

The History of South African Black Professional Land Surveyors

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Keywords: Education, History, South Africa.

SUMMARY

This paper presents information about the history of Black professional land surveyors within the South African community. It is dedicated to all the men and women, girls and boys, who strive to do the best they can to leave a legacy of change, however small the impact, in their communities.

It dawned on me that we, Black South Africans, rarely capture the facts and history about our own. Our children do not know anything about what their grandparents did, how they got to where they were, and what legacy they left behind. We forget that we are the writers of history by simply being on this earth and hence it is our responsibility to make sure that, that history is captured, known, and preserved.

What makes the penning down of this paper very personal and special is the fact that I am writing about people that I know and that I have made interactions with. Many of them are my mentors and confidants, others my colleagues and personal friends. These are the people I turn to when the going gets tough, they have an ear to listen, they never judge, and they are my heroes. These land surveyors are the people I admire and respect the most because they represent who I am and who I can be.

The contributions made by these land surveyors have been seen through our country's development resulting in improved housing, water and sanitation reticulation networks, road networks, power transmission networks to name but a few. 1

All development, no matter how small, starts with a land surveyor producing the contour maps, establishing property boundaries, staking out beacons for railway, road, building, electricity, water, sanitation, etc, infrastructure networks.

It is only after a land surveyor (Geomatician) has completed the base work that engineers, architects, quantity surveyors, etc, can start their work. This identifies the land surveyor as being the critical epicentre of all development.

The words of Mr. Useni Eugene Perkins in his poem "Hey Black Child", resonated very well with all the people reflected on this paper. As girls and boys growing up, they identified with Perkins' affirmation of self and pride.

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1 INTRODUCTION

South Africa's population is approximately 63.1 million (2025 estimate), with Black Africans making up the majority (~82%). The population is 51% female and has a youthful age structure, with about 26.2% under 15, though the 60+ age group is growing. Population by group: **Black African:** ~82%, **Coloured:** ~8.5%, **White:** ~4.5 million, **Indian/Asian:** ~1.6 million, Wikipedia, 2025.

Blacks in South Africa have always been in the majority but universities which offered degrees in engineering, medicine, land surveying, accounting, etc only accepted White students. The only university that was a traditionally a university for Blacks was the University of Fort Hare. This is where leaders like Kaizer Matanzima, Nelson Mandela, Oliver Tambo, and many greats, studied. Fort Hare also produced leaders from outside the South African borders, like Robert Mugabe, Julius Nyerere, Kenneth Kaunda, Seretse Khama, and many others.

This is also the reason why the first Black South African Professional Land Surveyor, Minty Cossie is a Fort Hare alumnus. Fort Hare was the only university that offered a land surveying degree to Blacks in the early 1970s. I also completed the first two years of my land surveying degree at Fort Hare in the early 1990s. At that time, the degree was being phased out, and students would complete their degrees at either UCT or Natal.

2 LITERATURE REVIEW

The AI generated literature review of Black success in engineering reveals a history of innovation and resilience despite enduring systemic obstacles. Throughout history and into the present day, Black engineers have been hampered by racism and a lack of access to quality education and resources. Still, their successes have had a profound impact, driven by ingenuity, perseverance, and a desire to uplift their communities.

3 SOUTH AFRICAN BLACK PROFESSIONAL LAND SURVEYORS

Research informs us that the education of Surveyors in South Africa dates to 1878. Ironically, only a century thereafter did the first Black land surveyors emerge from University of Fort Hare in 1978, Minty Cossie and Vulindlela (Vuli) Cuba. This can be called fate or a coincidence and

has also been the motivation behind the penning of this paper as its objective is to celebrate my heroes and heroines, who against all odds, demolished all barriers and showed young African children that all is possible to succeed with determination.

This paper seeks to present information regarding the history of the Black¹ professional land surveying community from which South Africans, young and old, can draw inspiration. It is also my intention that it be the point of reference where information or clarity is needed regarding the access of black people and transformation of the professional land surveying (Geomatics) community in South Africa.

Geomatics is a much-unknown profession indeed. Today still, I must remind my son, 14 years old, and explain to him now and again, having started informing him about what I do since he was 5 years old, as to what my profession entails.

The register of the South African Geomatics Council documents that the first professional to register with the then Central Council, which was established in accordance with the Land Surveyor's Registration Act of 1950 (Act No. 14 of 1950) was on 1 September 1950. Thirty years later, Minty Cossie who graduated in 1978, became the first Black professional land surveyor to register with the Council in March 1980. Shortly thereafter, in November 1981, South Africa would witness a White woman making history by being the first to register with the Council.

It, thereafter, took another 15 years to have a Black woman register as a professional land surveyor. Tumeka Bikitsha graduated from the University of Natal and registered in May 1996 with the South African Council for Professional and Technical Surveyors (PLATO) under the Professional Land Surveyors' and Technical Surveyors' Amendment Act of 1984 (Act No. 40 of 1984). A year later, I, Nondwe Matanzima, joined Tumeka in changing the course of history, when I registered as a professional land surveyor in 1997, having graduated from the University of Cape Town in 1995.

4 METHOD

My focus will be on all the professional land surveyors who registered with the Council, now the South African Geomatics Council (SAGC), from 1980 to 2000. It will include all the "firsts", tracking these pioneered professionals as they progressed in their careers through various positions and highlight their achievements. Since not all the individuals in this paper responded to the questionnaire supplied to them regarding their work, the paper then excludes in-depth information about their challenges and successes and just mentions their names.

¹ The term 'Black' in South Africa was used along with other terms to racially classify South Africans prior to democracy in 1994. It was later revived by the Black Consciousness Movement to reflect Black pride. In this paper, 'Black' is a term reserved for those of Nguni descent and does not include other racial categories (such as Chinese, Indian and Coloured) which in terms of employment equity legislation are now included in this term. All race terminology in South Africa remains contested and rightly undergoes constant revision to keep pace with equality principles.

The major focus then shifted to Mmuso Riba whose work, as the First Black South African Surveyor-General and later the First Black Chief Surveyor-General, changed the landscape of the South African Land Surveying Profession.

The sources of data on which this study is based have been obtained from:

- The South African Geomatics Council (SAGC).
- The Directorate: Training and Development, National Geomatics Management Service Branch, Department of Land Reform and Rural Development.
- Land surveyors

Unfortunately, not all information could be gathered regarding the registered persons, that was needed to complete my writing, which will then necessitate more versions of this paper as updates creep in.

5 THE 1980 TO 2000 ERA

Most of the land surveyors who registered with the then Central Council, PLATO, and now SAGC, during the period 1980 to 2000 (the focus of this paper), are in private practice where they are directors of their own land surveying companies. Nondwe Matanzima (previously in private practice) and Victor Constable are the Surveyors-General for the KwaZulu-Natal and Mpumalanga provinces respectively, in the Department of Land Reform and Rural Development. Modiehi Molebatsi, though she is no longer working for the Government of South Africa, became the 1st Black female Surveyor-General when she was appointed by our Minister in 2004. Simbongile Flatela is working for the Department of Cooperative Governance and Traditional Affairs.

In late 1997, several prominent black Land Surveyors (Minty Cossie, Alpheus Nonyane, Patrick Matibe, Patrick Ngobeni, Raleigh Maesela, Lamla Stemela, Charles Setati) came together to form an aerial survey and mapping company which they named EMOYENI Survey Company. This came about as an empowering effort by the Danish government for particularly Black South African Land Surveyors to challenge the monopoly in the South African industry. The Industrial Development Corporation of South Africa funded this project, and the Danish government provided collateral to ensure that the company was well resourced. Unfortunately, it was later discovered that the Team from Denmark, whose leader was Bjarne Hjalager, did not possess the required airborne surveying skills and Emoyeni had to close.

During the late 1980s and early 1990s, Mncedisi Nzelenzele and Mike Lusu were Surveyor-General and Deputy Surveyor-General respectively, of the Transkei Homeland Government. Nzelenzele became the Deputy Surveyor-General in Cape Town and Lusu went to private practice after 1994 in the democratic South Africa.

Vuli Cuba never registered with the Central Council and would later venture into IT. He is currently the founder and current Chairman and President of NGN Telecoms (Pty) Ltd, a

company which provides value added services through telecommunications networks to its corporate clients in South Africa and internationally. NGN Telecoms operates in South Africa and internationally, an example of a South African company founded, funded and led by Black South Africans, and have developed a unique service that has a worldwide appeal as evidenced by its presence in Africa, Europe, China and entering new markets in the Americas. Cuba resides in Georgia, USA.

South Africa saw a seismic shift when Mmuso Riba was appointed as the Chief Surveyor-General (CSG) of South Africa in 2008. At the time there were only a handful of Black professional land surveyors and with Mmuso's influence and dedication, South Africa saw a surge in the number of surveyors. Not only was the increase in the number of professional land surveyors, but also in the number of technicians.

Figure 1 below shows the number of Black professional land surveyors from 1990 to 2025. It does not only depict the success of Black empowerment in the surveying field after 1994 but is also testament to the work done by Riba in propelling and bringing the importance of land surveying to the attention of his political principals. He made sure that land surveying is regarded as a scarce skill and sourced funding to send matriculants to tertiary institutions to study surveying, go through their experiential training, register with the SAGC, and later absorbed by the Department under his watch.

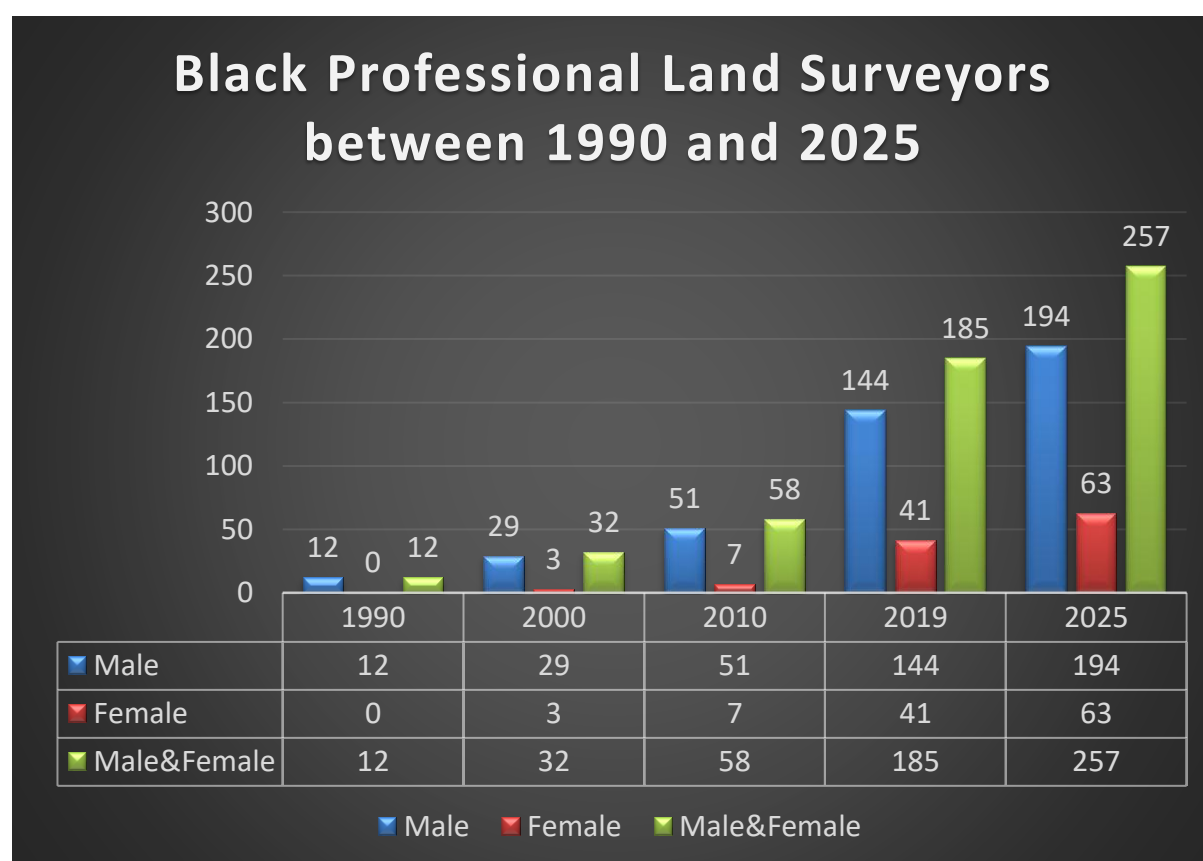


Figure 1 Number of Black professional land surveyors between 1990 and 2025, depicting the spike in the numbers after 2008 when Mmuso Riba was appointed as the Chief Surveyor-General of South Africa.

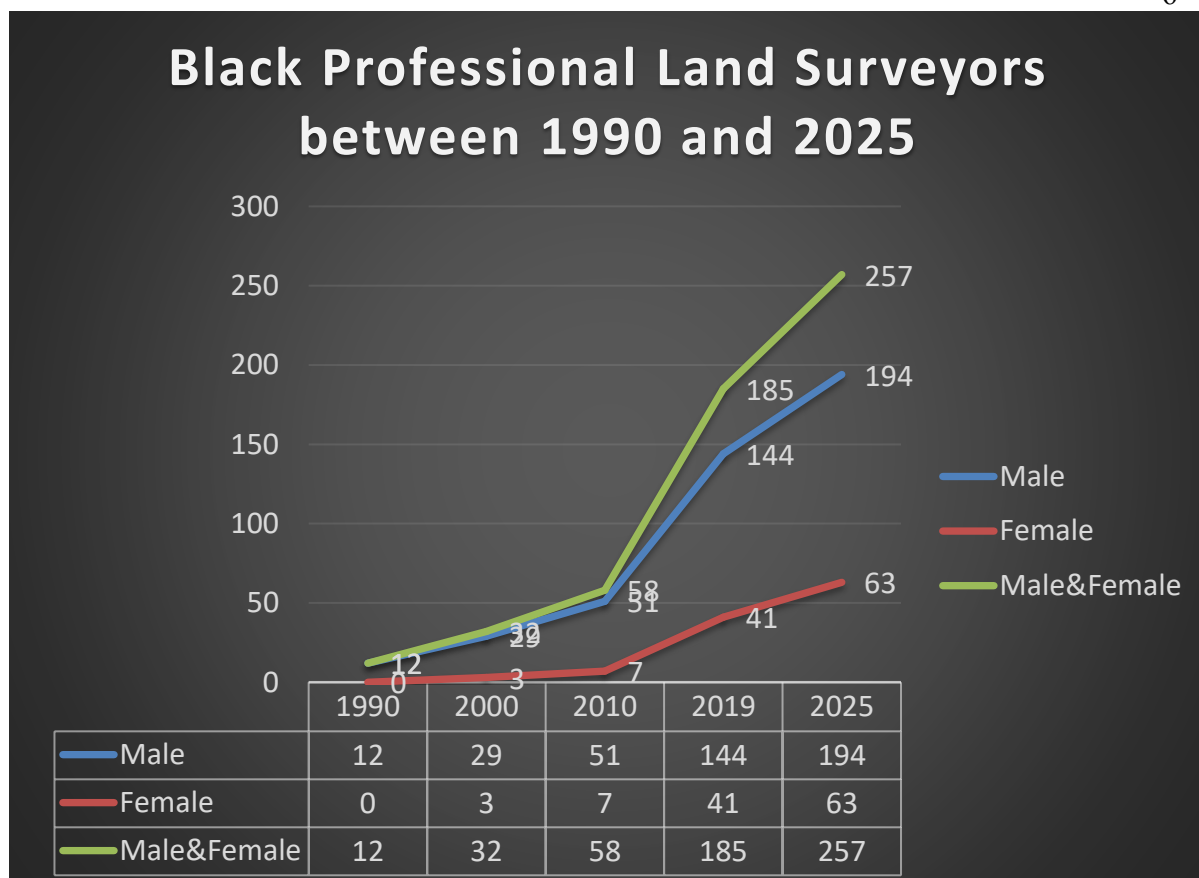


Figure 2 Number of Black professional land surveyors between 1990 and 2025.

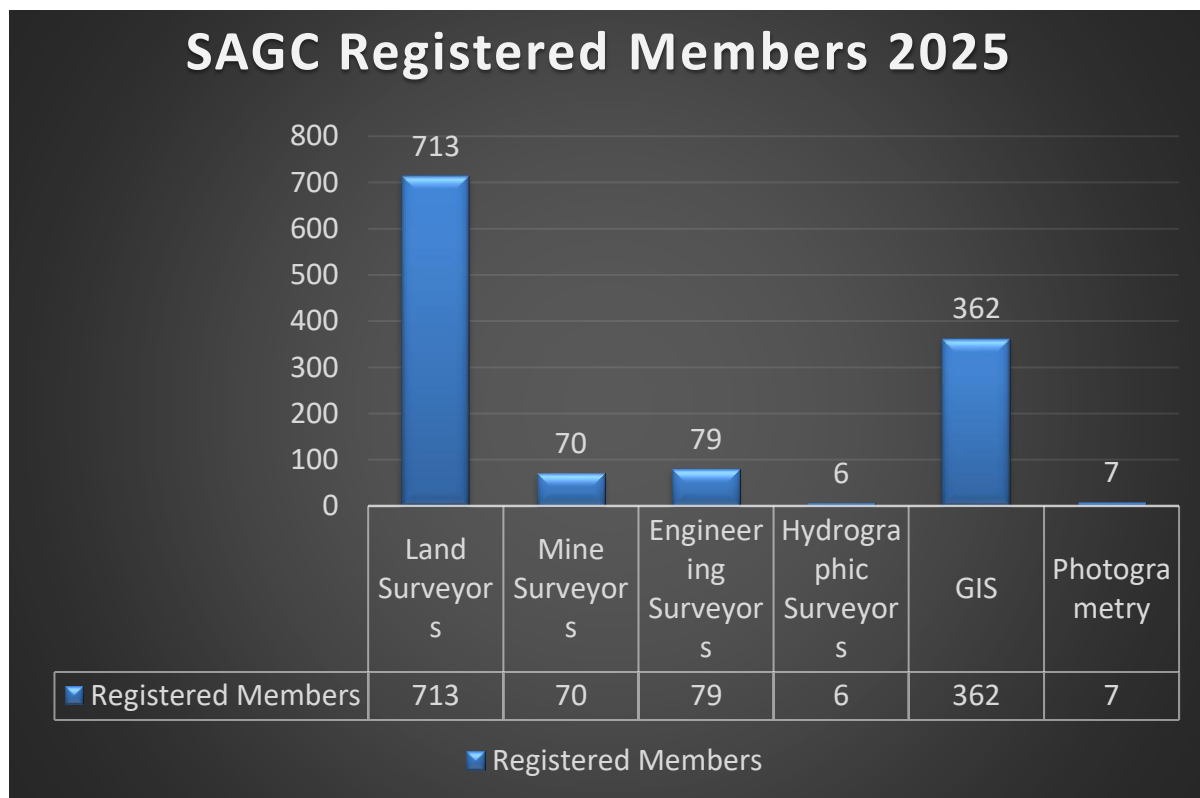


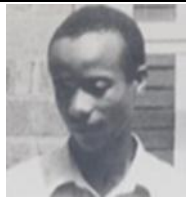
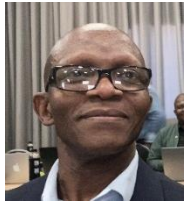
Figure 3 The total number of registered Black members of the South African Geomatics Council (SAGC) in all categories in 2025.

NAMES OF BLACK PROFESSIONAL LAND SURVEYORS BETWEEN 1980 AND 2000

Below is the list of Black professional land surveyors that this paper focuses on. It is evident that the older generation graduated from the University of Fort Hare as it was the only university offering land surveying to Blacks at the time. Towards the late 1980s, the University of Natal, a “Whites only University”, except for Black Medical Students, started accepting Blacks, who were accommodated at the Alan Taylor Residence (ATR) in Wentworth, Durban, a hostel for the Black medical students.

In the early 1990s, Modiehi Molebatsi would be the first Black and female surveying student at the University of Cape Town having received a scholarship by the Italian Embassy in South Africa. She would later be joined by Bandile Mtshatsha, Nondwe Matanzima, Mmuso Riba and Sigqibo Vena. The 1993 class would then be the first to have four Black students, something that was never heard of before.

1st (deceased) Minty COSSIE Graduation: 1978 University of Fort Hare Registration: 1980		1st Vulindlela (Vuli) CUBA Graduation: 1978 University of Fort Hare Registration: Never registered Left the Surveying industry	
1st Female Tumeka BIKITSHA University of Natal Registration: 1996		2nd Alpheus Samkgoba NONYANE University of Fort Hare Registration: 1982	
2nd Female Nondwe MATANZIMA University of Cape Town Registration: 1997		3rd (deceased) Mncedisi NZELENZELE University of Fort Hare Registration: 1984	
3rd Female Modiehi MOLEBATSI University of Cape Town Graduation Date: 1994 Registration Date: 1999		4th Michael Mlungisi LUSU University of Fort Hare Registration: 1985	
5th Madzidza Griffith SADIKI University of Fort Hare Registration: 1988		6th Victor MDWARA University of Natal Graduation: 1985	
7th (deceased) Michael Mncedisi COKWANA University of Natal Registration: 1985		8th (deceased) Sisa TYEKELA University of Natal Registration date: 1989	

9th (deceased) Steven KHOSA University of Natal Registration Date: 1990 	10th Molefe Raleigh MAESELA University of Natal Registration Date: 1990 
11th (deceased) Kwabeng Johannes MOLOI University of Natal Registration Date: 1990 	12th Maesela Ishmael MASHILOANE University of Natal Registration Date: 1990 
13th Lamla STEMELA University of Natal Registration Date: 1990 	14th Simbongile Sango FLATELA University of Natal Registration Date: 1990 
15th Patrick NGOBENI University of Natal Registration Date: 1990 	16th Tlabo Charles SETATI University of Natal Registration Date: 1990 
17th Ntshavheni Patrick MATIBE University of Natal Registration Date: 1992 	18th Lunty Luyanda GQIBA University of Natal Registration Date: 1995 
19th Seshoale Nat MOHLATLOLE University of Natal Registration Date: 1995 	20th Victor Vuyani CONSTABLE University of Natal Registration: 1995 

Dr. Bandile MTSHATSHA University of Cape Town Graduation Date: 1995		21st Hokwe Thomas NDHLOVU University of Natal Registration Date: 1998	
22nd Zolani Sinethemba GQIBA University of Natal Registration Date: 1998		23rd (deceased) Mmuso RIBA University of Cape Town Registration Date: 1998	
24th Siggibo VENA University of Cape Town Registration Date: 1998		25th Nhlawuteti Phillip SHIHUNDLA University of Natal Registration Date: 1998	
26th Mashudu Phineas LUVHENGU University of Natal Registration Date: 1999		Information about Herbert SHAI , Thabo MABANDA , and Nelson RAPOTU was not received. They also registered with the SAGC before the year 2000, but it is not known when.	

5 PUPIL GEOMATICS OFFICER COURSE

As a pioneer of the surveying profession, Mmuso would later initiate a Pupil Geomatics Officer (PGO) course by establishing the Directorate: Cadastral Survey Training and Development in the office of the CSG. He mobilised funding and oversaw the formalisation of the PGO programme to NQF Level 5². Though the PGO Training was classified as a Developmental Program, he recognized PGOs as a value add in the functioning and value-chain of the offices of the Surveyors-General, hence their job descriptions were developed, and they were subsequently pegged at Salary Scale/Level 5 within Government. The Training and Development Directorate would conduct career exhibitions for rural schools in the less

² The National Qualifications Framework (NQF) is a crucial part of South Africa's education system, ensuring that qualifications are consistent and widely recognised. Among the different levels, NQF Level 5 meaning signifies that it is a crucial step for students looking to boost their knowledge and skills. This level is equivalent to the first year of a bachelor's degree and offers an in-depth understanding of areas like business management and information technology. Earning this qualification improves your professional abilities and opens many job opportunities and further education options.

developed provinces under his direction every year.

The PGO programme produced 238 graduates and 119 of those graduates were absorbed by the Department of Land Reform and Rural Development. Others would later work for other Departments, further their studies (65), work for Municipalities and for the private sector.

PERIOD	PGO Graduates	BSc: Geomatics	Other Degree	NDiploma Sur/Cart(GIS)	Other Dip	Absorbed by DRDLR
2008 – 2010	65	*	*	*	*	65
2010 – 2012	57	8	*	35	*	53
2012 – 2014	62	1	3	9	*	1
2015 – 2017	54	1	4	4	*	0
Total	238	10	7	48	*	119

Figure 4 Statistics of the Pupil Geomatics Officer programme

6 CONCLUSION

This paper emphasizes the significance of documenting the history and contributions of Black professional land surveyors in South Africa, celebrating their resilience and impact on transformation, empowerment, and community development while inspiring future generations to embrace their legacies and responsibilities in shaping history.

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8 BIOGRAPHY: NONDWE MATANZIMA

Nondwe Matanzima, a professional land surveyor, has been in the land surveying profession for more than 30 years, 12 of which she was a private practicing land surveyor. After completing her B.Sc. (Surveying) degree at the University of Cape Town in 1995, she joined Eskom in Brackenfell, Cape Town, as a land surveyor-in-training, and later registered as a professional land surveyor in 1997, being only the second Black woman to register as a professional land surveyor in South Africa.

In 1999 she resigned from Eskom and incorporated her own land surveying practice known as Matanzima Land Surveyors, in Bloemfontein, in the Free State Province. In February 2011, Matanzima was appointed by the Department of Rural Development and Land Reform as the Surveyor-General of the KwaZulu-Natal Province and:

(a) Was appointed by the Minister of Agriculture, Land Reform and Rural Development as a member of the South African Geomatics Council (SAGC) since 2016.

(b) Received an Honorary Fellowship Award from the Mangosuthu University of Technology in recognition of her contribution in the field of Surveying at the April 2019’s Faculty of Engineering’s Graduation Ceremony.

(c) Is a member of the Local Organising Committee (LOC) for the FIG 2026 Congress that will be held in Cape Town from 24 to 29 May 2026.

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THE SOUTH AFRICAN COUNCIL FOR PROFESSIONAL AND TECHNICAL SURVEYORS

2001



2003



TONY SMITH PHOTOGRAPHY

Back row: (left to right) A J van den Berg (Chief Surveyor-General), PWA Rheeder, S Hirachund, M Riba, R Singh, A N Bhawan, S Thejraj, M J van Rooyen, B J Jefferys
Middel Row: (left to right) Dr. C Fourie, M Nzelenzele, D P Singh, G Muller, G N Mojapelo, J J Singery, K P Landman, D P Burger, H J du Plessis, M G Livingstone-Blevins, Dr. B A van Geems
Front Row: M N van den Berg (FILSA President) Mrs J E Vermaak (Registrar) A P Marshall (President), K J Lester (imm. past president) Ms N Matanzima (Vice-President), D F Hull (EAC President) D G Clarke (Chief Director: Surveys and Mapping)

Figure 5 Members of the South African Council for Professional and Technical Surveyors (PLATO), 2001 to 2003. Nondwe Matanzima was the Deputy President.



Figure 6 Members of the South African Geomatics Council 2019



BACK ROW (L-R): Dr. SM Chilufya, A Parker, SP Mhlongo, JO Williamson, MJ Letsosa, AG Watermeyer, GE Deacon, ME Molebatsi, S Ndara

FRONT ROW (L-R): NP Matibe, N Monyake, Y Matende, N Banks (Alt Chairperson), SB Mdubeki (Dep Chairperson), P Rambally, Dr. M Akombelwa, CV Silva

Figure 7 Members of the South African Geomatics Council 2023 to 2026



Figure 9 (Left) Mmuso Riba Boardroom plaque in the office of the Surveyor-General: KwaZulu-Natal. (Right) Nondwe Matanzima, Surveyor-General: KwaZulu-Natal unveiling the plaque after her address at the Memorial lecture commemorating and celebrating the achievements and intellectual contribution of Mmuso Riba to the Surveying profession in South Africa and abroad.