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# Investing in the future

SANRAL is more than asphalt, bricks and mortar. It is also about people. Yes, we build roads... and we build them according to the highest global standards. But, in the final instance, we build people.

This publication tells the stories of young people whose lives have been touched by SANRAL in unique ways: learners who have been able to finish high school, students who achieved a degree and graduates who gained much needed work experience.

MESSAGES TOWARDS TOMORROW | 2

# YOUTH MUST UNITE TO

# CHANGE SOUTH AFRICA



# Joe Maswanganyi

In keeping with Government's theme of The Year of O.R Tambo: Unity in Action in Advancing Human Rights, the late Oliver Reginald Tambo once said that: "The children of any nation are its future. A country, a movement, a person that does not value its youth and children does not deserve its future."

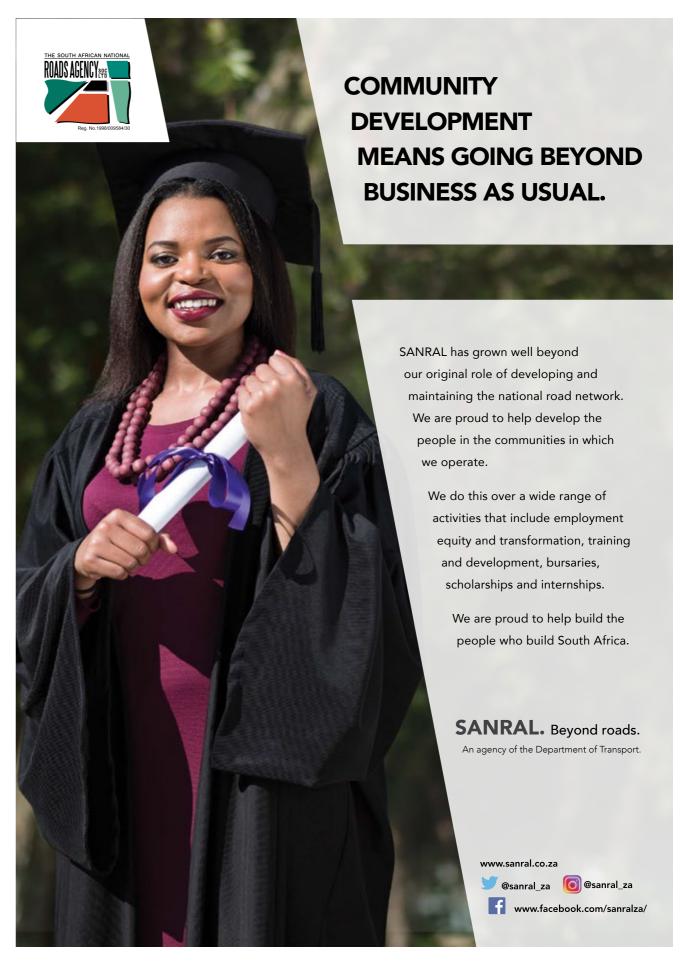
In commemorating Youth Day this year, we emphasise to our young people that they should become agents of change much like their 1976 predecessors. Their hard work should contribute to providing solutions to the challenges that continue to confront our country.

The Department of Transport with its 12 public entities, continues to initiate programmes that will improve the livelihoods of our young people.

Through entities such as the South African National Roads Agency SOC Ltd (SANRAL), our commitment to identify and nurture the skills of the next generation of engineers and scientists is reflected by our investment in training and education.122 students at institutions of higher education and training throughout the country continue to pursue their academic aspirations with the support of SANRAL bursaries and scholarships.

It is this generation of young people that will wear the mantle for generations to come.

Joe Maswanganyi is the Minister of Transport.



BUILDING SA'S FUTURE TOWARDS TOMORROW | 3





Considering nearly 1 in 3 Africans are between the ages of 10 and 24, and approximately 60% of Africa's total population is below the age of 35; empowering the youth is a non-negotiable for the future growth and development of the continent.

The Young African Leaders Initiative (YALI) is a signature effort to invest in the next generation of African leaders.

YALI's three-tier programme entails the YALI Mandela Washington Fellowship (academic training and training in the US), YALI Network (online courses and engagement platforms), and Regional Leadership Centres in Ghana, Kenya, Senegal and South Africa.

The University of South Africa School of

Business Leadership is the proud host of the Regional Leadership Centre Southern Africa (RLC SA). The RLC SA offers leadership training across the public, private and civil sectors.

SANRAL's Central Operations Centre has become a regular feature on the YALI public management and governance programme. Since last year, the centre has hosted more than seven groups comprised of participants in the YALI public sector programme.

YALI alumni Fortune Mlalazi says, "SANRAL operations offer a prime model on how public infrastructure should be managed."

"While our visits to the centre are successful in gaining a deeper understanding in the work behind e-tolls, the whole project

highlights important aspects of public service. The most significant is alternative revenue generation as governments throughout Africa are faced with diminishing budgets; the importance and process in collecting monies due to the state, and prudent expenditure."

Francka Rajoelina from Madagascar was one of 43 youth who visited the centre in May. She says, "I have learnt a lot from this visit. I hope to work in a public-sector role in my country. Although Madagascar is not as big and advanced as SA, our people also deserve decent infrastructure such as roads.

"Even in our small country we do experience congestion and the e-toll project provides useful lessons that can be replicated in other countries like ours."

Hosting up to six groups a year, SANRAL is proud to be associated with this bold project.

Participants in the programme are selected from 14 SADC (Southern African Development Community) countries, namely; Angola, Botswana, Comoros, Lesotho, Madagascar, Malawi, Mauritius, Mozambique, Namibia, Seychelles, South Africa, Swaziland, Zambia and Zimbabwe.

When participants complete the six-week course – two-week online introduction and four-week in-person coursework at the University of Pretoria – it is believed that they will be better poised to serve as the next generation of Southern Africa's public service professionals on the local, provincial, and national levels.

BUILDING SA'S FUTURE TOWARDS TOMORROW | 4

# YOUTH DEVELOPMENT IN NUMBERS

SANRAL's contribution to the nation's investment in education has gone from strength to strength. in the reporting year 2016/2017, we allocated about R7.5 million to provide bursaries to 122 young people interested in civil engineering and disciplines related to the built environment across the country

Province	Institution	Number of Scholarships		Rand value per	
Province		Undergraduate	Postgraduate	province*	
Gauteng	Wits	19		R3 012 295.09	
	UJ	2	1		
	UP	24	2		
	TUT	1			
KwaZulu-Natal	UKZN	28		R1 721 311.48	
Western Cape	SUN	19	9	R2 643 442.63	
	UCT	12	2		
	CPUT	1			
Free State	UFS	2		R122 950.82	
	Total	108	14	R7.5m	

During 2016/2017, SANRAL made an investment of R2.99 million and supported 196 learners across the country. The performance of these learners was impressive: 57% obtained distinctions in mathematics and 51% in physical science.

Province	Number of Schools	Number of Scholarships	Rand value per province*
Gauteng	5	5	R76 275.51
Limpopo	1	2	R30 510.20
KwaZulu-Natal	10	23	R350 867.35
Western Cape	2	91	R1 388 214.28
Northern Cape	1	2	R30 510.20
Free State	10	24	R366 122.45
North West	2	2	R30 510.20
Eastern Cape	13	47	R716 989.79
Total	44	196	R2.99m

Recipients of scholarships by gender: Female 55%; Male 45%.



<sup>\*</sup>This is averaging the total investment across all students.



# **BUILDINGS** AND **TOOLS**

Wame Boitshepho Nchabeleng, 17 years of age, from Mmabatho in the North West Province is a first-year BSc Civil Engineering student enrolled at Wits University.

# What drew you to Civil Engineering? What did you hope to learn?

I always took interest in how things are built, particularly iconic landmarks such as the tallest building in the world, Buri Khalifa in Dubai. In Saudi Arabia, there is another building currently being built and which will be the tallest upon completion. I'm also quite fascinated by the tallest bridge in the world, Millau Viaduct in France. It is truly amazing! I take an interest in the artistic aspects in the industry; it's especially exciting to see your work come to life with prototypes. Unfortunately, there aren't many fascinating buildings in South Africa, but I plan on being the first to create a cool building which will make a mark on South Africa's landscape and put us on the map."

What's the most interesting thing you've learned in your curriculum this semester?

#### Tell us about it.

My most interesting subject has got to be physics. It's also been a challenging and fascinating experience being able to use a computer for the first time. I really have learned so much and look forward to learning a lot more.

# If you hadn't been awarded your SANRAL bursary, what do you think you'd be doing this year? What was the back-up plan?

Had SANRAL not funded me, my mother was planning on leaving her job in order to use her pay-out to fund my studies. I didn't want her to do this as my younger siblings need to eat and be educated as well, but there really wasn't an alternative. I'm more than relieved that she didn't have to resign and that I'll soon be able to help out at home. I want to thank my parents for being so supportive. Had my mother not helped me with the bursary application I wouldn't be here. I also appreciate the assistance I received from my bursary administrator at SANRAL, Rhona Erasmus.

# What does your SANRAL bursary pay for other than your tuition?

Besides tuition, the bursary covers food, accommodation, textbooks and a basic allowance.

Nineteen-year old Khomotjo Godliver Mokgotho from Mmotong in Limpopo is doing her first-year BSc Civil Engineering at Wits University.

# What drew you to Civil Engineering? What did you hope to learn?

My dad runs a welding business. Despite being physically unable to walk upright and carry heavy tools, he works very hard to look after the family welding beautiful gates and the likes. Unfortunately, because of his physique and financial constraints, he was unable to attain a formal qualification. However, he is a great inspiration and because of him I was interested in working

with tools from a young age. I really enjoy working outdoors and can't imagine being stuck in an office job! I love creating new things and hope to expand on this in future.

# What's the most interesting thing you've learned in your curriculum this semester? Tell us about it?

Physics! I liked the subject in high school; my science teacher was a great inspiration and made learning seem so easy. Other learners used to say it's so difficult, but it's simply a matter of putting in the work! Even today it's still my favourite learning area and I'm eager to master it. I must admit though that mechanics and drawing take the cup. Although I'm not that good at drawing, I really love it!

# If you hadn't been awarded your SANRAL bursary, what do you think you'd be doing this year? What was the back-up plan?

If SANRAL didn't fund me I would've taken a gap year, focused on getting a job so I could help out at home. I wasn't planning on enrolling at a university but I'm really glad I did! If it wasn't for my high school teacher who helped me with the application I wouldn't be here today. I really want to help my siblings get educated because it's so important. I come from a family of eight and it motivates me that they are all so proud of my commitment to make it in this male-dominated industry. After the bursary induction at SANRAL, I was even more motivated after this very young female engineer shared her experience as a woman in the industry in a room full of men. I aim to work hard so people don't take me lightly because I'm a woman.

# What does your SANRAL bursary pay for other than your tuition?

Besides tuition, the SANRAL bursary covers food, accommodation, textbooks and a basic allowance which allows me to be like all the other students.

VISIBLE DIFFERENCE TOWARDS TOMORROW | 6

# TOOLS TO GREATNESS



With the firm conviction that out of the youth of today will come tomorrow's engineers, SANRAL has invested heavily in their academic development.

SANRAL's Eastern Region comprising KwaZulu-Natal and Free State has benefitted from scholarship and bursary programmes to help build a core of engineers. This will enable SANRAL to realise its mandate to finance, improve, manage and maintain the national road network.

Logashri Sewnarain, regional manager of SANRAL Eastern Region, was herself a recipient of a SANRAL bursary when she studied for a BSc (Civil Engineering) at university.

Shaheil Khoosal, a project manager in SANRAL's Eastern Region office, enrolled in the agency's bursary programme in 2010 during his final year of study. SANRAL provided Khoosal with funding and vacation work and he graduated in 2011. He subsequently worked on the Umgeni interchange construction site from 2012 to 2014 as a graduate engineer.

Presently two young engineering students at the University of KwaZulu-Natal cannot thank SANRAL enough for providing them with bursaries to study civil engineering.

Young extrovert, Shrivar Hiralal, 22, a fourth-year BSc Civil Engineering student at the University of KwaZulu-Natal, matriculated at Star College Boys High and resides with his parents, and two brothers in Reservoir Hills.

At the start of his university journey, he hoped to acquire the theory behind an

engineers' role and how engineering contributed to improve society.

Hiralal was encouraged by his parents, educators and engineers at career talks to further his studies in civil engineering.

"Environmental engineering was an extremely fascinating module. I enjoyed it as it involves environmental impact assessments conducted on the health and safety aspects of society."

"Ground-structure also interested me a great deal as the subject focused on the designing of bridges from the foundation to the slab itself."

Hiralal said SANRAL provided him with a pathway, both financially and academically, to achieve his desired goals.

"I am extremely blessed as SANRAL takes care of my textbooks, stationery, travelling expenses and there's even an allowance!"

He held Sir Alex Ferguson, ex Manchester United manager, as a role model because he was committed to excellence and never gave up on his dreams and goals, regardless of whether the task seemed impossible or not.

He said a major challenge was when during his matric year, his father and younger brother were involved in a serious motor accident which left his brother in a coma for a week.

This was a difficult period for him but with positivity, he overcame the obstacle with excellent results.

The enthusiastic lad plans to achieve his Honours degree this year and attain his

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Master's degree and qualify as a registered professional engineer in the future.

He also relies on extra income as a physical science tutor to many students.

In his spare time, he enjoys cricket, tennis, swimming, volleyball as well as socialising with friends and family.

Hiralal is full of praise for the organisation for initiating the bursary scheme to students like himself.

"SANRAL has provided me with all possibilities. I plan to learn and gain as much experience from the organisation and to grow and establish myself as an outstanding senior engineer in the future."

Prian Reddy, 22, another recipient of a bursary from SANRAL, is a fourth-year BSc Civil Engineering student at the University of KwaZulu-Natal.

He matriculated from Glenwood High School and resides with his parents and a younger brother in Queensburgh.

Reddy has a strong passion for the built industry, with a special interest in sustainable development and green building technology. He hoped to grasp the science of construction and design and how it is implemented in practice.

"Ground-structure which involves the design of pre-stressed concrete was of great interest to me.

"The design involves the replacement of traditional steel rebar with high strength steel cables. These cables are then tensioned before the concrete has set (pretensioning) and after the concrete has set (post-tensioning).

"This innovative design is cost effective and allows for longer beam spans to be constructed," said Reddy.



As a proud bursary recipient, Reddy's financial burden of university fees has been removed, allowing him to focus and dedicate himself completely towards his studies.

He admires Elon Musk, a South Africanborn Canadian-American business magnate, investor, engineer, and inventor as his life story portrays hard work and perseverance towards turning dreams into reality.

How to master the art of independent study was a challenge for Reddy. However, he adapted quickly, he says.

He said he was fortunate that in his final

year of studies, he did not have to seek a student loan as he was awarded a SANRAL bursary.

"I plan to pursue my Master's degree specialising in transport and road engineering and to gain a management position at SANRAL in the future," Reddy said.

In his free time, he enjoys soccer, swimming as well as reading.

"I thank the SANRAL team for the support and for providing me with this amazing opportunity. I plan to complete vacation work this year."

He looks forward to becoming a valued member of the SANRAL family.

"I appeal to all students to make informed career choices; be aware of your alternatives; and most importantly; be happy with your final decision."

She said the bursary and scholarship programme equipped graduates with the guidance, mentorship and exposure needed to excel in a built environment accompanied by a professional work ethic and sound engineering skills.



# UP CLOSE... WITH KERISHA

# Name, surname, age, subject of degree/ study, name of university where you studied?

My name is Kerisha Govender and I am 24. I obtained my BSc Civil Engineering degree (with honours) in 2014 at the University of Kwa-Zulu Natal (UKZN) and started working for SANRAL in 2015. I was a SANRAL bursary student.

I started my career as a civil engineer firstly by being seconded to a consultant in order to gain site experience. I worked on the Mount Edgecombe Interchange Upgrade project in KZN from 2015 to 2016. My role of responsibility on the project was Assistant Resident Engineer. I worked with structures (comprised of bridges, retaining walls, mechanically stabilised earth walls) and road works.

This year (2017) I moved to the SANRAL Design Training Academy, in Port Elizabeth, in order to be involved in the planning and design process of road infrastructure. Currently I am involved in the following

design processes: geometric design, tender procurement processes and traffic planning and analysis.

# What drew you to BSc Civil Engineering? What did you hope to learn?

From a young age I have been fascinated with the systems of transportation, with major structures and construction works such as major interchanges and buildings similar to that in Dubai and Malaysia.

I always wanted to know how did interchanges work, what planning and design was required in order to ensure the fluid flow of traffic, how did railway systems work, how did metro public transport work, what kept structures up, how did bridges span across such large distances? How? Why? Where? When? These constant questions only grew in complexity and magnitude as I grew up and was exposed to more information regarding Civil Engineering. So, in 2011 I began my studies towards a BSc Degree in Civil Engineering.

# What's the most interesting thing you've learned in your curriculum this semester? Tell us about it.

Despite me having my BSc degree in Civil Engineering (with honours), the questions did not stop. Now that I was completely involved in civil engineering activities, i.e in the centre of the action (thanks to the opportunities provided to me by SANRAL), I developed more interests in the specialist fields of Civil Engineering and my questions increased significantly in terms of complexity and focus.

So, I took the next step......I applied to join a Masters in Engineering Programme in Transportation Engineering at the University of Stellenbosch in 2017. SANRAL supported my desire to specialise in the field of Transportation Engineering and encouraged me to further my studies. I was also granted a full bursary which covers my Masters Degree.

My first block module, as part of my Masters programme, was Transport Economics and the excitement of starting my journey towards my specialisation was evident. The course helped me to understand how construction projects were evaluated in terms of whether they were viable or not.

This was dependent on the amount of benefits that each alternative of the project generated. With this course, I gained first hand exposure as to what needs to be considered and calculated in order to develop and carry out an economic analysis for a project. Also, how the results of the calculations are to be interpreted and what those results indicated.

Controlled blasting seems pretty fascinating in the engineering sector. Have you learned about blasting in your curriculum yet? What is it and when would engineers have to perform controlled blasts?

In my experience as a Civil Engineer thus far, I have not been directly involved in controlled blasting. My knowledge regarding the topic is that it is a complex activity which needs to be monitored carefully in order to ensure that the activity runs smoothly. If the necessary precautions are not taken, then there could be disastrous effects.

For example, if too much explosive is used, then the supporting structures or other infrastructure included in the project could be damaged or weakened significantly. Controlled blasting is done when the blasting works need to be carried out near existing infrastructures such as existing roads and bridges.

# Where do you see yourself in 10 years?

A: In 10 years' time, I hope to have achieved my current goals which are: to be registered as a Professional Engineer with ECSA, to have my Masters Degree in Transportation Engineering and to be a Specialist Project Manager.



Wiseman Mayuso was one of the 39 students in the agency's Western Region, across three universities, to be awarded a SANRAL bursary this financial year.

It is often said that you should believe in your dreams and they will come true. That may be so, but this very talented young man, who is tackling his dreams head on, has one word of advice for other young people: Work Hard. Ok so strictly speaking those are two words.

Wiseman Mavuso is no stranger to hard work. From Grade 1 to Grade 7 Wiseman emerged as and maintained his position as top student in the school. Upon starting high school, learners from other areas meant new and tougher competition and Wiseman realised that he would have to up his game.

In so doing, he earned the status of being a maths fundi .... and this proficient mathematician was most disappointed when he did not achieve 100% in his final maths exam, and instead had to be satisfied with 93% - something most of us can only dream of.

This, despite the fact that there were prolonged periods where his school had no maths or science teachers and he had to attend Saturday programmes at other schools to access tuition.

His interest in Civil Engineering began when he noticed that a new road which had been built in Mpumalanga had massive potholes less than three months after it was completed.

The enquiring mind immediately wondered how this had occurred, who was responsible, what materials were used and how this could be avoided in future.

So, at the tender age of 18, Wiseman, who had never ventured beyond KZN and Mpumalanga, set off on a bus to Cape Town, for the very first time in his life, to enrol for an Engineering degree at the University of Cape Town.

With no family financial support or friends, this tenacious young man put one foot in front of the next and started building his dream, one brick at a time.

He had applied for several bursaries and was delighted to be offered an interview by SANRAL, making sure he arrived thoroughly prepared. His preparation paid off ensuring that he was awarded the coveted SANRAL bursary.

"Being been awarded a SANRAL bursary has taken enormous strain off my shoulders and I can now channel 100% of my energy into striving for academic excellence," said the very humble and unassuming Wiseman Mavuso.

If the 94% he achieved for Engineering Mechanics in his first year is anything to go by, academic excellence is most certainly what this young man is all about.

Asked about the family he left back home. his mother is undoubtedly the rock who supported and encouraged him to dream, work and persevere. Her years of nurturing has also instilled in Wiseman the desire to help and reach out to others. Even with a heavy workload, he finds the time to mentor and tutor other students in maths.

Now in his second year of study, the scope of interest is already expanding and Wiseman has discovered a new fascination, particularly with exceptionally tall structures, the likes of which are found in cities like Dubai.

A patriot at heart, he has no immediate plans to set off into the wilds beyond the borders of SA. He would like to take lessons from the rest of the world and apply that to new developments in South Africa.

"Who knows, I may just be involved in the design of multi-level tunnels in the future," concludes Mayuso with a wink.

CONCESSIONAIRES TOWARDS TOMORROW | 10



# NURTURING NATURE

Educators passionate about environmental issues are not that common in our schools. This is a pity, because a healthy environment is essential for a healthy community, and if nothing else, our teachers are building citizens capable of contributing to future society.

"Understanding basic ecology and how the earth works is most important and helps learners to understand so many other things - the basic values of life," says Antonia Mkhabela. Since 1991 she has been a teacher at Shea O'Connor school, for the past 15 years filling the role of vice principal – and environmental champion.

Inspired by examiners reports on

poor performance among learners in environmental studies, Antonia set out to explore the challenges in the environmental learning process. Recently, she completed her Masters Degree in Education – focused on the of sustainability competencies in the CAPS Life Science curriculum and investigating the teaching methods and assessment practices. Her work informed by the concepts of justice, equality, responsibility, and a deep love of nature.

Antonia feels fortunate to have grown up on a midlands farm with plenty of opportunity for exploring – weaving fragrant gum leaves into skipping ropes, nibbling resin instead of sweets, collecting interesting stones and splashing in the stream. "We played outdoors, walked to school across fields and picked pomegranates, nuts and other fruit freely. We did not realise that this was healthy living. We were not afraid of snakes because we learnt naturally that they are not harmful if you leave them alone."

Over the years, Antonia has observed that some teachers are not confident about teaching environmental subjects and few have been able to integrate the learning into their lives and classrooms. "Mostly, we focus on theory too much. There is a need to involve outdoor activities and to use local environmental issues to enable learners to understand their environmental

context. Learners do not want to be spoonfed. They love doing their own research. It is easier than many teachers believe, and really important that the children fiddle and experience theoretical concepts, practically. The school yard provides many learning opportunities."

While the lessons that form part of the curriculum are important, learners' outcomes are not assessed in a single year, but over a period of time. "In our school, I can clearly observe the changed attitudes learners have to environmental issues. This year, our Enviro Club has almost 100 members!" Clearly, Antonia is an inspiring teacher. Learners call her subject 'Makoya' meaning 'the real subject'! She is also delighted to report how parents are getting involved when the children share their ideas at home. "Especially creating outfits from recycled materials for the Trashion Show, organised by the Dargle Conservancy. Parents are so thrilled to be working with their excited and capable children. Many report that they have improved communication now, and of course, better understanding of the problems of waste."

Determined to help those keen to improve their environmental content, Antonia plans to use her new knowledge to motivate other educators – sharing methods, ideas and assessment techniques at the Department of Basic Education, Life Science Cluster Meetings, and to assist youth groups to address local environmental concerns. A keen hiker herself, Antonia dreams of being able to take all the nature lovers and environmental activists she works with to visit wild places.

Antonia's studies have been sponsored by N3 Toll Concession. Commercial Manager Con Roux is overjoyed and so proud of her achievements. "Antonia is a remarkable person and such an inspiration. She overcame so much and dug so deep, just for the sake of the children she teaches. Exceptional."

CONCESSIONAIRES TOWARDS TOMORROW | 11



# HARNESSING THE ARTS

The power of the creative arts is used in a compelling initiative that communicates positive messages to young people in the North West.

The Bakwena Platinum Corridor Concessionaire launched its drama project in 2012, with the initial aim to focus on road safety issues, especially relating to alcohol abuse as a cause of accidents. The positive response from learners, teachers and parents enabled Bakwena to expand the scope of the programme and to tackle other societal issues.

Some 17 schools in the province are

currently involved in the project with 28 teachers and 255 learners using their creative talents to stage productions.

Training and workshops are conducted in partnership with the South African Red Cross Society and the Department of Education. Issues such as road safety, sexual abuse, teen pregnancy and poverty are brought out into the open and addressed through peer education.

Participants are encouraged to initiate their own outreach programmes and, in the past year, they reached more than 4 600 learners through drama and creative arts.

# GETTING SCHOOLS ON TRAC

In 2015 TRAC officially launched its e-learning programme. The immediate impact of this initiative in the Middelburg area was evident in the progress made by learners in passing maths and science at the three participating schools – a substantial average improvement in their matric results from 18 percent in 2014 to 32 percent.

### Other projects:

- A five-year refurbishment and upgrade of Trevo School in Mozambique. Since the start of the project in 2014, a block consisting of six classrooms has been renovated, 200 desks have been repaired and a clear-vu fence has been erected around the entire school.
- More than five years ago, TRAC adopted Takheleni Primary School in the 2015/16 financial year constructed a roof and cement floor in the school's assembly area.
   TRAC also partnered with the Department of Education to provide an additional classroom in 2015.
- TRAC has been involved in upgrading the Woodhouse School in Mbombela, which caters for 60 children from impoverished backgrounds. TRAC has provided building materials for the refurbishment of a classroom and the re-surfacing of another mud-wall classroom, as well as assisting the school to establish a vegetable garden in order to strengthen its feeding programme.





# BOOSTING YOUTH **OPPORTUNITIES**

### Skhumbuzo Macozoma

It has been 41 years since that fateful year where a legion of young people stood up against a tyrannical government bent on imposing an unjust educational system on them, 1976 the year of my birth. Many a book have been written about that standoff. What strikes me though is that all those young people wanted was access to quality education, which would stand them in good stead in South Africa and the rest of the world.

41 years later we grapple with that very struggle; access to quality education. Oliver Tambo said "The children of any nation are its future. A country, a movement, a person that does not value its youth and children does not deserve its future." Words from the mentor I never had. It is this belief that must drive us to fully emancipate our youth and by ensuring access to education and opportunities.

The youth dividend is a point in a country's history when its economy takes a decisive turn for the better. Economic growth

accelerates as a result of a decline in a country's mortality and fertility rates. This means that the age structure of the population changes.

Fertility rates in South Africa have declined from 6.4 births per 1000 women in the Fifties to 2.4 by 2010.

Yet the country may not be able to capitalise fully on the youth dividend because of its poor education and lacking skills development. Added to this is that more than half of the youth - those between 15 and 34 - are unemployed.

To overcome this stumbling block, it behoves all state entities and private businesses to step into the gap. SANRAL is doing so, and on a significant scale with a wide range of interventions. It does so because of its own needs to sustain a high level of competent and well-trained work force and also because there is a dire need in the country for people with mathematics and science skills in their educational background.

I am passionate about youth development, in word and in deed. I am firm believer that education is a tool that can dismantle poverty and inequality. Today I am CEO of SANRAL, this alone speak volumes on the impact that education can have on one's life.

SANRAL invests in the skill development of young people in line with the National Development Plan's 2030 Vision. Since the inception of SANRAL's bursary programme in 2007, the agency has been very successful in identifying exceptional students from previously disadvantaged communities.

We are also specifically focused on the education of women in the civil engineering and built environment sectors. In 2016, SANRAL awarded 122 bursaries to students at nine universities. This investment of more than R7.5m includes bursaries for 14 postgraduate students who are conducting ground-breaking research in infrastructure development.

We will persist in our endeavours to contribute to the development of young people.

SANRAL backs the Science-for-the-Future programme at the University of the Free State. This comprises the ICT Laboratory Programme which delivers e-education in science and maths to high school students as well as the Family Maths and Science Programme. The latter equips educators to deliver activity-based sessions on maths and science for young learners and their families.

We invest in the Science, Technology, Engineering and Mathematics Pipeline Project at the Nelson Mandela Metropolitan University. The aim of this programme is to increase the number of learners in and around Port Elizabeth who qualify to study for a degree in a science-related field.

We also sponsor the Chair in Pavement Engineering at the University of Stellenbosch, the Chair in Science, Mathematics and Technology Education at the University of the Free State and the Chair in Transport Planning at the University of Cape Town.

SANRAL awards bursaries to its staff but its emphasis is on external bursaries for higher education and scholarships for high school learners. The intention is not that all who are assisted will eventually work for the roads agency but to grow the number of people who can move into science-related work opportunities.

Numerous SMMEs were awarded contracts worth R3.5b in 2015 of which almost R2 billion went to black-owned businesses. This resulted in 4 120 people, of which more than half were youths, benefiting from skills development programmes.

All of these programmes and initiatives are aimed at upskilling the youth, and growing a sophisticated and transformed workforce in the construction sector. We have embarked on a process to do even more: Horizon2030. We will use this year to consult and plan to achieve this goal.

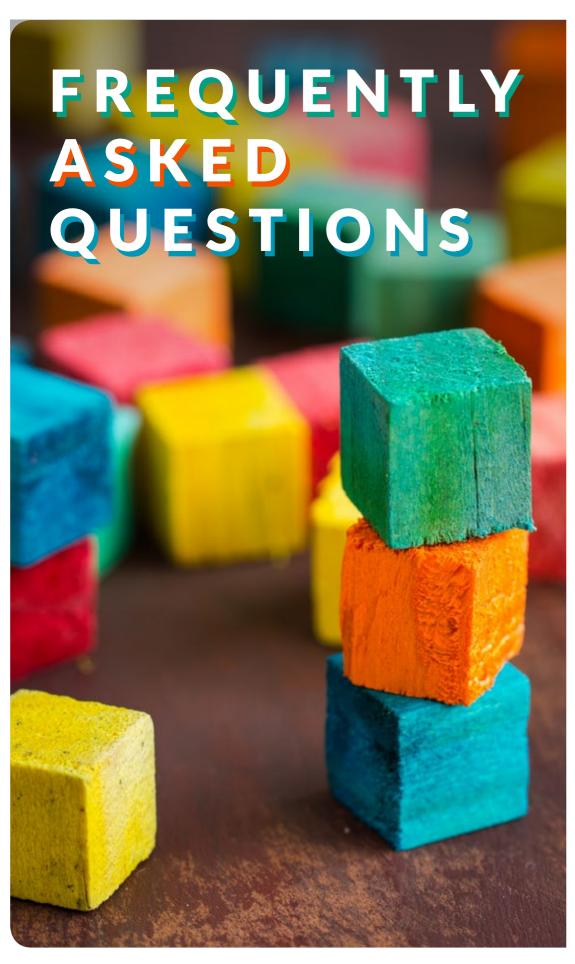
May the sacrifices made by the students of Morris Isaacson High School, Hector Pieterson and innumerable other youth across South Africa not be in vain.

Skhumbuzo Macozoma is the SANRAL CEO









# What does the SANRAL scholarship pay for?

The scholarship covers the school fees, books and stationery, as well as school and sports uniforms of the learners. SANRAL also arranges for learners to attend beneficial, extra-curricular activities as well as mentoring and assistance.

# Who can qualify for a scholarship?

The scholarship programme is for learners who want to follow a career in engineering, with particular reference to civil, transport, electronic/ computer and electrical engineering.

# What are the academic requirements to qualify for the scholarship?

Learners must obtain an average of 75% for Maths, Physical science and English and an overall grade average of 75% and above to qualify for the scholarship.

### What is the scholarship application process?

You must complete the application form (available from www.sanral.co.za) and submit it along with motivational letters by both you and your parents, certified copies of your June exam results, your ID or birth certificate as well as your parents ID copies, and finally a proof of residence. For enquires, email address: selentseg@nra.co.za.

# What does SANRAL expect from me after I have received the scholarship?

You must maintain an average of 75% and above for Science, Maths and English and an overall grade average of 75% and above (Including the third paper for Maths) and submit all your results and evaluation by your teachers to SANRAL at the end of each term. You are also expected to become an ambassador for SANRAL and attend SANRAL functions upon invitation and prepare yourself for a career in Civil, electronic/ Computer, electrical or Transport engineering.

# Who is eligible for a SANRAL bursary?

Applicants should not be a recipient of any other bursary or financial assistance from any institution, must be registered or about to register at a recognised Tertiary Education Institution in South Africa and should be a South African citizen

### What does the SANRAL bursary cover?

The SANRAL bursary covers tuition/registration fees, accommodation and meals, books and equipment plus compulsory excursion and seminars and also includes a living allowance.

# What are the requirements for the SANRAL bursary?

A completed application form must be submitted with a comprehensive CV, certified copies of a recent academic record and grade 12 certificate, confirmation of registration, a certified copy of your South African ID, a motivational letter, parents' or guardian's certified copy of ID, proof of residence as well as parents' or guardian's proof of income.

All the required documents mentioned above must be directed to the Corporate Services Executive, PO Box 415, Pretoria, 0001.

# What is the selection criteria for the SANRAL bursary?

Academic proficiency as proven by the latest academic report, financial circumstances (Means test), relevant field of study, behavioural competencies, representation (female, rural, disabled and race), validation of ID and qualifications.

Bursary applicants will not be considered if they fail any subject in the current academic year. If in grade 12, applicants should achieve a minimum of 70% in both mathematics and physical science and a minimum of 70% for English.

# When do I apply for a bursary or scholarship?

Interested students are required to apply between 1 July to 30 September of each academic year.

# Where do I receive more information about bursaries and scholarships?

All information is available on the SANRAL website at www.sanral.co.za.