piet Matosa

- Executive Leadership Development Programme – Certificate in Municipal Management



Errol Makhubela

- PGDip (Law of Banking and Financial Markets)
- BCom Honours (Finance and Economics)
- Masters in Business Leadership
- Director Development Programme Part 1–5 (IoDSA)



Chris Hlabisa PrTech (Engineering)

- BTech (Civil Engineering)
- Management Development Programme (MDP)
- PrTech (Engineering)
- MSAICE

BOARD OF DIRECTORS - NON-EXECUTIVE DIRECTORS



Phumzo Noxaka CA(SA)

- NDip (Financial Markets and Instruments)
- BAdmin
- HDip (Computer Auditing)
- BCom Honours (Accounting)
- CA(SA)
- MBA
- CD(SA)
- AMBCI



Refilwe Buthelezi

- BEng (Electrical)
- MEM (Engineering Management)
- Masters in Business Leadership
- IoDSA member



Lehlohonolo Memeza

Acting CEO (until 31 December 2022)

- BCom (Financial Accounting)
- BCom Honours (Internal Auditing)
- CIA - Institute of Internal Auditors
- MPhil (Internal Auditing)



Reginald Demana

CEO (from 1 January 2023)

- BSc Eng (Mining)
- MSc Eng (Mining)



Alice Mathew

Company Secretary

- BSc
- MBA
- FCIS

EXECUTIVE - MANAGEMENT



Louw Kannemeye (PrEng)

Engineering Executive

- BEng (Civil Engineering)
- MEng (Transportation) *cum laude*
- PrEng
- PrCPM



Inge Mulder CA(SA)

Chief Financial Officer

- BCompt Honours
- CA(SA) SAICA
- CFO(SA) SAIBA



Adolph Tomes

Acting Business Operations Executive

- Diploma (Information Technology)
- ITIL 4
- MBA

REGIONAL MANAGEMENT

**Mbulelo Peterson** (PrEng)**Southern Region**

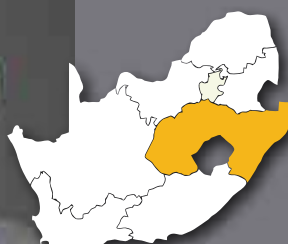
- BSc (Maths and Applied Maths) *cum laude*
- BSc (Civil Engineering)
- MSc (Strategic Planning)
- MBA
- Postgraduate Diploma in Business Administration
- PrEng
- MSAICE

**Randall Cable** (PrEng)**Western Region**

- BSc (Civil Engineering)
- MEng (Civil Engineering)
- PrEng

**Progress Hlahla** (PrEng)**Northern Region**

- BSc Honours (Civil Engineering) *cum laude*
- Graduate Diploma in Project Management
- Advanced Diploma in Business Management
- MSc (Civil Engineering)
- MBA *cum laude*
- PrEng

**Dumisani Nkabinde** (PrEng)**Eastern Region**

- BSc (Civil Engineering)
- Diploma in Project Management
- MEng (Civil Engineering)
- MBA
- PrEng
- MSAICE

FINANCIAL SNAPSHOT

This concise overview of SANRAL's key financial information reflects the Agency's performance and fiscal health during the reporting year. It underscores the importance for SANRAL to uphold strong financial governance, transparency and accountability, as this enables the organisation to effectively manage its resources, fulfil its mandate and maintain public trust in its operations.

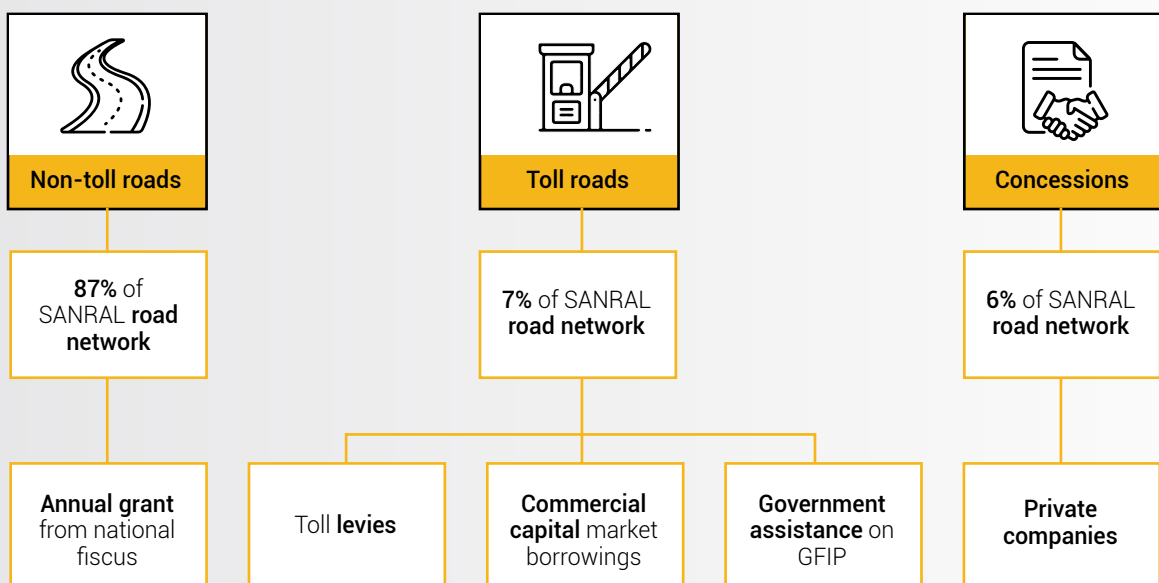
For more comprehensive and detailed financial information, readers are encouraged to refer to Volume 2 of the Integrated Report, which provides in-depth insights into SANRAL's financial performance.

1. ANNUAL INCOME SOURCES

SANRAL operates toll roads and non-toll roads as distinct business segments, and the sources of income for these portfolios differ. A portion of the SANRAL network also comprises toll roads managed by private companies – Trans African Concessions (TRAC), N3 Toll Concession (N3TC) and the Bakwena Platinum Corridor Concessionaire – through 30-year concession contracts.



FUNDING SOURCES FOR SANRAL'S TOLL AND NON-TOLL ROADS



While toll roads are financed through toll levies and the Agency's own investments, additional government assistance has been required in recent years in response to toll under-collection on the Gauteng Freeway Improvement Project (GFIP). It is important to note that this was specifically designated for GFIP-related revenue losses and not used for other toll roads.

MAIN SOURCES OF REVENUE FOR 2022/23 AND 2021/22



2021/22



R17,388,570,000

37%
Government grants
15.3%
GFIP grants
26%
Toll fees
10.3%
Investments/finance
11.4%
Other


2022/23



R23,470,600,000

40%
Government non-toll grants
18%
GFIP grants
19%
Toll fees
14%
Investments/finance
9%
Other


2. NON-TOLL ROADS: REVENUE AND EXPENDITURE

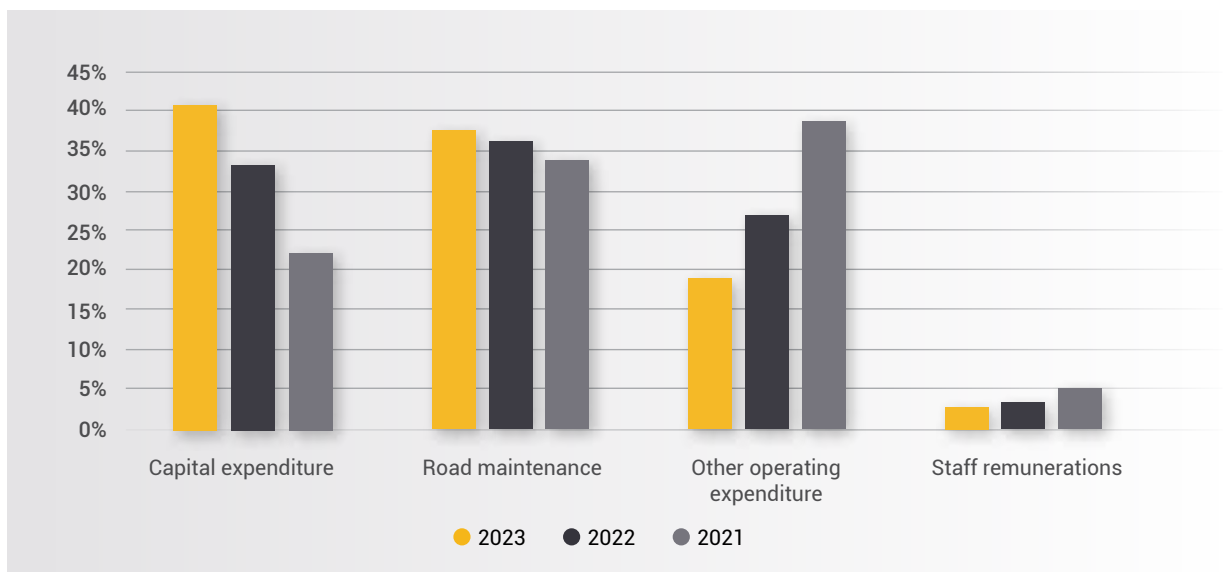
Revenue

In 2022/23, SANRAL received a grant of R22.895 billion from the National Treasury for capital and operational expenditure on non-toll national roads. The unspent portion of this grant, totalling R3.295 billion (14.4%), was deferred to the following financial year. R9.354 billion was recognised as operational revenue.

Expenditure

Expenditure on non-toll roads comprises spending on capital projects, maintenance of existing roads, staff remuneration and other operating procedures. In 2023, SANRAL allocated a higher budget for capital projects and maintenance compared to the previous two years, while reducing spending on staff remuneration and other operating expenses.

Non-toll expenditure



EXPENDITURE ON NON-TOLL ROADS

Expenditure on non-toll roads comprises spending on capital projects, maintenance of existing roads, staff remuneration and other operating procedures. SANRAL had 81 projects that were under construction with an expenditure of R10 billion.

Project type	Non-toll		
	2022/23 Length constructed	No of projects	Expenditure for 2022/23 financial year
CAPEX	131.918	33	R 6 946 660 647
Improvement	77.029	17	R 4 751 093 308
New facilities	14.960	12	R 1 669 091 827
Strengthening	39.929	4	R 526 475 512
OPEX	558.505	48	R 2 922 456 794
Periodic maintenance	264.742	34	R 1 028 806 170
Special maintenance	293.763	14	R 1 893 650 624
Grand total	690.422	81	R 9 869 117 441

3. TOLL ROADS: REVENUE, GRANT AND EXPENDITURE

Toll road revenue and grant streams

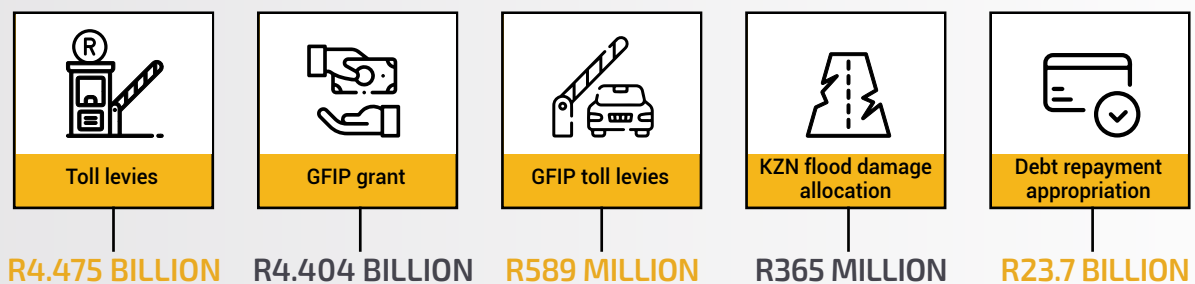
SANRAL collected R4.475 billion in toll levies during 2022/23, a marginal decrease of R47 million compared to the previous financial period.

In addition to toll levies, SANRAL has also been receiving a special government grant to cover the revenue shortfall from GFIP toll collections. On conventional tolls, all toll fees charged are as per the latest published gazette as the transaction price is recognised as revenue.

In addition to the annual government allocation, SANRAL also received a special appropriation of R23.7 billion to repay debt specifically related to its toll portfolio. This allocation ringfenced the GFIP risk in the portfolio and allowed the remainder of the toll portfolio, which is fully self-funding, to continue unencumbered. This debt redemption pay-out was accounted for as an equity injection and was not utilised on other operational costs.

In 2022/23, SANRAL also received an allocation of R365 million for flood damage to toll roads in KwaZulu-Natal.

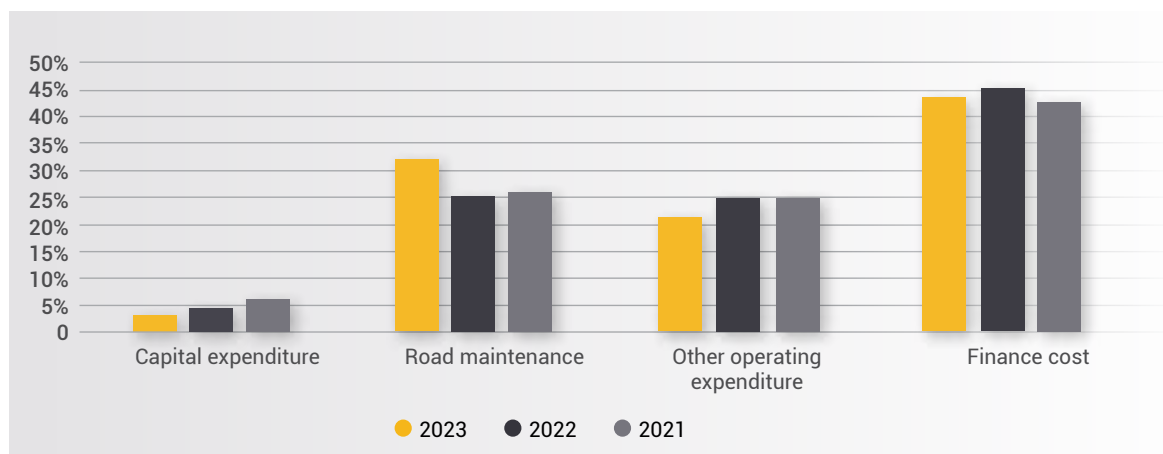
SOURCES OF REVENUE AND GRANTS FOR TOLL ROADS IN 2022/23



Toll road expenditure

Expenditure on toll roads comprises spending on capital projects, maintenance of existing roads and other operating procedures. In addition to this, SANRAL's tolled roads also incur a number of financial costs. In 2023, SANRAL allocated a higher budget for road maintenance compared to the previous two years, while reducing capital expenditure, finance costs and expenditure on other operations.

Toll expenditure



SANRAL allocates its annual income to various direct and capital expenditure categories. The main expenditure categories are shown below. In 2022/23, SANRAL also used an additional R8.9 billion to settle loans received from the Department of Transport when they became due. The Agency repaid debt redemptions of R8.870 billion in 2023. All debts were settled on time.

EXPENDITURE ON TOLL ROADS

Expenditure on toll roads comprises spending on capital projects, maintenance of existing roads, staff remuneration and other operating procedures. SANRAL had 11 projects that were under construction with an expenditure of R611 million.

Project type	Toll		
	2022/23 Length constructed	No of projects	Expenditure for 2022/23 financial year
CAPEX	1.301	1	R 112 916 254
New facilities	1.301	1	R 112 916 254
OPEX	129.485	10	R 498 055 247
Periodic maintenance	110.906	9	R 413 503 413
Special maintenance	18.579	1	R 84 551 834
Grand total	130.786	11	R 610 971 501





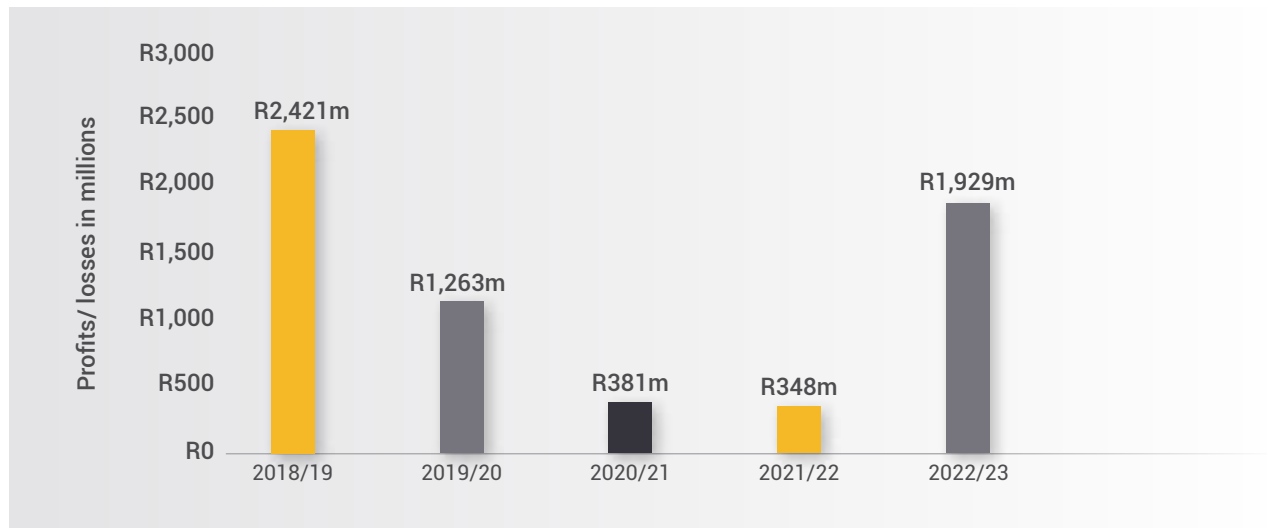
konroleer.

				R	R4
				R	R7
				R	R1
				R	R1

4. PROFIT/LOSS BEFORE TAXATION

SANRAL made a net profit during every financial period between 2018 and 2019. The largest profits over the last five reporting years, of R2,421 million, were seen for 2018/19, after which profits dropped off due to COVID-19 lockdowns. Although smaller profits were seen between 2020 and 2022, the period between 2022/23 saw some recovery, with profits at R1,929 million.

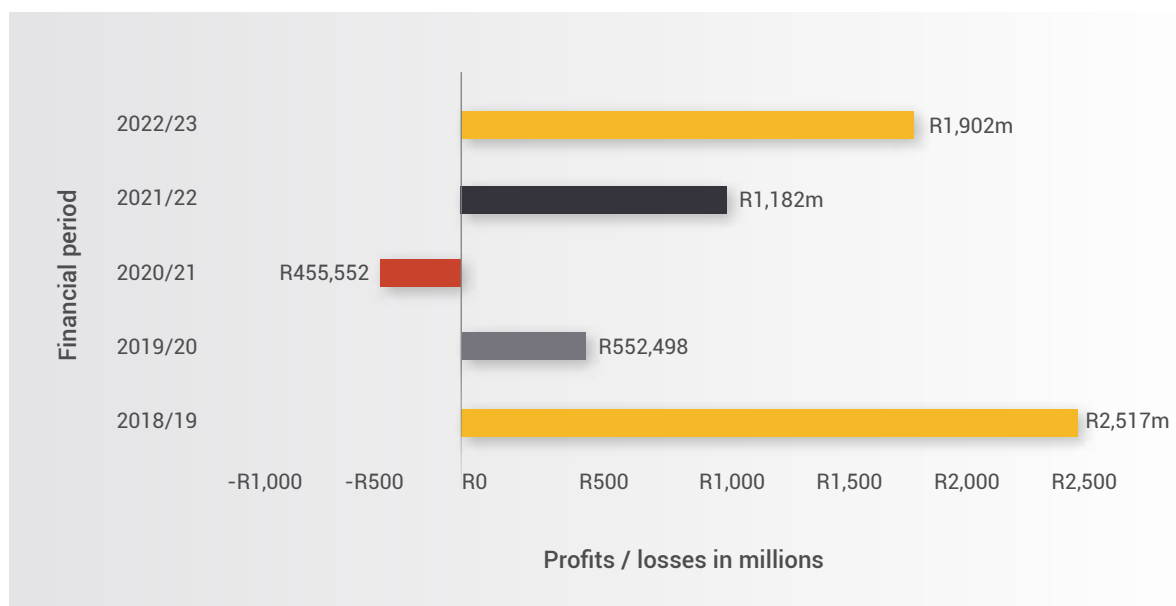
Total net profit between 2018 and 2023



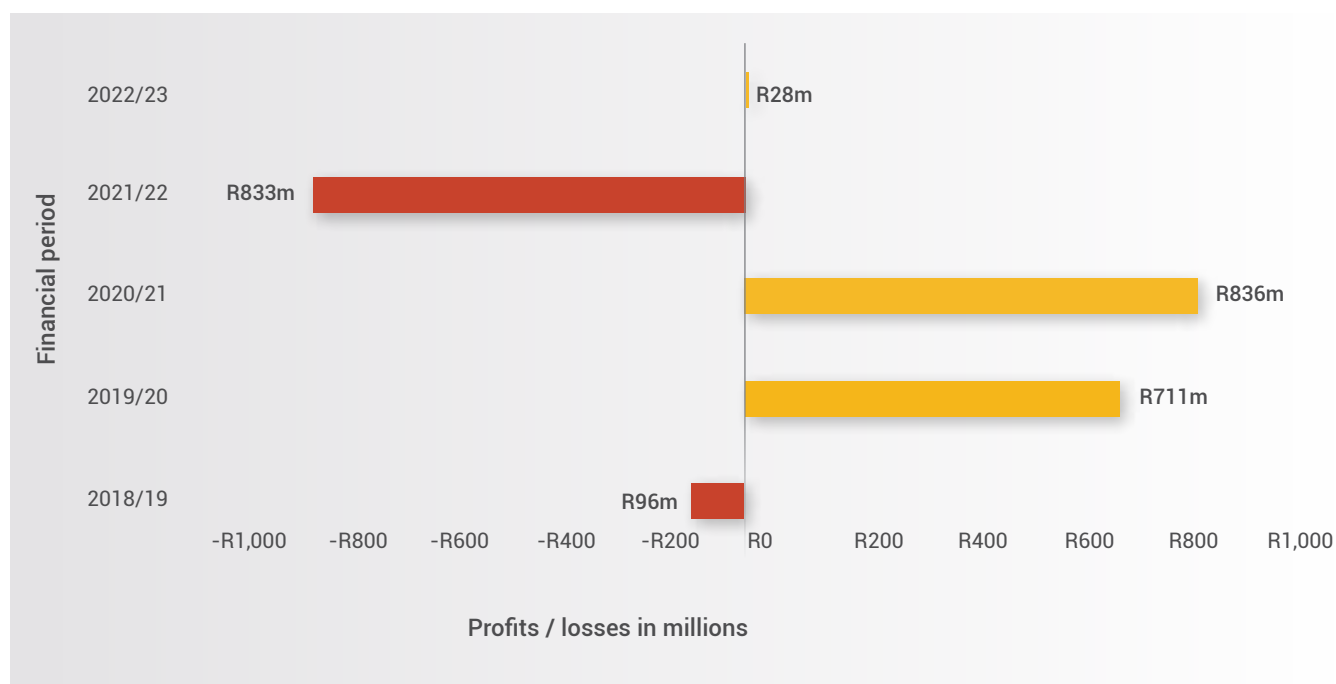
Across all financial periods, SANRAL's toll operations have consistently yielded higher profits compared to the non-toll operations.

The greatest profits for non-toll operations (amounting to R836.334 million) were seen for 2020/21, while the greatest profits for toll operations (amounting to R2,517 million) were seen for 2018/19. Both toll and non-toll operations saw a profit during 2022/23, R1,902 million and R27.749 million respectively.

Profits and losses for toll operations between 2018 and 2023



Profits and losses for non-toll operations between 2018 and 2023



5. UNAUTHORISED, IRREGULAR, FRUITLESS AND WASTEFUL EXPENDITURE

The entity did not incur unauthorised expenditure in the past financial year. The entity incurred irregular, fruitless and wasteful expenditure as per table below:

Description	2023 R' 000	2022 R' 000	2023 R' 000	2022 R' 000
	Irregular expenditure		Fruitless & wasteful expenditure	
Opening balance	5,369,479	2,161,364	18,394	18,394
Add: Irregular expenditure confirmed	6,724,182	3,208,115	33,774	0
Less: Irregular expenditure condoned	(9,929,149)	0	0	0
Less: Irregular expenditure not condoned and removed	0	0	0	0
Less: Irregular expenditure recoverable	0	0	0	0
Less: Fruitless and wasteful expenditure not recovered and written off	0	0	(18,394)	0
Closing Balance	2,164,512	5,369,479	33,774	18,394

* At a meeting held on 30 May 2023, the Board resolved to condone irregular expenditure amounting to R9,929 billion and write off fruitless and wasteful expenditure (18,394 million), within their condonation and write off authority as per National Treasury Instruction Note no.4. of 2022/23. The Board will also institute an investigation on some of the confirmed irregular, fruitless and wasteful expenditure and apply appropriate consequences management on those who are found to have transgressed procurement practices.

During the financial year ended 31 March 2023, no expenditure was identified and was confirmed as irregular expenditure incurred in 2022 by management / auditors.

Description	2023 R'000	2022 R'000	2023 R'000	2022 R'000
	Irregular expenditure		Fruitless & wasteful expenditure	
Irregular expenditure that was under assessment	24,962	3,434,638	0	0
Irregular expenditure that relates to 2022 and identified in 2023	0	0	0	0
Irregular, fruitless and wasteful expenditure incurred	6,724,182	487,145	33,774	0
Total	6,749,144	3,921,783	33,774	0

Description	2023 R'000	2022 R'000	2023 R'000	2022 R'000
	Irregular expenditure		Fruitless & wasteful expenditure	
Irregular expenditure condoned	9,929,149	0	0	0
Irregular expenditure removed but not condoned	0	0	0	0
Fruitless and wasteful expenditure recovered	0	0	0	0
Fruitless and wasteful expenditure written off	0	0	18,394	0
Total	9,929,149	0	18,394	0





OUR PEOPLE

SANRAL's employees play an indispensable role in driving our mission to develop, maintain and manage a national road network that supports South Africa's economic and social development.

This section of the Integrated Report showcases the progress we have made in advancing diversity and inclusion within our organisation, our investment in employee development, and our efforts to promote wellness and work-life balance.

SANRAL takes pride in our human resources (HR) policies and practices, which reflect our commitment to providing a supportive and inclusive work environment that empowers our employees to reach their full potential. As an integral part of our organisation, our HR function has developed a new strategy for 2027 that aligns with the strategic goals outlined in SANRAL's guiding document, Horizon 2030.

Our strategy is designed to provide the systems and practices necessary to ensure that SANRAL's goals are translated into clear and actionable objectives. We are placing a renewed focus on our people to improve employee engagement, learning and performance processes. By doing so, we can support SANRAL in becoming more agile and adaptive.

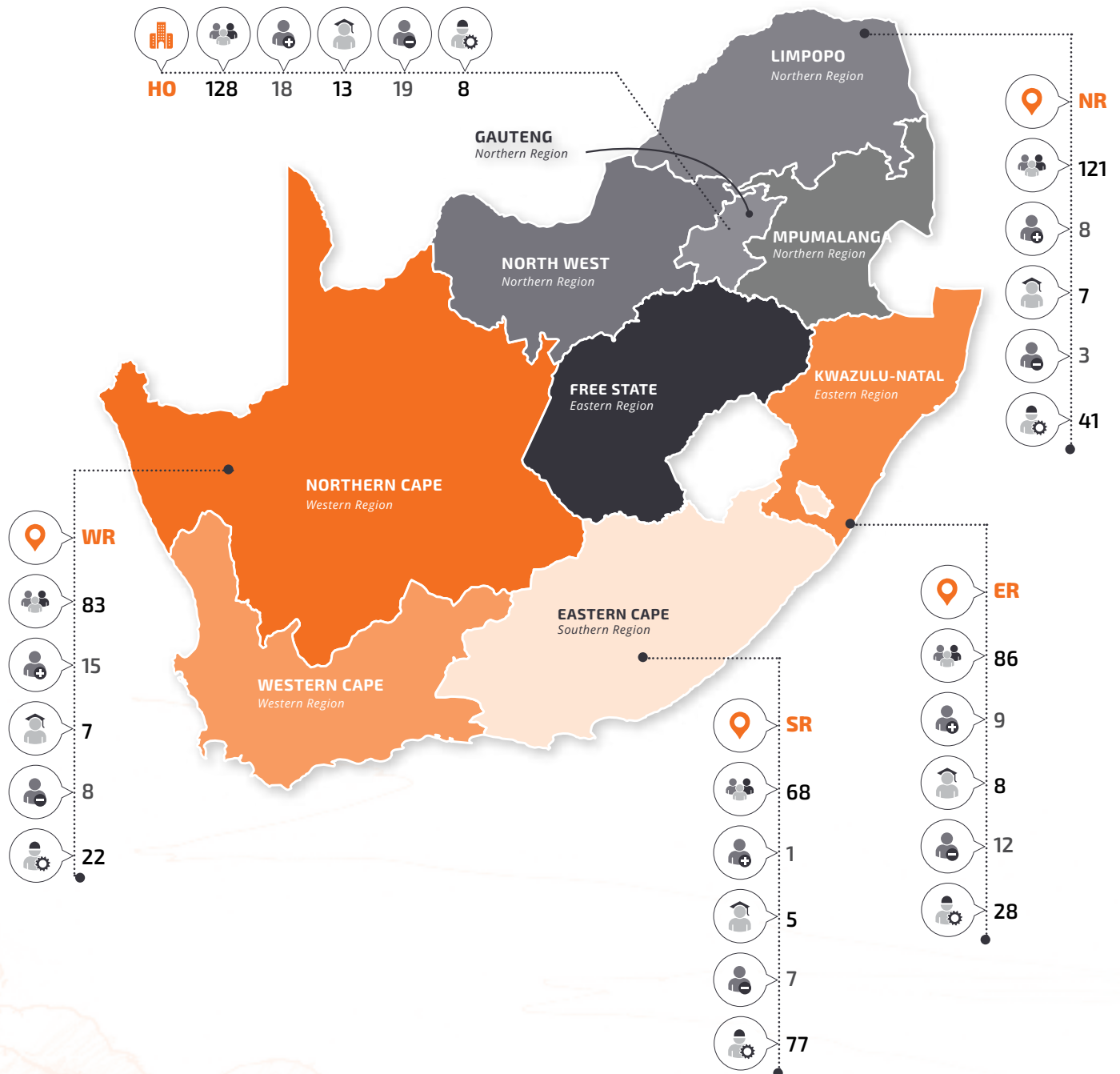
We believe that our employees are the heart of our organisation and we are committed to becoming an employer of choice in our industry.







1. EMPLOYEE OVERVIEW



MAP KEY	Number of employees	Staff recruitments	Intern recruitments	Terminations	Engineers
Totals	486*	51	40	49	176

MAP KEY	SR - Southern	MAP KEY
	NR - Northern	Head office
	ER - Eastern	
	WR - Western	HO

* 53 TEA candidates excluded from total number of employees

SANRAL experienced an attrition rate of less than 10%, which included individuals who reached the retirement age of 65.



2/3

of SANRAL engineers are **male**



+60%

of staff are employed in **technical positions**



+60%

of all staff are **Black African persons**



61%

of technical staff are registered with the **Engineering Council of South Africa (ECSA)** as professional engineers



+50%

of engineers are **Black African persons**

EMPLOYEE SPOTLIGHT



NONTOBeko MATHENJWA
NORTHERN REGION PROJECT MANAGER

Department: Design and Construction
10 years at SANRAL

Nontobeko is an award-winning project management professional, with 16 years' experience in the built environment. During this period, she has acquired a wealth of knowledge in construction engineering and the management of road infrastructure projects. This has made her a valuable asset in running one of SANRAL's flagship projects: the Moloto Road Upgrade project.

ACHIEVEMENTS

Nontobeko is a Gender Mainstreaming Awards winner for 2022 in the 'Positive Role Model' category and a Woman of Stature South African Awards finalist in the 'Science and Innovation' category for 2023. These awards are testament to the hard work she has put in over the years.

Recently, she earned a master's degree in engineering management and achieved distinction for her minor dissertation. Her research aimed to determine the impact of road infrastructure projects on socio-economic development and to identify the value of ex-post assessments, which are used to evaluate whether a project really delivered its expected benefits. Her findings suggest a direct relationship between the implementation of road infrastructure projects and socio-economic development. The significance of her research lies in providing policymakers with guidance on developing a socio-economic impact analysis technique that aligns the objectives of road infrastructure projects with those of national infrastructure policy.

EMPLOYEE SPOTLIGHT



GRETCHEN WEBER-CHERRY

MATERIALS AND PAVEMENT SPECIALIST

Department: Planning and Design
8 years at SANRAL



With over 25 years of experience as a civil engineering technologist, Gretchen takes great pride in her work. She had previously worked for the government for 12 years and for the private sector for 13 years.

ACHIEVEMENTS

A noteworthy accomplishment in the past year was her involvement in procurement processes that led to the awarding of contracts worth R59 billion.

Gretchen was also part of a project aimed at enhancing road safety in the Northern Cape through the application of road markings. This type of safety project is particularly important in a country where citizens are disproportionately impacted by road crashes.

2. DIVERSITY AND TRANSFORMATION

Despite a number of challenges, SANRAL remains committed to its transformation goals and is proud to have attracted talented individuals in line with its Employment Equity Plan (EE Plan). A dedicated committee ensures compliance with the plan and the achievement of EE targets.

The composition of our staff across all occupational levels is aligned with the Economically Active Population (EAP) targets. We aim to ensure that our workforce reflects the broader demographics of South Africa.

The success of our efforts in this area can be seen in the increasing representation of Black employees, particularly women, in management and senior management. We believe in investing in skills development, coaching and mentorship to empower our employees and ensure sustainability in leadership positions.

We monitor our EE Plan regularly to ensure we are on track to achieve our targets and we are committed to a fair and transparent process that recognises and rewards potential.



51%
Female
representation
at SANRAL



Employee profile

Occupational Level	Male				Female				Foreign		Total
	African	Coloured	Indian	White	African	Coloured	Indian	White	Male	Female	
Top management	1			1	1			1			4
Senior management	32	5	5	26	21	6	4	3	8		110
Professional	54	12	8	9	61	6	4	5			159
Skilled	70	11	6	5	111	15	9	13		1	241
Semi-skilled	7	1			12	3		1			24
Unskilled	7										7
Total	171	29	19	41	206	30	17	23	8	1	545

EMPLOYEE TRANSFORMATION STORIES

NAASHIF MOWZER
 PROJECT MANAGER

Western Region
 8 years and 6 months at SANRAL

Naashif Mowzer's journey from a SANRAL bursary recipient to becoming a project manager at the Agency is a testament to his determination and to SANRAL's efforts to open doors for talented youth in the roads industry.

After enrolling at the prestigious University of Cape Town for a BSc in civil engineering, Mowzer faced financial hardships in a single-parent household. A full SANRAL bursary proved to be a turning point in his academic journey. With newfound motivation,

Mowzer's performance soared, earning distinctions and accolades. After graduation, he was placed on a significant infrastructure upgrade project on the N7 in Malmesbury, allowing him to gain valuable experience.

He continued to sharpen his skills at the Technical Excellence Academy (TEA), before his journey led him back to the SANRAL Western Region office. Today, he takes charge of diverse engineering projects, from road maintenance to construction, showcasing his expertise and dedication.

EMPLOYEE TRANSFORMATION STORIES



SHAHEIL KHOOSAL

MENTOR, COACH AND DESIGN ENGINEER

Department: Skills Development Unit,
Technical Excellence Academy
11 years and 6 months at SANRAL

When Shaheil was awarded a SANRAL bursary while he was an undergraduate engineering student he had no idea that it would provide great financial relief for him and his family, but would also set him on the path of a truly transformative journey with his benefactor.

After obtaining his BSc in civil engineering, he joined the graduate programme at SANRAL's TEA. He was propelled into the world of work surrounded by a diverse group of expert mentors, supervisors, line managers and colleagues from various departments within SANRAL. Shaheil flourished in this environment that allowed him the opportunity to actively participate and contribute on various platforms and flagship projects.

Over the years, Shaheil has been involved in the planning, design and construction of roads projects, wearing many hats as site engineer, design engineer and project manager.

Dedicated to ongoing professional and academic development, Shaheil went on to obtain a professional registration with the Engineering Council of South Africa (ECSA) and an MSc in engineering.

Currently, Shaheil is mentor, coach and design engineer at the SANRAL TEA.

As the first mentor of Indian descent, he is an outstanding example of SANRAL's commitment to supporting aspiring engineers from historically disadvantaged backgrounds.

3. TRAINING AND DEVELOPMENT

At SANRAL, we believe in the value of investing in our employees. As such, we remain committed to providing learning and development opportunities that align with our mandate of building and maintaining road infrastructure, while also nurturing South African talent in the roads industry.

Our investments in this area are guided by relevant national legislation and our Horizon 2030 strategy, which places strong emphasis on talent management and succession planning. We recognise that our employees are our greatest asset and, as such, we have established a dedicated Skills Development Unit to facilitate learning and development initiatives.

To ensure that our employees are equipped with the necessary skills and knowledge, we have adopted a digital approach to learning and development, focusing on skills transfer, career interventions and the development of a skills pipeline within our organisation and the industry as a whole.

Our interventions aim to support our employees in their professional growth and development, ranging from skills training for the workplace to mandatory training to maintain continued professional development status with recognised professional bodies.

SANRAL has also implemented an employee movement policy that emphasises the importance of staff development through exposure to senior roles on an acting basis, as well as job enrichment. This policy creates opportunities for employees to take on high-level roles and enhance their skills, contributing to the growth and development of the organisation.

SANRAL invested R570,000 in the Construction Management Programme (CMP) at Stellenbosch University, benefiting six employees who successfully completed the programme. Additionally, 61 employees received training worth R42,090 to improve reporting and drive innovation within the organisation.

EMPLOYEE TRAINING OVERVIEW



R2,397,031.90

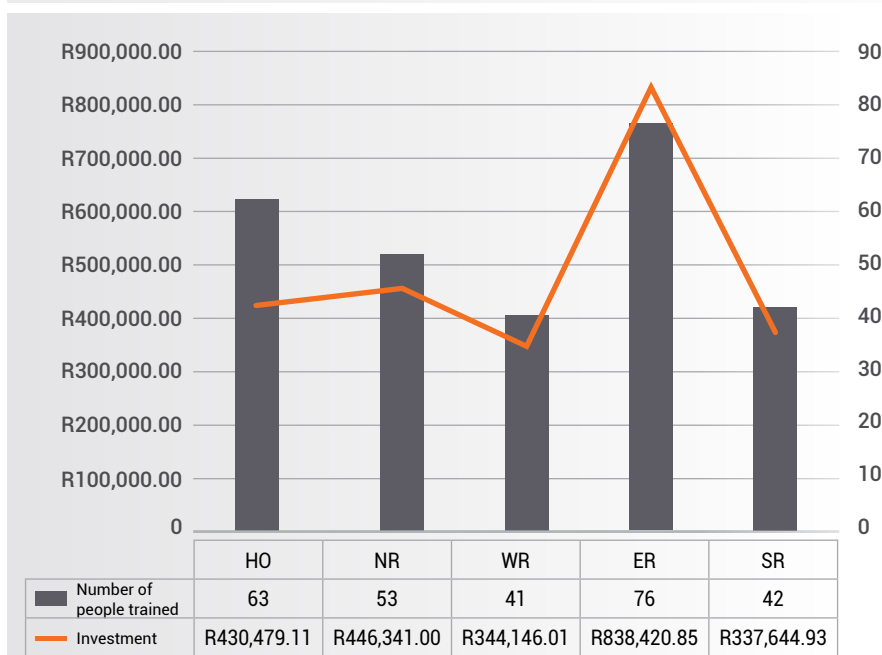
Total investment in employee training



275

Total number of employees trained

Investment in training





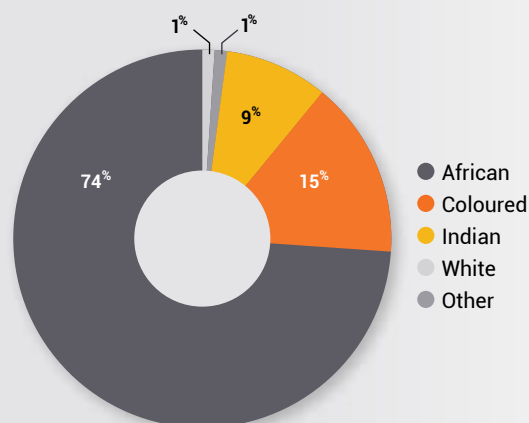
INTERNAL BURSARIES

SANRAL's internal bursary programme plays a vital role in empowering and developing our workforce by providing funding for academic training and professional certification. The programme has enabled employees to acquire new skills and knowledge to support their current roles, future prospects and career mobility.

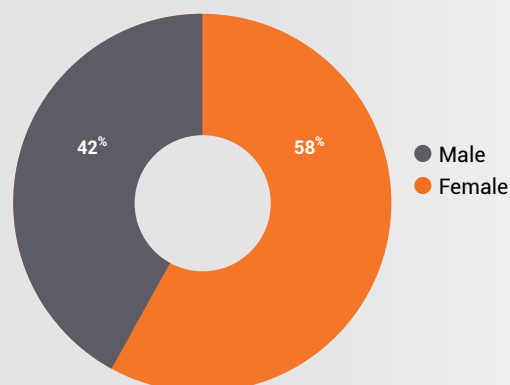
INTERNAL BURSARY ACHIEVEMENTS



Bursary recipients by population group



Bursary recipients by gender



Detailed internal bursary data

Gender		Racial group					Region					Total
Male	Female	African	Coloured	Indian	White	Other	HO	NR	ER	WR	SR	
29	40	51	10	6	1	1	18	17	13	10	11	69

4. EMPLOYEE SAFETY AND WELLNESS

SANRAL recognises that employee wellness is crucial for creating a safe, healthy and productive work environment. We are committed to supporting our employees to perform at their best while maintaining good health and safety practices in line with legislative requirements.

Our Employee Wellness Programme (EWP) is provided by Workforce Health Care (WFHC) and is designed to help our employees achieve their personal and professional goals.

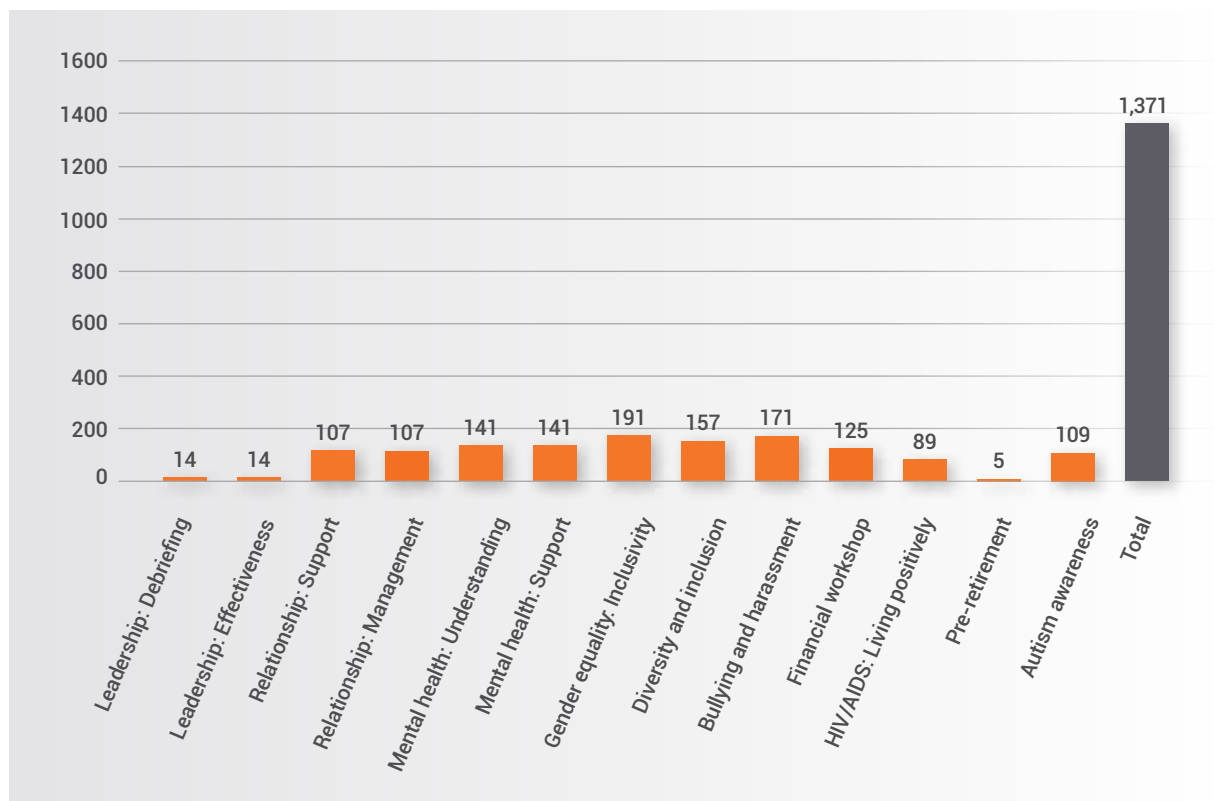
EWP SERVICES OFFERED

- Psychological counselling
- Life management
- Preventative wellness screenings
- Managerial support
- Executive care

2022/23 EWP HIGHLIGHTS

- Workforce Healthcare (WFHC) was appointed as the new EWP service provider for a three-year period, starting from 1 October 2022. This partnership is aimed at further enhancing our employee wellness initiatives.
- The overall EWP engagement rate has increased, indicating the positive impact of our wellness programme.
- As part of our commitment to proactive wellness management, we have introduced wellness intervention plans and educational programmes that address prevalent wellness trends.
- Working with the marketing and communications team, we rolled out successful national wellness interventions, including wellness days.
- The wellness intervention plan for 2022/23 was implemented successfully.

Attendance at wellness workshops





5. INFORMATION AND COMMUNICATION TECHNOLOGIES

SANRAL has been working to create a modern digital technology landscape to improve connectivity for both its staff and the communities it serves.

Over the past reporting year, our key focus has been on consolidating our information and communication technologies (ICT) operations to improve accessibility, efficiency and cost-effectiveness.

IT governance is embedded into our business processes. This is crucial considering the rapid advances in technology, increasing privacy concerns, security threats and the demand for always-on systems. Our IT governance framework and IT charter ensure comprehensive oversight, led by the Head of Information Technology and the SANRAL Board.

Our technology governance structures and frameworks have clear objectives: to establish processes that are sustainable and well-suited to our needs. We aim to align our technology strategy with our business goals, deliver value and effectively manage performance. Additionally, we prioritise strengthening information security and information management, risk management and business continuity.

During the past reporting year, we remained committed to strengthening our security operations and strategies by implementing next-generation security technologies. This improved our ability to prevent and detect threats, while also providing real-time insights for effective response. Our robust cybersecurity controls and tools were consistently monitored to ensure effectiveness. Considering that our primary security risks stem from the individuals who use our IT systems, we placed significant emphasis on awareness programmes to equip users and staff with knowledge about fundamental security threats.

Over the past year, we also embraced agile methodologies to work faster, improve user experience and enhance stability. Our cloud migration journey remained a key focus, resulting in cost savings and improved efficiencies. We transitioned non-core services such as O365 and SAP SuccessFactors to the cloud, allowing us to focus on major projects, some of which are outlined below.

Looking ahead, ICT will focus on meeting the growing need for automating business processes, which is driven by digital transformation. This will help to ensure even greater efficiency at SANRAL.



STRATEGIC FOCUS AREAS FOR 2022/23

• The National Data Centre (NDC) strategy

To streamline operations and improve efficiency, SANRAL is working towards consolidating its infrastructure across multiple departments and transitioning to a single multi-tenant hosted platform. This move is supported by the National Data Centre (NDC) strategy.

The SANRAL NDC will encompass various offerings that have been made possible through investments over the past 13 years. These include:

- Telecommunications infrastructure on the SANRAL road network across the country
- State-of-the-art datacentres fit for IaaS (infrastructure as a service) and SaaS (software as a service)

By combining multiple data centres into a single system, SANRAL can provide various levels of service to different departments, depending on their unique requirements. This consolidation allows for cost savings, scalability and enhanced security. It also streamlines management and support processes.

• National Toll System

SANRAL has developed its own commercial off-the-shelf (COTS) National Toll System, which will replace the existing multiple systems used in conventional toll plazas. Qualified system integrators will be solicited to assist with the detailed design, development, integration, implementation and support of this new system. It will feature easily configurable and customisable solutions, ensuring a seamless handover to SANRAL.

The system will include the following components and value-added services:

- Account-based ticketing services for public transport users
- Average speed enforcement
- Overload control
- Interfaces with SANRAL's Enterprise Resource Platforms and Freeway Management Systems



• Wide Area Network (WAN) project

The Wide Area Network (WAN) project aims to use fibre infrastructure owned by SANRAL along South Africa's national roads to create a private network. This will connect various SANRAL offices, toll plazas and traffic control centres (TCC). The project will primarily serve operational areas such as toll plazas, traffic control centres, intelligent weigh-in-motion (IWIM), average speed over distance (ASOD) enforcement and intelligent transportation systems (ITS). These systems will be centralised at the Central Operations Centre (COC), which will act as a central hub for the network.



ROADS

Roads are at the heart of SANRAL's mission, serving as vital arteries that connect people, places and possibilities.

This section of the Integrated Report showcases a range of road infrastructure projects in SANRAL's four regions over the past year, covering both maintenance and construction activities, highlighting notable achievements and addressing the year's challenges.

This section also reflects SANRAL's dedication to staying at the forefront of industry advancements and promoting environmentally conscious practices in road construction. By embracing innovation and sustainability, SANRAL aims to create a road network that better serves the needs of present and future generations.

The projects highlighted in these pages are about more than bitumen and concrete. They encompass a broader vision of roads as catalysts for progress, connecting communities, driving economic growth and improving lives.



NORTHERN REGION

Message from the Regional Manager

Progress Hlahla

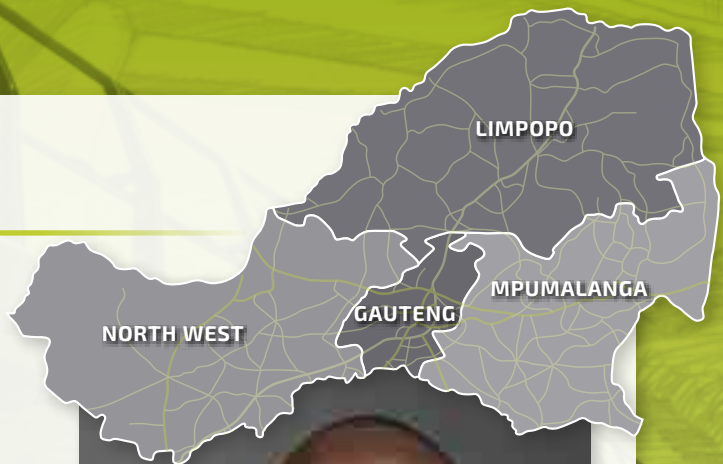
Welcome to SANRAL's Northern Region. In this section of the Integrated Report, we highlight the region's notable road infrastructure projects from the past reporting year.

The Northern Region is responsible for more than 40% of the entire SANRAL network, and is known for its diverse cultures and norms, which requires careful consideration when engaging with stakeholders. In addition, over 80 municipalities and various provincial departments need to be factored in as SANRAL carries out its infrastructure plans. A significant portion of the network is also nearing the end of its expected lifespan, which means SANRAL must fast-track major capital expenditure projects to renew and improve the network.

Despite some challenges, SANRAL has set ambitious goals for the region, including issuing a significant number of projects to the market and embarking on an active recruitment drive to ensure capacity to deliver on these projects.

The region has made significant progress over the past year, with projects such as the R510 and R37 in Limpopo and the Moloto Road project in Mpumalanga and Limpopo meeting their targets. The R23 upgrade in Standerton has reached completion, and several other ongoing projects have made considerable headway, as outlined in this report.

These projects continue to benefit local communities through our subcontracting and labour targets. SANRAL's projects carry a 30% subcontracting requirement, which translates into hundreds of millions of rands being spent on local communities. We also have set targets for labour,



which can amount to approximately 8% of the contract value. By providing direct employment opportunities through our contracts, we are able to significantly contribute to job creation efforts.

However, the past year has not been without challenges. Interference from local political interests and disruptions by business forums at construction sites have at times posed risks to project delivery. Nevertheless, SANRAL remains committed to its ideals and aims to make a positive impact on all communities in which it executes its work.

In the coming year, the number of regional projects issued to the market will reach its peak. We are optimistic that they will contribute to the development of local communities, and ultimately to positioning South Africa as a competitive country on the African landscape.

NORTHERN REGION

1. PROJECTS OVERVIEW

Various road construction and maintenance projects were underway in 2022/23. This section provides a detailed overview of the contracts awarded and major projects completed, among others.

1.1 Capital projects and length of road benefited

TYPE OF CAPITAL PROJECT	NON-TOLL		TOLL	
	Projects	Km benefited	Projects	Km benefited
Strengthening and improvement	R.511-030-2017/2	39.4	N.001-290-2022/1	5.79
	R.037-020-2005/1	25.9		
	R.510-020-2016/1	27.4		
	R.504-030-2018/1	28.9		
	R.510-012-2016/1	26.8		
	R.504-040-2018/1	24.1		
New Facilities	R.033-140-2016/1	Bridges and culverts	N.001-290-2005/1	8.0
	R.573-020-2019/4	11.5		
	R.573-030-2016/1	24.5		
	R.573-030-2019/1	6.8		
	R.023-020-2020/1	4.0		
	N.002-340-2013/1	Interchange		
Total	12	219.3	2	13.79

NORTHERN REGION

1.2 Major projects completed

Section of road	Percent complete	Value of work done	Scope of work	Main contractor
R.037-020-2019/1 Burgersfort (km 0.0) to km 14.0	100%	R7,777,584	Resurfacing	Actophambili
N.012-120-2018/1 Beefmaster (km 12.6) to Matlabanestad (km 35.0)	100%	R1,195,3540	Resurfacing	Actophambili/ Mafoko JJ JV
N.012-120-2018/2 Matlabanestad (km 35.0) to Bloemhof (km 55.2)	100%	R868,791	Resurfacing	Actophambili/ Mafoko JJ JV
N.012-140-2019/1 Rietpan (km 40.0) to Wolmaranstad (km 63.1)	100%	R66,499,075	Resurfacing	Roadmac (Pty) Ltd
R.572-020-2019/1 Monte Christo (km 0.0) to Rooigrond (km 24.0)	100%	R14,512,137	Resurfacing	Roadspan Surfaces (Pty) Ltd
R.572-020-2019/2 Rooigrond (km 24.0) to Tom Burke (km 47.95)	100%	R6,789,716	Resurfacing	Roadspan Surfaces (Pty) Ltd
R.578-010-2019/4 N1 (km 0.0) to Maholisi (km 16.0)	100%	R32,688,264	Resurfacing	Roadmac (Pty) Ltd
R.578-010-2019/6 Mahodlogwa (km 35.8) to Nwamata (km 56.0)	100%	R23,048,906	Resurfacing	Imvula Roads & Civil
R.033-060-2019/1 Mkhondo (km 0.0) to Amsterdam (km 36.0)	100%	R30,536,250	Resurfacing	Roadmac (Pty) Ltd
R.033-070-2019/1 Amsterdam (km 0.0) to N17 Intersection (km 52.5)	100%	R119,061,583	Resurfacing	Roadmac (Pty) Ltd
N.017-050-2021/1 Chrissiesmeer (km 37.0) to km 85	100%	R216,196,445	Special Maintenance	Roadspan Edwin JV
X.002-063-2018/1 Structural/Drainage Services NR - Bloemhof dam bridge repairs	100%	R14,681,891	Repair of the existing	Dwellers Trading and Projects cc
R.524-010-2021/1 Repair of the existing culvert on R524 Section 1 at km 66.6	100%	R19,333,731	Repair of the existing culvert	Jodan Construction (Pty) Ltd
R.555-030-2021/1 Repair of the existing pipe culvert on R555 Section 3 at km 6.88	100%	R2,344,947	Repair of the existing culvert	WK Construction SA (Pty) Ltd
R.036-060-2019/2 Manchabeni (km 4.75) to Tzaneen (km 34.1)	100%	R104,342,415	Resurfacing	Roadmac (Pty) Ltd
R.579-020-2019/2 Morwaneng (km 0) to Maleetsi (km 26.1)	100%	R123,931,136	Resurfacing	Roadmac (Pty) Ltd

1.3 Major contracts awarded for projects on non-toll roads

Project number	Project description	Section of road	Percent complete	Value of work done	Scope of work	Main contractor
R.037-020-2005/1	Modikwa Mine (km 117.00) to Burgersfort (km 142.87)	Burgerfort to Ka-Ribe	80%	R458,409,348	Improvement	Edwin Construction (Pty) Ltd
R.510-020-2016/1	Bierspruit (km 6.4) to Thabazimbi (km 33.8)	R510 Section 6 from km 6.3 to km 33.8	70%	R263,293,466	Improvement	Raubex
R.033-140-2016/1	Merriespruit Bridges between Vaalwater and Lephalale	R33 Section 14- Vaalwater	99%	R57,318,807	New bridges	G4 Civils
R.573-020-2019/4	Upgrading of National Road R573 Section 2: Work Package A from km 24.70 to km 36.20	R573 Section 2 from km 24.70 to km 36.20	56%	R130,250,122	Upgrade	King Civil Engineering Contractors
R.573-030-2016/1	Km 19.2 to km 43.7 Mathys Zyn Loop to Marble Hall	Siyabuswa (km 19.2) to Marble Hall (km 43.7)	67%	R0.00	Upgrade	KPMM/CBE JV (contract terminated)
R.573-030-2019/1	Km 6.5 to km 13.3	Slovo (km 6.5) to Siyabuswa (km 13.3)	74%	R206,607,304	Upgrade	Raubex Construction (Pty) Ltd
R.023-020-2020/1	Completion of 6 bridges and km 0.0 to km 4.0	Lekwa (Standerton to Greylingstad)	99%	R294,885,534	New Facilities	Raubex Enza JV
R.504-030-2018/1	Wolmaranstad to Leeuwdoringstad	Km 0 to km 28.9	48%	R172,060,053	Strengthening	Tau Pele
N.004-112-2017/1	Rebecca Street to Pelindaba	N4 Sections 11 and 12, Pretoria (Attridgeville)	19%	R672,651	Resurfacing	Phagama Civils and Maintenance cc
R.510-012-2016/1	NW/LP Border to Bierspruit	R510 Sections 1 and 2 from North West / Limpopo Border (km 72.0) to Bierspruit (km 6.3)	19%	R92,905,414	Improvement	Lonerock Jodan JV
R.555-034-2019/1	Steelpoort River to Ga-Mapodila 63.0 on Section 3) to Ga-Mapodila (km 17.4 on Section 4)	R555 Section 3 & 4 from Steelpoort River (km 63.0 on Section 3) to Ga-Mapodila (km 17.4 on Section 4)	20%	R20,399,998	Resurfacing	Roadmac Surfacing (Pty) Ltd

Project number (continues)	Project description	Section of road	Percent complete	Value of work done	Scope of work	Main contractor
R.555-040-2019/2	Ga-Mapodila to Burgersfort	R555 Section 4 from Ga-Mapodila (km 17,4) to Burgersfort (km 37,4)	22%	R20,520,791	Resurfacing	Roadmac Surfacing (Pty) Ltd
N.012-160-2016/1	Stillfontein sinkhole rehabilitation	N12 Section 16 Stilfontein urban area, between km 11.6 (Buffelfontein Road) and km 12.6 (Wintervogel Road)	0%	R0.00	Special Maintenance	Udumo Trading 26 T/A Ultimate Dynamics
R.511-030-2017/2	Beestekraal to NW/LP Border	R511 Sections 3 from Beestekraal (km 36.0) to Northwest / Limpopo Border (km 75.4)	0%	R0.00	Strengthening	WBHO Construction (Pty) Ltd
R.574-010-2022/1	Strengthening of ARMCO culverts	R574 Section 1 at km 12.42	0%	R0.00	Special Maintenance	Vide Investments (Pty) Ltd T/A CSA Construction
N.017-050-2021/2	Km 85 to Oshoek km 122.7	N17 Section 5 from (km 85.0) to Oshoek (km 122.7)	4%	R12,228,532	Special Maintenance	Roadspan Edwin JV
R.504-040-2018/1	Leeuwdoringstad to NW/FS Border	R504 Section 4 from Leeuwdoringstad (km 0.0) to NW/FS border (km 24.1)	0%	R0.00	Strengthening	Actophambili Roads / Imvula Roads and Civilis JV
N.012-200-2019/1	Delmas to Petroport	N12 Section 20 Between Delmas (km 0.0) and Petroport (km 20.0)	0%	R0.00	Resurfacing	Roadmac Surfacing (Pty) Ltd
N.012-200-2019/2	Petroport to Ogies	N12 Section 20 Between Petroport (km 20.0) and Ogies (km 42.2)	0%	R0.00	Resurfacing	Roadmac Surfacing (Pty) Ltd
N.002-340-2013/1	DNNBN: New Panbult I/C	Upgrading Panbult Intersection (linking provincial roads D803 and P97/2) across National Route N2 Section 34	0%	R0.00	Upgrade/ New Facilities	WBHO Construction (Pty) Ltd



1.4 Major projects on SANRAL-managed toll roads

Project number	Project description	Section of road	Percent complete	Value of work done	Scope of work	Main contractor
N.001-290-2005/1	Musina Ring Road	South of Musina Town to North of Musina Town	100%	R101,017,285	New Facilities	Raubex Construction (Pty) Ltd
N.001-290-2022/1	Through Musina Town	N1 Section 29 from Musina South (km 89.65) to Musina North (km 95.44)	0%	R0.00	Strengthening	Hillary Construction (Pty) Ltd
N.001-190-2017/2	Vaal River to Klein Rietspruit	N1 Section 19 from Vaal River (km 0.0) to Klein Rietspruit (km 10.1)	0%	R0.00	Resurfacing	Tau Pele Construction (Pty) Ltd
N.001-190-2017/1	Klein Rietspruit to N12/Potchefstroom	N1 Section 19 from Klein Rietspruit (km 10.0) to N1 Section 20 N12/Potchefstroom (km 7.0)	35%	R80,393,076	Resurfacing	Roadmac Surfacing (Pty) Ltd
R.021-010-2017/9	From Pomona Road to Olifantsfontein Road	R21 Section 1 From Pomona (km 12.06) To Olifantsfontein (km 26.05)	0%	R0.00	Special Maintenance	Roadmac Surfacing (Pty) Ltd
N.001-210-2021/1	New Road Bridge Parapets in Midrand	Repairs to new Road Bridge Parapets on N1 Section 21 (km 1.42)	0%	R0.00	Repairs to new Road Bridge Parapets	Vide Investments (Pty) Ltd T/A CSA Construction
N.001-200-2019/1	Repair Bridges N1 Section 20 & 21	Repairs to the Hans Schoeman Bridge No. 262 A and B	0% (Mobilisation period)	R5,227,200	Repairs to the Hans Schoeman Bridge No. 262 A and B	Teichman Structures (Pty) Ltd

1.5 New, completed and ongoing projects by concessionaires

SANRAL closely monitors the condition and capacity of roads managed by its concessionaires, in addition to its own managed roads. Over the past reporting year, the concessionaires continued to undertake projects to enhance and strengthen the roads that fall within their responsibility. The total value of construction and rehabilitation work performed during 2022/23 on toll routes under concession was R568.4 million.

Bakwena Platinum Corridor Concessionaire

The following projects were carried out on the N1/N4 Toll Corridor.



Description	Comencement date	Completion date	Estimated contract value	Status
Bridge repairs N1/N4 (2023)	February 2023	December 2023	R7,967,256.05	Construction in progress (Contractor Civilcon)
N4-9, Kameeldrift I/C (km 0.00) to Ga-Rankuwa I/C (km 20.80) – rehabilitation works	October 2021	August 2023	R187,977,258.02	Construction in progress (Contractor G4)
N1-22, km 3.10 to km 32.00 (US1) – rehabilitation works	February 2023	April 2024	R177,000,000 (Value for US1 and U2S combined)	Mobilisation period of 3 months underway (Contractor Roadmac Surfacing)
N1-22, km 3.10 to km 32.00 (US1) – rehabilitation works	February 2023	April 2024	R177,000,000 (Value for US1 and U2S combined)	Mobilisation period of 3 months underway (Contractor Roadmac Surfacing)
N1-23, km 13.40 to km 42.60 (US3), including Bela Bela I/C crossroad - rehabilitation works	May 2022	September 2023	R174,409,569.05	Construction in progress (Contractor Roadmac Surfacing)
N1 – 22/23, Sector 2, HS 5 – Wallmansthal Plaza Ramps – additional lane on NB off-ramp and SB on-ramp	March 2023	March 2024	R21,000,000	Construction underway (G4 Civils)

Ongoing projects

- A significant rehabilitation project is ongoing on the N4 Toll Route between the Kameeldrift Interchange and the Ga-Rankuwa Interchange, covering a total distance of 20.8km. The project involves structural strengthening by reconstructing the slow lane and interchanges where required. Periodic maintenance activities, such as patching and applying a rejuvenation fog spray, are also being carried out on the slow shoulder, fast lane, fast shoulder and interchanges.
- Periodic maintenance is taking place on the N4 eastbound, spanning a distance of 12.88km. The maintenance activities involve localised patching and sealing. The total cost of this project is R232 million.

New projects

- Rehabilitation has commenced on the N1 between the Pienaars River Interchange and the Bela Bela Interchange, spanning a total of 29.2km. The project is located in the Waterberg District Municipality,

Limpopo. The work includes rehabilitation of sections of the carriageway and asphalt overlay for the entire road surface. The total construction cost is R230 million.

N3TC

The total value of construction and rehabilitation work performed during 2022/23 on toll routes under concession was R367 million. N3TC also spent R69 million on routine road maintenance (RRM) during the period under review.



New construction and rehabilitation contracts awarded on toll route under concession

Project	Start and end date	Value of contract	Scope of work	Main contractor
N3TC				
No new projects				

Ongoing construction and rehabilitation projects on toll route under concession

Section of road	Percent complete	Value of work	Scope of work	Main contractor
N3TC				
RR-2021-001: Rehabilitation of N3-10 NB	62%	R165,000,000	Repair and resealing of N3 between Vaalddraai I/C and Malanskraal	Roadspan WBHO JV

N3TC (continued)

Completed construction and rehabilitation projects on toll route under concession

Section of road	Percent complete	Value of work in 2022/23	Scope of work	Main contractor
N3TC				
RR-2018-002A N3-8&9 Warden to R34	100%	R202,000,000	Rehabilitation and overlay of N3 between Warden and the R34	Roadmac Surfacing (Pty) Ltd



TRAC



New construction and rehabilitation contracts on toll concessions

Project	Start date	Value of contract	Scope of work	Main contractor
TRAC				
Upgrading of Schoemanskloof structures	11/01/2023	R980,670,000	Rehabilitation and widening of existing structures	Civilcon
Rehabilitation of MDC New 2f between Bossemanskraal I/C and Gauteng Border	11/01/2023	R137,000,000	Rehabilitation	Actophambili Roads
Rehabilitation and Upgrading of the Nelspruit Bypass from Mataffin to Crocodile Valley	11/01/2023	R228,100,000	Rehabilitation and upgrading existing R36 I/C	Roadspan

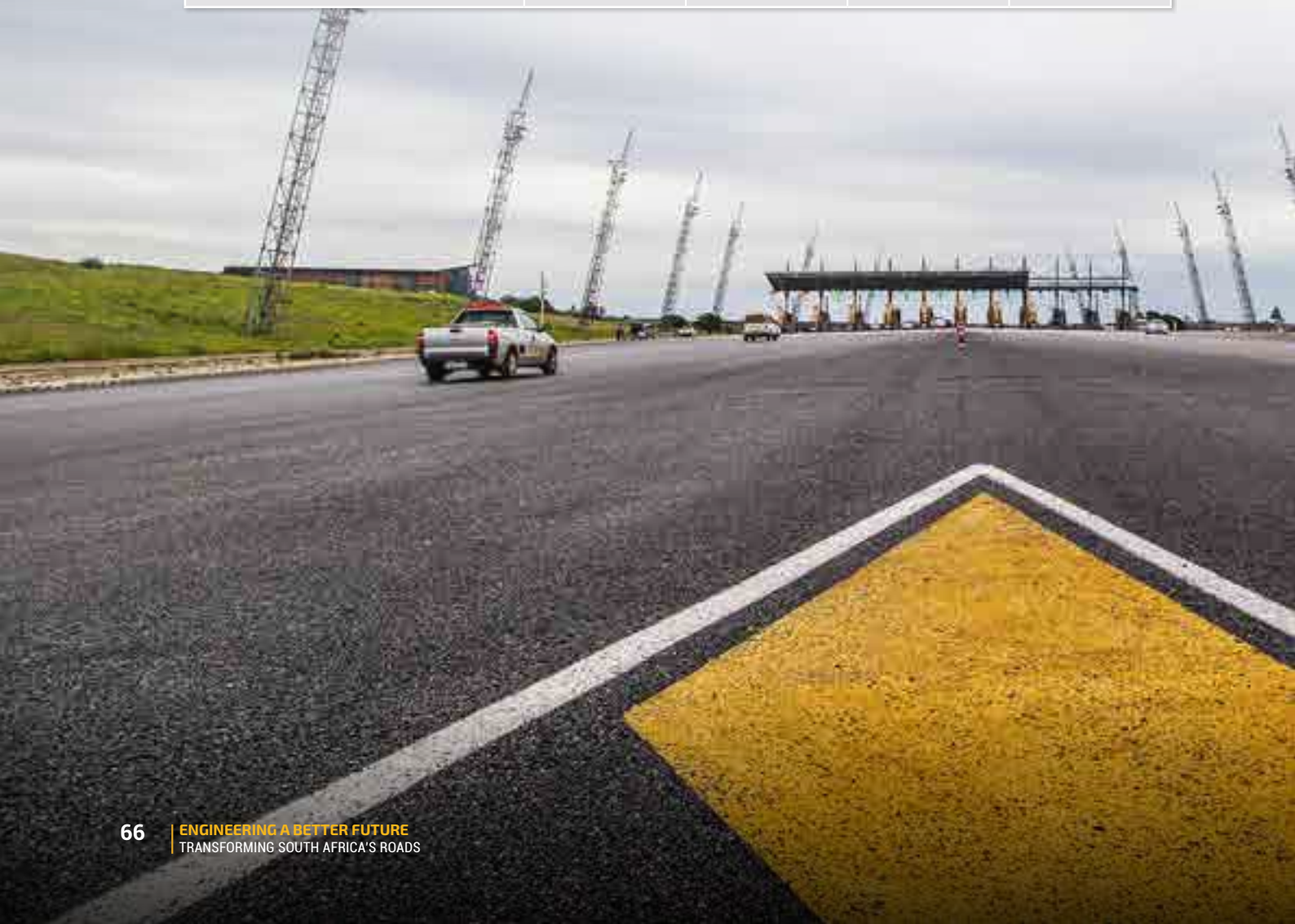
Ongoing construction and rehabilitation projects on concessioned toll road

Section of road	Percent complete	Value of work in 2022/23	Scope of work	Main contractor
N3TC				
Upgrading of Montrose Intersection to split level interchange	95%	R196,020,000	New grade-separated interchange	WBHO/Motheo JV
Rehabilitation of MDC Section 5a between Wonderfontein and Belfast	55%	R54,540,000	Rehabilitation	Actophambili Roads

TRAC (continued)

Completed construction and rehabilitation projects on toll route under concession

Section of road	Percent complete	Value of work in 2022/23	Scope of work	Main contractor
TRAC				
N4 between Belfast and Machadodorp	100%	R12,680,000	Upgrading: lane additions	WBHO/Motheo JV
N4 Upgrading of Karino I/C	100%	R6,620,000	New grade separated interchange	Raubex Construction
N4 between Witbank and Middelburg	100%	R20,330,000	Rehabilitation and lane additions	Raubex Construction
Upgrading of the Nelspruit bypass to 4 lane undivided between P154 and Karino I/C	100%	R98,650,000	Rehabilitation and upgrading to 4 lanes	Raubex Construction



2. PROJECT HIGHLIGHTS

2.1 Project: Safety improvements and new bridges on the R23

Start & completion date: 6 May 2021 to end May 2023
(initial programme)

Status: Completed

Location: Between Standerton and Greylingstad in Mpumalanga

Main contractor: Raubex/ENZA JV

**Project value
(including VAT):** R324,155,751.65
(based on tender)

**Total spent on labour
(including VAT):** R18,603,975.93

PROJECT WORKS:

Major concrete works were carried out on seven bridge structures, which included foundation footings, head and wing walls, balustrades, approach slabs and roof slabs. A new dual-carriage road with traffic circles and a 2m-wide median featuring a back-to-back guardrail system were constructed for the initial 4km of the project. To comply with necessary safety measures and to accommodate local factories' traffic flow, additional entrances were built. The project faced several challenges, including managing relations with the local community and working around heavy rainfall.

PROJECT IMPACT:

- 30% of the tender value was allocated to targeted enterprises and 6% to targeted labour
- 55 local subcontractors were recommended for appointment
- 280 local labourers were employed
- Eight local SANRAL students received skills development
- 35 organisations were allocated corporate social investment (CSI) expenditure (14 in the Dipaleseng Municipality and 17 in the Lekwa Municipality)
- Training was provided for SMMEs and 30 local individuals obtained their driver's licences from a local driving school
- Sanitary towels were donated to eight schools (two in the Dipaleseng Municipality and six in the Lekwa Municipality)



2.2 Project: Upgrading of national road R573, Section 2

Start & completion date:	<i>15 February 2021 to 28 February 2024 (initial programme)</i>
Status:	<i>Construction underway (70% time lapsed to date)</i>
Location:	<i>Thembisile Hani Local Municipality, Mpumalanga</i>
Main contractor:	<i>King Civil Engineering Contractors (Pty) Ltd</i>
Project value (including VAT):	<i>R559,270,315.07 (based on tender)</i>
Total spent on labour to date:	<i>R15,442,454.06</i>

PROJECT AIM:

The overall objective of this project is to improve mobility and road safety along this section of the R573. This will be achieved by upgrading the road to a four-lane single carriageway road divided by a concrete median barrier, formalising accesses and illuminating the entire stretch.

PROJECT WORKS:

This contract is focused only on upgrades of the R573 from km 24.648 to km 36.252. The works will include upgrading eight intersections, which consist of four roundabouts, three left-in/left-out intersections and one butterfly intersection. In addition, temporary gravel service/access roads will be constructed and maintained, particularly to accommodate informal direct accesses that will be cut off during the upgrading of the R573. The existing road will be upgraded to a four-lane single carriageway. This will feature a 3.4m fast lane, a 3.6m slow lane and a 2.5m surfaced shoulder, with a 0.8m-wide concrete median barrier and a 1m-wide inner shoulder, resulting in a total road width of 21.8m.

Land acquisition is a significant challenge for the project due to extensive encroachment by third parties into the road reserve. These encroachments existed prior to the transfer of the road to SANRAL. The situation is exacerbated by local chiefs providing citizens permission to occupy land within the road reserve. Engagements are underway in order to establish a long-term solution.

PROJECT IMPACT:

- 49 local subcontractors recommended for appointment throughout the project



- 121 local labourers employed throughout the project
- R49,717,426 spent towards targeted enterprises
- R15,442,454.06 spent towards targeted labour

2.3 Project: Upgrading of national road R573, Section 3, from Slovo to Siyabuswa

Start & completion date:	10 February 2021 to 28 February 2024 (initial programme)
Status:	Construction underway (70% time lapsed to date)
Location:	Elias Motsoaledi Local Municipality, Limpopo
Main contractor:	Raubex Construction (Pty) Ltd
Project value (including VAT):	R362,869,727.67
Total spent on labour to date:	R15,860,660.87

PROJECT AIM:

The overall objective of this project is to improve mobility and road safety along this section of the R573. This will be achieved by upgrading the road to a four-lane single carriageway road divided by a concrete median barrier, formalising accesses and illuminating the entire stretch.

PROJECT WORKS:

In February 2021, the project was handed over to the contractor, and the three-month mobilisation period was expected to start immediately. However, physical work on the project did not begin until October 2021 due to stoppages caused by various demands from local business forums and stakeholders. Stakeholders from Dr JS Local Municipality, for example, sought stakeholder events such as 'Taking SANRAL to the People' and formal information sessions by the contractor. Following multiple discussions with stakeholders and with the assistance of the project liaison committee, the requested events were held in May and August of 2021, respectively.

PROJECT IMPACT:

- 47 local subcontractors have participated in the project
- 217 labourers have been employed throughout the project
- R58,358,060.99 has been spent towards targeted enterprises
- R15,860,660.87 has been spent towards targeted labour



SOUTHERN REGION

Message from the Regional Manager

Mbulelo Peterson

Welcome to SANRAL's Southern Region. In this section of the report, we share the region's key achievements, challenges and initiatives for the past reporting year. From new road construction and upgrades to skills development and job creation, the Southern Region is committed to delivering high-quality infrastructure and promoting sustainable growth.

The past year has seen some notable construction highlights, including progress on the Msikaba Bridge project, the upgrade of the R63 from Fort Beaufort to Alice, construction of the Breidbach and Belstone interchanges and several key community development projects. SANRAL also awarded the Mtentu Bridge contract and a project involving the rehabilitation of the R56 from Matatiele to the KwaZulu-Natal border.

Another key development has been the incorporation of five new provincial roads into the SANRAL network in August 2022. These roads include the R411 from Viedgesville to Coffee Bay and the R415 from Matatiele to Qacha's Nek.

Our goal is to strike a balance between the construction of new roads and the maintenance of existing assets. This is why we continue to deliver conventional construction projects, community development projects, new facilities, upgrades and resurfacings, as well as routine road maintenance (RRM).

SANRAL's projects in the region have had a significant socio-economic impact on local communities, creating jobs and providing skills development and training packages to support small, medium and micro-sized enterprises (SMMEs). RRM contracts are especially suitable for SMMEs as a huge capital layout and intricate



technical skills are not required. These contracts run over a minimum of three years.

We remain dedicated to improving our procurement processes and ensuring that we can deliver as many projects as possible to benefit our communities.

In addition to construction and maintenance projects, the region has also taken steps to improve road safety and mobility through its Eastern Cape Intelligent Transport System (ITS) and the Freeway Management System (FMS) project, which is in the design stage (please refer to page 173 of this report for more information on the FMS).

Although the past year has seen significant progress, it has not been without challenges. The increase in heavy vehicles on our roads has impacted their condition. Construction projects have also faced challenges such as uncontrolled developments along national routes, dumping of refuse in road reserves, removal of fences causing

SOUTHERN REGION

(Message from Regional Manager continued)

road safety concerns, and informal and dangerous accesses to national roads.

To tackle these challenges, we strengthened our collaboration with local and district municipalities and other stakeholders. We also organised several community meetings and other engagements to explain SANRAL's Transformation Policy and statutory control matters.

Our team places high priority on maintaining effective communication with stakeholders, and we have consistently hosted engagement sessions across the province to keep them informed of project developments. In the past year, these engagements have added significant value to our procedures, and we remain committed to keeping our stakeholders informed about our processes and our project pipeline.

Going forward, we are confident that our projects will have a positive impact on the road network and the communities who will benefit from the projects through job creation, skills development and training.



SOUTHERN REGION

1. PROJECTS OVERVIEW

The Southern Region has a total of 25 ongoing construction projects, comprising 13 capital projects and 12 maintenance projects. No new RRM contracts were awarded in 2022/23.

The completion of these projects will not only benefit local communities but also regional economies. The upgraded roads, bridges and community access roads will contribute to making the region more attractive for foreign and direct investment. The capital projects span 203.23km and are located across the Eastern Cape.

Reseal of the R56 from Molteno to Vlakfontein

Value: R163,141,335

Location: Enoch Mgijima Local Municipality, Chris Hani District Municipality

The project is located in the livestock farming communities of Molteno and Vlakfontein. The scope of the project involved various upgrades, such as the drainage system, road recycling, surface patching, sealing, fencing, guardrails, subsoils and two rest areas along the route. The existing stormwater drainage within Molteno was also upgraded, including associated side and sub-surface drainage reconstruction.

**Upgrade of the N2 from Grahamstown to Fish River: Phase 2**

Value: R411,908,340

Location: Makana Local Municipality, Sarah Baartman District Municipality

This project was implemented as part of a comprehensive plan to enhance the quality of roads between Gqeberha (Port Elizabeth) and Qonce (King William's Town), aimed at improving safety and travel times, as well as promoting economic growth. The upgrade included the construction of a hard rock quarry, crushing facilities and new pavement layers, among other improvements. Additionally, three agricultural underpasses were built to facilitate the safe movement of livestock. These enhancements will enable the N2 to accommodate increasing volumes of traffic over the next 25 years, and it will continue to serve as a crucial link between Port Elizabeth, East London, and the Western Cape and KwaZulu-Natal provinces.



1.1 Capital projects and length of road benefited

TYPE OF CAPITAL PROJECT	PROJECT NUMBER	DESCRIPTION	KM BENEFICIATED
Strengthening			
	N.002-200-2011/1	Mount Frere to Ngcweleni River	40.4
	R.061-070-2020/1	Baziya to Mthatha Airport	27.39
	R.336-010-2017/1	Upgrade Kirkwood to Addo Phase 1	13.25
	N.002-145-2016/1	Grahamstown to Fish River Phase 3	16.05
Improvement			
	N.002-145-2012/1	Upgrade Green River to Buffalo River	3.2
	N.002-190-2013/1	Nqadu to Mbokotwana	19
	R.063-130-2015/1	Upgrade Fort Beaufort to Alice	23
	R.067-050-2016/1	Swart Kei to Queenstown	18
	R.056-080-2023/1	Upgrade Matatiele to KZN Border	38.56
New facilities			
	N.002-150-2008/1	New Breidbach and Belstone I/C	1.6
	N.002-170-2013/1	Ndabakazi I/C	0.9
	N.002-201-2016/1	Msikaba Bridge	0.58
	N.002-201-2023/1	Mtentu Bridge	1.3
Total			203.23



1.2 Major projects completed

Project number	Description	Percentage complete	Scope of work	Contractor
R.056-030-2016/1	Molteno to Vlakfontein	100%	Reseal	Tau Pele Construction (Pty) Ltd
N.002-140-2014/1	Grahamstown to Fish River Phase 2	100%	Upgrading	WBHO Construction (Pty) Ltd

1.3 Major contracts awarded for projects on non-toll roads

Project description	District	Amount
N2 Mtentu Bridge and associated roads – New Facility	Alfred Nzo/OR Tambo	R4.05 billion
N2 North Msikaba Bridge to South Mtentu Bridge (17 km) – Upgrade	OR Tambo	R2.5 billion
N2 Lingeni to South Msikaba Bridge (15 km) – Upgrade	OR Tambo	R2.2 billion
N6 Bhisho to N6 – Improvement	BCM/Amathole	R1.34 billion
R56 Matatiele to KZN Boundary – Strengthening	Alfred Nzo	R1.23 billion
N2 Mount Frere to Ngqweleni River (39 km) – Improvement	Alfred Nzo	R1.2 billion
R63/N6 Intersection to Qumrha (N2) – Improvement	Amathole	R893 million
N2 Grahamstown to Fish River Ph3 – Improvement	Sarah Baartman/ Amathole	R648 million
R390 Cradock to Hofmeyr (62 km) – Special Maintenance	Chris Hani	R533 million
R336 Kirkwood to Addo Ph 2 – Improvement	Sarah Baartman	R388 million
N2 Ndabakazi Interchange – New Facility	Amathole	R344 million
Total		R15.4 billion



1.4 Slope management

- During the FY22/23, the region managed the consulting engineering services for the geotechnical services contract with Zutari as the slope management specialist.
- In August 2022, seven new national routes were declared. These were incorporated into the slope management system, bringing the total number of slopes managed to 4,185 (up from 3,970).
- To address seven high-risk slopes, two area-wide intervention projects were let to the market, and tenders for supervision and construction are currently being evaluated.
- A new slope management project was successfully registered, funded and advertised in March 2023 to replace the current X.003-017-2017/1 project, which is nearing completion.



2. PROJECT HIGHLIGHTS

2.1 Project: Msikaba Bridge

Start date:	7 January 2019
Completion date:	February 2025
Status:	Construction underway
Location:	Inquza Hill Local Municipality, Eastern Cape (35km east of Lusikisiki)
Main contractor:	Concor/MECSA Construction Joint Venture
Project value (including VAT):	R2.394 billion
Total spent on labour (including VAT):	R29.6 million (to date) (as at end March 2023)
Total spent on SMMEs (including VAT):	R554.3 million (as at end March 2023)

PROJECT AIM:

SANRAL is constructing a cable-stayed bridge spanning 580m across the environmentally sensitive and 193m-deep Msikaba Gorge. This project is a crucial part of the future N2 Wild Coast Toll Road, which aims to significantly reduce travel time and distance between Durban and Mthatha. This is expected to save the economy R1.5 billion per year in time and travel costs. Additionally, the toll road is expected to boost local and regional trade, agriculture and tourism.

PROJECT WORKS:

A project of this magnitude and technical complexity is a first for South Africa. The bridge is being built in a remote and environmentally sensitive area, which adds to the challenges. Construction requires a wide range of skills and expertise, as well as close collaboration between SANRAL, the engineer and the contractor, along with local stakeholders, compliance monitoring authorities, service providers, local businesses, and traditional and political leaders.

PROJECT IMPACT:

- By employing local labour and providing training, the project has provided a significant boost to local communities, with a special focus on women and the youth. Almost R100 million in wages has been injected into the local economy, creating a multiplier effect for small businesses in the area.
- The project has also improved the local road network, resulting in increased mobility and accessibility for communities.



Interesting Facts

- The completed Msikaba Bridge will be the **third highest bridge and the longest main-span cable-stayed bridge in both Africa and the Southern Hemisphere.**
- During construction, surveyors determined that the nearby **Ntentule Falls**, which overlooks the Msikaba Bridge site at a height of 175 metres, is the **second-highest waterfall in South Africa.**



2.2 Project: N2 Green River to Buffalo River

Location: Buffalo City Metropolitan Municipality

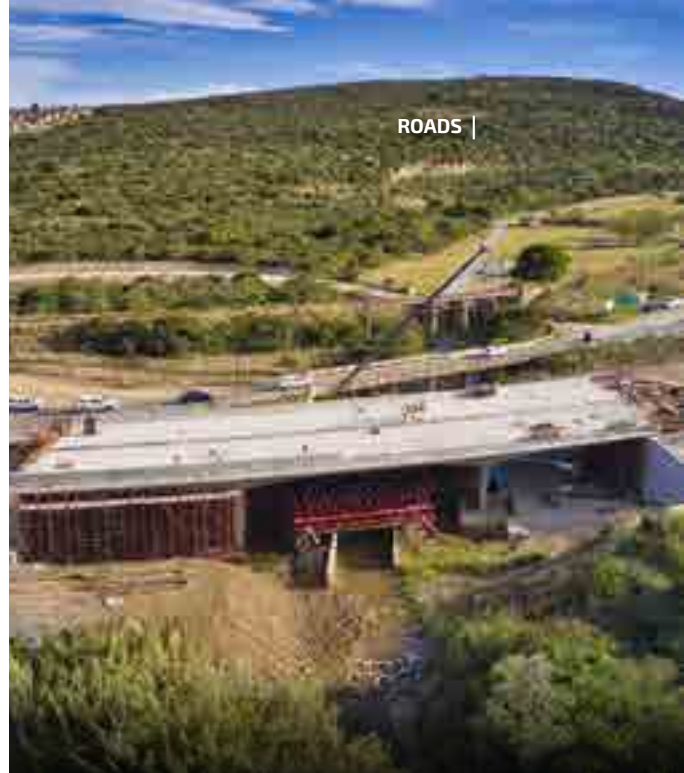
Project value (including VAT): R500 million

PROJECT WORKS:

This road improvement project began in January 2021 and is anticipated to conclude in April 2024. Construction is in progress, with 70% of the work already completed. The project will result in the upgrading and widening of the road with safe passing facilities, formalised pedestrian facilities such as sidewalks, improved intersection configurations to improve safety, and formalised taxi bays.

PROJECT IMPACT:

Employment opportunities and skills training were provided during construction.



2.3 Project: R67 Swart Kei River to Komani

Location: Enoch Mgijima Local Municipality, Chris Hani District Municipality

Project value (including VAT): R468 million

PROJECT WORKS:

The improvement of the R67 Swart Kei River to Komani project concluded in early 2023. This was Phase 2 of the project. Phase 1 concluded in 2019 and covered the upgrading of the R67 from Whittlesea to Swart Kei River. The scope of works on the project included road works improvement, bridge widening, new bridge construction, bus bays, bus bay shelters, street lighting, drainage, fencing, road signs, guardrails, and gabions. Furthermore, the Swart Kei River Bridge was demolished and a new bridge constructed. Four livestock crossings and a walkway were also part of the road upgrades in order to enhance road safety.

PROJECT IMPACT:

The project focused largely on skills development and training. An impactful training programme was conducted, targeting TVET college students from the Eastern Cape.





EASTERN REGION

Message from the Regional Manager

Dumisani Nkabinde

As we look back on the past year, I would like to express my gratitude to all the dedicated and hard-working 'Sanralites' in the Eastern Region. The period under review in this report has been a particularly difficult one for our region and their tireless efforts have been crucial in ensuring that we continue to make progress towards our goals.

Changing weather patterns had a significant impact on the Free State and KwaZulu-Natal (KZN) provinces, with KZN experiencing severe floods in April 2022, and the Free State dealing with isolated torrential rains. Our engineering teams worked with great dedication to quickly repair affected roads, ensuring safer travel conditions. On behalf of SANRAL, I extend my condolences to the families who suffered losses during these devastating events, including those impacted by the Jagersfontein mine dam burst in Kopanong, Free State.

Happily, the past year has also brought many positive developments. We are thrilled to welcome Mr Reginald Demana as the new CEO, and we will provide him with our full support to take the organisation to new heights.

The Eastern Region has been ramping up its drive to create major job opportunities for large and small enterprises through its road upgrades programme. KZN is abuzz with upgrades on national routes N2 and N3, estimated at R48 billion. Our transformation drive will see 30% (approximately R14.4 billion) set aside for targeted local firms, of which approximately R3.8 billion will go towards salaries and wages over the next seven years. The road upgrades will create subcontracting opportunities for hundreds of small and medium enterprises, in addition to the appointment of 15 main contractors on the N3 and 11 on the N2.



We are also pleased to announce that the current work on the N3 between Ashburton and Cato Ridge is now 50% complete and the route will be fully open to traffic in the next 12 to 18 months.

In the Free State, we are on track to commence major upgrades just north of Bloemfontein on the N1 from Glen Lyon to Zandkraal and from Winburg Station to Ventersburg. We anticipate completing the tender process before the end of the 2023/24 financial year, providing a welcome economic boost of more than R4 billion to the province. These infrastructure interventions are just a few of the many projects that will be implemented across the two provinces.

SANRAL is committed to transforming the construction industry, as evidenced by our decision to direct 17 of the 18 appointments for flood-related repairs to Black-owned firms that had not previously worked with the Agency. We are pleased with their performance in delivering their services so far.

EASTERN REGION

Looking forward to the next financial year, we are excited about the changes within the procurement environment that will enable procurement from targeted groups. Our Transformation Policy will enforce these efforts.

We recognise the importance of supporting local construction and consulting firms in South Africa, and our procurement plans reflect this by ensuring a balanced allocation of opportunities for small, medium and large firms. This approach allows smaller businesses to benefit while also providing opportunities for larger firms to thrive.

While unemployment remains a significant challenge across the country, we are hopeful that our strong project rollout plan will help to make a difference. Working with educational institutions, we are also committed to fast-tracking mentorship and experiential training on our projects, ensuring that more South Africans have access to the skills and knowledge required to secure gainful employment.



1. PROJECTS OVERVIEW

Various road construction and maintenance projects were underway in 2022/23. This section provides an overview, with detailed information on the contracts awarded and major projects completed.

1.1 Capital projects and length of road benefited

TYPE OF CAPITAL PROJECT	NON-TOLL ROADS		TOLL ROADS	
	Projects	Km benefited	Projects	Km benefited
Strengthening and improvement	7	40.25	None	N/A
New facilities	1	Bridges and culverts 10 Interchange 1	None	
Total	8			

1.2 Major projects completed

Section of road	Percent complete	Value of work done	Scope of work	Main contractor
N3 Section 2 between Cato Ridge I/C and Dardanelles I/C	48%	R 464,204, 634	Upgrade of N3 from 4 lanes to 8 lanes (including a median barrier wall, lighting, and lengthening of a rail underpass)	Raubex Construction (Pty) Ltd
N3 Section 2 between Dardanelles I/C and Lynnfield Park I/C	51%	R 602,974, 524	Upgrade of N3 from 4 lanes to 8 lanes (including a median barrier wall, lighting, and lengthening of a rail underpass)	Raubex Construction (Pty) Ltd
N3 Section 2 and 3 from Lynnfield to Ashburton I/C	52%	R 754,872, 084	Upgrade of N3, widening of the main carriageway from the current 2 lanes NB and 3 lanes SB to 4 lanes and 5 lanes respectively	Rumdel Construction Cape (Pty) Ltd

Section of road (Continued)	Percent complete	Value of work done	Scope of work	Main contractor
N3 Section 3 between Ashburton I/C and Murray Road	2%	R1,354,428	Upgrade to National Route 3 Section 3 between Ashburton I/C (km 0.8) and Murray Road (km 5.8)	Base Major CSC Joint Venture (Pty) Ltd
N2 from KwaMashu I/C, Section 25 to Umdloti River Bridge, Section 26	16%	R207,077, 761	Upgrade of National Route 2 from KwaMashu I/C, Section 25 (km 28.6) to Umdloti River Bridge, Section 26 (km 14.0)	Raubex Construction (Pty) Ltd
R22 Section 5 through kwaNgwanase Town	80%	R167,768,428	Upgrade of the R22, widening of the main carriageway by addition of a parking lane both sides, new pedestrian facilities and lighting.	Leomat Construction Pty Ltd
N2 Kokstad I/C and TCC	50%	R136,137,605	Construction of the Kokstad I/C & the Traffic Control Centre, on National Route N2, Section 21 (km 6.4)	H&I Construction
N3 Section 3 from Sanctuary Road to Link Road	98%	R254,965, 793	Slow lane reconstruction	Raubex KZN (Pty) Ltd



1.3 Major contracts awarded for projects on non-toll roads

Project number	Project description	Section of road	Percent complete	Value of work done	Scope of work	Main contractor
N.003-030-2024/1	N3 Ashburton-Murray Road	N3 Section 3 between Ashburton I/C and Murray Road	2%	R1,354,428	Upgrade to National Route 3 Section 3 between Ashburton I/C (km 0.8) and Murray Road (km 5.8)	Base Major CSC Joint Venture (Pty) Ltd
N.002-250-2024/1	N2-EB Cloete I/C	N2 Section 25 between Wiggins Rd to Umgeni Rd I/C and N3 Section 1 between Sherwood I/C to Westville viaduct	0%	R1,657,592	Upgrade of EB Cloete I/C including N2 Section 25 between Wiggins Rd (km 16.0) to Umgeni Rd I/C (km 20.7) and N3 Section 1 between Sherwood I/C (km 8.4) to Westville viaduct (km 11.8)	Base Major CSC Joint Venture (Pty) Ltd
N.011-020-2015/1	N11 upgrade-Ladysmith south to Elandslaagte	N11 Section 2 from Ladysmith South to Elandslaagte	0%	R0.00	Upgrading of National Route 11 Section 2 from Ladysmith South (km 0.00) to Elandslaagte (km 28.00)	Raubex Construction (Pty) Ltd

1.4 Major projects on SANRAL-managed toll roads

Project number	Project description	Section of road	Percent complete	Value of work done	Scope of work	Main contractor
None						

2. PROJECT HIGHLIGHTS

2.1 Project: Kokstad Interchange and Traffic Control Centre

Start date:	1 September 2021
Completion date:	30 April 2024
Status:	Construction underway
Location:	Harry Gwala Municipality and Greater Kokstad Local Municipality, KwaZulu-Natal
Main contractor:	Haw and Inglis (H&I)
Project value (including VAT):	R563.5 million
Total spent on labour (including VAT):	R11 million (as at end March 2023)
Total spent on SMMEs (including VAT):	R15 million (as at end March 2023)

PROJECT AIM:

Due to declining levels of service at the existing N2/R56 at-grade intersection, the need for capacity improvements to this intersection was identified. The project will grade separate the N2 and the R56 and increase capacity while significantly improving the level of service for the next 30 years.

PROJECT WORKS:

This project involves the construction of a new interchange on the N2, Section 21 (km 6.4), to replace the existing at-grade intersection of the N2 with the R56. The proposed interchange comprises a new three-span bridge, which will carry traffic on the R56 over the N2 towards Kokstad or south towards Mthatha. Other aspects of this project include the widening of an existing river bridge on the N2, extension of two existing box culverts, and construction of five new box culverts and a new agricultural underpass. The project also involves the realignment and upgrade of approximately 2km of the R56 towards the Kokstad town centre, and to improve mobility along the R56, a new parallel service road to the R56 for approximately 1.4 km to serve the existing businesses that access the R56 directly will also be constructed.

PROJECT IMPACT:

The interchange will have two on-ramps and two off-ramps that will link the N2 and the R56. A river bridge will be widened, seven culverts will divert storm water under the road, and an agricultural underpass will allow the safe movement of livestock. On completion, the project will provide high-speed mobility for long-distance traffic and improve the flow of traffic for all road users.



2.2 Project: R22 upgrade in kwaNgwanase

Start date:	22 September 2020
Estimated completion date:	12 December 2023
Status:	82% complete
Location:	uMhlabuyalingana Local Municipality
Main contractor:	Leomat Construction (Pty) Ltd
Project value (including VAT):	R280,737,416.62
Total spent on SMMEs (including VAT):	R85 million (as at June 2022)

PROJECT AIM:

The multimillion-rand upgrade to the R22, a national road connecting the N2 at Hluhluwe with the Mozambique border at Kosi Bay, via Mbazwana and kwaNgwanase (also known as Manguzi), is making a direct economic impact on the people of kwaNgwanase in northern KwaZulu-Natal.

The aim of the project is to alleviate congestion in the town by providing additional capacity in the form of extra travel lanes through the urban area and the upgrading of the approaching sections through rural areas.

PROJECT WORKS:

The project covers a 3km stretch of road and a 2.8km bypass road. The work through town includes additional travel lanes and new sidewalks. Street lighting will also be provided along this section.

The 2.8km bypass road was upgraded to surfaced standard as part of this project. Besides acting as a detour road during construction, this road is to provide improved long-term local access to the community. The bypass road was completed in June 2023.

PROJECT IMPACT:

The approaches on both sides of the town have been improved through widening and rehabilitation of the existing road to include surfaced shoulders. Whereas these approaches are complete, work is continuing through the town under stop-and-go traffic accommodation to construct stormwater drainage, retaining walls and rehabilitation of the roadway.



Other benefits to the community include the construction of 52 market stalls where some of the informal traders within the R22 road reserve are to be relocated. Currently, 26 market stalls are complete, with the rest under construction.

Due to an increasing number of incidents on the R22 caused by stray animals, SANRAL entered a memorandum of understanding (MOU) to build an animal shelter, which will be completed in August 2023.

2.3 Project: KwaMashu Interchange to Umdloti River Bridge

Start date:	2 August 2022
Anticipated completion date:	6 August 2026
Status:	25% complete
Location:	eThekweni Metropolitan Municipality, KwaZulu-Natal
Main contractor:	Raubex Construction (Pty) Ltd
Project value (including VAT):	R1,442,440,000
Total spent on labour (including VAT):	R5,523,226.29 (as at end March 2023)
Total spent on SMMEs (including VAT):	R20,534,868.25 (as at end March 2023)

PROJECT AIM:

This section of the N2 (approximately 13.7km) will be upgraded from a four-lane dual carriageway to an (up to a minimum) eight-lane dual carriageway.

The feeder roads onto the N2 from the Mount Edgecombe and KwaMashu interchanges carry high volumes of traffic and the current carrying capacity of the N2 results in high levels of congestion. Traffic queues extend from the N2 for several kilometres back onto the M41 and M25 freeways during peak hours, causing road user frustration. The delays also currently lead to increased accident rates at the interchanges and on the N2.

PROJECT WORKS:

The upgrade will encompass the following improvements:

- The section from the KwaMashu Interchange to the Mount Edgecombe Interchange will be widened to between five and seven lanes in the northbound direction and five lanes in the southbound direction.
- The section from the Mount Edgecombe Interchange to the Umdloti River Bridge will be expanded to four lanes in either direction.

PROJECT IMPACT:

The planned upgrades aim to significantly ease traffic congestion on both the northbound and southbound carriageways. Once completed, road users can expect smoother and more efficient journeys, with reduced travel times and savings on fuel.



WESTERN REGION

Message from the Regional Manager

Randall Cable

Welcome to SANRAL's Western Region. In this section of the Integrated Report, we are pleased to provide an overview of our key road infrastructure projects and developments for 2022/23, highlighting our commitment to delivering a safe and sustainable road network for all.

The region has undertaken a number of key projects over the past reporting year. In the Northern Cape, the N14 intersections in Kathu are nearing completion, having overcome several challenges. We look forward to the road safety benefits this will bring for road users. The upgrades are also expected to have a significant economic impact, having already created over 60 local labour opportunities, with youth and women prioritised for jobs and skills transfer. Also known as the Industrial Development Corridor, the N14 plays a crucial role in driving industrial expansion in the Northern Cape, and the development of the Kathu Industrial Park is central to this objective.

In the Western Cape, the R600 million upgrade of the N7 between Malmesbury and Moorreesburg is making steady progress, with significant opportunities created for local labour and targeted enterprises in the Swartland Local Municipality and West Coast District Municipality.

The upgrade of the Thembaletu Intersection in George, which is a partnership between SANRAL and the George Municipality, is also taking shape. It will effectively double the capacity of the Thembaletu Bridge across the N2, upgrading it from a single carriageway to accommodate two lanes in each direction, with additional turning lanes and extra space for pedestrians and cyclists.



The past year has also brought its share of challenges. The vast road network of the Northern Cape has seen a significant increase in traffic load, particularly heavy-duty vehicles. This has had an impact on the condition of roads and the associated maintenance.

To address this issue, SANRAL has planned various fog spray projects in 2023 as a relatively low-cost solution to maintain roads. This involves applying a fine mist of diluted bitumen to aged surfacing, which restores flexibility and prolongs the lifespan of the road. Additionally, emergency routine road maintenance (RRM) repairs have been carried out, while long-term repair work was undertaken in several local municipalities, including Joe Morolong, Ga-Segonyana,

WESTERN REGION

(Message from the Regional Manager continues)

Kgatelopele, Dikgatlong, Sol Plaatje, Renosterberg, Umsobomvu, Tsantsabane, Thembelihle, Richtersveld and Emthanjeni.

To remain responsive and adaptable in an evolving roads landscape, we recognise the importance of embracing technology and innovative solutions. As such, we are actively pursuing road safety enhancements through the implementation of intelligent road studs and distracted driver technology. Pilot projects are being prepared to put these technologies to the test, and to evaluate the possibility of scaling them up across the network, especially in high-risk areas.

During November 2022, the Draft TRH24 on the Upgrading of Unpaved Roads was released, providing a new addition to the Technical Recommendations for Highways (TRH) documentation set. The manual provides design guidelines for the cost-effective upgrading of unsurfaced roads without compromising road safety or pavement integrity, while simultaneously maximising labour opportunities and SMME development.

The Western Region team has also continued with its concerted efforts to engage stakeholders along the road network to ensure maximum impact, expand project participation and ultimately reduce project disruptions.

We are optimistic that the 84 projects awarded in the region over the past reporting year will improve the quality of the road network and the lives of the people who use that network. As we move forward, we remain committed to working closely with provincial and local authorities in our joint effort to better serve all road users.



1. PROJECTS OVERVIEW

The Western Region has been making significant strides in upgrading its infrastructure through a series of projects and awards. In the period under review, 84 projects were awarded, which included 20 routine road maintenance (RRM) awards. This amounts to approximately R6.9 billion in infrastructure upgrades. This significant achievement is largely thanks to the commitment and dedication of the team of procurement experts, engineers and support staff who recognise the incredible contribution this makes to the economic recovery of the people in the Western and Northern Cape.

1.1 Capital projects and length of road benefited

Design

TYPE OF CAPITAL PROJECT	NON-TOLL ROADS		TOLL ROADS	
	Projects	Km benefited	Projects	Km benefited
Strengthening and improvement	N.001-023-2020/1	8.10		
	N.001-010-2021/2	7.00		
	N.001-030-2021/1	10.50		
	N.001-100-2020/2	12.50		
	N.002-010-2020/1	11.53		
	N.002-070-2019/1	10.00		
	N.002-080-2016/1	0.40		
	N.007-030-2020/1	31.50		
	N.007-030-2020/2	33.86		
	N.014-023-2020/1	48.63		
	N.014-030-2020/1	1.40		
New facilities	N.001-040-2020/1	17.00		
	N.001-040-2020/2	17.00		
	N.002-010-2021/1	7.00		
	N.002-012-2021/1	6.00		
	N.002-050-2016/1	26.00		
	N.002-050-2017/1	29.00		
	N.002-050-2017/2	25.00		
	N.002-070-2020/2	6.78		
	N.002-078-2015/9	8.20		
Total		317.4km		

Construction

TYPE OF CAPITAL PROJECT	NON-TOLL ROADS		TOLL ROADS	
	Projects	Km benefited	Projects	Km benefited
Strengthening and improvement	N.002-070-2016/1	2.0 Interchange		
	N.007-020-2020/1	27.90		
	N.014-067-2021/1	6.00		
	(intersection improvements)			
New facilities	N.002-070-2016/2	2.00		
	N.001-040-2020/1	17.00		
Total		62.9km		

1.2 Major projects completed

Section of road	Percent complete	Value of work done	Scope of work	Main contractor
None				



1.3 Major contracts awarded for projects on non-toll roads

Project number	Project description	Section of road	Percent complete	Value of work done	Scope of work	Main contractor	Year awarded
N.001-040-2020/1	For upgrading of National Route 1 Section 4 between monument river (km 46.0) and Doornfontein (km 63.0)	4	0% (Just awarded)	R0.00	Dualling	H&I Construction	2022/2023
N007-020-2020/1	The improvement of National Route 7 Section 2 between Rooidraai (km 7.49) and Moorreesburg (km 33.90)	N7 Section 2 km 7.49 to km 33.90	35%	R208,135,333	Widening of road cross section and structures and the addition of climbing/passing lanes	Martin & East (Pty) Ltd	2021/2022
N002-070-2016/1	Improvement of Thembaletu I/C on National Route 2 Section 7 near George	N2 Section 7 km 24.67	32%	R61,467,630	Widening of the existing bridge and interchange ramp terminals including widening of the existing road from a single to a dual carriageway	Empa Structures (Pty) Ltd	2021/2022
N.014-067-2021/1	The intersection improvements between Olifantshoek and Kathu on National Route 14, Sections 6 and 7	N14 Sections 6 and 7	85%	R47,173,378	Improvement of three intersections located on National Road 14, Sections 6 and 7, between Olifantshoek (N14/6, km 0.00) and Kathu (N14/7, km 1.50)	Baseline Civil Contractors (Pty) Ltd	2021/2022

1.4 Major projects on SANRAL-managed toll roads

Project number	Project description	Section of road	Percent complete	Value of work done	Scope of work	Main contractor
None						



2. PROJECT HIGHLIGHTS

2.1 Project: Slope stabilisation on the N2 Sir Lowry's Pass

Start & completion date: January 2022 to July 2022

Status: Completed

Location: City of Cape Town Metropolitan Municipality, Western Cape

Main contractor: Empa Structures (Pty) Ltd

Project value (including VAT): R31 million

Total spent on labour (including VAT): R9,689,445

PROJECT AIM:

The prevention of rockfalls and landslides is crucial for the safety of road users, and slope stabilisation is a key aspect of road maintenance to achieve this. On this section of Sir Lowry's Pass, prolonged weathering posed risks on a 300-metre stretch of exposed cut-face on the mountain side of the N2.

PROJECT WORKS:

The scope of works involved removing loose rocks, drilling and grouting in some 600 threaded steel anchors, varying in length between 10m and 15m, then placing rock-filled gabions in 3m lifts, which are held in place by rock anchors.

PROJECT IMPACT:

- R5.6 million was set aside for small, medium and micro-sized enterprises (SMMEs), while R1.7 million was earmarked for local labour, prioritising opportunities for women, youth and people with disabilities.
- Subcontractor opportunities were advertised for ancillary works, including concrete works, packing of the gabion wall and finishes/site clearing at the end of the project.



2.2 Project: Themba lethu Bridge upgrade

Start date:	7 February 2022
Completion date:	Mid-2024
Status:	50% complete
Location:	George, Western Cape
Main contractor:	Civils2000/ MPI JV (C2KMPI JV)
Project value (including VAT):	R160 million
Total spent on labour (including VAT):	R1,491,364.74

PROJECT WORKS:

The scope of works involves the widening of the Themba lethu Bridge across the N2 from a single carriageway to accommodate two lanes in each direction, with additional turning lanes as well as extra space for pedestrians and cyclists. A new bridge is being constructed on the western side. Once completed, the existing bridge will be raised and stitched to the new bridge to ensure that the upgraded structure complies with the minimum bridge clearance of 5.2m.

PROJECT IMPACT:

- This joint project with the George Municipality is geared towards promoting economic development in the Southern Cape by providing opportunities for local labourers and small businesses. At least 60 local labourers have already benefitted.
- The project has also highlighted the need for road safety education and awareness interventions. As part of this effort, SANRAL and the municipality organised a road safety activation event for learners at Mzoxolo Primary School, which is adjacent to the project site.



INNOVATIVE ROAD DESIGN

SANRAL's commitment to innovation in construction techniques and design is crucial for the wellbeing of communities and the advancement of the broader transportation industry. Innovative design solutions not only improve road safety, efficiency and durability, but also contribute to the overall development of the country's infrastructure.

Road design in South Africa is constantly evolving to align with international best practices, covering various areas such as drainage, structures, geometry, geotechnical engineering, pavements, construction ease, traffic accommodation and maintenance.

SANRAL uses various construction solutions, such as reusing existing road materials like concrete, asphalt and steel reinforcing, as well as implementing high-visibility solutions like road markings, self-lighting studs and signs, and glowing concrete aggregate. Intelligent monitoring systems are also used to alert drivers of potential hazards ahead of time.

This section highlights projects that exemplify SANRAL's use of these innovative techniques and solutions.



INNOVATIVE ROAD DESIGN

1. PROJECT HIGHLIGHTS

1.1 Project: Upgrading of National Route R63 between Fort Beaufort and Alice

Start date:	2 July 2020
Completion date:	1 October 2023
Location:	Raymond Mhlaba Local Municipality, Amathole District Municipality, Eastern Cape
Project value (including VAT):	R714,782,500
Type of innovation:	Bridge relocation and road reconstruction

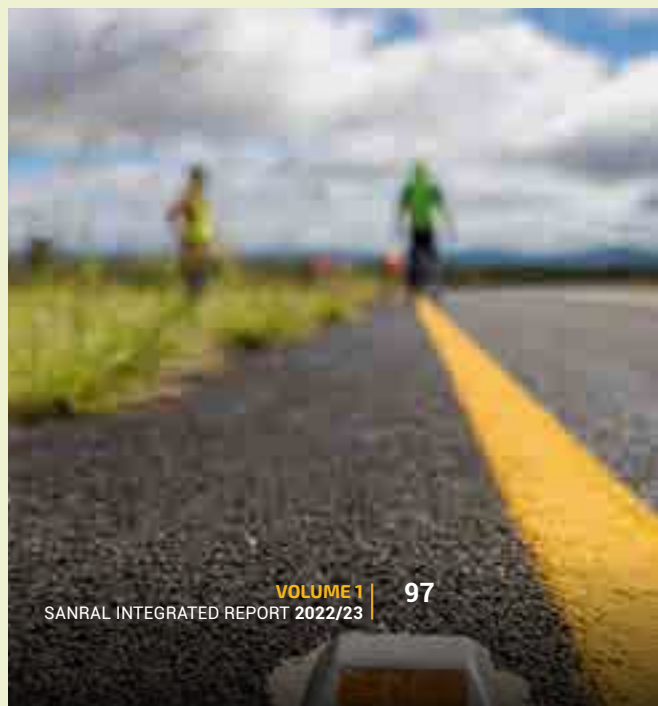
THE CHALLENGE:

Two components are discussed in this section: the reconstruction of the main street in Fort Beaufort and the relocation of a bridge to accommodate high-speed traffic. Innovative solutions and collaboration with the local community were necessary for success.

The goal during the reconstruction of the main street in Fort Beaufort (Campbell Street) was to provide access and services to all households and businesses during construction. Services located in the middle of the road had to be relocated to the side or road reserve.

Part of the project also involved the relocation of a bridge, which was originally in a horizontal curve with almost 0% superelevation, making it unsuitable for high-speed traffic. To address this issue, the horizontal radius was increased to conform to 120km/h with full super 6.4%.

Key to the project's success was utilising the local community quarry for aggregates. Additionally, community access roads were constructed using slurrybound Macadam technology, which was also done with the help of the local community. This project is a great example of how infrastructure improvements can benefit residents.



ENGINEER PROFILE

CRAIG HENDRICKS

ROLE: Representing SANRAL and managing the consultant



"I found the blasting of rock and the total mass earthworks moved on the project to be the most enjoyable aspects. All aggregates were sourced from the local community quarry, which provided a significant financial injection into the community. Additionally, more than 9km of community access roads were constructed for seven communities. We also provided valuable training, with more than a thousand local people trained to date."

THE INNOVATIVE SOLUTIONS:

During the reconstruction of the street, the box cut was carried out first, and then new services were installed while traffic was accommodated in half-widths. Temporary water connections were set up along the road reserve to supply water to all properties while old asbestos water pipes were removed from the middle of the street. Services were installed and reconnected as they were completed and operational. All layers, except the base, were constructed in half widths, and the base was treated with emulsion to protect it until the asphalt could be applied. To accommodate traffic on the rural section, deviations were used, which were more cost-effective to construct than accommodating stop-and-go traffic.

For the rail bridge, micropiles were used as the foundation solution instead of traditional piling. Made with steel alloy, they have a higher tensile strength, enabling them to withstand greater stresses and loads. This feature allows for the use of smaller diameter micropiles while still providing adequate support. Micropiles also require less space for installation and smaller equipment, making them ideal for urban areas with limited space. They can be a cost-effective solution for bridge foundations and can be installed more quickly than other foundation types, reducing overall project costs.

THE RESULTS:

- Renovations of businesses and houses along the new road are underway.
- Parking along the street in town has improved traffic flow.
- Newly constructed pedestrian walkways and crossings provide a safer environment for the public.
- The new road design widened the road from 6.2m to 13.4m and increased the speed limit from 60-80km/h to 120km/h.
- Cattle grids and creeps were installed to address the safety issue of animals crossing the road.
- Passing and climbing lanes were provided, significantly improving traffic flow.
- The town of Fort Beaufort now has streetlights along the newly constructed road.

LESSONS LEARNED:

- Better consideration should be given to the alignment of streets to accommodate existing entrance levels and accesses to premises, as well as drainage.
- Moving the alignment of new roads slightly to minimise the construction of deviations can be more cost-effective than expropriation and additional layer works.
- Provision should be made for rock blasting in areas where it may be required, even if initial geotechnical investigations suggest excavation by machinery is sufficient.

1.2 Project: Improvement of national road R37 to Burgersfort and construction of the pedestrian safety facilities between Modikwa Mine and Burgersfort

Start date:	<i>February 2021</i>
Project status:	<i>Construction in progress</i>
Location:	<i>Burgersfort Feta Kgomo-Tubatse Local Municipality, Sekhukhune District Municipality, Limpopo</i>
Project value (including VAT):	<i>R617,834,814</i>
Type of innovation:	<i>Material quality</i>

THE CHALLENGE:

The project faced several challenges relating to the materials used.

- The in-situ material was of poor quality and had to be modified to be suitable for the road layer works.
- A borrow pit is where material such as soil or gravel is excavated for use in construction. In this particular project, there were no borrow pits close by with suitable material for the layer works.
- The project had to rely on crushed materials from the existing stockpile at the Modikwa Mine or had purchase them from local suppliers.

THE INNOVATIVE SOLUTIONS:

The construction team had to adjust its approach due to the poor quality of materials on site. Unsuitable material was removed. Crushed material was imported where necessary, while in-situ material was used when possible. Trials were conducted on the existing road base/subbase to determine the best approach for constructing a new subbase. The chosen approach involved milling off a portion of the existing pavement structure and adding a new material with cement.

THE RESULTS:

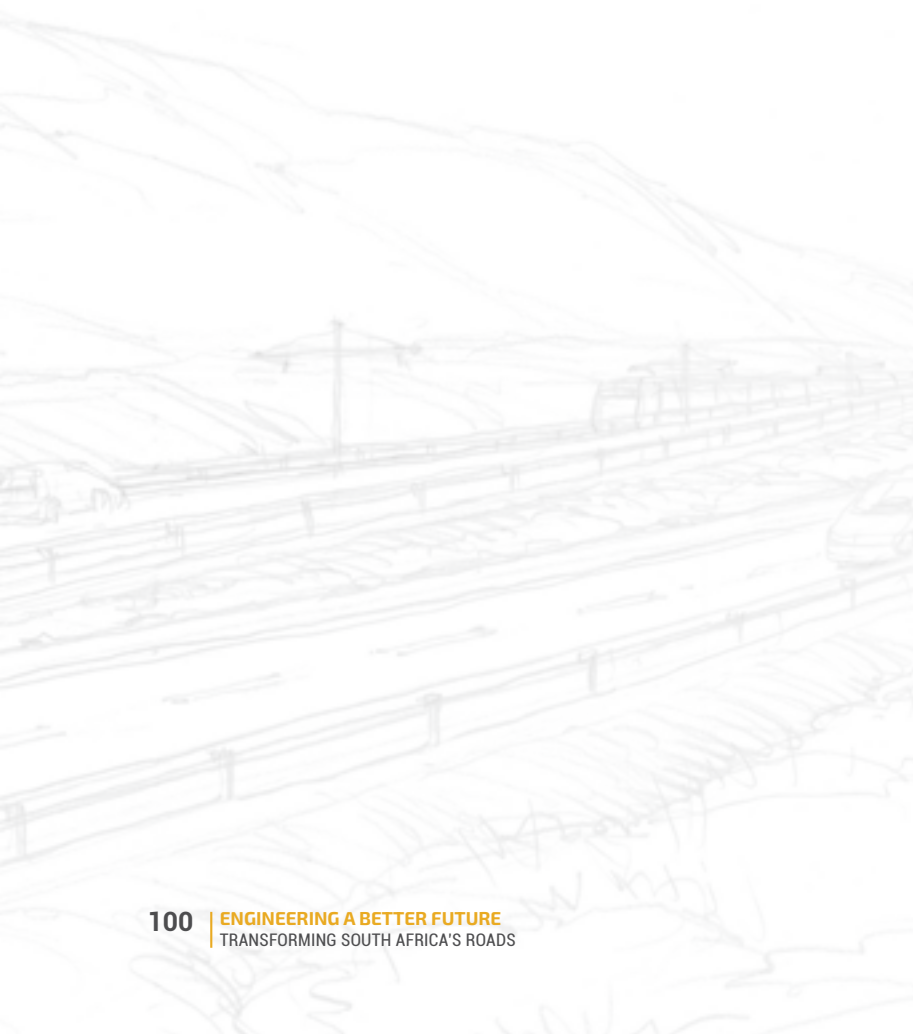
The road is undergoing a significant upgrade, expanding from a two-lane single carriageway to a carriageway with two median-treated lanes in each direction, controlled intersections and overhead lighting between Modikwa Mine and Burgersfort.



These improvements will result in several benefits, including reduced travel time, improved traffic flow, and enhanced road and pedestrian safety. The installation of overhead lighting will also greatly contribute to the safety of the road.

LESSONS LEARNED:

- During the planning phase, it is crucial to conduct a thorough investigation of the materials in the surrounding area to ensure they are suitable for use in the project.
- The sources of any materials used should be clearly identified in the contract to avoid disputes.
- To avoid community conflicts, it is crucial to secure borrow pits and quarries before the start of a project.
- Community dynamics can vary from one area to another. Taking the time to understand these dynamics will ensure that community projects are more acceptable at local level.





SUSTAINABLE ROAD DESIGN

At SANRAL, we believe that sustainability is not just a buzzword, but an essential part of our business strategy. We recognise that our operations have a significant impact on the environment and society, and we are committed to minimising any negative effects. We achieve this by integrating environmental, social and governance considerations into our daily operations, evaluating our impacts and identifying ways to create ongoing value.

Our sustainable practices include the use of local resources and labour, recycling of road construction materials, environmental awareness training, partnerships and stakeholder engagement. We take pride in having incorporated these practices into our operations well ahead of the curve.

SANRAL also goes above and beyond to preserve fauna, flora and heritage resources that may be affected by road construction activities. The Agency works hand in hand with communities and researchers to safeguard valuable cultural and archaeological sites.

To ensure that our sustainable practices are evaluated and improved upon, SANRAL has partnered with the South African Roads Forum to develop the Sustainable Roads Forum (SuRF) rating tool. This innovative system rates our road development and maintenance practices in various categories, including environmental impact, social responsibility and governance. By applying pre-determined indicators and credits to each stage of a project and carefully weighing the results, we can identify the most efficient ways to implement sustainable practices and maximise the overall sustainability of our projects.

This section highlights some of SANRAL's sustainable projects and practices, as well as key events and developments in the area of sustainability for the past reporting year.

SUSTAINABLE SOLUTIONS

SANRAL aims to promote sustainability by implementing cost-effective and environmentally friendly solutions in its road projects. From an environmental perspective, the sustainability and longevity of structures are critical to reduce the demand for new construction, conserve natural resources and minimise waste generation.

- The pavement structure is a critical component of road infrastructure, but it faces challenges relating to sustainability and cost-effectiveness. To ensure longevity, the pavement structure must be selected based on environmental conditions, traffic loading and cost-effectiveness. Efficient maintenance practices are also crucial for sustainability, and collaboration among road industry stakeholders is necessary for developing new materials and methods. Such cooperation can also lead to the development of new documents and guidelines, such as the Draft TRH24 document for upgrading unpaved roads, to improve sustainability while balancing cost-effectiveness and environmental impact.
- Concrete structures such as bridges and culverts are essential components of transportation networks. Effective bridge management systems (BMS) are needed to maintain them for optimal performance and longevity. Durable concrete can increase the lifespan of structures and reduce the frequency and cost of maintenance. Sustainable repair methods and materials should be used to minimise environmental impact during maintenance and upgrading. A balance between cost-effectiveness, optimal performance and sustainability is crucial for the design and maintenance of concrete structures.



- The use of sustainable materials, such as warm mix asphalt (WMA) and recycled materials like reclaimed asphalt pavement (RAP) and recycled concrete aggregate (RCA), can significantly reduce the environmental impact of road construction. Sustainable construction practices, including reducing waste generation and implementing erosion control measures, can also be employed to promote sustainability. Collaboration among road agencies, material suppliers and contractors is necessary to implement sustainable practices throughout the road construction process, from design to maintenance.
- To optimise the cost of a road project over its design life, various options for design strategies, materials and implementation methods must be considered, and economic feasibility analyses are conducted using HDM-4 software, which was developed by HDM Global for the World Bank. SANRAL has calibrated this software for South African conditions. It calculates the present value of both the initial investment and maintenance costs, compares them with the implied changes in road user costs and savings, and determines the most sustainable solution in terms of economic feasibility. This analysis ensures that the most cost-effective and sustainable solution is selected, and the overall impact on the environment is minimised.

1. PROJECT HIGHLIGHTS

The following projects showcase SANRAL's commitment to sustainability and environmental stewardship. We believe in the power of responsible road infrastructure to create a greener, more sustainable future.

1.1 Project: Devonian Era fossil research on the N2

Location: Waterloo Farm, Makhanda, Eastern Cape

ABOUT THE PROJECT:

The project is a collaboration between SANRAL and Dr Rob Gess of Grahamstown's Albany Museum to conduct internationally acclaimed research on fossils recovered during roadworks on the N2. The project aims to promote palaeo-heritage tourism in the area and develop a curated display of the geology at Coombs Hill and Rabbit Ridge, adjacent to the N2.

PROJECT OBJECTIVES:

The primary objective of the project is to conduct research on fossils found at the site to better understand the ecosystem of

the area 360 million years ago. Another objective is to develop a palaeo-heritage tourism site adjacent to the N2 at the Coombs Hill locality, east of Makhanda.

PROJECT IMPACT:

The project has had a significant impact on the scientific and teaching communities by providing a fuller picture of the ecosystems of the time through the fossils recovered. One such discovery was the fish species *Hyneria udlezinye*, a dominant predator believed to have fed on smaller fish and other aquatic animals. This was the 26th species found in shale from the site to be formally described and named.

The project has also contributed to the development and promotion of palaeo-heritage tourism in the area, including the creation of picnic sites and curated displays of geology and paintings by top South African palaeo artist Maggie Newman. This work continues to increase public awareness of the importance of preserving palaeontological sites and the scientific and educational value they provide.



1.2 Project: *Aloe simii* propagation project on Route P166

Location: White River, Mpumalanga

ABOUT THE PROJECT:

The three-year propagation project was initiated by SANRAL in response to the declining population of *Aloe simii* due to ongoing habitat loss and the potential impact of the proposed P166 road in Mbombela. As part of the project, seedlings were germinated and grown in the National Biodiversity Institute nursery and then transplanted into a selected natural habitat.

PROJECT OBJECTIVES:

The project aimed to investigate the possibility of successfully propagating these plants to assist in their conservation. It also provided insight into the reproductive biology of the species and the correlation between root development, season of planting and successful out-planting of nursery plants.

PROJECT IMPACT:

The now-completed project has achieved remarkable results, including a significant increase in plant populations. It has also contributed to the scientific knowledge of the reproductive biology of the species and will inform future conservation efforts.

An outcomes report has since been released, which also recommended the implementation of a fire and pest management programme for transplanted plants to increase their chances of survival. In September 2022, the report, including public feedback, was submitted to the Minister of Forestry, Fisheries and the Environment for consideration. The Minister's decision will determine if SANRAL can proceed with its plans for the P166 route. SANRAL is hopeful for a positive outcome.



2. ENVIRONMENTAL AUTHORISATIONS AND ASSESSMENTS

During the design stage of road projects, specialist studies and assessments are conducted to identify potential environmental impacts and mitigation measures. The relevant authorities are also consulted to ensure compliance with legislation. Environmental control officers (ECOs) are appointed to monitor construction and ensure adherence to restrictions and mitigation measures.

The Environmental Impact Assessment (EIA) is an essential tool for sustainable development, aiming to predict and avoid any adverse effects related to a proposed project and mitigate any unavoidable impacts before authorisation is granted.

In South Africa, the EIA process is standardised under the National Environmental Management Act (NEMA). NEMA endorses the appropriate use of environmental management tools and supports the EIA process as the accepted tool for integrated environmental management (IEM).

Environmental authorisation provides greater accountability, compliance and transparency during construction, as well as better integration of projects into their environmental and social context.

ASSESSMENTS IN PROGRESS

Several applications for environmental authorisation were undertaken during the reporting period and submitted to the competent authority for approval.



Project	Date of submission
Proposed upgrade of the National Road R573 Section 1 from de Wagendrift (km 37.4) to the Gauteng-Mpumalanga border (km 48.6)	31 March 2023
Proposed upgrade of the D3810 road, two bridges and four major culverts near Giyani within the Greater Giyani Local Municipality, Limpopo	3 March 2023
Proposed upgrading of the National Road R516 Section 1 from R511 (km 0.00) to Toyspruit (km 36.67), Limpopo	1 Feb 2023
Proposed rehabilitation and strengthening of the National Road R504 Section 4 from Leeudoringstad (km 0.00) to the North West-Free State border (km 24.1)	12 Dec 2022
Proposed improvement of the R33 Section 12 from the N1 km 77 to Section 13 Modimolle in the Modimolle Mookgopong Local Municipality, Waterberg District, Limpopo	September 2022
Proposed relocation and construction of the St Andrews Primary School on portion 102, part of remainder of Farm Sluis 354-IT, Mkhondo Local Municipality, Mpumalanga	18 July 2022

EXTENSIONS

SANRAL applied for amendments to extend the validity of the environmental authorisation of two greenfield projects and two upgrades.

Project	Date of submission
Proposed construction of the ring road at Butterworth on the N2 in the Mnquma Local Municipality, Eastern Cape	October 2022
Proposed ring road in Idutywa on the N2 in the Mbhashe Local Municipality, Eastern Cape	28 April 2022



ENVIRONMENTAL AUTHORISATIONS RECEIVED

Project	Date of submission
Proposed Stone Crescent Stabilisation Works Project along the N2 in Makhandla	19 April 2022
Proposed upgrade of the national road R574 district road D1547 Section 1 from the R33 at Grobblersdal to the R579 at Morwaneng	2 August 2022



3. STATUTORY DEVELOPMENTS

- **Proposed changes to water-use regulations**

On 10 March 2023, the Department of Water and Sanitation published for comment a revision of the General Authorisation for water uses as defined in Section 21(c) and (i) of the National Water Act. Comments were due in May 2023.

- Section 21(c): Impeding or diverting the flow of water in a watercourse
- Section 21(i): Altering the bed, banks, course or characteristics of a watercourse

The General Authorisation replaces the need for the water user to apply for a water-use licence in terms of the National Water Act and streamlines the regulation of 21(c) and (i) water uses, which can occur temporarily or permanently during the construction or upgrade of river bridges and culverts.

- **Compulsory registration for environmental assessment practitioners**

The registration of environmental assessment practitioners (EAPs) with the Environmental Assessment Practitioner Association of South Africa (EAPASA) began on August 8, 2022. The amended regulations now specify tasks that may only be conducted by registered EAPs. To ensure compliance, SANRAL issued a circular to engineers to notify them of the effective date and provide guidance on transitional and SANRAL-specific arrangements.

- **NEMA regulations**

In July 2022, the Department of Forestry, Fisheries and the Environment (DFFE) again published the NEMA Financial Provision Regulations related to mitigating and rehabilitating mining activities.

Having previously provided comments on the earlier version, SANRAL has now offered additional input for consideration, reinforcing previous recommendations made to the DFFE and Department of Mineral Resources and Energy.



4. EVENTS

- **SuRF sustainability rating tool workshop**

On 1 February 2023, the developers of the SuRF sustainability rating tool led a workshop to assist project managers, supervising engineers and contractors in using the tool and to identify how it can be improved to make it more effective on project sites.

The SuRF tool is currently being tested in a real-life context on projects along the N3 to verify its applicability and identify areas for potential improvement. The projects include sections from Cato Ridge to Ashburton.



- **Workshop with environmental practitioners**

In July 2022, SANRAL organised a workshop in East London with environmental practitioners who conduct compliance monitoring and auditing on SANRAL projects. The aim of the workshop was to share environmental management experiences, particularly in relation to SANRAL projects, and to consolidate learnings from authority audits and SANRAL's own audits in recent years. The workshop was successful, with fruitful discussions on issues of mutual interest, such as contracting, interpretation of applicable legal regulations, consistent assessment of issues and reporting, and communication among project teams.



- **Conference on environmental impact assessments for infrastructure projects**

SANRAL participated in the Environmental Impact Assessments (EIA) for Infrastructure Projects conference in October 2022, as part of its commitment to engaging with industry stakeholders and celebrating Transport Month. During its presentation, SANRAL discussed the Agency's environmental management practices and addressed the challenges arising from rapidly changing environmental legislation.





Tackling waste management

The environmental team took advantage of the December road safety campaigns to **promote waste management** by reminding travellers to use waste bins and apply the 3Rs.

RE-USE



REDUCE



RECYCLE



5. CONCESSIONAIRES' ENVIRONMENTAL INITIATIVES

5.1 N3TC



- The Environment Management Programme (EMPr) and Environment Management System (EMS) received minor updates.
- The Fire Management Plan (FMP) was reviewed and updated, with refresher training planned for the second quarter of 2023.
- Proactive fire break implementation measures were taken in line with the FMP, such as disking/tiling and steep slope management.
- The IMS was updated to account for abandoned sites where the offending party responsible for contamination does not come forward within six months.
- N3TC is conducting a close-out investigation after two years based on the Department of Forestry, Fisheries and Environment's (DFFE) framework for managing contaminated land, with final rehabilitation reports progressing well for an additional three sites.
- Vetiver grass and other types of grass seeds were planted to stabilise soil and protect against erosion.
- Erosion control measures such as gabions, earth berms and grouted stone pitching were implemented, along with a variety of other erosion control measures.
- Topsoil was placed in identified areas, with fertilizers applied to certain slopes.
- Alien vegetation was managed through eradication, control and practical on-site training to reduce its spread.



5.2 Bakwena



- **Project name:** Roadkill Project

Project aims: The project aims to reduce roadkill and enhance motorist safety.

It is part of Bakwena's commitment to providing social and economic opportunities while preserving the environment and local heritage. There are approximately 15,000 annual road fatalities in South Africa, of which a third are attributed to vehicle-animal collisions. In collaboration with the Wildlife and Transport Programme run by the Endangered Wildlife Trust (EWT), the project focuses on improving safety and minimising the negative impact of roads on wildlife and domestic animals.

Key developments and impacts for 2022/23:

In 2022, EWT's field staff accompanied the Bakwena route patrol teams on four patrols to assist with documentation, as well as species and roadkill hotspot identification.



5.2 Bakwena (continued)



- **Project name:** Magaliesberg Carnivore Project

Project aims: The primary objective of the project is to safeguard free-roaming carnivores in Limpopo and North West by assisting farmers in mitigating losses to predators through the use of non-lethal management tools. By reducing livestock predation, the project aims to enhance the livelihoods of both commercial and community livestock farmers, fostering a more positive attitude towards carnivores.

Key developments and impacts for 2022/23:

In 2022, the project successfully deployed two livestock guarding dogs (LGDs) in the Waterberg District of Limpopo. The introduction of LGDs has yielded remarkable results, with reported losses in herds accompanied by LGDs dropping to nearly zero compared to previous years. There has also been a noticeable decrease in farmers' hostility towards predators, indicating a significant shift in their attitudes.



5.3 TRAC



- **Project name:** Endangered Wildlife Trust Project

Project aims: To address the issue of wildlife-vehicle collisions and mitigate the negative impact on wildlife, the Endangered Wildlife Trust (EWT) initiated the Road Ecology Research Project. The project aims to provide scientific guidance for minimising the environmental harm caused by infrastructure development, specifically road construction.

In 2017, EWT and TRAC formed a partnership focusing on the establishment and management of a wildlife incident database through data collection along the N4. Analysis of this data allows EWT to map road sections with the highest incidents of wildlife-vehicle collisions.

Key developments and impacts for 2022/23:

- Financial support provided for a graduate in Baccalaureus Technologiae: Nature Conservation.
- Support extended to a second student in completing a PhD in Ecological Science with practical work conducted on the N4.
- Ongoing training conducted for approximately 20 patrol staff in species identification and roadkill data collection.
- Addition of camera traps to enable reliable monitoring of animal behaviour and usage of road structures such as culverts and underpasses.
- TRAC receives roadkill reports and camera pass activity, which are crucial for TRACassist teams, along with daily WhatsApp communication with the six teams.



STAKEHOLDERS

Stakeholder engagement and support are fundamental to SANRAL's commitment to building a stronger and more inclusive South Africa. Our stakeholders encompass a range of individuals and groups, including road users who rely on our infrastructure, local communities in the areas where we operate, business forums, representatives from various levels of government, and organisations from many different sectors.

This section of the Integrated Report reflects our work under the 'Stakeholders' pillar of our Horizon 2030 strategy, which commits the Agency to robust and effective engagement with our stakeholders, so that we can build trust, foster cooperation and align our actions with their diverse needs and expectations. But this section also goes beyond communication and engagement to encompass a range of initiatives and activities that exemplify our dedication to our stakeholders.

We highlight our transformation agenda, which seeks to empower previously disadvantaged individuals and promote inclusivity within the construction industry. Our commitment to supporting SMMEs is also showcased, as we strive to create opportunities for these enterprises to thrive and contribute to the economic growth of our nation.

We share updates on our investment in education and skills development. This encompasses a range of initiatives aimed at nurturing talent and equipping individuals with the knowledge and capabilities to succeed – not just in the road infrastructure sector but in society at large.

This section also emphasises the importance of partnerships with stakeholders as a catalyst for innovation, knowledge sharing and learning opportunities. We collaborate with universities, technical institutions and other key stakeholders to develop programmes and initiatives that address industry needs and foster a culture of continuous improvement.





1. TRANSFORMATION THROUGH ROAD ENGINEERING

As a state-owned entity and a responsible corporate citizen, SANRAL is actively contributing to South Africa's economic recovery. Guided by our Transformation Policy, we are committed to uplifting local communities wherever we operate and to driving positive change in the construction industry.

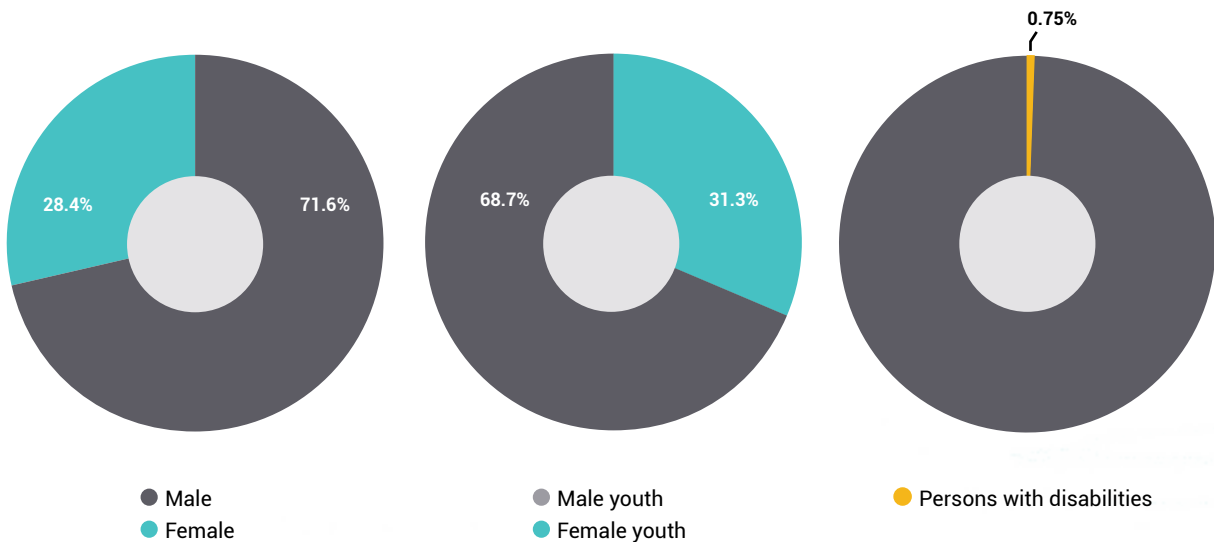
Over the past reporting year, we have focused our efforts on promoting the growth and development of Black-owned, women-owned and youth-owned subcontractors and SMMEs. By providing targeted support, resources and opportunities to empower these enterprises, we aim to create a more inclusive and equitable roads industry.

We have also prioritised job creation and community support. By creating employment opportunities and investing in various social development projects, we strive to uplift individuals and enhance the wellbeing of the communities we serve.

1.1 Work opportunities generated by SANRAL projects

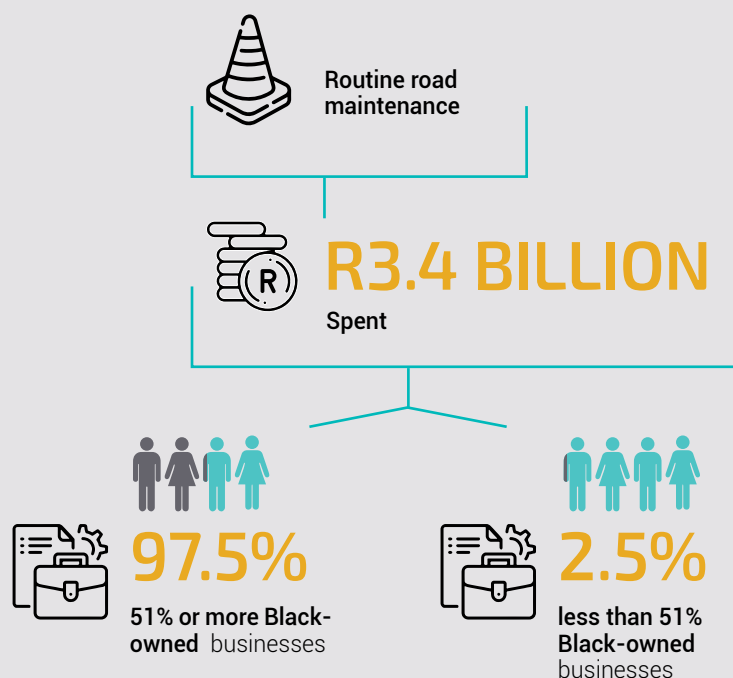


Percentage of jobs created on projects (full-time equivalents) by demographic

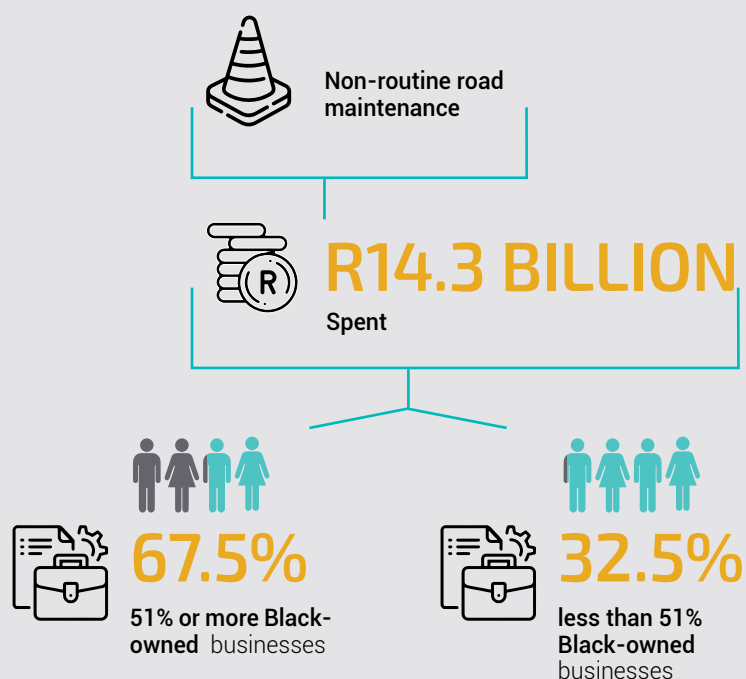


1.2 Contract value by Black ownership of contractors

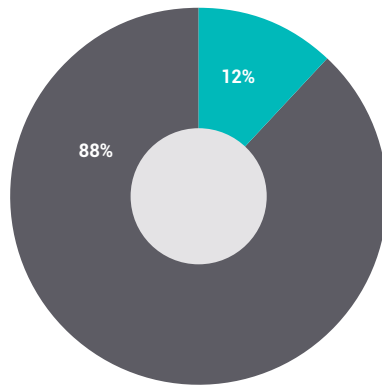
ROUTINE ROAD MAINTENANCE



NON-ROUTINE ROAD MAINTENANCE



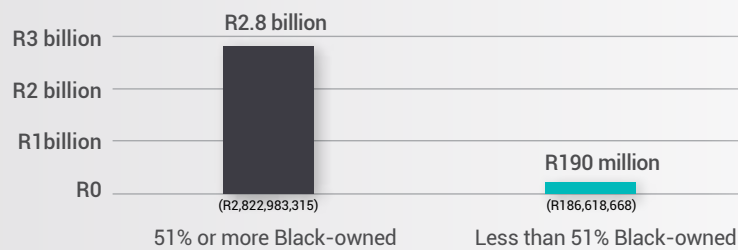
Percentage of SMMEs contracted by SANRAL by B-BBEE status



- 51% or more Black-owned
- Less than 51% Black-owned



Value of work done by SMMEs for SANRAL by B-BBEE status



1.3 Work opportunities generated by community development projects

The programme generated 36,175 job opportunities in the reporting period. A total of 2,439 workers on community development projects received training during 2022/2023 and the total spending on training was R15,007,107.

During 2022/23, SANRAL had 37 active community development projects with a total expenditure of R141,438,347. Of these, 27 were in the design phase, nine were in construction and one was completed.



R141 MILLION spent



37 community development projects



R8.3 MILLION spent on wages



27
in design
phase

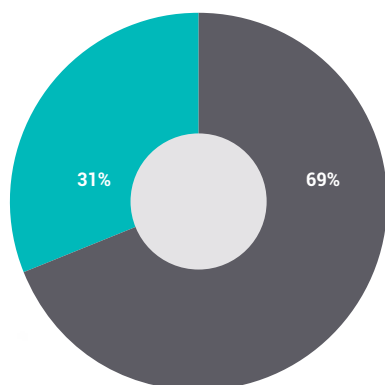


9
in construction
phase



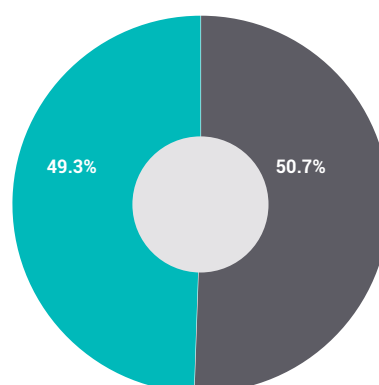
1
completed

Percentage of males and females working in community development projects



● Male
● Female

Percentage of male and female youths working in community development projects



● Male youth
● Female youth

1.4 CIDB gradings of companies working with SANRAL

Road networks are key to economic development and SANRAL's Transformation Policy sets clearly defined targets for the participation of Black contractors, professionals and suppliers, and is designed to maximise their participation in all projects commissioned by the Agency.

SMME training and upskilling

- **Programme:** SMME Pre-Tender Training Programme

Description: SANRAL has implemented an SMME Pre-tender Training Programme facilitated by Imbawula Projects and Training and ACS/Tjeka JV. The programme aims to provide training and support to SMMEs in pursuit of their development and growth.

Target audience: The programme targets civil engineering subcontractors with CIDB gradings of 1-4 with active membership, who are registered with the Companies and Intellectual Property Commission (CIPC) and are SARS compliant.

Aim: The aim of the programme is to equip SMMEs with the necessary skills and knowledge to run successful contracting businesses. Through this programme, SANRAL aims to reach an estimated 40,000 SMMEs over the next three years and contribute to the transformation of the industry.

Programme content: The training covers topics such as basic literacy and numeracy, contracting business management and tendering processes. It incorporates nine selected unit standards, including mathematics for financial investigation, tendering for construction contracts and construction resource management. These unit standards form part of a 24-unit National Certificate of Construction Supervision (NQF 2). Trainees have the option to complete the remaining 15 modules independently in the future. Assignments and assessments are conducted after each training phase.

Reception: The programme has been well-received so far, with increasing demand for participation. It provides a platform for meaningful engagement, allowing participants to express their frustrations, expectations and aspirations regarding support and development. The programme also facilitates skills transfer by involving smaller training service providers as subcontractors under the guidance and mentorship of the main service provider. Feedback from participants has affirmed that SANRAL's plans align with industry challenges and have the potential to significantly improve the quality of small contractors operating in the infrastructure development sector.



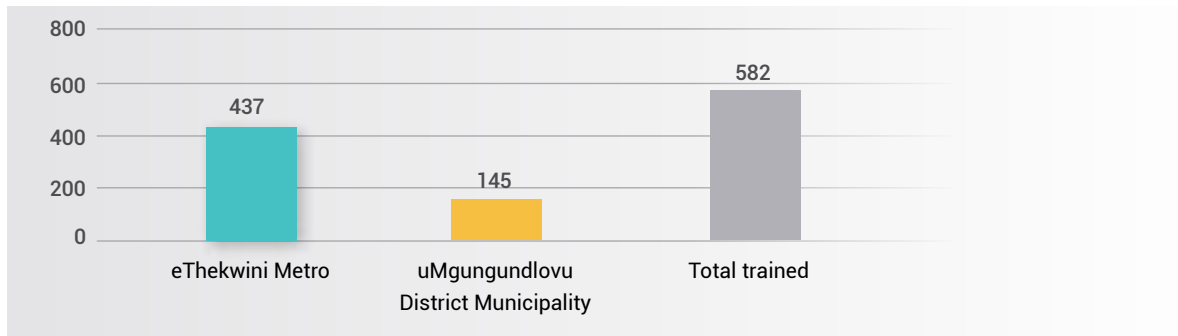
Programme progress (as at March 2023)

Training figures to date

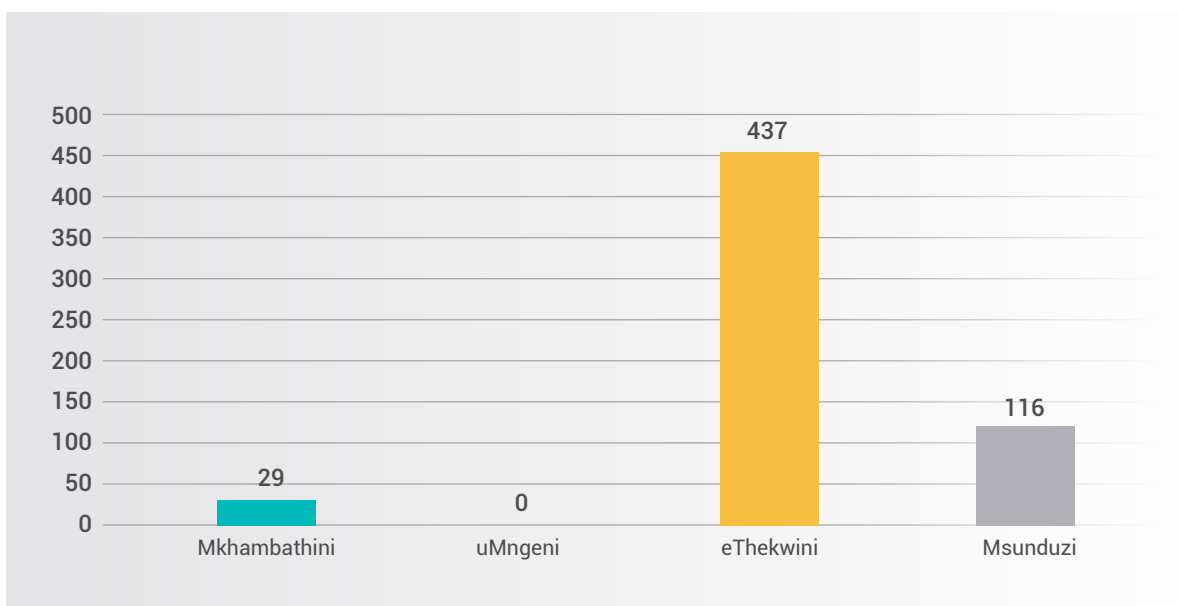
Eastern Region (FS)		Eastern Region (KZN)		Southern Region		Western Region	
Welkom G1	36	Manguzi	27	PSJ G1 & G2	54	Knysna	26
Ventersburg	22	Isandlwana G1 & G2	53	Bizana	45	Plettenberg Bay	21
Jacobsdal	23	Mbazwana	22	Lusikisiki	30	George	17
Phuthaditjhaba	25	Isandlwana G3	33	Libode	30	Mosselbay	14
Welkom Q2	21	Illembe G1	19	Mthatha 1	24	Beaufort West	29
Bethlehem	24	Illembe G2	26	Mthatha 2	23	Total	107
Smithfield	25	Umzimkhulu	45	PSJ G3	26	Northern Region	
Odendaalsrus	25	Underberg	23	Mthatha G3 (KSD)	22	Delmas	16
Bloemfontein G1	25	Ladysmith	31	Nyandeni (Libode G2)	29	Dobsenville	25
Bloemfontein G2	26	Port Shepstone	35	Bizana G3	30	Moloto (KwaMhlanga)	27
Senekal	26	Ixopo	20	Bizana G4	31	Randfontein	20
Botshabelo	22	Kokstad	15	Total	344	Standerton	27
Zastron	23	Total	349			Total	115
Bloemfontein G3	25						
Ficksburg	26						
Ladybrandt	27						
Rouxville	27						
Bloemfontein G4	26						
Hennenman	24						
Phuthaditjhaba	26						
Thaba Ntchu	27						
Total	531						

Training per region		Training percentage per region against CIDB members			
Training per region		Training per region	CIDB registered	Trained to date	Training % per region against CIDB
Eastern Region	880	Eastern Region	12,564	880	7
Southern Region	344	Southern Region	5,669	344	6
Northern Region	115	Northern Region	13,297	115	1
Western Region	107	Western Region	2,288	107	5
Total	1,446	Total	33,818	1,446	19

Number of SMMEs trained to date



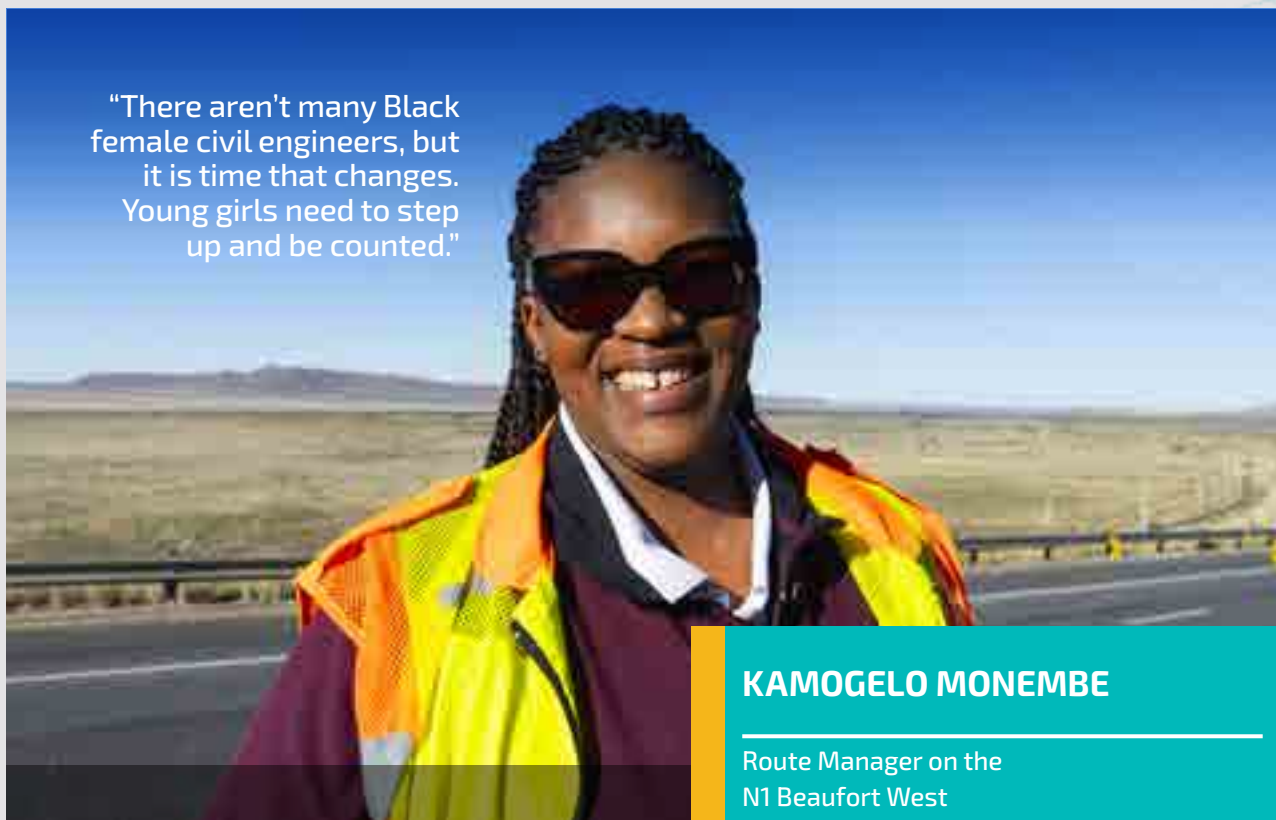
Number of SMMEs trained per municipality



1.5 Stories of transformation

SMME SPOTLIGHT

"There aren't many Black female civil engineers, but it is time that changes. Young girls need to step up and be counted."



KAMOGELO MONEMBE

Route Manager on the
N1 Beaufort West

Kamogelo Monembe's progress within the road construction space is a testament to SANRAL's commitment to promoting gender equality and creating opportunities for women in this historically male-dominated sector.

The Agency has been prioritising women's participation on its R400-million slope stabilisation projects in the Western Region. Monembe manages two routine road maintenance subcontractors who work on the N1 between Riemhoogte and Skietfontein, in the Western Cape. The 185km route is patrolled daily to check for areas that need urgent maintenance. The team is responsible for tasks such as cleaning drains and culverts, vegetation control, line marking, road patching and temporary pothole repairs.

Despite facing challenges, such as being underestimated by male counterparts, she excels in her role, ensuring high-quality work along the route.



2. CONCESSIONAIRE SUPPORT FOR COMMUNITIES

SANRAL's concessionaires play a vital role in fostering sustainable development and improving the quality of life for individuals and communities along their respective routes. The wide range of concessionaire projects and initiatives over the past reporting year showcases their commitment to making a positive impact in the areas they serve.

From initiatives aimed at promoting food security and socioeconomic development to programmes focused on assisting individuals with disabilities, these projects highlight the diverse and meaningful ways in which our concessionaires contribute to building a sustainable future.



2.1 Bakwena



Bakwena is committed to fostering progress and improving lives in South Africa by connecting local communities through high-quality roads. It actively supports a range of corporate social investment (CSI) projects and collaborates with communities to implement these initiatives. Its CSI pillar encompasses road safety, socioeconomic development, health, environment and heritage. Bakwena is dedicated to making a positive impact along every kilometre of its routes.

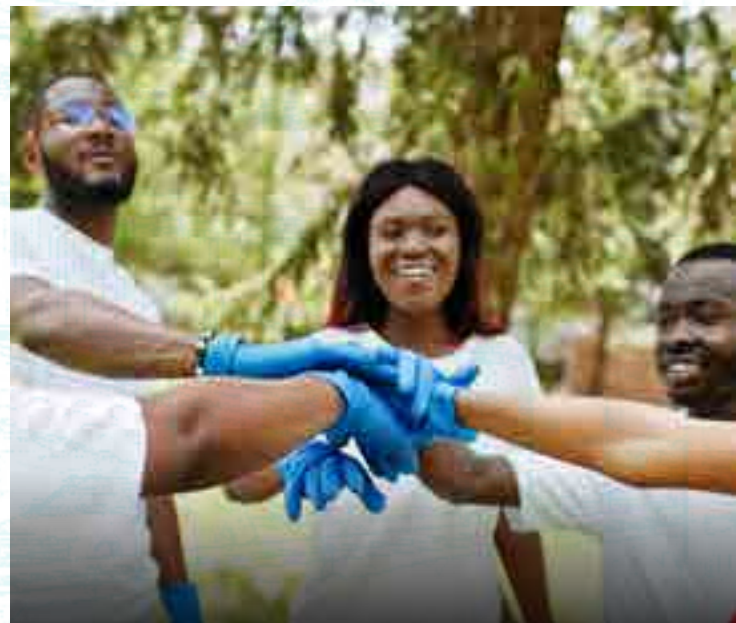
- **Project name:** Community volunteers

Programme area: Disaster management

Description and aims: Bakwena prioritises disaster management to promote the safety and wellbeing of the communities it serves. To ensure preparedness, it offers training programmes in partnership with stakeholders such as the South African Red Cross, government departments, and local and provincial emergency services. The programmes empower communities along the N1N4 route with the skills and knowledge to effectively respond to emergencies.

Key developments and impacts for 2022/23:

Training was provided in community-based health, first aid, home-based care, peer education, basic firefighting, malaria and TB protocols, microbial and chemical safety, hairdressing and security. Nine community teams in six communities received training. Through this training, the teams were able to reach 6,205 learners and teachers, and to safeguard and assist 211,647 learner crossings.



- **Project name:** PinkDrive community outreach

Programme area: Cancer detection

Description and aims: PinkDrive actively champions early diagnosis and screening as crucial components in the fight against cancer.

Key developments and impacts for 2022/23:

Over the past seven years, Bakwena has made significant contributions to cancer education and screening in various communities, in partnership with PinkDrive.

- Visited 54 schools and educated 26,352 learners on the prevention of breast, testicular and prostate cancer.
- Conducted 6,078 breast cancer screenings and 528 prostate cancer screenings at 55 clinics.
- The project benefitted community members from Dinokana, Lehurutshe, Zeerust, Groot Marico, Swartruggens, Bapong and Hammanskraal.



- **Programme:** Arise and Conquer

Programme area: HIV/Aids

Description and aims: Bakwena has established a partnership with Arise and Conquer, an NGO based in Hammanskraal, to address HIV, sexually transmitted infections (STIs) and related illnesses in the local community. The collaboration focuses on raising awareness, providing education, counselling and HIV testing services.

Key developments and impacts for 2022/23:

- Reached 5,985 individuals with a range of services, including track and trace, TB and STI screening, HIV counselling and testing, and educational campaigns.
- Reached 2,675 individuals living with Aids.
- Referred 148 individuals for further testing.



2.2 N3TC



Through its CSI programme, aptly named Touching Lives, N3TC continues to make a meaningful contribution to the communities along the N3 Toll Route. Recognising the vital role of a transport corridor like the N3 Toll Route in promoting sustainable economic growth and alleviating poverty, N3TC is committed to improving the lives of the people in the region. In the 2022/23 period, the Touching Lives programme had a significant impact by supporting 41 projects along the route. These projects, in turn, benefited 52,753 individuals and created 495 employment opportunities.

N3TC also awarded 21 bursaries to recipients residing along the route, enabling them to pursue tertiary education. This commitment to education and socio-economic development showcases N3TC's dedication to improving quality of life for local communities.

- **Programme:** Sustainable Food Gardens Initiative

Programme area: Food security

Description and aims: This partnership between N3TC and Reel Life NPC aims to address food insecurity among vulnerable households through the establishment of household gardens. This allows communities access to regular nutritious meals. The pilot project was launched with the support of Bruntville Primary School in Mooi River. The school serves as a feeding scheme and training facility for an initial 100 community household gardens.

Key developments and highlights for 2022/23:

The pilot project highlighted a number of challenges, including extreme weather, pests, and roaming livestock and wildlife. Despite the obstacles, a number of the household gardens have been very successful, not only sustaining the families but also creating an avenue for selling excess produce within the community.



- **Programme:** Fundisisizwe assistive devices and learner support

Programme area: Disability support and socio-economic development

Description and aims: KwaZamakhule Special School is home to many children with physical, intellectual or learning disabilities. Through the Fundisisizwe Bursary Fund, N3TC supplements funding from the Department of Health, creating opportunities for these learners to enjoy experiences that are typically inaccessible to them, such as moving around independently and taking part in outdoor playground activities.

Key developments and impacts for 2022/23:

- Appointed resources for wheelchair maintenance and repairs to ensure safety and functionality.
- Timely replacement of batteries and repair of assistive devices for sustainability and longer lifespan.



2.3 TRAC



In line with TRAC's core business philosophy, its CSI programme is dedicated to empowering and developing previously disadvantaged individuals and communities along its route. Its investment in 2022/23 has brought about positive change and upliftment through various initiatives, including socio-economic development, enterprise and supplier support, and skills development. As a result, it has achieved level 2 B-BBEE contributor status, demonstrating its commitment to transformation. Its CSI strategy focuses on six key areas: education and skills, health and welfare, sports and culture, SMME development and support, road safety, and environmental initiatives.

- **Programme:** Thanda Primary School

Programme area: Education

Description and aims: In 2017, TRAC committed to provide new facilities for Thanda Primary School. This is a rural, non-fee-paying school in Hectorspruit, Nkomazi, with approximately 800 pupils (Grade R to Grade 9). The school reached out to TRAC due to several pressing issues, including a shortage of classrooms, limited access to clean water and a

lack of adequate toilet facilities, with only four pit toilets available.

Key developments and highlights for 2022/23:

The relationship between the school and TRAC has resulted in a sustainable learning environment. Infrastructure development by TRAC included:

- Six new classrooms (specially designed to reduce the temperature in the classrooms)
- Ablution facilities
- Kitchen and seating area
- Foundation-phase classroom
- Netball court
- Paving throughout the school
- JoJo tanks for water and rainwater collection

The upgrading of the school has resulted in the growth and development of the local community, with a focus on education, skills development and enterprise development. Additional projects at the school include the Penreach Literacy and Maths Programme, Early Childhood Development Centre, and school and community sports development.



- **Programme:** Marula Fruit Sellers' Market

Programme area: Enterprise and skills development

Description and aims: The Marula Fruit Sellers' Market is a hawker site that benefits from TRAC's N4 Hawker Enterprise Development Programme. The programme aims to create sustainable and successful enterprises within the market. Through TRAC's partnership with RCL Foods, the market consists of 15 traders who have thrived in their businesses.

Key developments and highlights for 2022/23:

The site now has a functional nursery and vegetable garden. Over the years, major renovations have been carried out to enhance the aesthetics and customer appeal of the trading post.

The traders have also benefitted from enterprise training and agricultural guidance to improve the yield of the small nursery and vegetable gardens.

The 12-month training process employed adult learning techniques to accommodate illiterate individuals and consisted of four modules/unit standards, all of which were accredited.



- **Programme:** Penreach TRAC N4 Asifundze and PCLDP (Literacy and Courageous School Leadership Development)

Programme area: Education

Description and aims: The partnership between Penreach and TRAC began in 2015 at Kamrudin Primary School and has since grown from strength to strength. TRAC now funds the programme in eight primary schools.

Key developments and highlights for 2022/23:

The Asifundze Literacy Programme is an outreach initiative that focuses on improving reading and comprehension skills, which are essential for a child's education. The programme aims to fill the gap in current literacy and numeracy delivery systems, specifically in the foundation phase. We have witnessed the positive impact of the programme on foundation-phase scholars, with many of them now prepared to transition to high school.





3. EMPOWERING THROUGH EDUCATION

SANRAL is committed to supporting education and skills development as part of its broader vision for a sustainable and thriving South Africa. Building on the lessons learned from successful initiatives in the past, SANRAL has made strategic investments in learning and development, introducing several shifts in its approach. These initiatives not only benefit SANRAL by fostering technical expertise and innovation, as well as cultivating a robust skills pipeline, but also contribute to the overall growth and development of South Africa.

3.1 Scholarships and bursaries

Scholarships

The Scholarship Programme offers sponsorships to high school learners (Grades 8 to 12) from previously disadvantaged backgrounds, regardless of their chosen subjects. Our recently implemented Scholarships Policy focuses on inclusivity and aims to provide extensive support to South African youth, enabling them to successfully complete their secondary education.



R7.2 MILLION

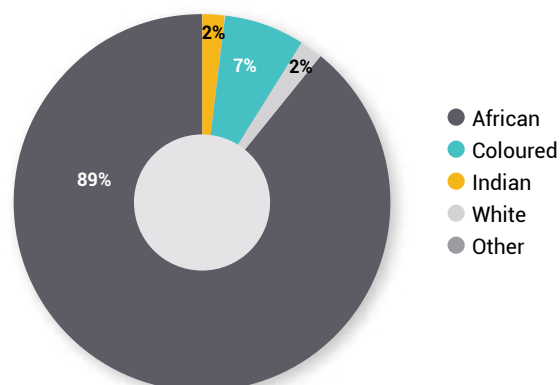
Total
expenditure



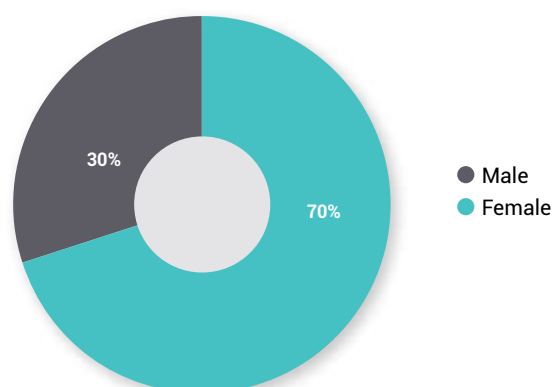
260

Scholarships
awarded

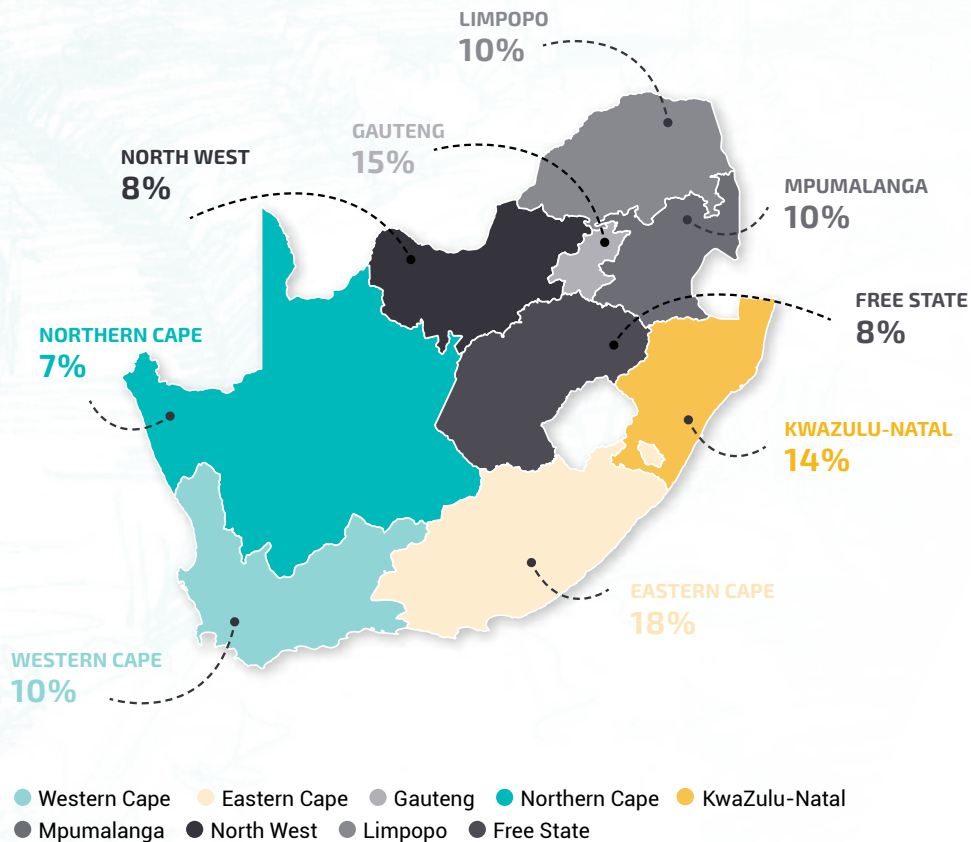
Percentage of scholarship recipients by population group



Percentage of scholarship recipients by gender



Percentage of scholarship recipients by province



External bursaries

SANRAL contributes to youth development by investing in tertiary education. This assistance is targeted towards deserving applicants who meet the requirements in fields related to transportation infrastructure, engineering, the built environment, smart technologies, public sector infrastructure development and administration, and other professions relevant to SANRAL's core business.

In this reporting year, SANRAL expanded its educational reach beyond 'traditional' universities to include tertiary institutions considered 'previously disadvantaged'.

While the Agency's primary focus is civil engineering, changes in policy provisions have allowed for the inclusion of students from diverse disciplines, such as supply chain management, human resources, environmental science, law, electrical and electronic engineering, information science, computer science, mechatronics, quantity surveying, accounting and financial accounting.



R11.6 MILLION

Total expenditure



154

External bursaries awarded

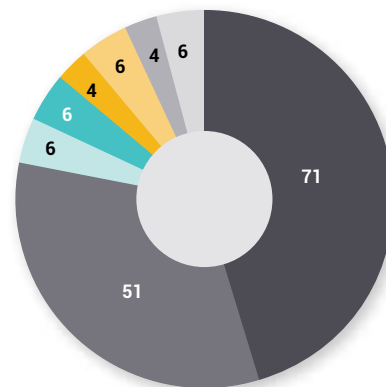


31

Degrees completed

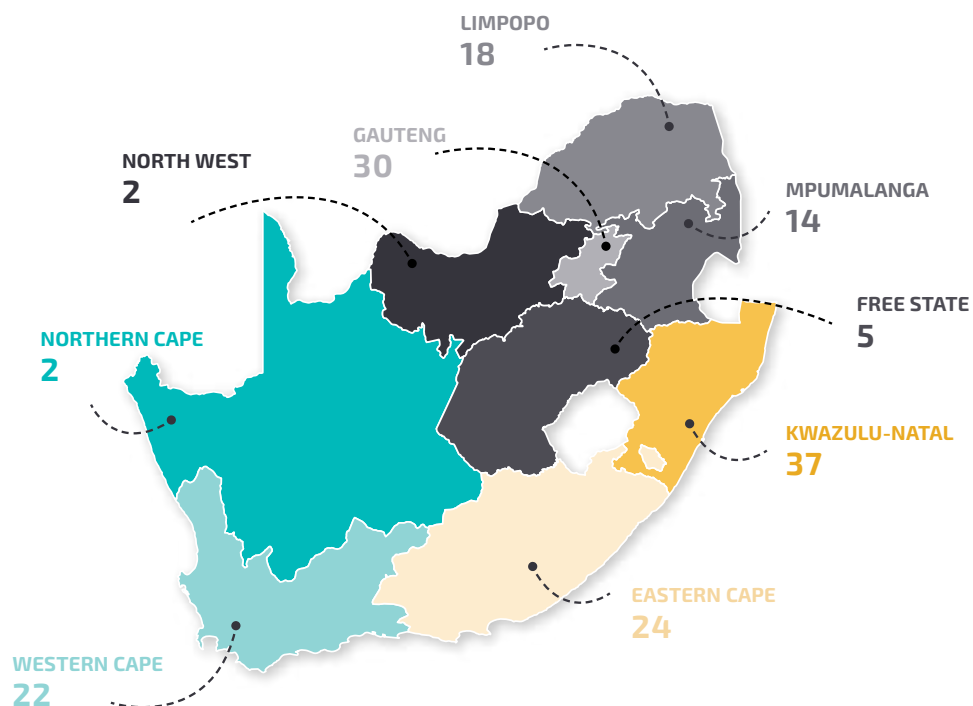


Number of bursary recipients by population group



- African female
- Coloured female
- Indian female
- White female
- African male
- Coloured male
- Indian male
- White male

Number of bursary recipients by province

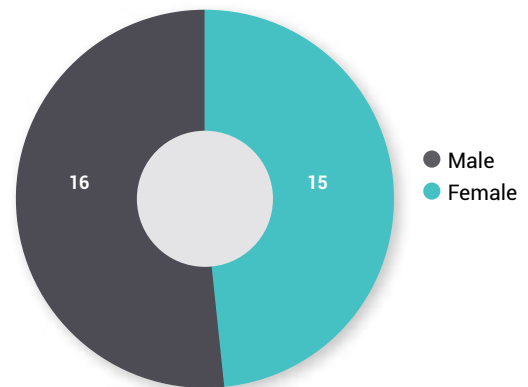




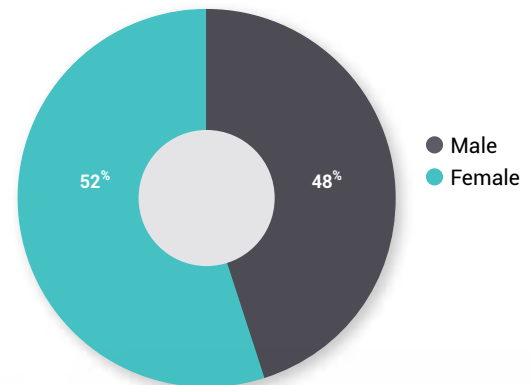
Challenges and achievements

Despite incremental progress since the advent of democracy, the built environment industry continues to face challenges with women's representation. SANRAL has taken steps to address this by increasing the number of awards to female applicants to help them advance in the field. The awards granted this year played a role in achieving this objective.

Number of graduates in 2022 by gender



Percentage of graduate engineers by gender



3.2 Graduate development

Established in 2011, SANRAL's Technical Excellence Academy aims to provide a comprehensive training programme for engineers to become registered professionals with the Engineering Council of South Africa.

The academy has implemented a Training Academy Framework, which includes dedicated in-house mentors and specialist external mentors. Through a five-year training programme that involves real road design projects on the SANRAL network, customised training courses and full-time mentoring, the academy contributes to accelerated professional development.

To date, 121 engineers have completed the programme, while 53 candidate engineers are still actively in training.

TEA candidates by gender

African		Coloured		Indian		White		Total		
Female	Male	Female	Male	Female	Male	Female	Male	Female	Male	Total
10	22	2	5	4	3	2	5	18	35	53



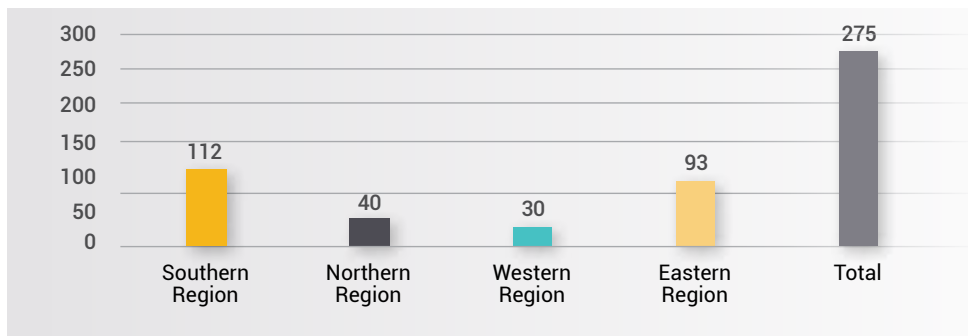


3.3 Internship development programme

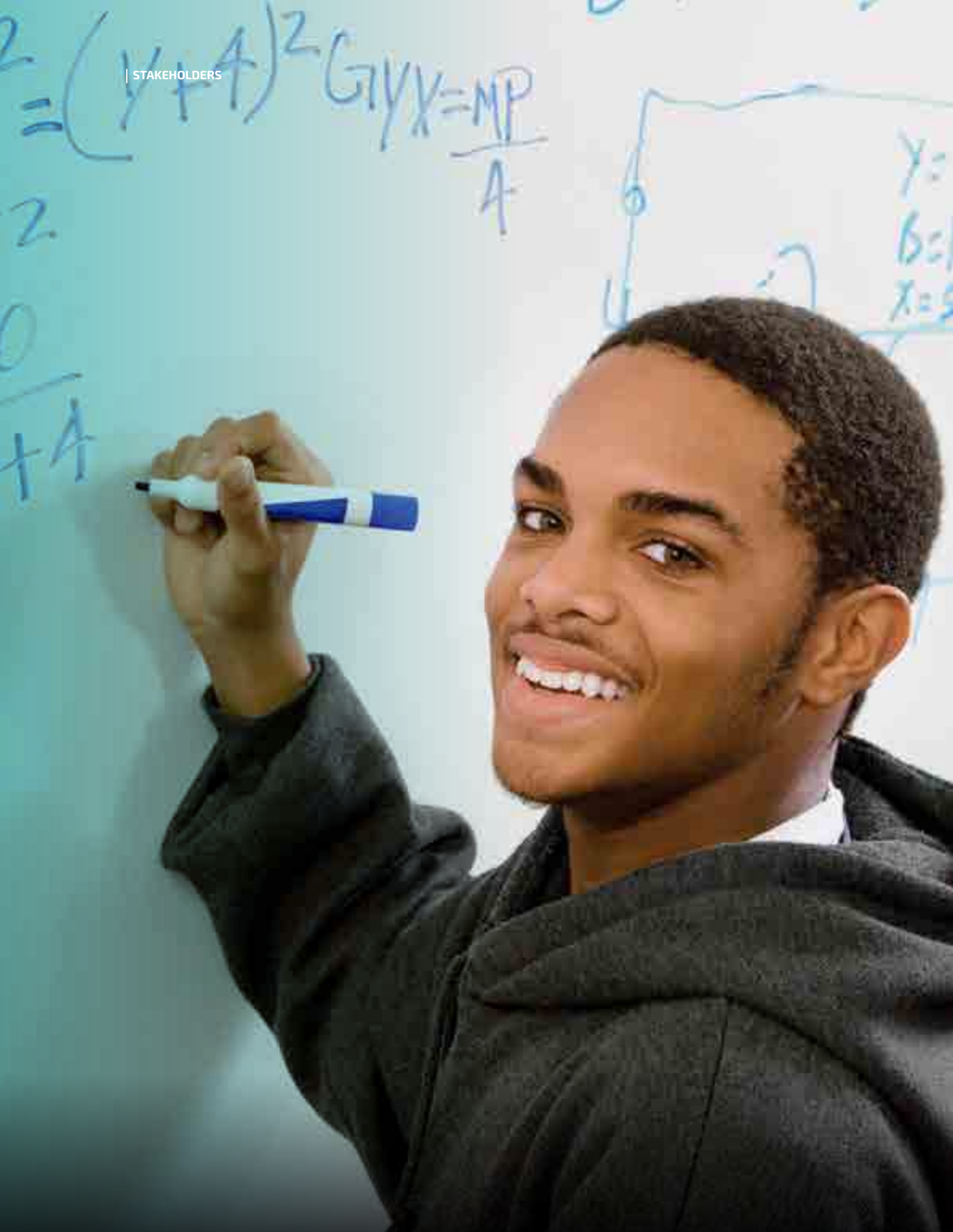
The internship development programme aims to achieve the targets outlined in the Annual Performance Plan. One of these targets was to appoint 200 interns with an excess of (+75) variance.

The interns are strategically placed on project sites to provide them with exposure to SANRAL's work in road construction and maintenance.

Number of interns by region



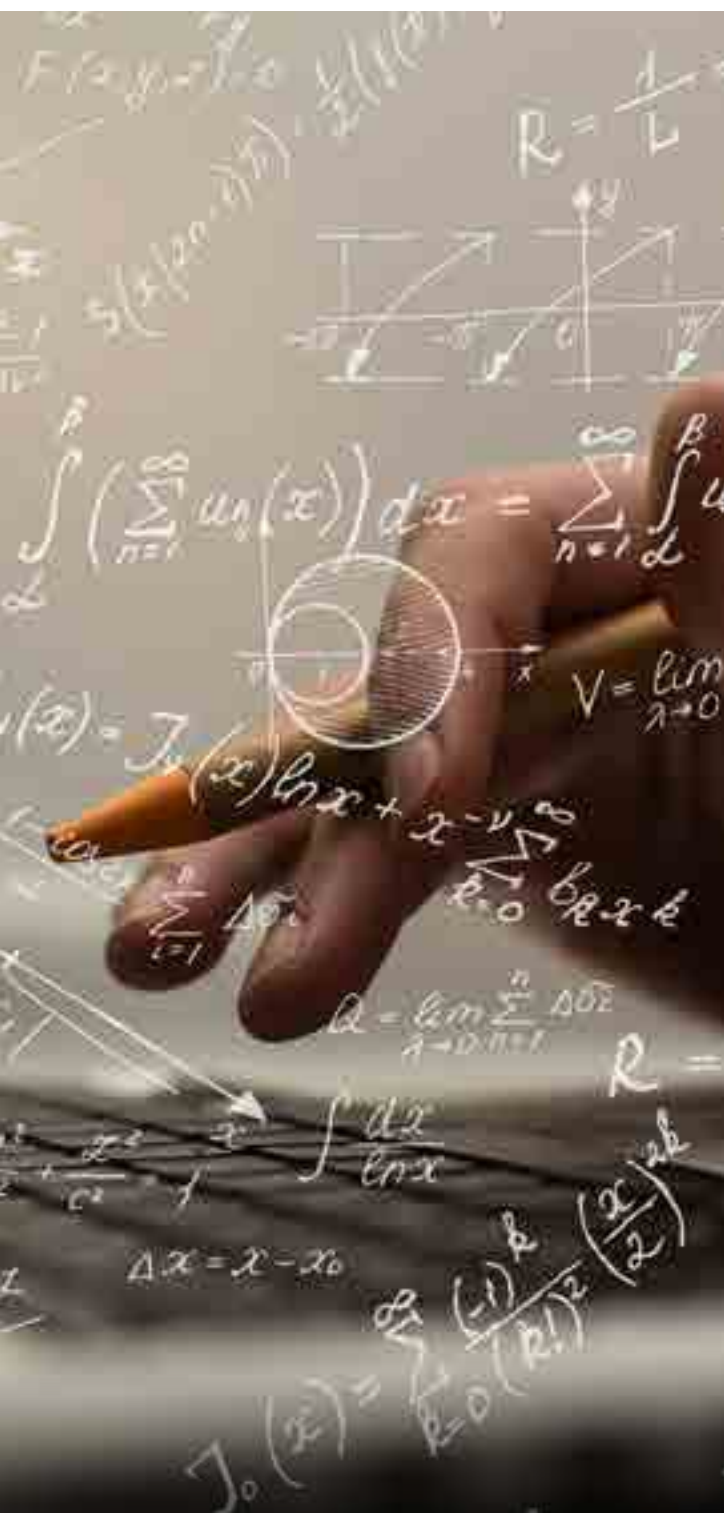




4. THE POWER OF PARTNERSHIPS

4.1 Specialised Chairs at universities

SANRAL's partnerships with universities across South Africa are instrumental in advancing science and mathematics education, fostering research excellence and developing a skilled workforce in the domains of science, technology and engineering. Through these collaborative efforts, the Agency supports innovation, knowledge sharing and talent development.



UNIVERSITY OF THE
FREE STATE
UNIVERSITEIT VAN DIE
VRYSTAAT
YUNIVESITHI YA
FREISTATA



University of the Free State (UFS) Chair in Mathematics and Science Education

This SANRAL Chair has played a crucial role in improving science and mathematics education through research excellence and teacher training in science, technology, engineering and mathematics (STEM). The Chair's responsibilities encompass developing researchers in these fields and supporting teaching and learning in schools.

Despite lingering challenges associated with the COVID-19 pandemic, the reporting year proved to be successful and productive, with the Chair and project team at UFS making significant progress in achieving key deliverables.

Achievements



8 Master's graduates
(2020-2022)



14 PhD graduates
(2020-2022)



44 Journal articles
published

The high graduation rates are made possible by an extensive system of supervision support and mentoring that forms an established part of the programme.

The outstanding publication record in high-impact journals and book chapters showcases the programme's commitment to advancing and shaping knowledge in the relevant areas, positively impacting the teaching practice in the long run.

Workshops and support sessions

Event	Location
PhD support workshop	Zimbabwe March 2022
PhD support and writing session	Lesotho March 2022
Reading research series	UFS Bloemfontein Campus March 2022
Writing research programme (post-doc fellows and doctoral graduates)	UFS Bloemfontein Campus March 2022
Proposal defence sessions	UFS Bloemfontein Campus May 2022
Research writing workshop	South Africa (November 2022) Lesotho (November/December 2022) Zimbabwe (September/October 2022)
Research writing workshop and SANRAL alumni launch	Lesotho December 2022



University of Cape Town Chair in Transportation Management

The SANRAL Chair at the University of Cape Town (UCT) has remained dedicated to promoting transportation-related research and nurturing the growth of individuals in the field of transportation engineering.

Achievements

- Active involvement in South African and African transport research projects
- Conducting research projects on transport justice in Cape Town, Blantyre and Kigali
- Serving as an active member on the SANRAL research panel
- Teaching and supporting the development of students in transportation management, with over 150 undergraduates and postgraduates annually

- Establishing a state-of-the-art digital transport laboratory with various exciting research projects:
 - Calibration of a freeway operations simulation model
 - Testing of machine learning for vehicle class recognition using video feeds from SANRAL's FMS
 - Modelling and analysis of macroscopic traffic flow
 - Development of a new curriculum for civil engineering

Research collaborations

These collaborations are important for staying up to date with global developments in the industry.

Institution	Project
Radboud University, The Netherlands – Israel Institute of Technology	Transport Justice in Kigali, Rwanda and Blantyre, Malawi
University of Leeds, United Kingdom	Behavioural modelling/choice modelling in Africa
Technical University of Dresden	Nonlinear dynamics of epidemic spread in urban transport networks: The impact of paratransit systems
Technical University of Dortmund and University of ABC in São Paulo	The impact of COVID-19 on livelihoods, mobility and accessibility of marginalised groups
SANRAL research panel (collaborations with University of KZN and University of Pretoria)	<ul style="list-style-type: none"> • Non-motorised transport behaviour • Road funding models and the impact of carbon tax and alternative fuels on funding • Impact of travel behaviour on transport planning and analysis
Vectos collaboration with several African university partners (Mozambique, Ghana, South Africa and Ivory Coast)	Transitioning the policy debate, stakeholder relations and informal public transport for a low-carbon future

Specialist consulting work

This work is carried out to generate funds for student bursaries.

- City of Cape Town: Consultant on taxi licensing
- ITS Africa Cape Town: Consultant on integrated public transport network (IPTN) scenario development

Industry collaborations

- The Centre for Transport Studies actively engages with the industry advisory board, which includes participation from SANRAL, to address research and teaching matters.
- Industry participation increased during the period under review as a result of the HyFlex course.



- UCT hosted the SANRAL university tour 'Engineering Your Future Through Roads' in September 2022, serving as an outreach opportunity for SANRAL, the SANRAL Chair and the Department of Civil Engineering.

University management

- Director Undergraduate Studies (Civil Engineering)
- Deputy Head of Department

Corporate social responsiveness

- Board of Directors/Treasurer (HealthBridge Foundation of Canada)
- Chairman of Dutch Educational Trust, Cape Town (until October 2022)



University of Stellenbosch Chair in Pavement Engineering

The primary focus of this SANRAL Chair is the development of individuals and the enhancement of skills in the field of pavement engineering. This includes extensive research efforts involving SANRAL, the Council for Scientific and Industrial Research (CSIR) and the Southern African Bitumen Association (Sabita). These collaborations have played a substantial role in advancing research and development, supporting postgraduate studies and shaping industry guidelines.

Chair objectives:

- Undergraduate and postgraduate education
- Development and management of the asphalt and pavements laboratories
- Study guidance for postgraduate students
- Academic administration

These objectives are achieved through:

- Short courses for practitioners
- Capacity-building in pavement engineering at universities of technology
- Close liaison and cooperation with the SANRAL Focus Group (Materials Cluster), CSIR and other universities
- Specialist consulting work

Achievements

Through the support of SANRAL, as well as the generous response of the roads industry in South Africa, the Chair continued to thrive in 2022/23.

Education

The Chair's involvement in training and academic courses, both at Stellenbosch University and together with outside institutions such as the Delft University of Technology, provided an excellent opportunity for capacity-building in the roads industry.

Under the guidance of the SANRAL Chair, the postgraduate programme in pavement engineering at Stellenbosch University continued to thrive. In 2022, 12 master's degrees were awarded and four



new postgraduate students enrolled. This brought the number of registered postgraduate students to 15 at the beginning of 2022 (subject to graduation numbers and application acceptance rates).

Research

Research conducted through the Chair remained dedicated to addressing the critical needs of the South African roads industry. The focus areas included thin surfacing seals, permeability of asphalt surfacing, secondary materials, stabilisation and recycling technology, binder ageing and rheology, and other strategically significant areas related to pavement research.

The completion of the Pavement and Geotechnical Research Laboratory (PGRL) in 2020, supported by funding from Stellenbosch University, has significantly enhanced research efforts in the fields of pavement and geotechnical engineering. The laboratory has become a thriving hub for research, with its findings in 2022 being shared directly with SANRAL and published for the wider industry. This development has brought renewed momentum and excellence to these specialised areas of research.

Partnerships

Cooperation with universities, research institutes and technical committees remains a priority. Building strong relationships locally, as well as internationally with institutions such as Delft University of Technology in the Netherlands, University of Parma in Italy, the International Society of Asphalt Pavements and the International Journal of Road Materials and Pavement Design, facilitates technology transfer and enhances educational programmes. These relationships are crucial for delivering world-class education in South Africa.





• Physical Sciences (ICT) Laboratory at the University of the Free State

Target group: Grade 9–12 learners

About the programme: A partnership between S4F, SANRAL and participating schools, the laboratory aims to promote effective science teaching and learning. By incorporating a philosophy of learning known as 'social constructivism', the programme encourages learners to engage in hands-on activities and interactions to develop their understanding of science concepts and acquire 21st-century skills. The programme fosters collaboration, communication and cross-cultural understanding, while also leveraging learners' digital literacy. This integrated approach combines theory, practice and technology within a single classroom, providing a unique environment for science education.

Duration: A key element of this approach is ensuring that each learner, on average, participates in at least 30 sessions over a three-year period (from Grade 10 to 12). This extended approach, as opposed to one-time engagements, maximises the programme's effectiveness.

2022/23 impacts: A total of 388 learners from 19 schools attended sessions at the laboratory. These students were nominated by their schools and participated in a range of curriculum-related activities during the sessions.

4.2 Science and maths programmes for learners, parents and teachers

Science-for-the-Future

Science-for-the-Future (S4F) is a SANRAL-funded programme designed to tackle the challenge of mathematics and science teaching and learning in South Africa.

Particularly in rural areas, these challenges include teachers with insufficient content knowledge and skill, inadequate resources both in schools and at home, language barriers and limited parental involvement.

S4F aims to address these problems, and thus encourage and enable more young people to enter STEM-related studies and careers, including engineering and science teaching. Initiated by the University of the Free State (UFS), the programme has grown to become a collaboration involving several South African universities.





SA universities collaboration

Over the past decade, S4F has successfully implemented two programmes aimed at training mathematics and science teachers while providing support to learners and parents across various provinces.

1. Key Concepts in Science
2. Family Math and Family Science

Initially a partnership between SANRAL and UFS, these highly successful programmes have now been expanded to six other South African universities.

This was driven by significant growth in project participants and increasing demand for universities to contribute to the development of 21st-century teaching and learning skills.

Managed by UFS, these initiatives have been implemented at Nelson Mandela University, Walter Sisulu University, Sol Plaatje University, University of Limpopo, University of KwaZulu-Natal and the University of Mpumalanga. This has expanded the reach of the project and allowed for knowledge sharing between the institutions to build further capacity.

Through the universities collaboration, the benefits of the S4F programmes were extended to an additional 45,506 project participants during 2022.



20,161

Project participants
Family Math rollout and exit programmes



25,345

Project participants
Key Concepts in Science rollout and exit programmes

2022/23 milestones

Milestones	Progress
Confirmation of collaboration with universities	<ul style="list-style-type: none"> S4F liaised with universities to develop implementation strategies. Training, classroom and parent workshop materials were prepared by S4F for delivery to universities.
Rolling out training of local teachers	<ul style="list-style-type: none"> In collaboration with DBE officials, universities identified and enrolled a new group of educators to be trained for the first time. The focus in 2022 was on Grade 9 natural sciences content.
Exit mentoring of local teachers by universities	<ul style="list-style-type: none"> The programme is designed to ensure continuity and support for participating teachers from previous years. Facilitators from the universities visited the teachers at their local schools to provide guidance and assess the need for additional resources.
Planning and registering teacher training for 2023	<ul style="list-style-type: none"> S4F liaised with the universities to confirm the collaboration and discuss the strategy for 2023. S4F received all the teacher enrolments during the first term of 2023.



• 'Key Concepts in Science' programme

Target group: Senior-phase teachers
(with a focus on Grades 8 and 9)

About the programme: The programme was developed to address the significant challenges facing science education in South Africa and to improve learner performance, which currently falls far below international averages. It focuses on building a strong foundation in the natural sciences in Grades 8 and 9 to ensure success in later grades. Science teachers receive resources and support to integrate the programme effectively into the curriculum.

2022/23 impacts:

- In the John Taolo Gaetsewe district of the Northern Cape, 27 Grade 8 and 9 natural sciences teachers and one subject advisor attended training sessions at the ICT Laboratory for the second consecutive year. The training focused on Grade 9 content after covering the Grade 8 curriculum in the previous year.
- In the Buffalo City district of the Eastern Cape, 28 Grade 8 and 9 natural sciences teachers and three subject advisors enrolled for the 2022 training sessions.
- S4F successfully enrolled 4,472 participants in the UFS Key Concepts in Science and exit programmes.



• 'Family Math & Family Science' programme

Target group: Learners, parents and teachers

About the programme: The programme aims to make mathematics and science more accessible and enjoyable for young learners. Through regular activities integrated into the curriculum, it improves learners' understanding and attitudes towards these subjects. Teachers are trained to integrate programme activities into the classroom and to conduct parents' training sessions, fostering parental involvement in children's education.

2022/23 impacts:

- Initially launched in the Free State and Northern Cape, the programme has been expanded to include KwaZulu-Natal, Gauteng, Limpopo, Mpumalanga, North West and the Eastern Cape.
- 20,830 participants mainly from rural areas in these provinces participated in programme activities.
- This included 324 teachers, 12,875 learners and 7,607 parents from approximately 100 schools.
- Sixteen subject advisors were trained to coordinate and support educators in their respective regions.
- Resources such as manipulatives and activity materials for classroom and parent training sessions were provided.
- Officials from the Department of Basic Education in the relevant provinces were consulted regularly to enhance programme implementation.





5. ENGAGING FOR IMPACT

5.1 Stakeholder engagements

At SANRAL, we believe that continuous engagement with our stakeholders is not just a responsibility, but a vital tool to understand our impact in the communities we serve. Over the past reporting year, SANRAL's commitment to continuous engagement became even more crucial as the country continued to recover from the impacts of the COVID-19 pandemic.

Amid economic challenges and limited opportunities, our pipeline of national road infrastructure projects was eagerly anticipated by the construction sector. For communities across the country, these initiatives hold great potential for growth, employment and economic revitalisation.

The heightened interest in our projects has only highlighted the importance of fostering strong relationships and two-way dialogue with our stakeholders. By actively listening and understanding their needs, we can ensure that our initiatives align with their expectations and aspirations.

Social facilitation strategies are increasingly being used to identify and engage with specific stakeholders, such as people living with disabilities and military veterans' associations, in order to provide appropriate support for their meaningful participation in SANRAL projects.

An independent survey evaluating the impact and effectiveness of SANRAL's stakeholder engagements and social facilitation revealed that 65% of general stakeholders considered the engagement process to be a worthwhile use of their time. This positive feedback reflects the effectiveness of our efforts and demonstrates our commitment to constructive dialogue and inclusive decision-making.

Highlights

- We made significant strides in forging sound working relations with traditional leaders at national, provincial and local levels. This included strategic engagements with the Congress of Traditional Leaders of South Africa (Contralesa), resulting in a memorandum of understanding (MoU) between SANRAL and Contralesa. The identification and mapping of Khoi-San leaders were also concluded for meaningful engagement and collaboration.
- SANRAL continued its efforts to solidify working relations with the taxi industry representative body, the South African National Taxi Council (Santaco), particularly in KwaZulu-Natal, which faced significant



impacts from the 2022 floods and subsequent road infrastructure repairs.

- Ongoing stakeholder engagement and social facilitation interventions created a conducive environment for the smooth implementation of work within communities. This stable atmosphere enabled several Presidential and Ministerial oversight visits to national strategic projects.
- During the past year, we successfully revived our SANRAL university lectures, which took place at several universities, including the University of Cape Town, University of Witwatersrand, Nelson Mandela University, University of KwaZulu-Natal and the Central University of Technology in Bloemfontein. These events featured road safety activations on the campuses and were followed by lectures delivered by our Regional Managers or Project Managers. We are excited about expanding these events in the coming financial year.
- In October, the South African Road Federation (SARF) and the World Road Association (PIARC) collaborated to host an event called 'Connecting Africa through Smart, Safe and Resilient Roads: Stimulating Growth and Trade on the Continent' at the Cape Town International Convention Centre. Two other specialist seminars were hosted on important topics: 'Safe and Efficient Transport by Road' and 'The Role of Low-Volume Roads in Rural Connectivity'.
- SANRAL participated in its first Transport Evolution Mozambique event in May, hosted by the Maputo Port Development Company. The three-day conference included an exclusive tour of the Maputo port and two conference days, with an exhibition pavilion, panel discussions and key addresses.

- The SANRAL stakeholder app and database portal were developed to ensure convenient access to the stakeholder portfolio's data archives.

Challenges

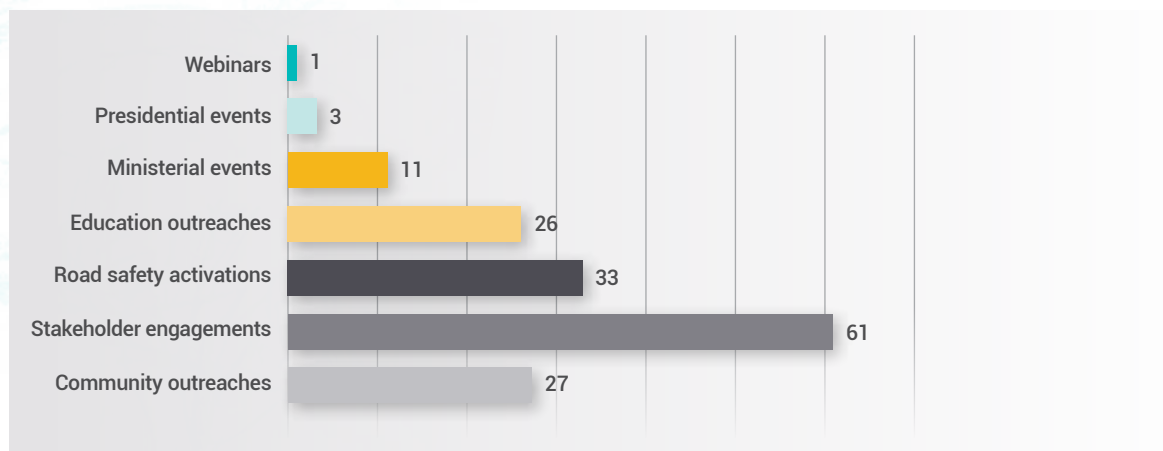
- The proliferation of breakaway business forums and the emergence of new forums has made it difficult to identify credible structures for engagement. This has made it challenging to elect business sector representatives for SANRAL's project liaison committees (PLCs), which are established to ensure maximum participation by local communities on SANRAL projects.
- Concerns have been raised regarding alleged exploitation of subcontractors by main contractors, emphasising the need for enhanced monitoring and evaluation to ensure empowerment and development of small enterprises across SANRAL project sites.
- Persistent demands for subcontracting opportunities to be reserved for emerging contractors within specific municipalities conflict with the current legislative framework, which allows participation by any 'local' company from anywhere in South Africa. To address this, Preferential Procurement Regulations are applied to award functionality points to local SMMs, providing them with a competitive advantage.
- Stakeholders often struggle to differentiate SANRAL's mandate for road infrastructure development and maintenance from that of provincial and local governments. Although this distinction is communicated during engagements, awareness campaigns can further educate communities.





Engagements by numbers

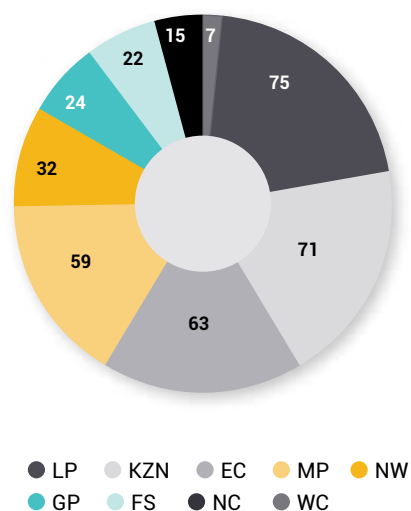
Event types



- Presidential oversight visits saw President Cyril Ramaphosa visiting SANRAL's strategic infrastructure projects (SIPs) to assess progress.
- SANRAL facilitated oversight visits by the Minister of Transport to key projects around the country, including the N2 Wild Coast Project, N12 Wolmaransstad, R336 Kirkwood to Addo, and R56 Matatiele.
- Through the 'Taking SANRAL to the People' flagship stakeholder engagement platform, the SANRAL brand was introduced to new communities around the country.
- SANRAL held information sessions across its regions to empower stakeholders with knowledge about its mandate, projects and transformation agenda.
- Roundtable engagements provided a platform to forge strategic partnerships with key stakeholders at municipal, provincial and national levels of government.
- Stakeholder meetings were held to introduce main contractors and facilitate a seamless transition as priority projects moved into the construction phase.
- WHOA! Road Safety Activations were held, targeting road users to educate them on road safety, and to encourage behaviour change among motorists and pedestrians.
- Scholarship and bursary drives, career expos and university lectures were hosted to create awareness about SANRAL's investments in education.



Number of activities by province



5.2 Advertising, marketing and media buying

Over the past reporting year, SANRAL's marketing, advertising and media-buying initiatives were directed towards enhancing the public's perception of the SANRAL brand and promoting a deeper understanding of its mandate. The objective was to position SANRAL as a capable state-owned entity that excels in service delivery, supports the government's policy objectives and actively contributes to the advancement of South Africa. By emphasising these aspects, SANRAL seeks to build respect and recognition for the value it brings to the nation.

Campaign highlights

- Campaign: Road Safety 1

Campaign overview

The aim of the campaign was to make road safety personal by emphasising our individual responsibility as pedestrians, passengers, drivers and road users. The objective was to integrate road safety into everyday life and ensure it remains a top priority for everyone.

Creative approach

The creative concept aimed to incorporate the idea of being 'number one' in a literal, figurative and tangible way. The written content cleverly played with the word 'One', while in print and film, the 'No1' element was used to frame the individual as 'number one'.

Campaign execution

The campaign was executed across various media platforms, including TV, radio, digital and print. For maximum reach, it was strategically launched during the June/July school holidays and again during the festive season. Wall murals were used throughout the year to ensure a continuous presence and reinforce the message of road safety.

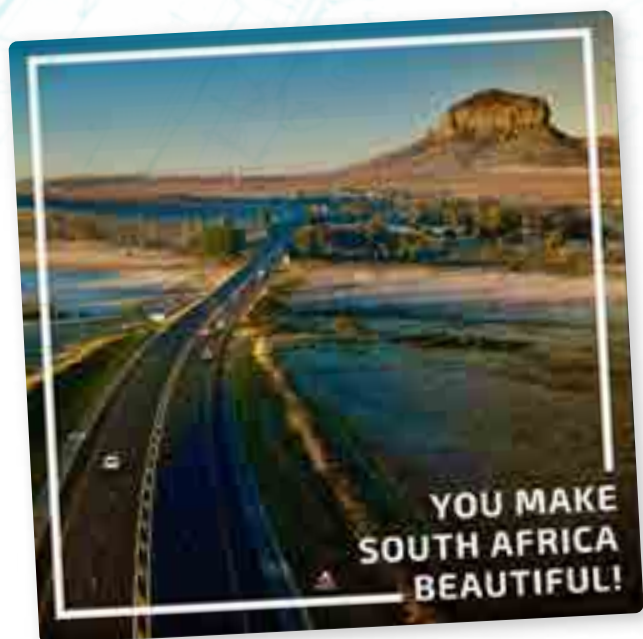
Results

- TV campaign: Reached 56.3% of target market (adults aged 18+), exposing 20,065,883 individuals to the advertising.
- Digital platforms (2-month burst): Reached 7,092,453 unique users with 1,852,404 engagements (likes, shares, comments and retweets).
- Independent research (March 2023) showed the campaign had a prompted awareness level of 91%.



Impact

The same research showed SANRAL to have a brand equity score of 62.9, just ahead of the mean (against seven other SOEs) of 62.4. Relative to the 'competitive set' SANRAL was third overall and ranked third on 'Communications'.



• Campaign: Instilling Pride

Campaign overview

The campaign aimed to cultivate a sense of public pride and ownership in the national road network while bolstering the brand's reputation. We invited our audience to snap photos or film videos of their favourite national roads and share them using the hashtag #SANRALBeautiful. Selected submissions were showcased in advertisements across all SANRAL digital platforms. This campaign was a testament to our brand's broader goal of representing more than just roads.

Creative approach

We actively involved the public in the content of our campaign, aiming to make it inclusive, authentic and emotionally resonant. Through social media, individuals shared their feelings, experiences and sentiments, enabling us to capture localised pride and ownership of the network. This participatory approach led to an extended campaign duration as it took more time to curate, produce and publish.

Campaign execution

This campaign ran on digital platforms and SABC TV. The first TV burst ran from 27 January 2023 to 19 February 2023 and the second TV burst from 20 February 2023 to 17 March 2023.

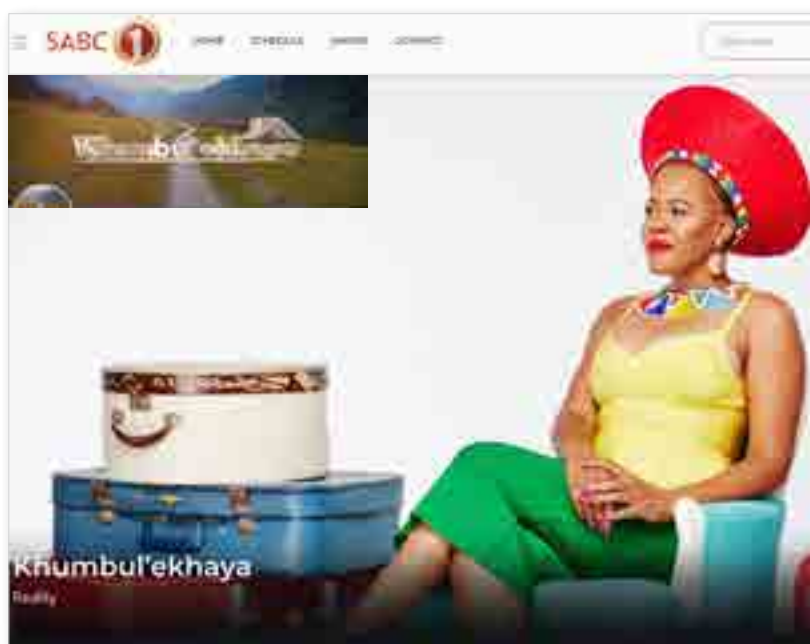
Results

- The TV campaign reached 41% of the target market of adults aged 18+ (14,611,580 people).

- Digital and social media platforms reached 4,175,660 unique users with 946,203 engagements.
- Independent research indicated a prompted awareness level of 58%, despite the campaign being recently launched.

Impact

The same research showed SANRAL to have a brand equity score of 62.9, slightly higher than the mean score of 62.4 among seven other state-owned entities. Compared to the competitive set, SANRAL ranked third overall and third in the category of 'Communications'.



• Campaign: Khumbul'ekhaya

Campaign overview

The objective was to investigate potential sponsorship or product placement opportunities on the television programme Khumbul'ekhaya. The show follows the journeys of South Africans who use national roads to reunite and reconcile with their families, presenting an opportunity for brand integration.

The sponsorship option for Khumbul'ekhaya was costly, exceeding R1.4 million, and product placement was not feasible due to the lengthy production lead time. To overcome this, SANRAL employed Whisper Media's Digital Brand Integration (DBI) solution, digitally embedding road safety messages into scenes where the TV crew is shown travelling on SANRAL roads.

Campaign execution

A total of 64 spots were flighted on Khumbul'ekhaya on SABC 1 from 19 October 2022 until 7 February 2023 in the main and the repeat broadcasts.

Results

- The campaign achieved a 21% reach of the target market (adults aged 18+).
- A total of 7,874,672 people were reached.

Impact

Whisper Media commissioned Orbit Research to monitor noting and brand recall for the campaign. The results were impressive, with 73% spontaneous brand recall and 94% prompted brand recall. Notably, 62% of respondents correctly recalled the road safety message SANRAL aimed to communicate, with unprompted responses emphasising messages such as "Be safe on the road" and "One good decision can save your life".

5.3 Media and public relations

SANRAL's media and public relations (PR) objectives for the reporting year aimed to position the organisation as a leader in road infrastructure development, job creation and economic transformation. The goal was to enhance understanding of SANRAL's mandate and activities while demonstrating its contribution towards building a better South Africa. By profiling itself as a capable state-owned entity aligned with government policy objectives, SANRAL sought to establish its brand reputation and emphasise its socio-economic impact within communities.

The creation of the SANRAL-FTI newsroom, led by experienced editors who manage a network of senior reporters across the country, proved instrumental in showcasing the positive impact of SANRAL's projects on the lives of South Africans. Through bespoke content published in various publications, the Newsroom highlighted SANRAL's commitment to transformation and empowerment.

Increasing use of video news releases helped to communicate SANRAL's messages more effectively. These releases were strategically shared with mainstream broadcast media houses, particularly focusing on programmes in remote rural areas that may not be accessible to traditional media outlets. This approach helps to ensure that SANRAL's stories and initiatives reach a wider audience.

Other proactive steps were taken to address the challenge of messages not reaching rural areas. SANRAL's marketing and communications team strengthened its community media database and specifically targeted community media for stakeholder events and activities.

To ensure effective communication with community media that are unable to attend SANRAL programmes, media releases are distributed through community newspapers and interviews conducted in vernacular languages are broadcast on community radio stations, enabling SANRAL to engage with diverse audiences.

Noteworthy accomplishments for the past year included hosting a motorcycle road safety awareness event and conducting safety training for participants. SANRAL's bursary and scholarship campaign continued to benefit rural communities, while the 'Taking SANRAL to the People' programme successfully engaged marginalised South Africans, informing them about job creation and skills development opportunities on SANRAL projects.



5.4 Thought leadership

SANRAL's thought leadership strategy over the past reporting year aimed to enhance the Agency's reputation, reinforce its leadership position in the road infrastructure space and cultivate positive stakeholder perceptions. Initiatives were designed to offer valuable insights and perspectives on strategic issues relevant to SANRAL's stakeholders. These were aligned with SANRAL's long-term strategy, Horizon 2030, and the government's broader developmental objectives.

Through this strategy, SANRAL elevated its profile and expertise in key focus areas, including:

- Road to economic recovery and growth
- Africa's road infrastructure development
- Road infrastructure of the future (innovation)
- Impactful road infrastructure
- A safer road environment

Thought leadership encompasses various activities that contribute to the broader infrastructure development debate. This includes the publication of opinion editorial articles authored by SANRAL leaders and subject-matter experts, providing valuable insights and perspectives. SANRAL also actively participates in conceptualisation and content development for strategic engagements, such as the Engineering 4.0 Discovery Forum and the series of university lecture tours conducted in 2022.

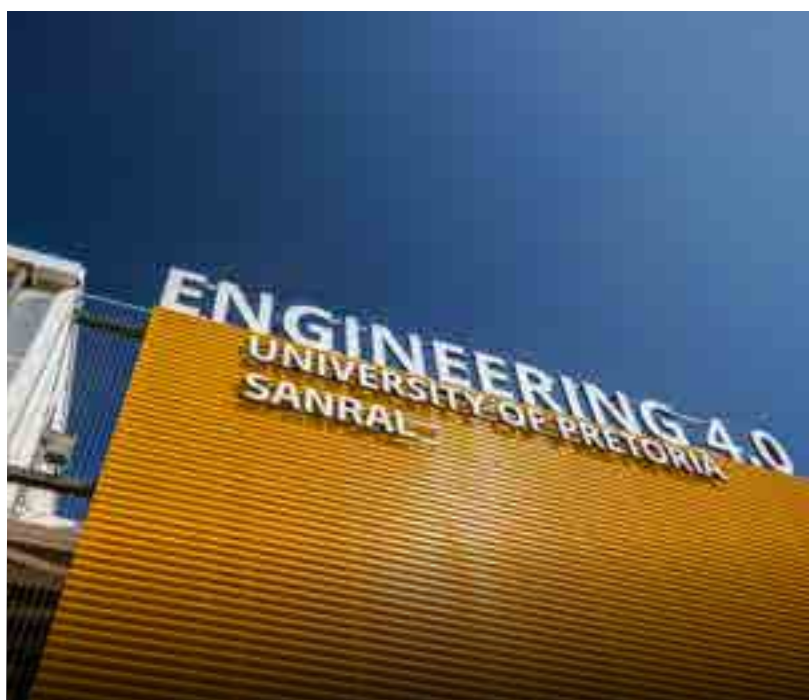


2022/23 highlights

• Opinion editorials

In 2022, 14 opinion editorials were written and published by various media outlets. Notably, SANRAL's Head of Strategy, Thabiso Malahleha, authored an in-depth report that was published on the pan-African platform, *The Africa Report*.

These articles have been compiled into a comprehensive thought leadership collection, which will be published and made available on the SANRAL website to showcase the Agency's expertise in the road infrastructure sector.



• Engineering 4.0

In May 2022, a virtual discovery event was hosted at the University of Pretoria to showcase the state-of-the-art Engineering 4.0 facility, which is housed within the Faculty of Engineering, Built Environment and Information Technology.

SANRAL's thought leadership played a significant role in shaping the concept and content of the event, offering stakeholders intriguing insights into the facility's capabilities.

The pioneering Engineering 4.0 facility is a collaboration between the university, SANRAL, the Council for Scientific and Industrial Research (CSIR), and York Timbers. It serves as a platform for high-quality training, reference testing and research in the field of transportation engineering.

- **University lecture tour**

Thought leadership provided valuable input into the planning and execution of a lecture tour spanning five universities across South Africa. The tour featured an engaging seminar titled 'Engineering Your Future Through Roads', targeting students in the civil engineering and built environment faculties. The seminar stimulated thought-provoking discussions and debates on infrastructure development and road safety in the country, expanding the horizons and perspectives of future engineers.



5.5 Internal and external publications

SANRAL recognises that effective communication is critical for building strong relationships with our stakeholders and ensuring they are informed about the Agency's activities, projects and achievements. Over the past year, our extensive range of internal and external publications continued to play a significant role in achieving our communication goals.



61

Total number of **publications produced**, including both internal and external publications



20

Number of **individual titles produced**



External publications

SANRAL's external publications have helped to raise awareness of SANRAL's work and its impact on communities across South Africa, providing engaging and accessible information about the Agency's activities and key updates on road infrastructure projects.

Dedicated publications are also published to address specific issues and community needs, such as promoting road safety, providing valuable information and resources to empower Black-owned businesses, or engaging with the youth.

The external publications are distributed via the SANRAL digital platforms and 13 of the 15 titles are also printed and distributed either nationally or regionally.



15

Total number of **external titles**

2022/23 DISTRIBUTION NUMBERS

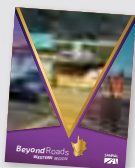


By the Way

1.5 MILLION

Beyond Roads

81,000



Investing in series

1.122 MILLION

Hello series

4.1 MILLION



**Our external
publication
audience**

- General public
- Specific groups such as women, youth or schools
- Stakeholders such as engineers, entrepreneurs and investors
- Government
- Local and national media
- Unions, traditional leaders and other interest groups

THE JOURNEY OF A SANRAL PUBLICATION

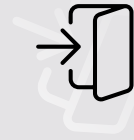


Internal publications

Over the past year, SANRAL's internal publications have helped to keep our staff informed and connected. The publications provide regular updates on project milestones, new initiatives and other developments within SANRAL.

They also play a crucial role in promoting staff wellness and engagement. In addition to fostering a positive workplace culture and enhancing employee morale, they provide a platform for employee news and achievements.

For the reporting period:



5

Total titles
of internal publications










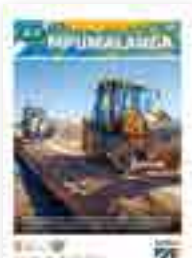











22

Total issues of internal
publications



To celebrate Women's Month and affirm its support for women empowerment, SANRAL produced a special digital publication in August 2022 showcasing female contributions and achievements in the roads industry. The publication featured interviews with female engineers, contractors and project managers who have made significant contributions to SANRAL projects. It also included articles on topics such as gender equality and opportunities for women in the construction industry.

Publications and distribution overview

INTERNAL														
	InRoads	11		On The Road	4		Transformation Newsletter	2		APP Reports	4		CEO Handover Report	1
										TOTAL ISSUES	22	TOTAL TITLES		5
	BTW	6		Investing in Series	3		Hello Series	10		Beyond Roads	4		N-Route	4
	Integrated Report	1		People's Guide to IR	1		Toll Tariff Booklet	1		Moloto Road Booklet (English, Sepedi, isiNdebele)	3		N2WCR Booklet (English, isiXhosa)	2
	N2N3 A4 4 Pager	1		N2N3 A5 booklet	1		Bursary and scholarship brochures	2		The Women Agenda	1			
										TOTAL ISSUES	39	TOTAL TITLES		15



5.6 Digital and social strategies

Over the past reporting year, SANRAL's digital marketing division had a clear mission: to enhance the brand's value and create impactful digital communications that foster positive attitudes and perceptions among South African road users. Through various channels, including our website, intranet and popular social media platforms such as YouTube, Facebook, Twitter, Instagram, TikTok and LinkedIn, we aimed to showcase the significant social and economic benefits SANRAL brings to local communities. Our ultimate objective was to establish a strong and meaningful connection between our brand and our audience.



Our efforts yielded substantial results, with the SANRAL website experiencing a significant increase in user traffic. We published two daily posts across multiple channels, focusing on quality rather than quantity and striking a balance between reactive and informative content. To ensure continuous engagement, we developed monthly themes integrated with effective digital strategies, all aimed at improving awareness and engagement, as well as stimulating meaningful dialogue among our audience.

Our newly developed corporate identity has enabled us to establish a cohesive digital presence. Our digital and social media content now incorporates customised design elements that add a human touch to our brand. We use our primary digital colours (orange, green and black) to complement our content and engage our audience with compelling visuals.

Over the past year, a key focus has been on promoting road safety for all South African road users, and we take pride in showcasing SANRAL's efforts to reinforce the message and importance of road safety practices.

We also faced several challenges in our digital communications. One of the main issues was meeting repeated demands for the same information and clarifying the roads that SANRAL manages. We also grappled with the need to remain relevant and engaging in a noisy digital environment, without overwhelming our audience. Unfortunately, our negative sentiment level reached 16% due to complaints about potholes and e-tolls.

To address some of these challenges, we took steps to improve awareness and engagement. Our revamped content strategy focused on dynamic and easily digestible formats like infographics, short- and long-form videos, branded notifications and visually appealing static images. We also humanised our brand by speaking directly to audience needs and posting relevant and educational content throughout the year.



**BEYOND
BEING MADE
TO FEEL
'LESS THAN'**



SANRAL



BEYOND GENDER

ROAD SAFETY

The Road Safety pillar of the Horizon 2030 strategy commits SANRAL to improving safety and protecting lives on South African roads. In this section of our Integrated Report, we highlight the Agency's road safety performance, key initiatives and partnerships aimed at improving road safety, as well as strategies for managing road safety risks.

Road safety is of critical importance to SANRAL as it affects our operations, stakeholders and the broader community. Unsafe roads and driving practices can lead to crashes, injuries and fatalities, resulting in significant social and economic costs. By prioritising road safety, SANRAL can contribute to saving lives and supporting sustainable economic development.

A key engineering challenge over the past year has been non-compliance with road rules, including overtaking in prohibited areas, speeding and heavy goods vehicles failing to observe compulsory stops. These unsafe behaviours often result in close calls and vehicle crashes, ranging from minor incidents to severe crashes causing injuries and loss of life.

To tackle these challenges, SANRAL implemented various initiatives, including road safety campaigns targeting specific driver groups, additional signage, road markings, road studs, and traffic accommodation measures during road construction. SANRAL also partnered with law enforcement agencies to enhance on-road presence and enforce regulations.

Additionally, research was conducted to understand the reasons behind dangerous behaviours among both drivers and pedestrians, and to map their risk-taking profiles. The aim was to develop better strategies to promote road safety and reduce crashes on our roads.



1. PROJECT HIGHLIGHTS

The following projects represent highlights from the past reporting year and demonstrate SANRAL's dedication to ensuring safe and efficient travel for all road users.

1.1 Project: Upgrading of National Road R573 Section 3 from Slovo to Siyabuswa

Location: *Elias Motsoaledi Local Municipality, Limpopo*

Progress: *75% complete (as at end March 2023)*

THE CHALLENGE:

The decision to upgrade this stretch of the R573 was made in response to several urgent challenges.

The R573 corridor experiences frequent pedestrian activity on the edge of the national road and many unsafe crossings. The situation is worsened by speeding, illegal U-turns, hazardous access points, and livestock in the road reserve, as well as limited night-time visibility.

THE SOLUTION:

SANRAL is addressing these challenges through the following measures:

- Reducing direct accesses and formalising new, safe accesses
- Installing concrete median barriers to prevent unsafe U-turns
- Constructing roundabouts to allow for legal turns and serve as traffic-calming measures
- Installing chicanes on approach roads to the roundabouts to reduce vehicle speeds
- Constructing sidewalks that link public transport facilities and crossing points with adjacent communities
- Building underpasses and cattle creeps to accommodate livestock movements
- Providing road lighting



THE RESULTS:

The upgrade is not yet complete, but SANRAL expects positive results. These include improved road operations, such as steady traffic flow and reduced stress levels for drivers and pedestrians, as well as a significant decrease in the crash rate, resulting in fewer injuries and fatalities.

ENGINEER PROFILE**LAWRENCE CHAUKE**

ROLE: SANRAL Project Manager



"The R573 upgrade will not only provide short-term opportunities for local SMMEs and labourers but will also give road users long-term assurance that their loved ones will reach their destination safely."



1.2 Project: N3 upgrades between Durban and Cedara

Location: *Between Durban and Cedara (Pietermaritzburg) in KwaZulu-Natal*

Progress: *Under construction*

THE CHALLENGE:

The N3 between Durban and Cedara required major upgrades to accommodate the increased traffic volumes on the N3, interchanges and crossroads. Under usual circumstances, construction works would reduce the number and width of lanes available to drivers and cause major delays at the interchanges. SANRAL aimed to prevent this by adopting an alternative approach.

THE SOLUTION:

Rather than using traditional traffic-accommodation strategies, the upgrades were designed to maintain the same number of lanes during construction. This was achieved by temporarily widening existing roads, bridges and culverts, and constructing high containment-level concrete barriers behind them, which reduces the required width between the open road and the construction zone. In addition, the following have been included:

- High-visibility road markings
- Increased signage
- Self-lighting road studs
- Speed cameras to reduce speeds
- Partnerships with enforcement agencies to increase visibility and enforcement levels
- Round-the-clock towing services to keep construction zones clear
- Intensive communication strategy, including 24/7 CCTV monitoring of the N3 and alternative routes, to inform road users of any impacts on travel times
- Substantial maintenance and upgrade work to all alternative routes to improve overall road network capacity and safety
- Independent road safety audits for each phase of traffic accommodation



THE RESULTS :

SANRAL's solutions have resulted in improved traffic flow, reduced driver frustration and increased compliance with road rules. They have also allowed for better tracking of vehicles through construction zones, especially during adverse weather conditions.

PROFILE**JASON LOWE**

ROLE: SANRAL Specialist



"The N3 links the port of Durban to the country's economic hubs. Traffic needs to keep moving to keep the economy moving – and the implemented solutions have contributed significantly to achieving this in a safe manner. Potential improvements are continuously being investigated and tested to ensure the best solutions are implemented."



2. ROAD INCIDENT MANAGEMENT SYSTEMS

Road Incident Management Systems (RIMS) is a national system and set of protocols to ensure emergency services respond swiftly and effectively to road incidents. It coordinates the mobilisation of all emergency services during an incident, whether it is a crash, a goods spillage or a hazmat event.

The goal is to ensure seamless collaboration among emergency services at the scene, which is managed through the district steering committee and provincial meetings. RIMS training is provided to all first responders.

In 2022, RIMS initiated the national implementation of new hazmat awareness training for emergency services and first responders. This training, developed in collaboration with qualified fire chiefs, aims to support and empower first responders, particularly in light of the Boksburg gas explosion in December 2022. The training will be rolled out nationwide in 2023 after a successful pilot in the Western Cape.



Major RIMS successes

- Updated RIMS response protocols for incidents involving dangerous goods/hazardous materials spillage.
- Trained emergency services responders on dangerous goods/hazardous materials.
- Drafted provincial MOUs for inter-provincial response procedures for dangerous goods/hazardous materials.

RIMS developments in the Southern African Development Community (SADC)

- Initiated RIMS in Namibia, Swaziland, Botswana, Zimbabwe and Zambia.
- Invited the above countries to national meetings, all successfully attended.
- Presented RIMS at the Trans-Kalahari Corridor Conference in the North West province.

Technology and communications:

- Investigated methods, tools and technology applications for improved communication between emergency services and CCCs nationwide, enabling more accurate data collection for analysis.
- Conducted meetings to streamline public emergency numbers for more efficient activation and mobilisation of emergency assistance during incidents.

Regular annual obligations

- Coordinated engagements with emergency responders at municipal, provincial and national level.
- Provided refresher training on RIMS procedures, processes and protocols to stakeholders.
- Facilitated communications through disaster management centres for all response incidents.
- Audited resources for emergency services who are first-time responders.
- Attended public outreach initiatives and distributed RIMS-related materials to road users.

3. FREEWAY MANAGEMENT SYSTEMS

SANRAL's Freeway Management Systems (FMS) are designed to ensure the efficient and safe operation of South Africa's national roads. These systems use a variety of technologies to monitor traffic, manage incidents and communicate with road users.

The system infrastructure consists of CCTV cameras, vehicle detection stations (VDS) and variable message signs (VMS), operated from the FMS Traffic Management Centre (TMC). In Gauteng, TMC operations are supported by an On-Road Services (ORS) component, where response units are dispatched to incident scenes as required. In the past reporting year, the FMS has contributed significantly to reducing delays and congestion caused by incidents affecting freeway traffic. The FMS also plays an integral part in the fight against crime. In 2022/23, the FMS worked closely with law enforcement agencies to detect, identify and prevent incidents through hotspot analysis and operational deployments.

Traffic Management Centres

The FMS in Gauteng was the first to pilot an intelligent transport system in South Africa, and now traffic management centres (TMCs) have been established

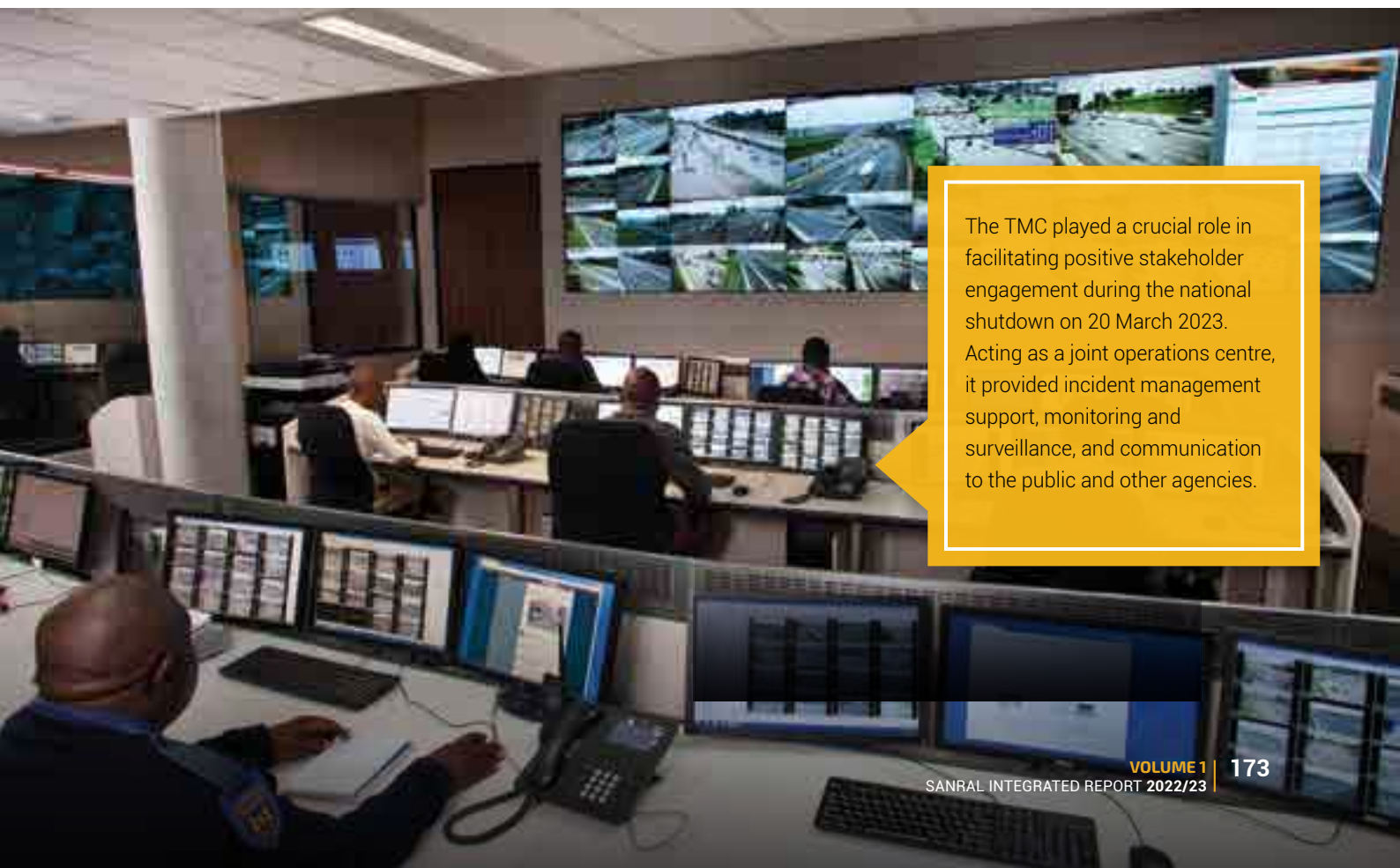
in Gauteng, KwaZulu-Natal and the Western Cape, with further development planned in the Eastern Cape.

The TMC in Gauteng is housed in the SANRAL Central Operations Centre in Samrand, located between Johannesburg and Pretoria. Its operations room houses traffic management operators (TMOs) and Metro Police staff. A video wall is used to display critical video streams while TMOs monitor additional details on separate screens.

A key TMC function is collaboration with various stakeholders. Twenty-three major stakeholders are either directly or indirectly linked to TMC operations to ensure smooth incident response and coordination.




The TMC uses various communication channels, including Twitter, the i-traffic website and VMS, to keep the public informed during planned and unplanned incidents. Media representatives are also provided with relevant information.

To ensure the Samrand TMC meets modern international standards, it is currently being upgraded. The video wall and operations room layout will be revamped to create more operational space, allowing for improved efficiency.

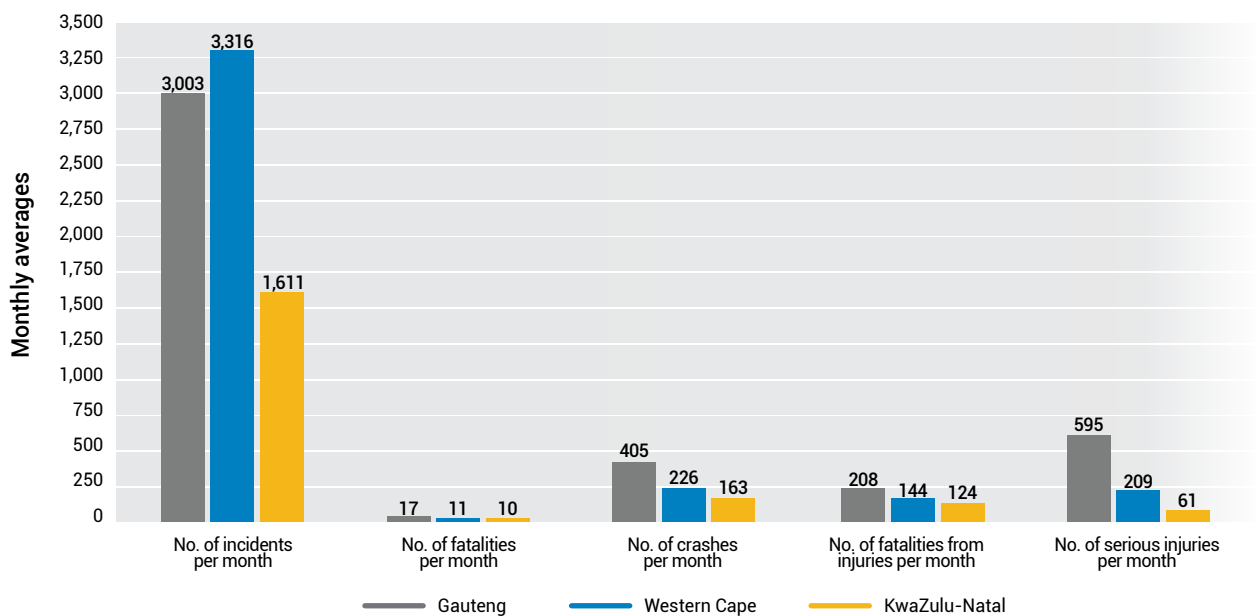


The TMC played a crucial role in facilitating positive stakeholder engagement during the national shutdown on 20 March 2023. Acting as a joint operations centre, it provided incident management support, monitoring and surveillance, and communication to the public and other agencies.

3.1 Regional FMS statistics

		CCTV cameras	VMS	VDS	Annual cost of fatalities	Annual cost of injuries
GAUTENG		298	59	111	R890 million	R275 million
WESTERN CAPE		263	54	86	R616 million	R96 million
KWAZULU-NATAL		307	30	127	R530 million	R28 million

Average monthly statistics for the Freeway Management System in Gauteng, Western Cape and KwaZulu-Natal



3.2 Regional FMS highlights

Western Cape

- Greenfield network extensions from Sir Lowry's Pass to Botrivier on the N2 are making progress. Detailed designs for this section have been completed and construction is due to start in 2023/24. This includes security and vandalism interventions, as well as redundancy measures to ensure operations during Stage 5 load shedding. Thirty-eight cameras and two VMS are proposed on this section.
- The FMS played a role in the management and coordination of the City of Cape Town's 'Winter Readiness' programme to mitigate seasonal flooding risk on freeways. Areas of the freeway were identified and preemptively raised with routine maintenance.
- High-crime sections of the N7 and N1 were identified and prioritised for surveillance as high security risk locations. Task groups with dedicated responders and dispatch lines were established, which were activated by the FMS team.



Gauteng

The FMS continues to integrate new, cutting-edge technologies into its operations. Some current and upcoming initiatives in this area include:

- An upgrade of the overall Advanced Traffic Management System (ATMS)
- Improved incident detection through automated incident detection (AID)
- Improved communications systems with key stakeholders
- Enhancing the system with artificial intelligence (AI) features
- Thermal camera incorporation into TMC operations

KwaZulu-Natal

The KZN FMS covers 155 kilometres of the N2 and N3 from Prospecton to Salt Rock on the N2 and between EB Cloete and Cedara on the N3. The TMC recorded 19,332 incidents for the period April 2022 to March 2023. This included 1,956 crashes for the same period.

- Edge analytics has been piloted to assist in vehicle detection and identification. Thermal cameras have been rolled out in areas that are considered hotspots with low to no lighting. This has proven to be effective in post-incident analyses.
- The newly installed cameras use AI to activate alarms for various incidents on the roadway, including vandalism, broken-down vehicles, slow-moving traffic and vehicles driving in the wrong direction.
- Currently, FMS infrastructure has been used extensively to monitor traffic and traffic-related incidents within the construction zones along the N3 from Durban to Cedara and along the N2 from the EB Cloete Interchange to Umdloti.
- A collaborative system with the Road Traffic Inspectorate (RTI) has been implemented to issue 'Regulation 320' notices remotely. These notices are used to request the removal of vehicles from the roadway. The RTI officer stationed at the TMC can issue these notices even in the absence of an RTI officer at the scene.
- Protest action on the network has been closely monitored and assistance has been provided to law enforcement to facilitate prompt responses and the apprehension of suspects.



Although the KZN FMS project does not have an ORS component, relevant services are available within construction zones through the associated upgrade contractors. As an example, towing services are included in each of the upgrade contracts to enable a fast response to clear obstructions as they occur. These services are coordinated through the freeway guardians at the TMC, who work closely with the construction traffic safety officers and traffic law enforcement.



REGIONAL FMS STATISTICS

CCTV cameras	VMS	VDS
454	19	90



3.3 On-Road Services

On-Road Services (ORS) are an integral part of FMS operations in the Gauteng region. This service is linked to the TMC and allows for vehicles to be dispatched in response to incidents. In November 2022, an increase in incident response units (IRUs) – which are responsible for ensuring proper scene safety during incident response – had a significant positive impact.

ORS IN 2022/23 BY NUMBERS

The ORS fleet



9

Incident
response units



8

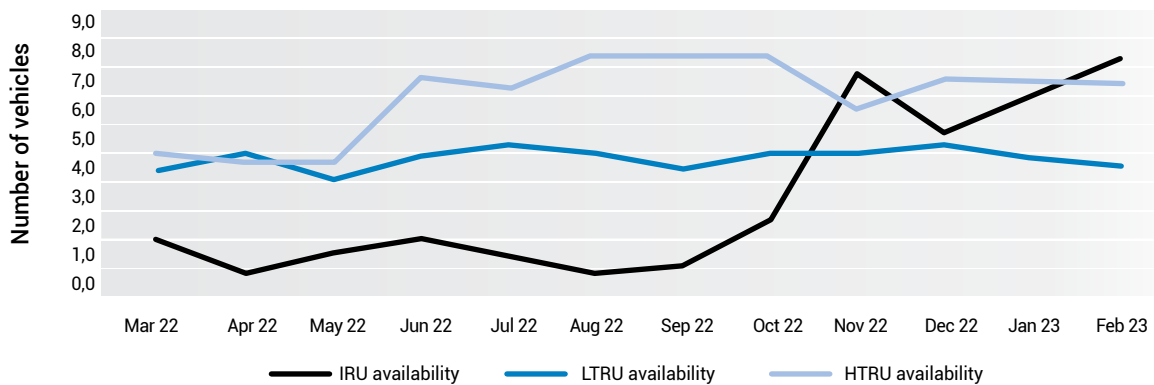
Light towing and
recovery units



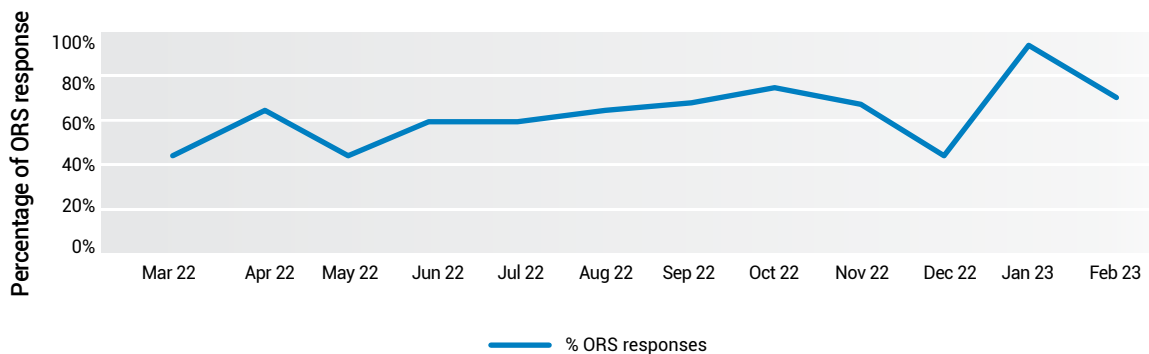
5

Heavy towing and
recovering units

ORS vehicle availability



ORS incident response percentage





FMS in action

- A recent incident on the N12 highlights the effectiveness of the FMS in ensuring the safety and security of road users. A TMC operator was able to detect an unfolding hijacking incident and immediately alerted law enforcement. A response unit was deployed to thwart the hijacking.
- A new project is being successfully piloted on Airport Approach Road, a key link to the Cape Town International Airport. To improve the safety of tourists, motorists and pedestrians in this crime-prone area, CCTV analytics on thermal cameras are being used to speed up the detection of crime incidents and ensure faster response times.

4. VEHICLE OVERLOADING AND SAFETY INSPECTIONS









Overloading of heavy vehicles causes significant damage to road infrastructure, particularly the road pavement and structures. The extent of the damage is relatively worse on lower-class roads, which are sensitive to high traffic loads. Overloaded vehicles also pose a greater risk of crashes.

Similarly, unroadworthy and inadequately maintained vehicles are also a major contributor to crashes involving heavy vehicles, as their performance, including braking and steering ability, is compromised. Poorly maintained tyres can lead to blowouts. To ensure roadworthiness, goods vehicles are required to undergo annual inspections.




To curb overloading on major routes used by trucks and other heavy vehicles, SANRAL owns and operates 29 weighbridges, 17 traffic control centres and 12 satellite stations across its road network. Some of the weighbridges are equipped with roadworthiness inspection and testing facilities.

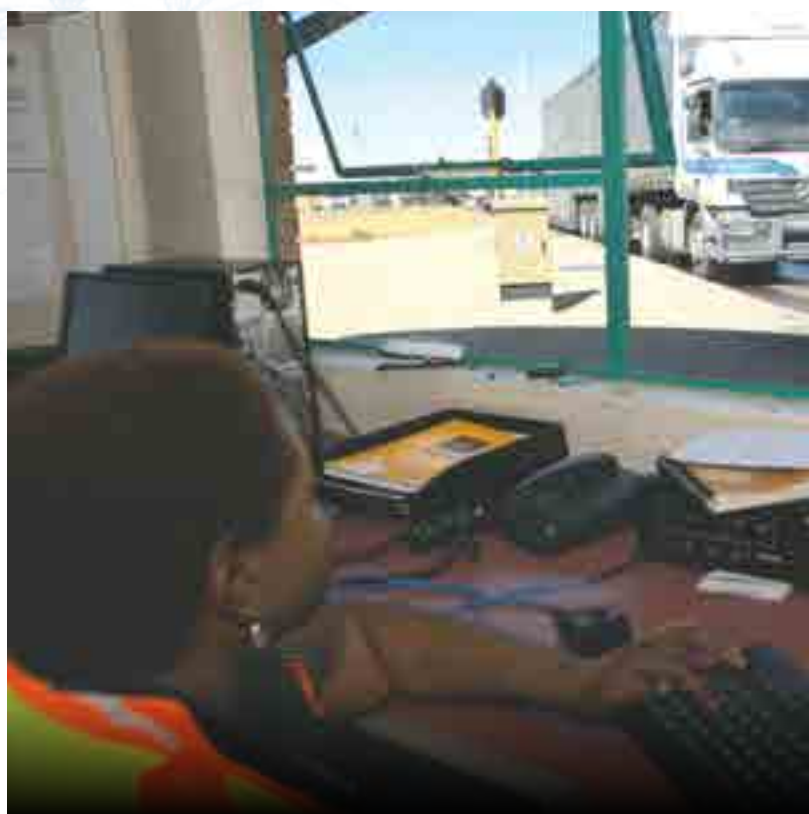


Weigh-in stations

							
Number of vehicles screened using weigh-in-motion devices	Number of vehicles weighed on static scale	Value of fines imposed	Value of fines paid	Overloading percentage	Number of drivers arrested	Number of drivers warned	Number of drivers charged
6,349,743	1,941,319	R35,602,878	R6,549,808	1.98%	7,223	549,177	38,444

Vehicle inspection facilities

		
Number of vehicles tested	Number of vehicles failed	Number of vehicles issued with discontinue notices
7,405	4,728	654



5. TRAFFIC AND WEIGH-IN-MOTION MONITORING

Traffic and weigh-in-motion (WIM) monitoring is performed to collect data on traffic and vehicle characteristics, such as traffic counts, operating speeds, and axle or wheel loads. This data is primarily used for managing, planning and designing road networks and infrastructure.

Traffic monitoring is performed at three main levels:

- **System-level monitoring**

System-level traffic monitoring is conducted to determine expansion factors that must be used to expand traffic observations from short-term counting stations. This type of monitoring relies on long-term traffic counts. A new contract has been awarded to continue this monitoring, following the end of the previous contract in October 2019. Additionally, three Level 1 and one Level 2 exempt micro enterprises (EMEs) have been awarded subcontracts to help maintain long-term traffic monitoring stations across the national road network.

- **Network-level monitoring**

Network-level monitoring is conducted to collect traffic data for road network management and planning. This is done using short-term counts. Two Level 1 EMEs have been awarded contracts for this monitoring, and one of them received TMH 3 certification earlier this year. More awards will be made in the coming months to pave the way for new entrants into the traffic monitoring industry.

- **Project-level monitoring**

Project-level monitoring must now comply with the TMH 3 specifications and TMH 14 data formats for the first time. This is to ensure that all data can be loaded in the database and be available for all users.

6. TACKLING UNSAFE SPEEDS

Average speed over distance

Speeding is a major cause of road crashes in South Africa. One effective approach to changing driver behaviour and improving road safety is through monitoring and enforcing speed limits.

SANRAL has conducted successful pilot projects demonstrating that average speed enforcement reduces speeding by over 60%. Unlike spot speed enforcement, this approach is more impactful because it prevents road users from avoiding infringement by briefly slowing down. SANRAL therefore plans to expand average speed monitoring on national roads across the country.

Average speed over distance (ASOD) is a technology-based approach used to measure and enforce road speed limits. It involves measuring the time it takes for a vehicle to travel a certain distance, and then calculating its average speed using cameras installed along the road.

The cameras capture vehicle number plates at two points within a verified distance and then calculate the average speed between them. The National Regulator of Compulsory Specifications (NRCS) sets strict accuracy specifications for these systems. ASOD can automatically match number plates to vehicle owners and issue fines without the need for traffic police at the specific sites.



The road ahead

SANRAL currently has four ASOD sections on the N1 North where equipment has been approved and the installations certified by the NRCS. These sites detect more than 60,000 offences each month. All backbone systems are ready to do enforcement once the necessary legislative approvals have been given. Additionally, there are plans to use existing e-toll gantries for ASOD enforcement, and the systems are undergoing certification and approval processes.

SANRAL has plans for a smart, integrated monitoring network that will track the movement of goods (freight) on national roads. This will be done by integrating high-speed weigh-in-motion traffic monitoring (HSWIM) systems with automatic number plate recognition (ANPR) devices. The ANPR will be used for ASOD enforcement.

This network will have several benefits, including the collection of data on freight movements. Analysing such information is useful to better understand traffic patterns, help reduce traffic congestion and assist enforcement agencies with crime prevention and border control.





SANRAL's Mobile app notifies users of speeding incidents and provides them with statistical information for any vehicles associated with their account. SANRAL is now considering making this data more widely available. This would have many benefits, such as helping fleet owners monitor their drivers' compliance with traffic laws.

7. ROAD SAFETY EDUCATION

The Road Traffic Management Corporation (RTMC) produces annual reports on road safety, which consistently show that South Africa is performing poorly in addressing traffic deaths. Citizen participation in road safety is crucial if the country hopes to reduce fatalities caused by traffic-related incidents.

SANRAL considers education and awareness as a critical part of the Road Safety pillar of its Horizon 2030 strategy. This includes providing learning opportunities and supporting teachers in their efforts to teach road safety in schools.

The development of learning opportunities has been completed in previous financial years, and the most recent reporting period focused on training teachers and providing resource materials.

7.1 Education stakeholder meetings

The road safety education programme is a collaborative effort between SANRAL and the district and provincial Departments of Basic Education (DBEs).

In this reporting year, 11 contact sessions were conducted to introduce the programme and its various components. These sessions also involved the establishment of a coordinating committee responsible for organising workshops in different areas.



DBE stakeholder	Province	City/Town
Bojanala Education District: Moses Kotana Sub-District	North West	Mogwase
Dr Ruth S. Mompoti Education District	North West	Vryburg
Ngaka Modiri Molema Education District	North West	Mahikeng
Waterberg Education District	Limpopo	Modimoll
Capricorn South Education District	Limpopo	Polokwane
Buffalo City Education District	Eastern Cape	King William's Town
Chris Hani East Education District	Eastern Cape	Cofimvaba
Joe Gqabi Education District	Eastern Cape	Mount Fletcher
Amathole East Education District	Eastern Cape	Butterworth
King Cetshwayo Education District	KwaZulu-Natal	Richards Bay
Uthukela Education District	KwaZulu-Natal	Ladysmith

7.2 Teacher training

The teacher training programme is designed to cater to the needs of Foundation Phase (Grades R–3), Intermediate Phase (Grades 4–6) and Senior Phase (Grades 7–9) teachers. As part of the training, teachers receive knowledge on road safety and teaching tools such as booklets, posters, games and other relevant content to assist them in delivering effective learning opportunities on road safety.

After completing the training, the teachers were asked to provide feedback on the following:

- The effectiveness of the learning material in adding value to their teaching
- The appropriateness of the learning outcomes for their level
- The usefulness of the learning opportunities, lessons and activities
- The usefulness of the resources provided (flashcards, storyboards, posters, etc.)



7.3 Parent and teacher workshops

Parents of learners in Grades R–6 were invited to workshops to learn about available learning opportunities for teachers and students. At the workshops, they were given the opportunity to provide general feedback, as well as to answer the following questions:

- Which topics/aspects of the workshop did you specifically find of value?
- What are the challenges to implementing the material/learning opportunities?
- Will you share your experience and the material with someone new?



Parent and teacher workshops						
Total sites	Total number of workshops	Total teachers attending workshops	Total teachers receiving SANRAL material to teach road safety	Total schools	Total learners to benefit	Total parents to benefit from parent workshops
204	337	2,561	14,695	2,323	587,800	2,247

7.4 Road safety education research

A research project is underway to assess the effectiveness of child road safety education programmes, with a specific focus on preschool children. The study employs structured observation and uses a storybook and interactive workbook that align with the national curriculum.

According to the National Curriculum and Assessment Policy Statement (CAPS) document introduced by the DBE, the curriculum is designed to instil the following skills:

- Problem-solving and critical thinking
- Teamwork
- Effective communication
- Information collection and analysis
- Responsible use of science and technology
- Understanding of own role and contribution to society/community
- Self-management and organisation



The project aims to achieve the above outcomes by using storytelling as a teaching technique appropriate for Grade R learners. Research will be conducted in five selected sites, with two sites – Ermelo (Mpumalanga) and De Doorn (Western Cape) – already completed during the reporting year. The project will continue in the remaining three communities during 2023.

This research will assist in the development of content for an education programme to address the road safety challenges of preschool learners.

Ermelo research overview

Research conducted in Ermelo confirmed that preschool children can be taught safe road behaviour and can recall the stories told to them, as well as share their own experiences of witnessing road crashes. However, significant challenges need to be addressed to ensure children's safety on the roads.

- Educators lack confidence in the road safety skills of learners and believe their responsibility ends at the school's boundaries.
- Local road infrastructure, except for the national road, is poorly maintained.
- Socio-economic challenges mean that parents lack the time and resources to ensure children's safe transportation to school.
- Private transport, often provided by taxis, is overcrowded and does not enforce the use of seatbelts.

The research confirms that a comprehensive approach involving all community stakeholders, such as the 'Safe System' approach, is necessary to improve road safety conditions for children.

De Doorns research overview

The preliminary report on De Doorns showed that preschool learners in the area have the necessary knowledge about safe road behaviour and can recall what they know. However, this knowledge doesn't always translate into safe behaviour in practice, likely due to external factors.

- Substance abuse and gender-based violence are prevalent in the community.
- Despite the dedication of educators and principals, preschool learners are frequently exposed to risky situations beyond their control, such as being transported in farmer trucks that are not designed for passengers.



7.5 Teacher profiles

TEACHER SPOTLIGHT



MS N. MAGOBOZI
SENIOR PHASE TEACHER

School: Upper Colosa Primary, Colosa Location
Workshop attended: Ngubethole Bam Primary School
Date: 20 September 2022

MOTIVATION FOR ATTENDING

I was well informed about SANRAL's road safety initiatives, such as teacher workshops, in various parts of our country and I was curious about the scope and content of these workshops.

WORKSHOP HIGHLIGHTS

I have gained more knowledge on how to teach my learners about safety on the road. The facilitator was very active and explained and demonstrated the content in an interesting way.

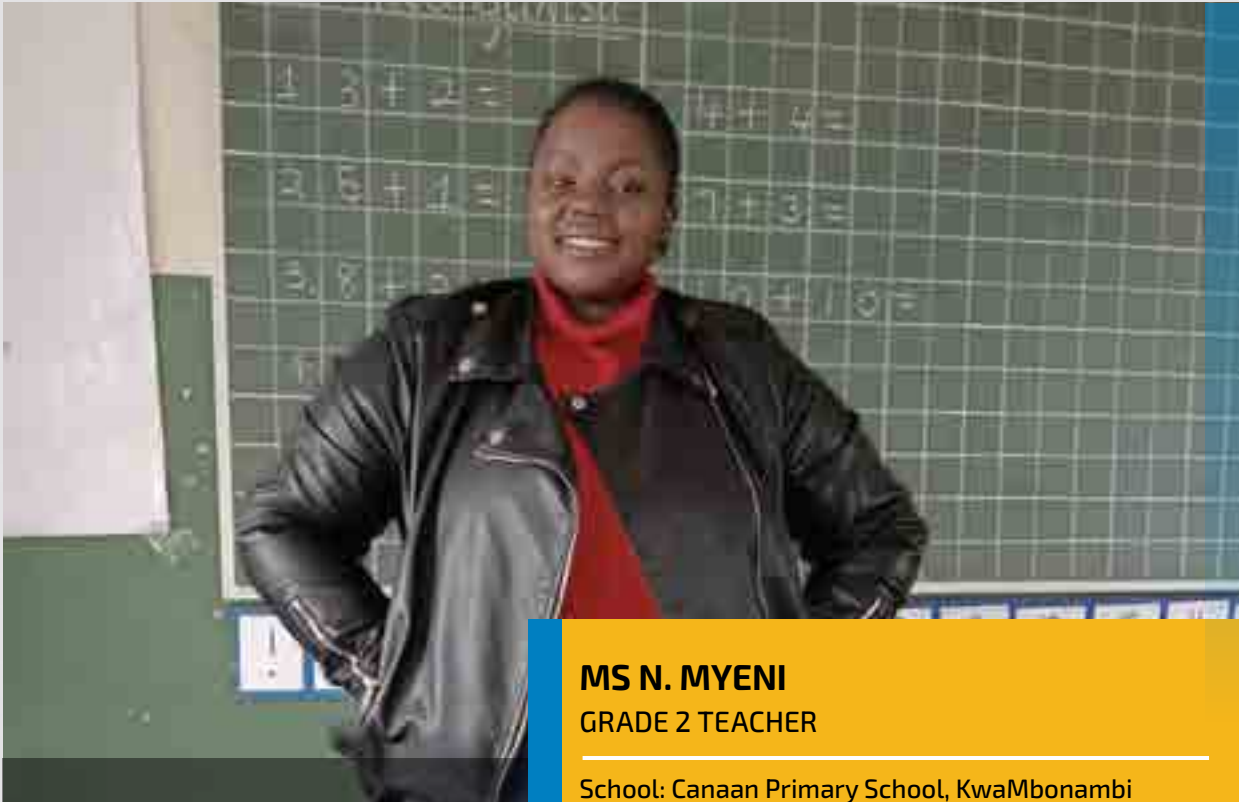
The workshop material will enhance teaching and learning, and it will be very helpful to show the learners

the flash cards, workbooks and posters, as well as to share activities with learners in class.

I wish every school and every teacher could get the opportunity to benefit from the SANRAL road safety programme. I am very grateful for the opportunity.



TEACHER SPOTLIGHT



MS N. MYENI
GRADE 2 TEACHER

School: Canaan Primary School, KwaMbonambi
Workshop attended: KwaMbonambi Primary School
Date: 20 March 2022

MOTIVATION FOR ATTENDING

What motivated me most was the fact that I was tackling lessons on road safety. In the foundation and intermediate phases, children learn best when you demonstrate to them using flash cards and colourful posters. The fact that SANRAL provided these resources free of charge was very helpful.

WORKSHOP HIGHLIGHTS

My school is underprivileged and situated in a deeply rural area with scarce teaching resources. The resources from SANRAL will go a long way towards enhancing teaching and learning. Road safety education is very important

to all of us, especially to children because we have lost many of them due to road accidents.



9. CONCESSIONAIRE CONTRIBUTIONS TO ROAD SAFETY

SANRAL's concessionaires play a significant role in promoting road safety on concession routes and supporting SANRAL's road safety objectives.

9.1 Road safety on the N3TC Toll Route



Contributions to safer roads

- Adopted the United Nations Decade of Action for Road Safety 2021-2030 Global Plan for improving global road safety
- Roadside furniture and signage improvements
- Incident information system
- CCTV and variable message signs
- Post-incident assessments

Contributions to safer road users

- Road Incident Management System (RIMS)
- Special operations: Authorities
- Alcohol and drug screening

Prompt and effective incident response

- Winter and firebreak protocols
- Route Control Centre
- 24hr patrol and response service
- Training: RIMS, dangerous goods (DG), alcohol and drug screening
- Simulations
- Dangerous goods trailers, specialised equipment (hazmat)

Key statistics for 2022/3 (year-on-year changes)

- Crashes: +7.1%
- Fatal crashes: -11%
- Fatalities: -19%
- Pedestrian fatalities: -18%
- Average carriageway closures: Down from 5 hours to 2 hours

N3TC PROJECT HIGHLIGHTS

Project: Pedestrian fence at the Mooi River Toll Plaza

A 2.4m-high steel fence featuring a bolt-interlocking system was installed by local contractors.

PROJECT IMPACT:

The fence will prevent pedestrians from crossing the N3 at road level and promote safety by encouraging the use of bridges or the subway crossing. It will also help to prevent criminal activity.



Project: Simulation exercises

These exercises simulate emergency situations for which prescribed responses are required. Participants were able to enhance their skills levels and test the operational conditions of specialised emergency equipment.

PROJECT IMPACT:

The exercises enhance preparedness, response plans, procedures and systems for incidents, as well as measuring the capabilities of responding services.



9.2 Road safety on the Bakwena N1N4 Toll Route



Road safety is a cornerstone of Bakwena's commitment as a concessionaire and responsible corporate citizen. Since its establishment in 2001, Bakwena has been dedicated to implementing campaigns and programmes that enhance road safety awareness, foster positive behavioural changes and educate road users and local communities in its areas of operation. Improving road safety in South Africa necessitates collaborative efforts from all stakeholders, and pooling resources enables Bakwena to amplify the impact of road safety initiatives.

BAKWENA PROJECT HIGHLIGHTS

Project: Secure-A-Kid Campaign / Kids-On-The-Go Campaign

This campaign aims to address shortcomings in current legislation and ensure the safety of children while they are being transported.

The core solution offered by the campaign is the Secure-A-Kid harness, an innovative device designed to properly reposition seat belts and distribute the impact of a crash. This aims to prevent seat belt injuries and enhances the overall safety of child passengers.

Every year, Bakwena and Wheel Well, an NPO dedicated to children's road safety, collaborate during the Easter and festive periods to distribute free Secure-A-Kid harnesses at one of the busiest Petroports in the country. Additionally, a limited number of infant, toddler and booster seats are made available to the public for a minimal donation. By providing these safety devices, the campaign promotes responsible and secure transportation for children, furthering the goal of improving road safety.



Project: Bakwena and Kia Road Safety Initiative

Road crashes can have devastating consequences, which is why Bakwena is grateful for the ongoing support from Motus Corporation and Kia South Africa. Through their partnership, an additional six vehicles have been provided to Bakwena, enhancing its patrol services and route surveillance during the busy Easter and festive holiday periods. This collaborative effort aims to improve road safety and provide assistance to road users when needed.

The impact of this campaign is evident in the statistics. During the 2022 festive period, Bakwena reported a reduction in fatalities, which can be attributed to the increased presence of law enforcement along the route. This initiative aligns with the government's goal of reducing road crashes and making our roads safer for everyone.

9.3 Road safety on the Trans African Concessions N4 Toll Route



TRAC continues to improve road safety and alleviate congestion along the N4 route. In addition to prioritising well-maintained infrastructure, it conducts various road safety campaigns throughout the year, including online, social and one-on-one initiatives.

TRAC maintains a database of N4 crashes, enabling detailed evaluations and the implementation of targeted measures to reduce accidents and fatalities. Its 24/7 Helpdesk is available for reporting road emergencies, hazards and other incidents.

To remain proactive, TRAC's route patrol conducts daily patrols along the N4. Additional night patrols are carried out in crime-prone areas to enhance safety.

Recognising pedestrians as a key factor in fatal road crashes, TRAC has constructed approximately 4km of boundary walls in high-risk areas like eMalahleni and Middelburg to discourage jaywalking. Additionally, it has implemented a pedestrian underpass at Stentor to further enhance safety.



TRAC PROJECT HIGHLIGHTS

Project: Road Safety for Scholars

This educational 20-minute play is aimed at children aged five to nine. The performance stars TRAC's road safety mascots, Siphon and Joe, and their friends. It teaches learners easy-to-remember road rules through acting and child-friendly road safety songs and signs. The campaign focuses on rural and urban schools, with ten schools visited during the reporting year, benefitting over 4,000 children.

The project started in 2014 and continues to grow. Since inception, TRAC has reached over 20,000 learners along the route and aims to reach thousands more.



Project: Road safety campaigns during peak periods

Held during peak traffic periods at suitable locations along the route, these campaigns encourage road users to enjoy a proper rest stop while raising awareness about road safety. TRAC also use the opportunity to promote electronic tags, which assist with the flow of traffic at its plazas and thus play a role in incident and backlog prevention.

Project: Safety measures at Poplar Creek on Schoemanskloof Road

Previous years have seen several fatal crashes on this stretch of the route, mostly attributed to speeding and rainy weather. The challenging terrain, with its sharp curves and steep gradients, adds to the risk. As a response, TRAC introduced a safety measure by implementing a 'rough seal' and installing high-visibility road signs to increase driver alertness. Since the implementation of the rough seal, there have been no further fatal crashes reported. This initiative has proved to be effective in enhancing safety.



Pledge to protect: SANRAL's drive for worker safety

SANRAL's commitment to safety extends to the invaluable workforce behind road construction. Acknowledging the inherent risks at project sites, we are unwavering in our dedication to worker well-being and the highest safety standards.

The tragic death of a worker at the Msikaba Bridge construction site in the Eastern Cape in May 2023 has reinforced our determination to improve safety measures and prevent similar incidents. A comprehensive investigation has been launched to determine the cause of the accident. We are deeply saddened by this incident and it has strengthened our resolve to ensure every individual working on our projects returns home safely.

Before this tragedy, the Msikaba Bridge site had an exemplary record of over 3.5 million injury-free hours.

We stand firm in our commitment to worker safety.

MOBILITY

SANRAL's goal is to create safe and efficient road infrastructure that moves people and goods in a growing economy. The Agency is exploring new and innovative solutions to meet the growing demands of the transport industry, and to create a more sustainable future.

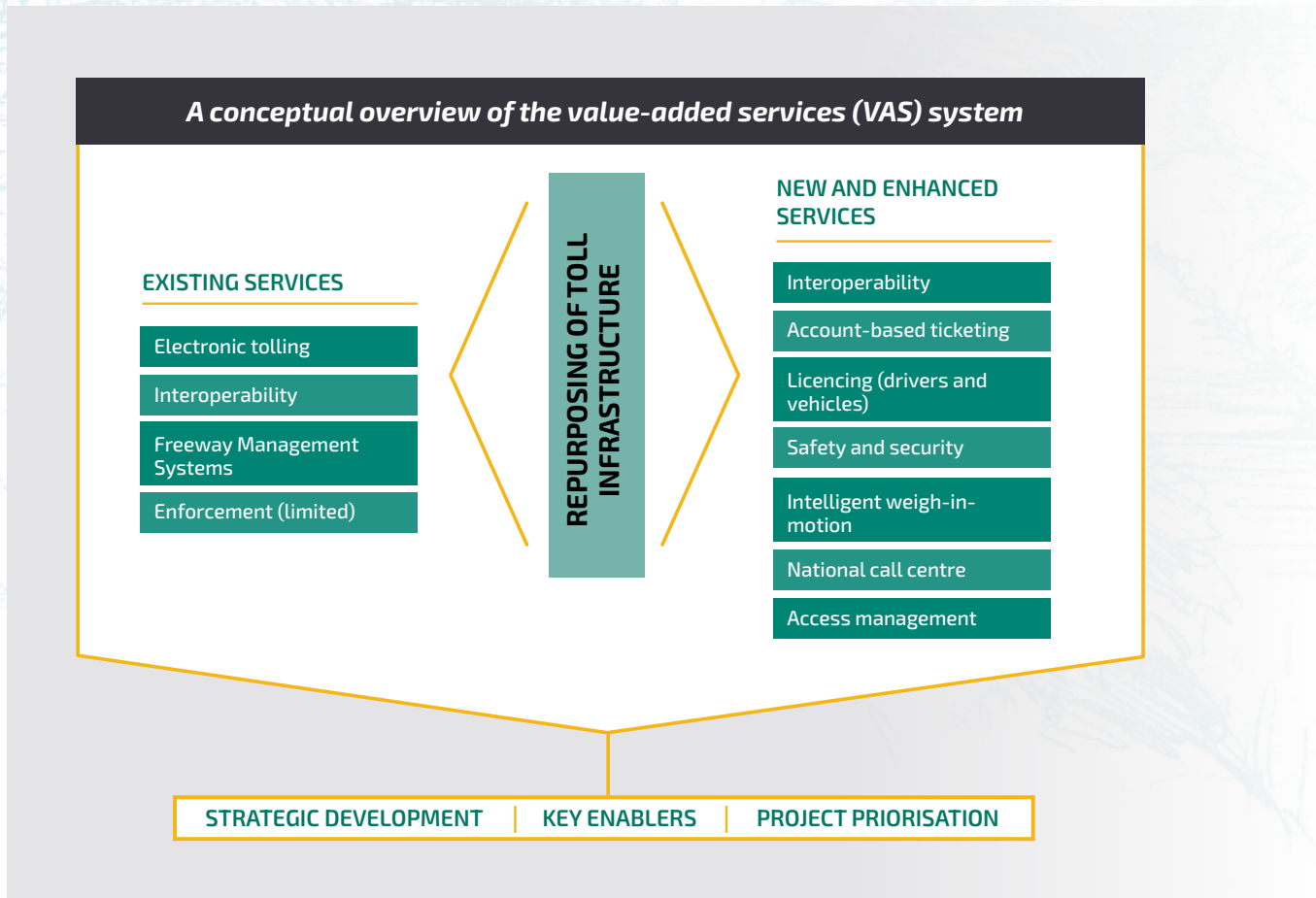
Our projects in the area of mobility are designed to ease the movement of people, goods, and services, improve safety and security for road users and unlock economic opportunities through a more efficient road system. These projects are in advanced stages of development and are aimed at reducing journey times and creating a more user-friendly experience.

Through its toll portfolio, SANRAL has implemented an interoperable toll solution, which includes a national transaction clearing house (TCH) that hosts mobility accounts and processes high-volume transactions. This technology has enabled SANRAL to develop smarter solutions to benefit road users. SANRAL has conducted numerous investigations and studies to enhance this asset, resulting in innovative projects that add value to road users.

Smart mobility, which involves using technology to optimise road infrastructure, is a key focus for SANRAL. The development of smart mobility projects is an important step towards creating 'smart cities' of the future that offer a more seamless and efficient travel experience for users.







1. ACCOUNT-BASED TICKETING

SANRAL's account-based ticketing (ABT) system is a convenient and efficient solution for toll payments. This system allows users to create an account linked to their vehicle and make toll payments electronically. Instead of relying on physical toll tickets or tags, drivers can simply pass through toll gantries while the system automatically deducts the applicable toll fees from their account. Users can easily monitor their account balance, view transaction history and receive electronic statements. The system also offers options for automatic top-ups, ensuring that the account always has sufficient funds to cover toll fees. The system also reduces congestion at toll plazas, as drivers can seamlessly pass through without stopping.



ABT milestones for 2022/23

During the reporting year, significant engagements took place with multiple cities and municipalities regarding ABT implementation.

- ABT has been implemented on the Integrated Public Transport Systems (IPTS) in both Rustenburg Local Municipality and Polokwane Local Municipality. Commuter numbers, fare transactions and top-ups to Mobility Accounts are rising steadily, with additional routes being added. Commuters can top up their Mobility Accounts at various public transport operator kiosks in both municipalities or via the SANRAL App. Minor challenges were resolved through weekly engagements and integrated reporting, and implementation has been largely successful.
- ABT pilots have been rolled out in Rustenburg as part of their Yarona IPTS and in Polokwane via the Leeto la Polokwane IPTS implementation.



- The Rustenburg Bus Operating Company, on behalf of Rustenburg Local Municipality, are responsible for the Yarona project and have appointed Waxed Mobile as their automatic fare collection (AFC) vendor and top-up agent. The Yarona IPTS started their pilot phase in August 2022 and began processing an average of 56,000 transit transactions and 9,000 top-up transactions per month from January 2023. Volumes continue to rise. Top-ups are currently being performed at kiosks near bus stations at Rustenburg Local Municipality points-of-presence.

- Leeto la Polokwane appointed The Naked Scientist as their AFC vendor and top-up agent. The pilot began in December 2022 and was processing an average of 52,000 transactions and 8,000 top-ups per month from mid-January. Top-ups are being performed through Polokwane Local Municipality top-up agents.



- The appointment of the SANRAL top-up agents is nearing implementation, with Kinektek and Ticketpro being the first two vendors undergoing top-up certification.
- There are various ABT implementation initiatives in progress, the most noteworthy being the City of Tshwane, which intends to enter its pilot phase during the third quarter of 2023.
- Mangaung Metropolitan Municipality has appointed an AFC vendor and top-up agent for its IPTS implementation.
- Ekurhuleni Metropolitan Municipality engaged with the ABT project team regarding the implementation of ABT and has indicated that the project will commence in the second quarter of 2023.
- eThekweni Metropolitan Municipality will be going out on tender for their AFC system in the second quarter of 2023.
- SANTACO /Taxi Choice have mandated Mobipay Management Solutions (Pty) Ltd to act on their behalf as both a public transport operator and top-up agent and have identified the Pretoria Marabastad to Randburg route as a pilot for SANTACO's ABT implementation.



2. THE SANRAL APP

The SANRAL app is designed to provide a convenient and user-friendly experience for South African road users. It offers a range of features and benefits to enhance the driving experience. These include a live traffic map, personalised route planning, toll fare calculation and online payment options. With the app, drivers can access congestion updates, set alerts for incidents and road closures, view their payment history and manage their account details.

2022/23 improvements and future updates

The SANRAL mobile app is currently undergoing a redesign after five years under its current look. A number of improvements were made in 2022, including the option of travel cards/mobility account, in preparation for the ABT solution, which will improve access to information services, planning tools, and top-up and payment channels. The app is expanding to provide more road-oriented services like logging infrastructure-related problems for central consolidation and repair.

A major new feature is the reporting of potholes, intended to support the Vala Zonke programme launched by the Department of Transport to repair potholes in South Africa. This function was first launched as a standalone SANRAL-branded mobile app (SANRAL Pothole app), and is now integrated into the main SANRAL app.

Future updates will allow users to report potholes offline. So far, the app has logged 38,399 potholes for repair. SANRAL aims to improve coordination between different authorities responsible for fixing potholes to enhance the repair process and provide accurate feedback to users.

The app has seen an increase in users and top-ups over the past 12 months. Records for March 2023 reported R1 billion paid to the TCH via the mobile app, through 1,113,456 transactions.

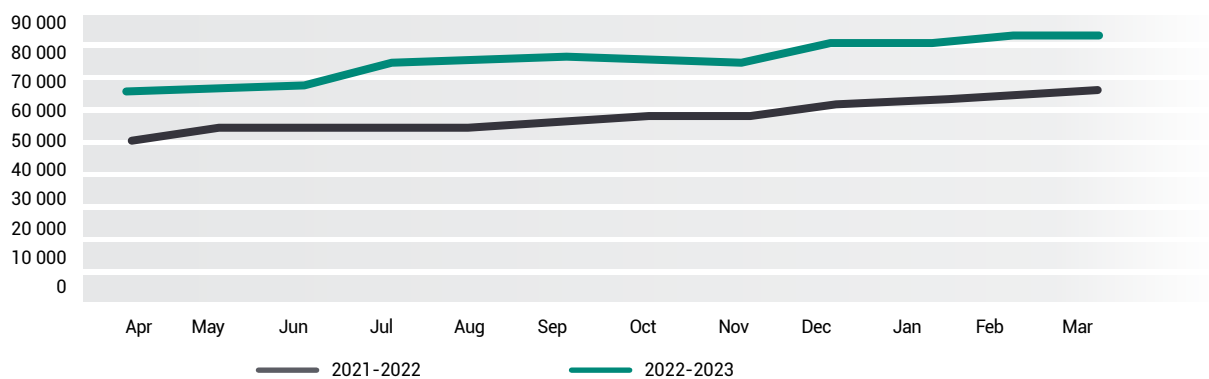




Number of users and top-up values per month

Month	Number of users	Cumulative users	Monthly top-up values
Apr-22	1,685	66,521	R32,127,598.20
May-22	1,251	67,772	R36,727,230.69
Jun-22	1,001	68,787	R37,144,691.43
Jul-22	5,566	74,419	R39,569,570.12
Aug-22	1,000	75,396	R40,845,544.50
Sep-22	129	76,747	R40,149,002.57
Oct-22	-1,167	75,658	R41,394,751.99
Nov-22	899	75,200	R42,339,696.25
Dec-22	5,534	80,839	R38,984,807.32
Jan-23	-2,529	81,467	R40,406,439.49
Feb-23	4,838	83,170	R42,689,975.40
Mar-23	-2,110	83,723	R52,714,503.72

Cumulative number of SANRAL app users



3. AUTOMATED ELECTRONIC TOLL PAYMENT

Automated electronic payments at conventional boom-down toll plazas continue to be popular with some motorists. Toll fees at these plazas are paid using an electronic tag linked to a SANRAL account.




However, the take-up of electronic tags as a payment method remains a challenge for toll operators. The effect on motorists is increased traffic congestion at toll plazas during peak periods. In 2022, Trans African Concessions (TRAC), a SANRAL concessionaire, implemented express lanes on its route to the Mozambican border in an effort to allow motorists to pass through its toll plazas more quickly.



Average electronic toll transactions at SANRAL-managed toll plazas in 2022

SANRAL routes	Total transactions	Total rand value
N1 Great North	R3,270,554.00	R275,072,664.78
N1 Huguenot	R560,777.00	R77,841,645.10
N1 South Vaal	R2,498,923.00	R209,737,535.30
N17	R5,109,709.00	R157,298,318.31
N2 North Coast	R1,405,799.00	R74,052,099.00
N2 South Coast	R1,140,175.00	R34,593,622.30
N2 Tsitsikamma	R199,096.00	R31,191,751.90
N3 Mariannhill	R3,510,966.00	R91,117,815.30
N4 Magalies	R907,323.00	R5,071,867.30

Average electronic toll transactions at concessionaire-managed toll plazas in 2022

Concessionaire routes			
Transaction count	R16,642,853.00	R5,112,263.00	R6,607,750.00
Total rand value	R499,158,080.14	R 817,944,181.00	R866,490,855.11



4. PARKING

SANRAL's parking value-added services solution is a cashless and ticketless parking system. It uses a vehicle licence number (VLN) to activate parking booms at selected facilities, with payment linked to a registered user's mobility account. Users can activate the service on the SANRAL app.

SANRAL has partnered with service providers (such as Admyt) with installed infrastructure at parking facilities across South Africa. The solution is currently active at 21 parking facilities in Gauteng, with national expansion as an end goal. On average, partner service providers have processed more than 3,000 transactions monthly over the past 12 months. There has been a decrease in usage of the parking solution by road users compared to the previous year.



5. SELF-SERVICE TERMINALS

SANRAL has completed a proof of concept (POC) for the implementation of self-service terminals (SSTs) designed to encourage the adoption of toll tags, vehicle registration and account top-ups by toll concessionaires.

Five strategically placed terminals were installed on the Bakwena and TRAC N4 routes in November 2022. During the December period, the terminals proved to be highly popular with road users, resulting in a significant increase in the number of tags issued on these routes. The SSTs offer a range of functions, including the ability to register a SANRAL account, make top-ups and payments, add vehicles and tags, recover usernames and passwords, and view SANRAL call centre information.

Building on the success of the SST POC, the second phase of machines will be equipped to dispense tags and have improved query resolution functionality. The SSTs will also be capable of issuing ABT travel cards and enabling commuters with no internet access to register their mobility accounts. SANRAL will evaluate the need for these SSTs throughout the country and begin to deploy them at various sites across South Africa where there is a demand for such terminals. The SST devices will be positioned to ensure maximum visibility and provide convenience to road users.







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**Contact Details for SANRAL's Fraud Hotline/
Tip-Offs Anonymous**

Toll-Free Phone No: 0800 204 558
Toll-Free Fax No: 0800 007 788
E-mail: sanral@tip-offs.com

Postal address:

Tip-Offs Anonymous,
Freepost DN 298,
Umhlanga Rocks
4320

SANRAL maintained its efforts and commitment
to transform the construction sector.
SANRAL is currently a level 4 B-BBEE contributor.

