

# Review

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Learning from local, African  
and global communities

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Intersectionality critical  
to gender-transformative  
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science & innovation

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HSRC  
Human Sciences  
Research Council

# THIS

# ISSUE

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**Cover:** A woman and child pass by a mural in Langa, Cape Town, that honours the 1960 Langa March. On 20 March, 1960, between 30,000 and 50,000 protestors from Langa and Nyanga, including PAC leaders Philip Kgosana and Robert Sobukwe, presented themselves for arrest at the police headquarters for not carrying their passes.  
**Photo:** Andrea Teagle, 7 March 2023

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# EDITOR'S NOTE

By Antoinette Oosthuizen

The HSRC conducts research studies to understand and find solutions for the drivers of societal challenges in South Africa. Our researchers conduct major surveys and literature reviews but also visit local, African and international communities to collect data and learn from their stories.

For this edition's feature article, we visited Langa, the oldest township in Cape Town. The HSRC, in collaboration with the Langa NGO iKhaya, is collating stories for a book on the history of Langa township over the past 100 years.

Cape Town's entrenched spatial divisions reflect its apartheid history and raise uncomfortable questions. Rising poverty-driven crime and people's dissatisfaction with public services are huge problems in many neighbourhoods. They ultimately threaten the tranquillity of well-off enclaves, demanding stronger altruism, solidarity and resource prioritisation for marginalised communities. This is according to a recent HSRC report based on findings from a household survey, which we have summarised.

Following a research trip to Bogotá, Colombia, another group of HSRC researchers share their insights on transforming informally occupied land into sustainable and thriving neighbourhoods. And a researcher from Ghana discusses the effects of conflict in Ghana's Bawku region. The protracted strife is related to land ownership rights and chieftaincy between the Kusasi and Mamprusi ethnic groups.

In December, the HSRC co-hosted the World Science Forum in Cape Town. We feature two articles from sessions held there, one focused on the importance of intersectionality as a critical component of gender-transformative research. Intersectionality refers to the many overlapping forms of discrimination – for example, those based on gender, race

and disability – that intensify and complicate the experiences of marginalised groups of people. The other session looked at indigenous crops as a critical piece of South Africa's nutrition security puzzle. Researchers argue we need to take a broader approach to addressing food and nutrition insecurity, for example, by diversifying our crops through the addition of indigenous plant species.

Three more articles focus on the importance of measuring research, development and innovation in agriculture and South Africa's state-owned enterprises. Researchers also discuss the importance of refining curricula and employment opportunities to train and absorb more young and highly skilled graduates.

We spoke to Prof Vijay Reddy, a distinguished research specialist, about her 20-year career at the HSRC and her contributions to studies in education, skills planning and public understanding of science. Reddy has been leading the Trends in International Mathematics and Science Study (TIMSS) in South Africa since 2003. TIMSS measures the mathematics and science knowledge of fourth- to ninth-grade learners in different countries, and the results are important indicators of the health of South Africa's education system.

Our books pages feature *#FeesMustFall and its Aftermath*, a book based on a photographic exhibition project on the experiences of student leaders during university protests. Two other books look at human trafficking in South Africa and the intellectual contributions of Reverend Ndabaningi Sithole to the liberation of Zimbabwe.

We look forward to your feedback.

*The Review Team*

# Voices of Langa:

a 100-year social history  
of Cape Town's  
oldest township

TOO  
MUCH  
WIFI

life here  
Get Uncaptured WiFi Home!



Photo: Andrea Teagle, HSRC



A century ago, Cape Town's first township, Langa, was created under the Urban Areas Act of 1923. The act was designed to segregate black South Africans into designated locations, isolating them from the broader economy. Serving as a labour reservoir for menial work in white industries and households during apartheid, its residents faced decades of hardship. Yet the township's history is rich with moments of resistance. The HSRC, in collaboration with the Langa NGO iKhaya, is collating stories for a book on the history of Langa township over the past 100 years. **Andrea Teagle** and **Diana Sanchez** report.

**Cape Town, 1961.** Nondyebo stirred her tea, careful to wipe the kitchen countertop clean. The face of a 16-year-old girl, a *doek* wrapped around her hair, looked up at her from the gleaming marble. She looked like someone else, Nondyebo thought. Since moving to Cape Town to work with her mother in the houses of white people, she had felt her sense of self begin to blur. Her life in Herschel village in the Eastern Cape already felt like a long time ago.

"Nondyebo!" She jerked her head up and spun around. A woman in a domestic worker's uniform glowered at her. "No, no, no! We're not allowed to drink tea in the house!"

The girl stared at her defiantly for a moment before following her outside. It was not only the way they were treated as domestic workers that angered her. She was angry with this woman she barely knew who called herself her mother. She was angry that she had grown up far away and that she had no relationship with her siblings. She was angry that she had had to drop out of school.

Hers was not an unusual story. The effects of apartheid bled through black families. Living in created and controlled communities like Langa, where people were deprived of decent employment opportunities, many working parents had to send their children to live with grandparents many kilometres away while they eked out a living. Even those young people lucky enough to finish school received only subpar education under the [Bantu Education system](#), prepared for a life of manual labour and menial work. Some, particularly the men, left their families to work in the mines in Johannesburg and Kimberley. Others, like Nondyebo, moved to Langa in Cape Town.

### **Langa in the 1960s and 1970s**

Cape Town's first township, Langa, was a place of struggle for young people in the 1960s. Created in 1923 under the Urban Areas Act, it was designated to segregate the black African community from urban areas, in isolation from the broader economy but serving as a labour reservoir. Many families shared small council homes, where they had to pay rent and feared eviction under the infamous pass laws. Domestic violence was commonplace.

However, the township was also vibrant and dynamic, with people constantly breaking the boxes the state built around them. Apartheid laws prohibited political gatherings but political groups found ways to meet covertly, often under the pretext of playing soccer or, in Nondyebo's case, participating in informal credit groups known as *stokvels* or [gool-goois](#).

Langa's history is rich with moments of resistance, researcher Gregory Houston notes. In 1944, residents protested against the pass laws, and in 1954, women in the township rallied against the establishment of commercial beerhalls. In 1960, Philip Kgosana led a march of about 30,000 people from Langa and Nyanga in [protest against the pass laws](#) and detention of political leaders. In 1961, when Nondyebo arrived in Langa, the resistance movement turned to armed struggle. With the participation of Nondyebo and many other residents, Langa continued to be an important node of political resistance.

Meanwhile, people hustled to get by. Nondyebo's mother was among many residents who made extra money selling *umqombothi* (African beer). Others set up fruit and vegetable stalls.

Nondyebo soon moved on to a better paying cleaning job at Groote Schuur Hospital, and then took a job in a factory, selling knitted hats and scarves on trains as a (prohibited) side business. She was constantly on the lookout for better opportunities. The difficulty was that, according to apartheid laws, better opportunities were the domain of white people. When Nondyebo started a business selling second-hand clothes, the police frequently confiscated her products.

When she was in her mid-20s, Nondyebo found a job in an Italian restaurant. By this time, she had her own children to provide for and she was determined that their childhoods would be different. She found that she was well-suited for hospitality: she was efficient and motivated, fluent in English and Afrikaans, and had the ability to think on her feet. Italian cooking came easily to her. Little by little, she worked her way up the industry, pushing the boundaries of what was possible for black women at that time.

### Langa, present day

Kholowetu Vazi, a young woman in her 20s, sits opposite Nondyebo, listening respectfully. A recording device is in her hand. They are in the same house where Nondyebo had lived with her four children. It was this house – once a council house in her name – that had enabled her to leave an abusive husband. It was here, where her children studied for exams and celebrated passing matric, that her oldest son was tragically shot by the police in the 1980s. The house looks different now. While it remains a modest space, it is warm and inviting on this fresh morning.

The street outside is also different – many changes have taken place in Langa over Nondyebo's lifetime. There is political freedom but also deep political divisions. Many unemployed young people roam the streets, but lively small businesses operate everywhere. There is now freedom of movement but a dysfunctional railway system.

Most people move around in taxis, with some brave cyclists exploring new forms of mobility. At the heart of the township is a beautiful but underused cultural centre, Gugu S'thebe.

For elderly women like Nondyebo, the fight was hard and long, but it has paid off. As the three-hour interview comes to an end, she puts her cup of tea down on the table. "It has been difficult, all the way through," she tells Vazi. "It is only now that I can say I'm happy."

### The Langa Turning 100 Project

Nondyebo's story is one of many that the HSRC, in collaboration with the Langa NGO iKhaya, is collating into a written history of Langa township over the past 100 years. As part of the project, Vazi and another young Langa resident, Akhona Mgcina, have received training to become qualitative researchers. The book is expected to be published over the next two years and copies will be available in the Langa library and the local museum.

The project is an unprecedented collaborative effort to construct a history "from below", examining key transformations through the eyes of local residents. It also seeks to identify areas of community concern and potential areas for future research. Despite the challenges of working with a small NGO and training researchers, this is central to the project's concept and, hopefully, its success.

As the research team leaves Nondyebo's house, Vazi reflects on her first qualitative interview. She is humbled by the challenges Nondyebo faced when she was Vazi's age. "Nowadays we walk freely, we go wherever we want. Although gender-based violence remains a huge issue, I can be an independent woman. I don't need to marry to have access to a house ... I can trade whenever and whatever I want, or be an accountant or an engineer."

Vazi believes the book will be an important reference for young people of Langa today and for future generations. "It will be an eye-opener," she says. "And teach us a thing or two about how to overcome big challenges, as our elders had to do."

*This article is the first of a two-part series by Andrea Teagle, science writer in the HSRC's Impact Centre; Diana Sanchez, senior researcher in the HSRC's Developmental, Capable and Ethical State division; and Timothy Stanton, the founding director of Stanford University's Bing Overseas Studies in Cape Town.*

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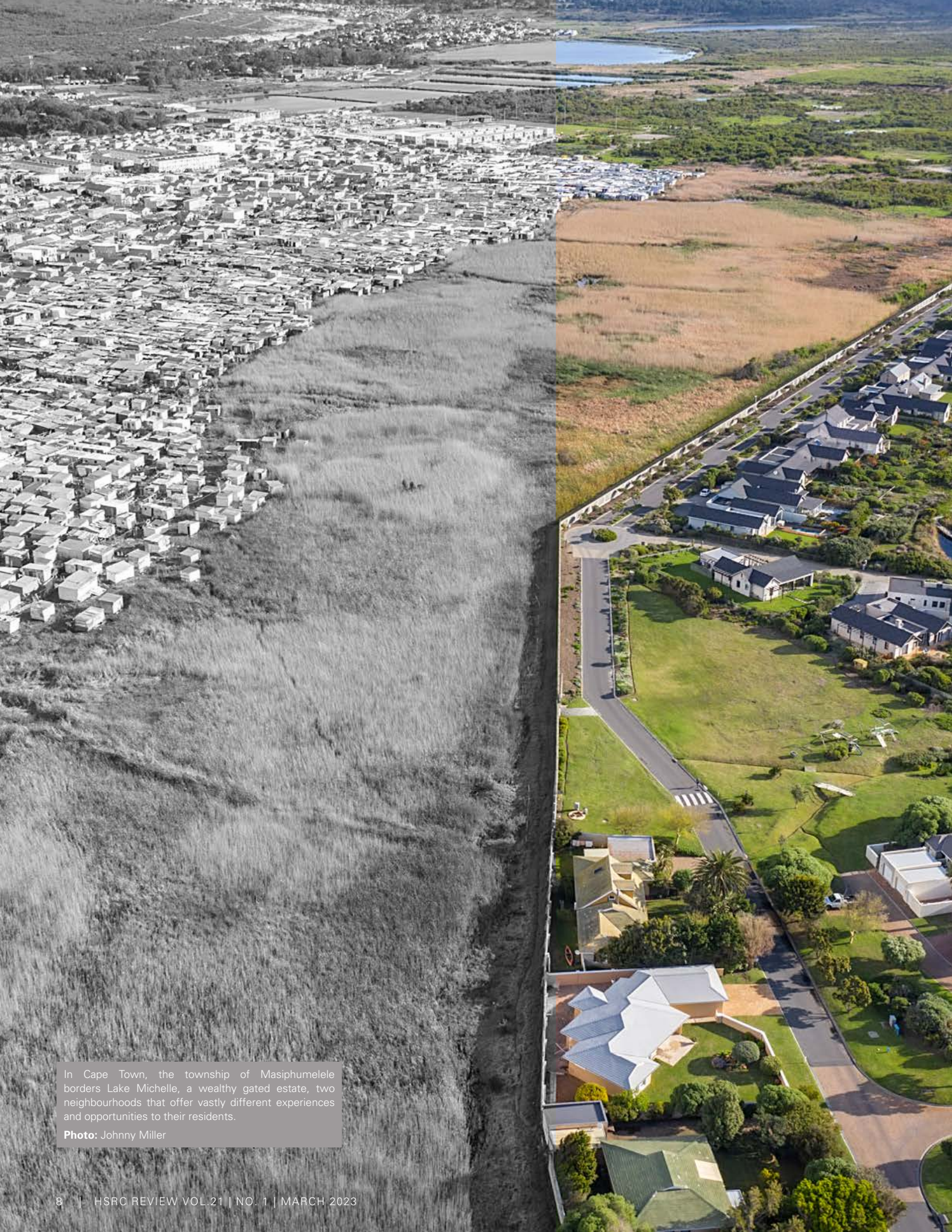
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Kholowetu Vazi, a Langa resident and qualitative research trainee, interviewed Nondyebo as part of the Langa Turning 100 project.

**Photo:** Andrea Teagle, HSRC



In Cape Town, the township of Masiphumelele borders Lake Michelle, a wealthy gated estate, two neighbourhoods that offer vastly different experiences and opportunities to their residents.

**Photo:** Johnny Miller



# Stark neighbourhood divides in Cape Town raise uncomfortable questions

Cape Town's entrenched spatial divisions reflect its apartheid history and raise uncomfortable questions. Rising poverty-driven crime and people's dissatisfaction with public services are huge problems in many neighbourhoods. They ultimately threaten the tranquillity of well-off enclaves, demanding stronger altruism, solidarity and resource prioritisation for marginalised communities. This is according to a recent report by Ivan Turok, Justin Visagie and Andreas Scheba. Based on findings from a household survey, it highlights stark contrasts between five types of neighbourhoods in the city.

The hazards and opportunities that people experience in their home neighbourhoods determine their future health, education, economic prospects and general wellbeing. In South Africa, persistent inequality is reflected in stark contrasts between neighbourhoods, which is why HSRC experts are looking at city spaces and housing to find ways of improving living conditions.

During 2021–22, in the wake of the COVID-19 pandemic, the HSRC conducted a household survey of about 1,000 residents from different parts of Cape Town. [Neighbourhood Matters in Cape Town](#), a report by Ivan Turok, Justin Visagie and Andreas Scheba, was part of a four-year study of neighbourhood patterns and dynamics in seven countries and 14 cities around the world. The HSRC did this work as part of an international research consortium, the [Global Challenges Research Fund's Centre for Sustainable, Healthy and Learning Cities and Neighbourhoods \(SHLC\)](#).

The Cape Town survey described the following five most significant neighbourhood types and conducted telephonic and in-person interviews with about 200 residents from each of these.

## **Highest income: The leafy suburbs**

The highest income group included mostly professionals who lived in low-density, free-standing houses, the so-called "leafy suburbs". About 60% were white, more than two-thirds owned their properties, and most were employed in the formal sector (59%) or ran their own businesses with some employees. Only 7% were unemployed, the lowest of all neighbourhoods.

## **High income: Apartment blocks and the precinct**

Middle- to high-income earners lived in higher-density precincts made up of apartment blocks close to transport routes. Almost 40% rented their accommodation and about 40% were white. Most (60%) worked in the formal sector, with 11% informally employed and 20% self-employed. At 14%, the unemployment rate was double that of the wealthy cluster but still significantly lower than in other neighbourhood types.

## **Middle income: Coloured communities**

These neighbourhoods were home to mostly Afrikaans-speaking, coloured residents. Many lived in semi-detached houses (32%) and flats (14%), and the average households were 3.9 times larger than those of other neighbourhood

types. The unemployment rate was 45.4%, the highest of all clusters. However, these residents had more assets such as cars, washing machines and internet connectivity than other poorer groups. This may be because almost three-quarters of those who were employed, worked in the formal sector, which tends to be better paid than informal work.

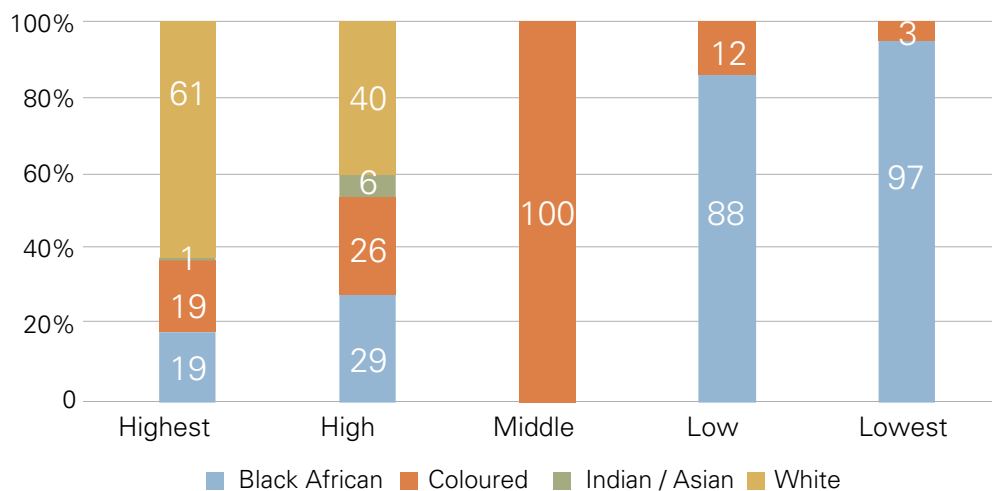
## **Low income: Townships**

Low-income townships were home to mostly black African (88%) and coloured (12%) residents. Some township houses were built during apartheid to entrench racial segregation, but many others were developed as part of massive post-apartheid housing programmes. This explains the high levels of home ownership (62%) despite low incomes and 40.5% unemployment.

## **Lowest income: Informal settlements**

The lowest-income neighbourhoods were informal settlements, with 30% of residents living in makeshift dwellings that were connected to electricity. More than 23% rented from private landlords. The population of these neighbourhoods were almost exclusively black African (97%), with a 43.5% unemployment rate.

**Figure 1. Racial composition of the surveyed neighbourhoods in Cape**



Source: HSRC

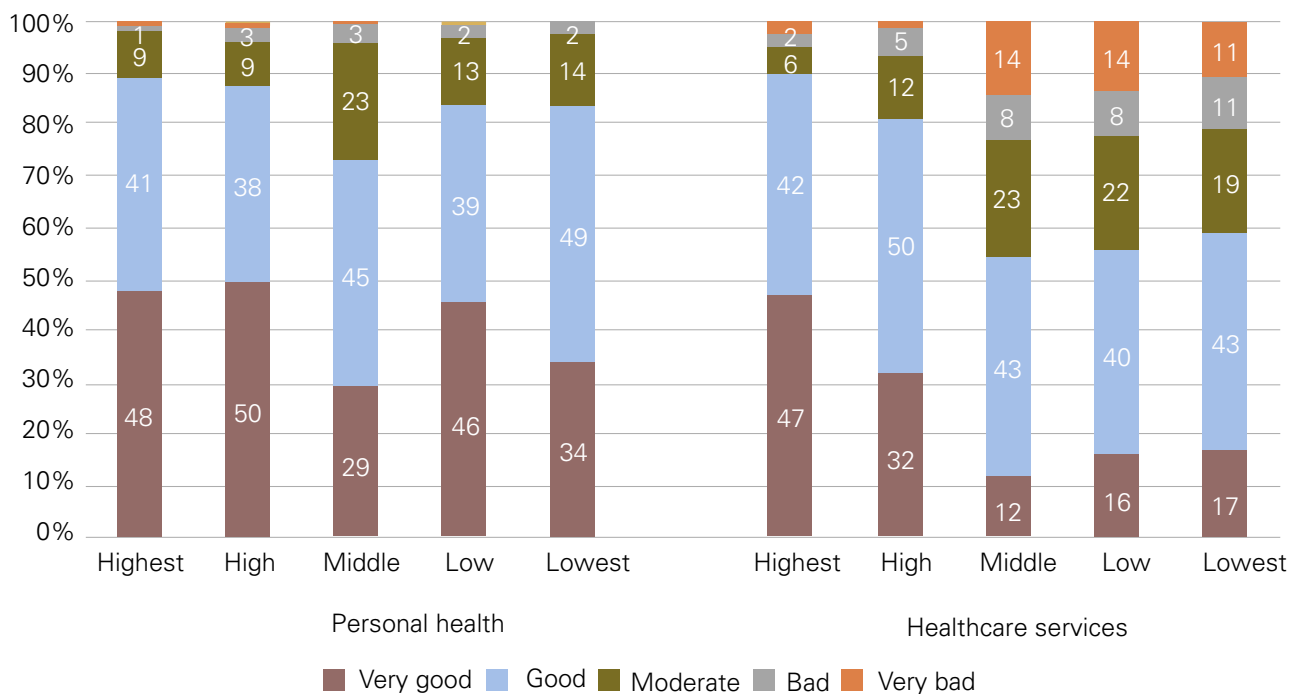
**Access to services**

Almost 40% of the residents in the poorest neighbourhoods accessed water outside their properties – for example, at communal taps – and 36% relied on communal shared toilets. ‘This is a serious concern in terms of human dignity and the risks for personal safety and security,’ the report reads. Most neighbourhoods surveyed (93–95%) had access to electricity, but the researchers point out that many low-income households accessed electricity through informal (and unauthorised) connections, which are often unsafe and unreliable. The survey did not cover informal settlements that had not been electrified.

**Health**

Most of the residents rated their personal health and happiness as good or very good. However, while 90% of residents in the highest-income areas rated their healthcare services as good or very good, less than 60% of those in middle- and lower-income areas did so. In fact, more than 20% of those living in the poorer areas described these services as bad or very bad.

**Figure 2. Rating of personal health and healthcare services**

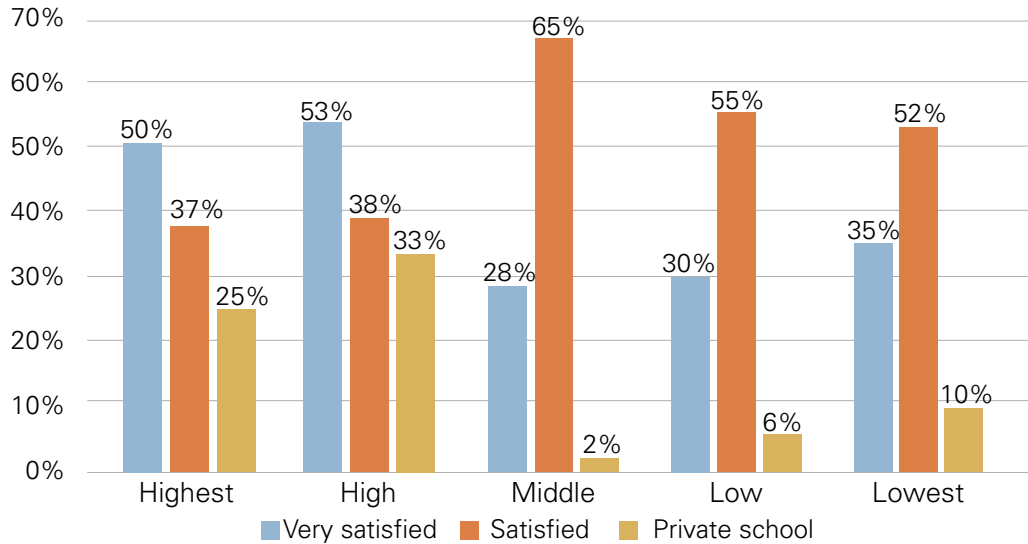


Source: HSRC

## Education

Most residents were satisfied or very satisfied with their schools, which the researchers found surprising considering the marked contrasts in school quality across Cape Town neighbourhoods. Private schools were important in the high- and highest-income areas, attended by approximately 33% and 25% of children respectively (Figure 3). The researchers believe this may have contributed to the higher levels of online learning in those areas during the COVID-19 pandemic. More than 75% and 82% of respondents from the highest- and high-income neighbourhoods had access to online learning in their households, compared with only 36% and 45% for the middle- and lower-income neighbourhoods.

**Figure 3. Satisfaction with schooling**



Source: HSRC

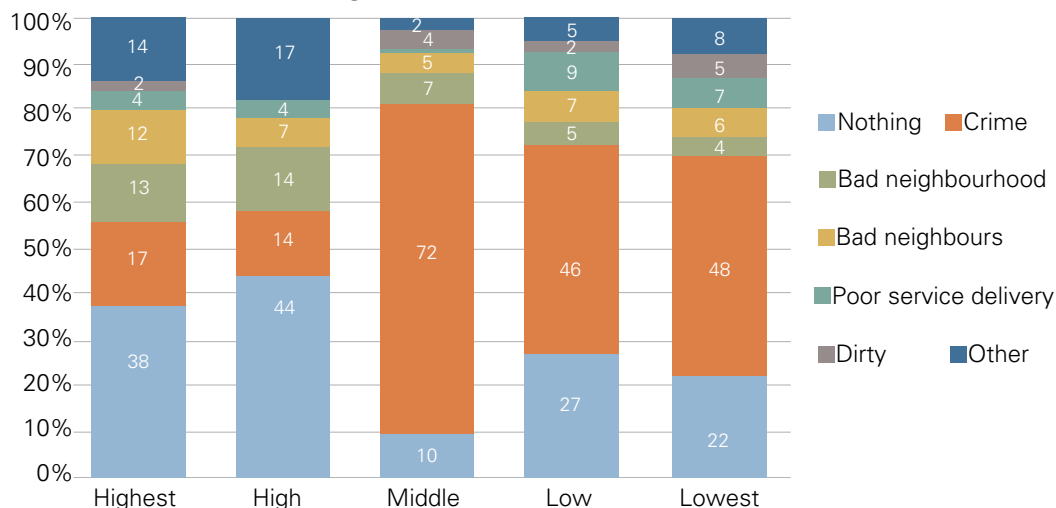
## Neighbourhood experiences and attachment

Crime was the biggest neighbourhood concern. However, only 14% and 17% of residents in the high- and highest-income neighbourhoods shared this concern, compared with 72% in middle-income areas and 46% to 48% in low-income areas (Figure 4).

The researchers point out that Cape Town's townships experience among the highest levels of violent crime in the country, including gender-based violence, drug dealing, gangsterism, vigilantism and murder. Challenges include staff shortages and a lack of visible policing in informal settlements. Other concerns paled in comparison, with a minority anxious about other aspects of their neighbourhoods, their neighbours or poor service delivery.

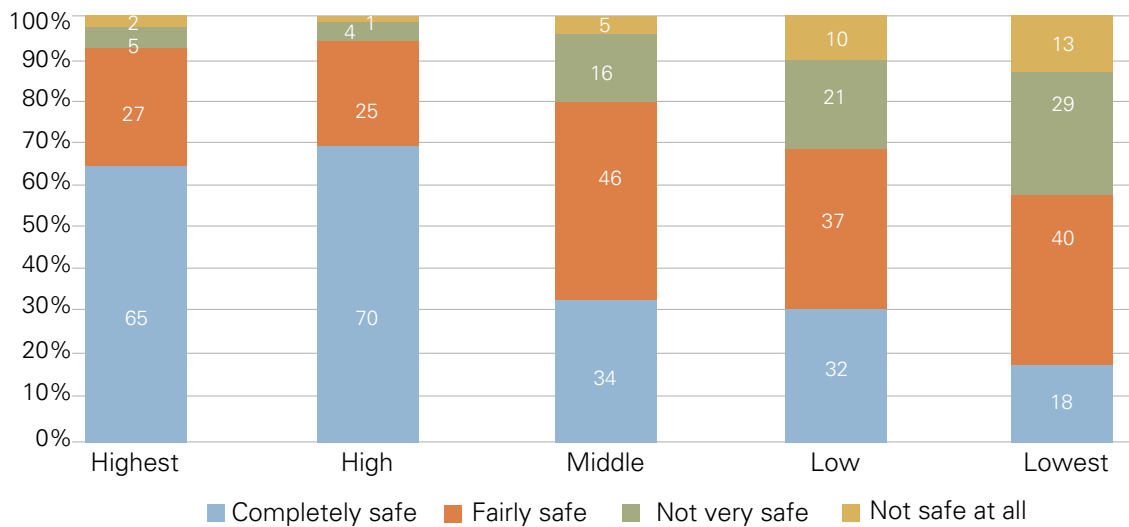
Respondents from the poorest communities were also far more likely to feel vulnerable in their own homes (42%) than those from high-income neighbourhoods (8%). See Figure 5. They also felt less attachment to their neighbourhoods, were less likely to trust their neighbours and were less likely to believe that they had the power to change things in their neighbourhoods.

**Figure 4. What do you dislike about your neighbourhood?**



Source: HSRC

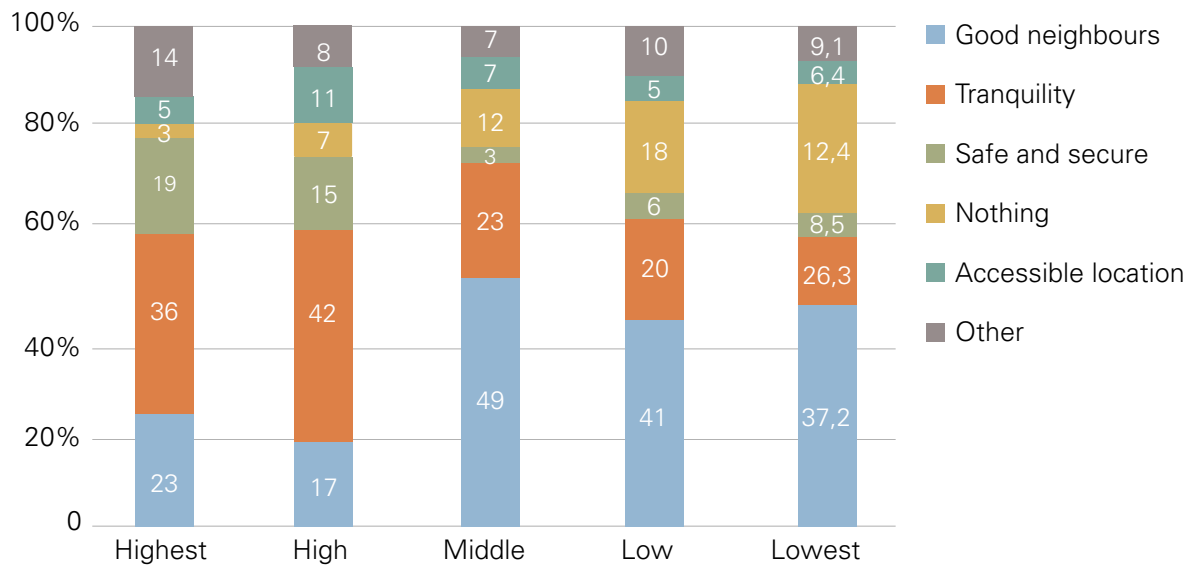
**Figure 5. How safe do you feel inside your own dwelling?**



Source: HSRC

Only a third of the Capetonians interviewed valued their neighbours highly, but residents from low- and middle-income areas appreciated their neighbours more than those in high-income neighbourhoods (Figure 6). The researchers write that this could be due to the fact that people in wealthier areas tend to live more insular and self-contained lives, reflecting the individualistic culture of higher social classes. They also valued tranquillity over having good neighbours much more than those who lived in poorer areas. The researchers ask: could it be that the wealthy seek relief from the disorder and instability in the wider city?

**Figure 6. What do you like about your neighbourhood?**

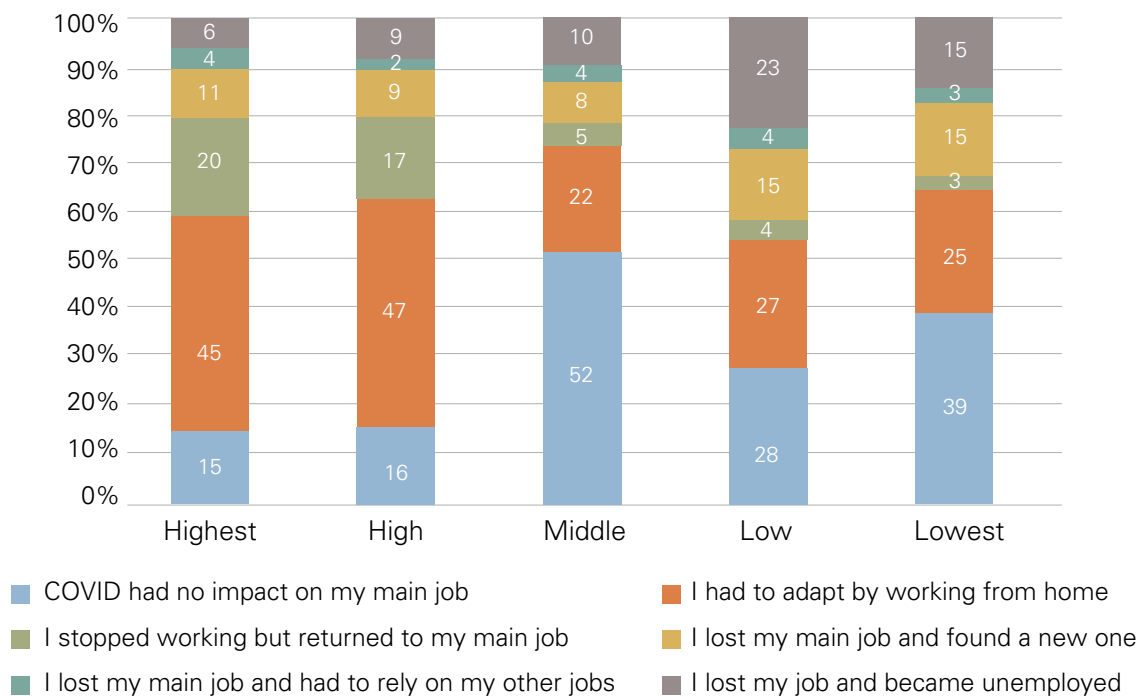


Source: HSRC

**The impact of COVID-19**

Almost a quarter (23%) of working adults in low-income areas and nearly 15% in the lowest-income areas lost their main jobs and became unemployed due to the COVID-19 pandemic and lockdowns. Another 15% in both areas lost their main jobs but found another. This compounded the existing high rates of unemployment (more than 40%) in these areas. In affluent areas, almost 50% of working adults adapted to the crisis by working from home. Another one in five stopped working temporarily and then returned to their jobs. In poorer areas, only 5% stopped their work temporarily (Figure 7).

**Figure 7. Impact of COVID-19 on main job**



Source: HSRC

Working adults in middle-income neighbourhoods were least likely to experience such disruption, with 52% reporting no impact on their working lives. The researchers say this may be attributed to the fact that more of these residents were working in essential services like food production, distribution, retail, healthcare and other frontline public services such as refuse collection.

Furthermore, the survey found that nearly half of adults in the low- and lowest-income areas suffered a loss of income, compared with less than a quarter in the middle- and higher-income neighbourhoods. More than half the adults in poorest communities reported difficulties in accessing food, basic supplies and regular medical treatment during the COVID-19 lockdown compared with a quarter to a third of those in affluent areas.

### Recommendations

According to the researchers, deep-seated problems like crime can only be resolved by building a common commitment across different groups to narrow the gap between neighbourhoods and to expand the economy in an inclusive manner. It should be easier for people living in townships to access opportunities and facilities in affluent areas. The City of Cape Town should rethink its approach to service delivery and collaborate with communities, civil society organisations and the private sector to empower people to rebuild their troubled communities.

#### The GCRF Centre

The HSRC and the University of the Witwatersrand, along with research partners from Nankai University in China, the Ifakara Health Institute in Tanzania, the University of Rwanda, the National Institute of Urban Affairs in India, Khulna University in Bangladesh and the University of the Philippines Diliman, are part of the GCRF Centre for Sustainable, Healthy and Learning Cities and Neighbourhoods (SHLC). Administered at Glasgow University, the centre is dedicated to building capacity to improve urban, health and education challenges in neighbourhoods across fast-growing cities in Africa and Asia.

Read the full HSRC report on Cape Town neighbourhoods [here](#).

In January 2023, Wits also published a [report](#) on neighbourhoods in the City of Johannesburg.

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# From land occupation to thriving neighbourhoods: reflections from

# Bogotá



Photo: Freepik, Bogotá Mountains

Informal occupation of land and buildings is growing in cities around the world. Reflecting on insights from a research trip to Bogotá, Colombia, **Hayley Abrahams, Dr Andreas Scheba, Dr Suraya Scheba, John Giraldo Diaz and Diana Sanchez-Betancourt** argue that, with the right governance approach and support, such occupied land and property can be turned into sustainable and thriving neighbourhoods.

**A**round the world, a growing number of people struggle to access affordable housing. In response, people are occupying land and buildings to create homes and obtain access to cities. As part of an ongoing comparative research project called [City Occupied](#), we travelled to São Paulo, Brazil, and Bogotá, Colombia, in early January 2023 to visit areas that have been occupied.

We also met academic counterparts and civil society stakeholders, and conducted workshops to deepen our analysis of the challenges and opportunities of informally occupied places.

Through these encounters, we learnt a great deal about different types of property occupation, the diverse actors and modus operandi, and the potential they hold for creating more inclusive cities. Among the most inspiring moments of the trip were visits to Bogotá neighbourhoods that had turned from informal settlements to consolidated and thriving places in less than two decades. We argue that incremental practices, accompanied by state support for building mixed-use, higher-density homes, are critical to this transformation.

### Informal densification in Bogotá

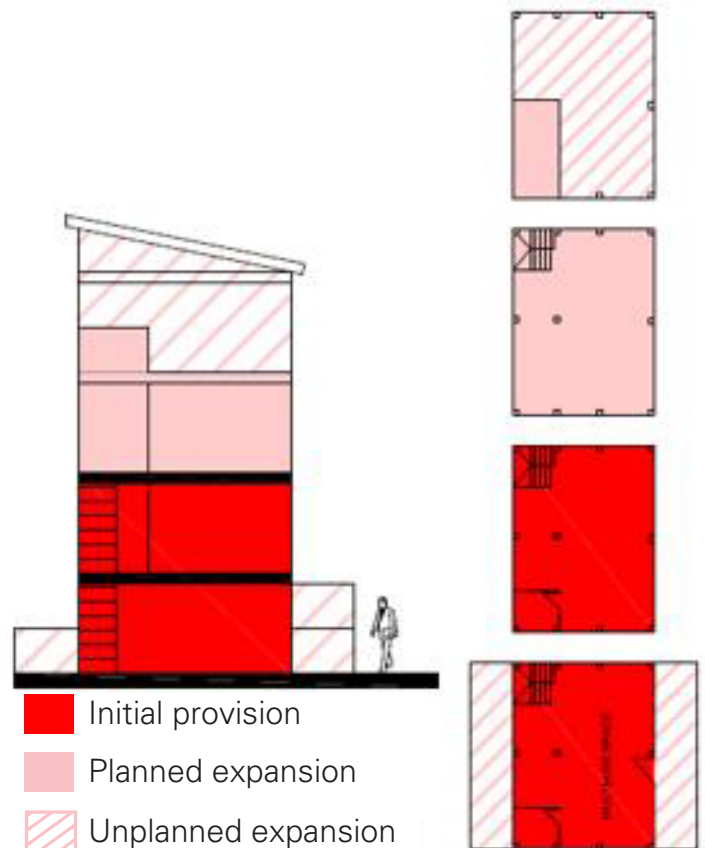
Today, sections in the south of Bogotá are growing rapidly to meet the demands of an expanding population. Bogotá is one of the densest cities in the world, which is partly due to its geographical features. Mountains create a natural border to the east, and some land is classified as facing high environmental risk and not suitable for habitation. Land and building occupations have contributed to much of the growth and urban form of the city. In particular, the informal densification and improvement processes that are turning occupied spaces into livable, sustainable, mixed-use neighbourhoods are of great significance.

Across the city, bottom-up, informal vertical growth is providing large amounts of housing for the growing population. A visit to Altos de la Estancia, a neighbourhood within Ciudad Bolivar in the south of the city, helped us to better understand this phenomenon. Access to land in the area has been historically linked to socio-economic processes such as illegal mining and industries where the South Highway is located. In the 2000s, the area was rezoned for residential use, providing access to work opportunities, a transport corridor and land. Some early migrants were initially provided housing under state programmes, beginning with two-storey starter homes (66.66m<sup>2</sup>) that included basic service provision. These homes were designed to support incremental development, extending to multi-use spaces over time to serve both residential and commercial purposes. Having a small shop or business on the ground floor, for example, was planned for and recognised as an essential livelihood strategy.

Alongside the provision of housing under state programmes, neighbouring residents of Altos de la Estancia occupied land informally, purchasing plots individually from so-called “pirate” property developers. In both instances, however, residents soon started to build vertically, creating an additional floor for rental, with planning regulations allowing for vertical expansions, albeit limited to four levels. This expansion is incremental, mainly through progressive self-construction over years or decades.

Homeowners primarily finance this process with savings, often generated through income in the informal sector, which employs more than half of the population in the city. The average rent for a two-bedroom apartment is 500,000 pesos (R1,800) per month, with access to utilities dependent on negotiation between the landlord and the tenant. Figure 1 shows the original provision and the progressive development that took place.

**Figure 1. Original provision and progressive development**



Source: <http://web.mit.edu/incrementalhousing/articles/Photographs/pdfs/CiudadB.pdf> (Silva 2016)

While the “pirate” developers initially provided basic services in these settlements, such as informal electricity connections, unauthorised connections to sewage and water networks, residents engaged in collective organising strategies to ultimately demand infrastructure services from the state. In observing the consolidation of neighbourhoods in Altos de la Estancia, we came to understand that this was achieved through community organisation, political pressure and protest action. Through these strategies, communities succeeded in claiming support from the local government, which invested in roads, bulk infrastructure and social and economic facilities in the areas.

Importantly, while regularisation resulted in public infrastructure investments, it also contributed to the municipal budget through the collection of taxes and rates from residents. In effect, the state recognition of and investment in the neighbourhood contributed to establishing a new social contract between residents and the state. In return, this allowed the state to continue to invest in the maintenance of social and public infrastructures like parks, local artwork (for example, graffiti), public libraries, sports and recreation. This socio-cultural infrastructure contributed to the wellbeing of residents, making these areas lively and viable communities.



*Multi-storey homes in Bogotá, Colombia*  
Photo: Hayley Abrahams, HSRC

### **The benefits to households: livelihood opportunities**

The vertical extension and densification of the existing housing created commercial opportunities for the residents, including informal rental and businesses. In Bogotá, this presented significant potential for making a livelihood, especially for the women in these communities who frequently and informally extended or subdivided existing property. The extensions have also made room for overlapping activities and allowed residents to make efficient use of space. For those households, home-based businesses were crucial to survival, and their neighbourhoods were important to their businesses.

In the Bogotá houses, the ground floor was usually used for businesses, while the rest of the home was used for living space and the upper terrace for home gardens. Some of the activities the researchers came across included hairdressing, car repairs and running convenience stores. In addition to these services, food was also sold in the homes and around the housing area. Although the neighbourhoods may have a noticeable commercial appearance along the main roads and may include a combination of retail and other uses, they are still predominately residential. The local economy is expanding as more businesses join in to complement one another’s services, resulting in a variety of essential services.



*Multi-storey homes in Bogotá, Colombia*  
Photo: Hayley Abrahams, HSRC



Photo: Freepik, Bogotá Mountains





Ground floor home: The business  
Photo: Hayley Abrahams, HSRC



Levels 1 and 2: Living space  
Photo: Hayley Abrahams, HSRC

### Conclusion: Property occupations in South Africa

Based on our reflections from Bogotá, we believe that many informal settlements in South Africa can be turned into thriving neighbourhoods. With the right governance approach and political support, informal dwellings can be turned into medium-density, mixed-use developments, which promote liveable neighbourhoods with access to economic opportunities. It is also important for government to invest in public infrastructure and social amenities such as parks and libraries to cater for the increased densities and create a liveable environment.

By promoting vertical densification and mixed-use developments in our informal settlements and townships, we make better use of public resources of urban land and infrastructure. Additionally, vertical growth reduces displacements and contributes to creating more affordable accommodation.

We appreciate that informal densification is already happening in South African cities. This is driven by the enormous growth in backyard rental housing, most of which are low-quality structures without adequate access to basic services. There are exceptions in areas like Delft or DuNoon in Cape Town, where [homeowners and micro-developers are increasingly investing in higher-quality rental flats](#). While this trend offers significant potential to improve living conditions in peripheral neighbourhoods, our experience in Bogotá highlights the importance of enabling and supporting residents in building mixed-use homes.

We argue that policymakers should better support “smart vertical density”, which means enabling residents to extend their homes vertically, over time, and to use dwellings for both residential and commercial purposes. The example in Bogotá demonstrates how, under the right conditions, informal occupations can turn into liveable places that are full of social and economic life.

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# Assessing the impact of the Bawku conflict on youth livelihoods

In Bawku, Ghana, people use motorcycles for daily shopping or business in the city. During times of conflict between ethnic groups, curfews and other conflict management mechanisms have jeopardised young people's income-generating prospects. For example, restricting the free use of motorcycles, commonly known as *okada*, stifled the ability of young commercial motorcycle riders to earn an income.

**Photo:** Kwadwo Obeng Asiedu, [Wikimedia Commons](#)

The Bawku conflict in Ghana is a protracted strife related to land ownership rights and chieftaincy between the Kusasis and Mamprusis, two major ethnic groups in the northeast of the country. Based on fieldwork conducted in Bawku in January 2023 as part of the HSRC's [The Imprint of Education study](#), Young African Research Fellow **Emmanuel Ampomah** discusses the effects of the conflict on the livelihoods of young people. He is also from Ghana.

**N**ews of inter-ethnic clashes in Bawku resurfaced in public debates and media discussions across Ghana in December 2022. Media outlets reported [18 deaths and hundreds fleeing](#) the area. The eruption of inter-communal violence is not confined to Bawku, as small-scale, localised conflicts occur in many communities across Africa, especially in rural areas. Although these conflicts rarely gain the attention they deserve, their impact on livelihoods, peace and security is indisputable.

The conflict in Bawku, as in several African countries, is between two or more so-called identity groups. These socially constructed groups form the basis for organising combatants and defining enemies from other groups. Localised conflicts may occur between ethnic, territorial, religious and other groups.

Sadly, the Bawku conflict has become protracted in a country that is, paradoxically, considered a [beacon of peace and democracy in West Africa](#). The dispute has over the years crippled socio-economic development in the region and created widespread fear and insecurity. The impact of the conflict on the already precarious livelihoods of youth in the area is particularly significant. Based on fieldwork conducted in Bawku in January 2023 as part of the HSRC's [The Imprint of Education study](#), this article discusses the effects of the conflict on the income-generating abilities and livelihood prospects of young people.

### **Why are the Mamprusis and Kusasis fighting in Bawku?**

The Bawku conflict emanates from a number of [issues](#) pertaining to claims of land ownership rights and chieftaincy between the two major ethnic groups, Kusasis and Mamprusis, in the north-eastern corner of Ghana. While the genesis of the conflict can be traced to the [meddling of colonial powers](#) in the internal affairs of the ethnic groups, it was not until 1957 that the crisis erupted. Although localised, there have been violent but sporadic and spontaneous confrontations since 1957. More recent clashes, however, have been prolonged and deadly, with combatants possessing [sophisticated weapons](#).

The government's [attempts at resolving the conflict](#) through peacekeeping operations and the use of law courts have achieved limited success. The inability of stakeholders to resolve the conflict comes at a high cost to the security and livelihoods of residents in Bawku.

### **Economic implications of the conflict**

The conflict has adversely affected local economic development and livelihoods in Bawku, deepening poverty among young people, who make up more than 93,000 of the [area's population of 119,000](#).

One of the young men interviewed during the fieldwork indicated that he had been unemployed for more than two years although he had a master's degree from abroad. With limited employment prospects in his community, he and his family depended on his ageing mother, who was a trader.

His story echoed the experiences of several other young people interviewed. Their ability to meet markers of adulthood such as becoming independent from parents, finding work, getting married and having children had been delayed or eroded due to the conflict. Some young people had opted to migrate to southern Ghana in search of greener pastures.

### **Effect on small business**

The impact of the conflict on local economic activities was also evident in the deleterious conditions under which small-scale, non-farm enterprises had to operate. Economic activities in Bawku have increasingly diversified, with young people embracing fewer capital- and labour-intensive entrepreneurial initiatives. However, these ventures are not spared during conflicts, which have seen stores and properties looted and burnt. In this way, criminal activities during periods of unrest diminish the gains made by young entrepreneurs during periods of peace.

For example, a young female teacher who owned an interior design store said in an interview that her store had been ransacked in the December 2022 conflict, leading to a loss of her capital. Over the same period, a store belonging to one of the community's well-known young men had been burnt down. This highlights how the conflict affects the sustainability of businesses owned by young people in the area.

### **Restricted movement**

At the time of the fieldwork visit, the mobility of young men in the community had been severely constrained, depending on the ethnic group they were affiliated with. Young Kusasi males could not easily travel to Mamprusi-dominated areas for work and vice-versa. This immense polarisation and segregation in the community also affects young people's pursuit of livelihood opportunities.

A young photographer, for example, expressed his frustration with impeded mobility due to the conflict. Like other young people working in the fashion and entertainment industry in this area, his income had been gravely compromised.

In addition to the immediate effect on livelihoods, the deep-rooted division has long-term implications for access to education and other formal and informal training and skills development. The conflict has led to consistent school closures and a shortage of qualified teachers, both of which limit students' access to quality education and increase their future risk of poverty.

### **Banning the *okada***

Curfews and other conflict management mechanisms implemented by successive governments have equally undermined and jeopardised young people's income-generating prospects. For instance, [banning](#) the use of tricycles and restricting the free use of motorcycles, commonly known as *okada*, during recent disturbances stifled the ability of young commercial motorcycle riders to earn an income.

Considering the "okada economy" in Ghana and the financial viability of the business for young men – especially those providing delivery services – these restrictions do not bode well for the many young people who depend on the sector for a living. Similarly, curfews imposed during the conflict undermined night-time economic activities in the area. This, in turn, shrunk livelihood options for young people.

### **The way forward**

The dispute aggravated pre-existing employment and livelihood vulnerabilities in the area by diminishing employment opportunities. It also eroded young people's access to long-term educational, vocational and technical training. Young people who are unable to develop the required resilience to survive these conditions may be drawn into illicit economic activities, which may spark further social instability.

Consequently, a successful resolution of the dispute is needed to improve livelihood conditions for young people in Bawku. The government should therefore prioritise proactive conflict prevention and resolution interventions. Such initiatives ought to involve residents. The government also needs to ensure justice and accountability for crimes committed during past confrontations. Accordingly, businesses affected by the conflict should be duly compensated.

It would also be useful for the government and other stakeholders, particularly NGOs, to provide seed funding and other forms of financial support for small-scale businesses in the area.

Scholarships and opportunities for vocational and technical training should be provided for young people, especially young males who are at risk of being recruited by the factions. Ideally, these should afford young people in Bawku the opportunity to access quality pre-tertiary and tertiary education in other parts of Ghana.

Through exposure to other cultures, young people from the area may come to terms with the need for intercultural co-existence, which will have long-term implications for peace and livelihood improvement in the area.

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An intersectional research approach considers the overlapping forms of discrimination affecting already marginalised groups of people, for example, exclusion based on their race, gender, religion or physical disability.

**Photo:** Cottonbro, [Pexels](#)

# Intersectionality as a critical component of gender-transformative research

Intersectionality refers to the many overlapping forms of discrimination that intensify and complicate the experiences of marginalised groups of people. For example, a woman facing gender-based exclusion may also experience discrimination related to her race, class or disability. Therefore, these forms of discrimination should not be viewed in isolation. At a recent World Science Forum session in Cape Town, representatives from research organisations, funding institutions and academic publishing looked at the importance of intersectionality in gender-transformative research. **Antoinette Oosthuizen** reports.

Coined by [Kimberlé Crenshaw](#) in 1989, the term [intersectionality](#) illustrates the effects of overlapping systems of discrimination such as those based on gender, race, class, sexuality and other identities. In December 2022, the HSRC and [Portia](#) hosted a [panel discussion](#) at the World Science Forum on the importance of intersectionality as a conceptual tool in gender-transformative research. Researchers, funders and publishers shared their experiences at the event.

UN Women's [latest data](#) on [Sustainable Development Goal \(SDG\) 5](#) shows that the world is not on track to achieve gender equality and empower all women and girls by 2030, with only 47% of data available to track progress towards this goal.

Panellist Isabella Schmidt, UN Women's regional gender statistics advisor for Eastern and Southern Africa, said intersectional data analysis could inform targeted campaigns and programmes to reach excluded populations.

Intersectional analysis would help to identify disadvantaged populations, their location and factors that may contribute to their marginalisation.

For example, she said an intersectional analysis of data for disability status showed that women with disabilities were more exposed to gender-based violence. "They had a three times higher risk of being raped and are twice more likely than non-disabled women to be survivors of domestic violence and other forms of gender-based violence. They were likely to suffer these abuses over longer periods with more severe injuries," said Schmidt.

## The data challenge

Household surveys are an integral part of countries' overall data collection efforts. However, their sample sizes are often too small to allow for intersectional analysis to, in this case, adequately measure the differences between women with disabilities and those without. "Every time we begin to disaggregate data by an additional variable, we need a sample size that is large enough to accommodate the variable and give reliable estimates," said Schmidt.

UN Women developed the [Counted and Visible toolkit](#) to support national statistical offices and other users and producers of country-level statistics. This toolkit provides guidance on mechanisms and tools that can be used for intersectional analysis.

## Who does intersectional research?

HSRC chief research specialist Dr Ingrid Lynch shared findings on intersectional research and grant-making from a [study](#) funded by the National Research Foundation (NRF) and the German Research Foundation under the auspices of the [Science Granting Councils Initiative \(SGCI\)](#). The SGCI is a multilateral initiative to strengthen 16 public science funding agencies in sub-Saharan Africa.

An analysis of more than 600 journal articles on intersectional research showed disciplinary disparities, with most (87%) articles focused on the social sciences and humanities, followed by the health sciences (10%), and only 2% on science, technology, engineering and mathematics. Most authors were in North America (60%), followed by Eastern and Central Europe (16%) and Northern Europe (7%). Authors in Africa were among the least represented in the data set (2%).



Photo: HSRC

**Forum panellists from left:** Dr Lilian Hunt (Wellcome Trust), Dr Dorothy Ngila (NRF), Dr Ingrid Lynch (HSRC), Prof Heidi van Rooyen (HSRC) and the chair, Dr Elizabeth Pollitzer, director of Portia Ltd

Authors in the Global North also enjoyed the most financial support for intersectionality research. Of the total government spending on this type of work, 55% was allocated in North America, followed by 24% in Eastern and Central Europe and 10% in Northern Europe. Half of all funding from science granting councils was allocated in North America, followed by Eastern and Central Europe (29%) and Northern Europe (7%). For university funding, 64% was allocated in North America and 11% in Eastern, Central and Northern Europe. Africa, the Middle East and South America reported the lowest funding and funding source spread.

“What is striking, just lifting out the Africa subset of the research reveals that science funding councils contributed 2% and donor agencies only 8% of the funding. So, often this research was unfunded and produced from a commitment of researchers to do this kind of work,” said Lynch.

### Intersectionality in publishing

Fellow panellist Dr Thomas Thayer, of Elsevier publishers, spoke about the successes *Scientific African* has had with adopting an intersectional approach. Launched in 2018, this peer-reviewed, open-access journal is dedicated to expanding access to African research. The editorial board comprises Africa-based academics.

Thayer outlined several mutually compounding challenges that African authors face when attempting to publish internationally. For example, authors may not work for well-known institutions or have research contacts to further their work. They also may not have enough publication data in the system, limiting their visibility and reducing their opportunities for collaboration and activities such as reviewing.

Africa-based researchers often struggle with unstable or unaffordable internet connections and other challenges that hamper efforts to publish and reply quickly.

Cost was another barrier, he said: “*Scientific African* charges up to \$200 for an accepted article and the global average for open access is \$1,700. However, even \$200 is still prohibitively expensive for many. At the same time, many other researchers outside of Africa can pay much more than \$1,700.”

To overcome the inherent biases of the network effect, said Thayer, the journal works hard to market individual articles. It translates them to lay and commercial trade publications, and shares them on social media and in webinars and interviews. New editors who may be overlooked in the international publishing context are appointed to showcase their talent and develop their experience. In addition, the journal is developing a series of educational tools and outreach programmes to discuss intersectional research prior to submission.

### A need to be reflexive

A [2018 UNESCO working paper](#) on gender equality in science, technology and innovation pleads for more diversity in research groups. It states: ‘It has been demonstrated that when women contribute their particular perspectives, approaches and priorities to research and development, the questions asked and the research results are more varied and more societally relevant.’

However, according to the 2021 [UNESCO Science Report: the Race Against Time for Smarter Development](#), only 33% of researchers in the Southern African region are female.

HSRC Impact Centre group executive Prof Heidi van Rooyen, also a panellist, suggested intersectionality was a critical tool to interrogate why this is so. She described an intersectional feminist research methodology as reflexive, participatory, engaged and collaborative.

“We must start with ourselves, the identities and subjectivities that shape who we are but also inform our research. The key is to examine our assumptions, our perceptions, interests and desires in relation to others’ lives. If we don’t, if we are not reflexive enough, if we speak for others, if we silence voices, we run the risk of reinforcing all kinds of hierarchies,” she said.

Van Rooyen noted that conventional research, which privileges the academic voice as authoritative, can be decolonised through participatory approaches that honour the lived realities of those who are marginalised or excluded. “Such approaches view participants not as mere objects to be studied, observed or written about, but as co-originators of our inquiry,” she said.



## Looking forward

The HSRC and NRF recently collaborated in the implementation of the SGCI and, in October 2022, signed a memorandum of understanding. This will allow for continued work to implement the recommendations of the intersectional research and grant-making [study](#).

Forum panellist Dr Dorothy Ngila, NRF director of strategic partnerships, said the NRF had earmarked funding to support projects that advance intersectional methodologies. She emphasised the importance of capacity building to enable grantees to consider intersectional approaches when conceptualising their research early in research grant-making processes. Adding momentum to this, Lynch, along with her co-principal investigators Van Rooyen and Dr Lorenza Fluks, will lead a newly secured SGCI grant to collaborate with African science granting councils. Their goal is to develop a common Policy Framework Roadmap for integrating an intersectional gender transformation perspective across the grantmaking cycle.

### View the WSF Session here:

[Different lens, better outcomes? Intersectionality as a critical component of gender-transformative research](#)

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### Further reading:

[Science Granting Councils Initiative: Gender and Inclusivity Resources](#)

[HSRC Integrated Report – Intersectionality in Research, Grant-making and Human Capital Development](#)

[Gender-diverse teams produce more novel and higher-impact scientific ideas](#)

[At the intersection: How recognising multiple identities can improve science](#)

Photo: [Freepik](#)

# Indigenous crops a critical piece of South Africa's nutrition security puzzle

Although our planet boasts 300,000 known edible plant species, 60% of humanity's plant-based calories are derived from just three crops. In South Africa and other parts of the developing world, obesity is on the rise alongside malnourishment, a phenomenon dubbed "hidden hunger". The HSRC's Peter Jacobs argued at the 2022 World Science Forum that we need to take a broader approach to addressing food and nutrition insecurity. Crop expert Tafadzwa Mabhaudbi from the University of KwaZulu-Natal argued that diversifying our crops with indigenous plant species is critical for the health of our communities – and our planet. By **Andrea Teagle**

The modern food system in South Africa and the rest of the world has focused on maximising food output, resulting in widespread cultivation of a handful of high-yield crops. However, the food insecurity crises highlighted and exacerbated by COVID-19 suggest that a more holistic approach is needed.

Speaking at the 2022 World Science Forum (WSF) in December, the HSRC's Dr Peter Jacobs observed that a lack of access to food rather than inadequate production is driving South Africa's food crisis. Ensuring that all households can access enough food requires addressing the socioeconomic determinants of hunger such as poverty and unemployment. A [report](#) by Jacobs and his colleagues on hunger during COVID-19 found that households in the lowest income quintile spent 81% of their income on food.

In another WSF session, crop expert Dr Tafadzwa Mabhaudbi of the University of KwaZulu-Natal, who also works with the International Water Management Institute, argued that food security also requires nutrition to be prioritised as a central tenet of human wellbeing. This is something that the global promotion of starchy, low-nutrient crops has failed to do. [Underutilised indigenous plants](#) – such as the Bambara groundnut, the cowpea, amadumbe (taro), wild mustard and *Amaranthus* (ancient grain) – are dense in nutrients and better adapted to harsh local weather conditions. By promoting their cultivation, he suggested, we can make nutritious food more accessible and enhance communities' resilience to the climate and other crises.

Agriculture is at the nexus of people, food, climate and industry, Mabhaudbi emphasised. A holistic approach to food security should consider how crop choice affects human welfare indirectly through its environmental impact. For instance, indigenous crops help to support local insect and bird populations, sustaining local biodiversity. They have also been shown to improve soil health and reduce erosion.

Biodiversity in agriculture supports essential ecosystem services such as carbon sequestration, emissions reduction and [hydrological processes](#) (processes that drive the water cycle), [write](#) Mabhaudbi and colleagues.



Amadumbe or taro (*Colocasia esculenta*)  
**Photo:** David Monniaux, Wikimedia Commons

### Managing non-communicable diseases

In the small town of Louwsburg in KwaZulu-Natal, the main industries are maize and cattle farming. Many residents, including those who work on farms, do not have adequate access to affordable fresh produce. They also suffer from high rates of diabetes, a non-communicable disease associated with unhealthy diets.

A recent HSRC [policy brief](#) by Khumo Mngomezulu and Catherine Ndinda recommends that indigenous edible plants be promoted as part of a holistic strategy to manage and prevent diabetes. 'Due to their high nutritional value, low water requirements, and adaptiveness to poor soil conditions, traditional fruit and vegetables should be the key foods... for the management of diabetes in this predominantly rural town,' the report states, adding that residents often cannot afford to purchase mainstream fruit and vegetables.

Most of South Africa's health, food and agricultural policies are not focused on access to fresh fruit and vegetables but on general food production and consumption, the report found. Mngomezulu and Ndinda recommend aligning health, food and nutrition policies to improve the availability, affordability and acceptability of indigenous crops and other fresh produce.

Jacobs emphasised that, for much of the population, unhealthy diets reflect structural barriers such as high food costs rather than poor individual food choices. "South Africa exports much of its fresh produce. We import ultra-processed foods that form the staple diet of the poor."

### Support mechanisms

Rice, wheat, maize and the other major crops are successfully promoted in South Africa through formal seed systems and markets, and the availability of extension support for farmers. Without such mechanisms, said Mabhaudbi, attempts to mainstream indigenous crops have tended to struggle.

According to a [recent study](#) in the journal *Land*, the first efforts have been made in Cape Town to incorporate fresh indigenous produce into commercial agri-food chains. Edible plants indigenous to the Cape Floral Kingdom include greens like spekboom, dune spinach and sea pumpkin, and fruits like the sour fig and slangbessie. Researchers Mengyi Zhang and Peter Dannenberg of the University of Cologne, Germany, found that farmers struggled with complex harvest licensing procedures, a lack of cultivation knowledge, limited seed and cutting access, limited distribution networks, and competition with subsidised conventional crops. However, they also found opportunity for income generation and environmental adaptation.

The benefits of indigenous crops have been acknowledged for years, Mabhaudbi said. If mainstreaming is to be achieved, then government, communities, business and civil society will need to collaborate to set up support mechanisms. Encouragingly, [amadumbe \(taro\) has become more widely grown](#) in South Africa due to a deliberate increase in access to niche markets.

"Researchers and institutions can inform and train farmers on growing these food species, and the government can provide

resources (seeds, cuttings, [and] incentives)," Mabhaudbi said. Zhang and Dannenberg note that smallholders also require training in management, bookkeeping and sales of indigenous plants, particularly in the early stages of commercialisation.

### Changing perceptions

Although South Africa's focus on high-yield agriculture is characteristic of the global food system, low consumption of indigenous plants today can arguably also partly be traced to laws restricting black farm ownership in the apartheid and pre-apartheid eras. In her book *An Empty Plate*, economist Tracy Ledgers recounts how the displacement of black farmers following the 1914 Land Act, which reserved 92% of all farmland for whites, led to a [breakdown in indigenous knowledge around farming](#) and food traditions.

In the HSRC report, the authors note that some residents of Louwsburg have a cultural connection to indigenous plants. However, in other areas, particularly cities, attempts to mainstream indigenous crops come up against the challenge of apathy or negative perceptions of local plant-based products. The Cape Town study notes that many farmers are not originally from the region and are thus unfamiliar with local edible plants. Additionally, some farmers were reluctant to grow what they perceived to be "poverty food", an association also found among some consumers.

However, interest in indigenous crops is growing among upper-income consumers, Zhang and Dannenberg found, with some [innovative local chefs drawing from indigenous knowledge](#) to revive local food cultures. This provides income opportunities to local farmers and may help to generate more widespread interest in indigenous crops over time.

As Mabhaudbi argued at the WSF, mainstreaming the cultivation of indigenous crops has an important role to play in strengthening local communities: "How can we bring youth into the conversation, so that they can be proud of their heritage? They too can find that sense of place, that sense of belonging, and find dignity through knowledge of these crops."

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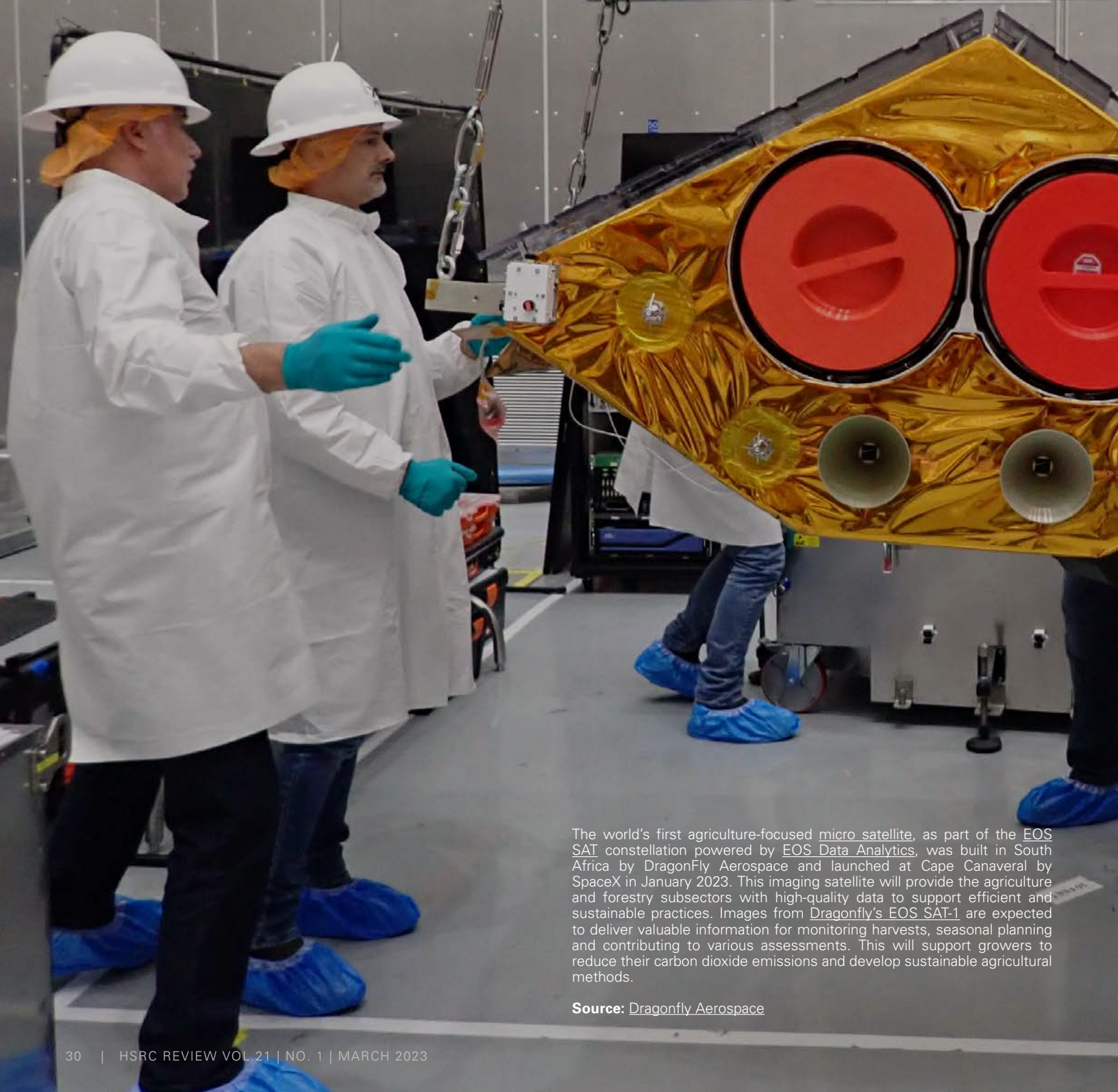
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# The importance of measuring agricultural business innovation in South Africa



The world's first agriculture-focused micro satellite, as part of the EOS SAI constellation powered by [EOS Data Analytics](#), was built in South Africa by DragonFly Aerospace and launched at Cape Canaveral by SpaceX in January 2023. This imaging satellite will provide the agriculture and forestry subsectors with high-quality data to support efficient and sustainable practices. Images from Dragonfly's EOS SAT-1 are expected to deliver valuable information for monitoring harvests, seasonal planning and contributing to various assessments. This will support growers to reduce their carbon dioxide emissions and develop sustainable agricultural methods.

**Source:** Dragonfly Aerospace

South Africa's agricultural sector plays an important role in ensuring food security and creating employment opportunities. However, to be productive, sustainable and competitive, it needs innovation that will reduce costs, increase yields and respond to environmental changes. **Dr Yasser Buchana** explains the importance of an HSRC survey of agricultural business innovation activities.



South Africa as a country and agriculture as a sector face multiple interconnected challenges. In the face of growing poverty over the last few years, South Africa's unemployment level has risen, economic growth has slowed to a record low and food security remains a pressing policy priority.

Even before the COVID-19 pandemic, agriculture was experiencing unprecedented and mounting challenges, including rising input costs, increased global competition and the manifestation of climate change through droughts and extreme weather events.

From a policy perspective, South Africa's agricultural sector is recognised for its important role in economic growth. This is due to its contribution to employment, potential to reduce inequality, and ability to foster biodiversity through the responsible stewardship of natural resources. The National Development Plan views agriculture as having strategic importance and the potential to create approximately one million jobs by 2030, which is a significant contribution to the country's overall employment targets.

South Africa's [Bio-economy Strategy](#), published by the Department of Science and Innovation (DSI), also identifies the strategic role of the agricultural economy. This includes the need to 'strengthen agricultural biosciences innovation to ensure food security, enhance nutrition and improve health'. The [2019 White Paper on Science, Technology and Innovation](#) targets agriculture as a sector that requires modernisation to support growth and development. At the same time, it acknowledges the complex relationships between innovation, sustaining employment, economic inclusion and achieving export competitiveness.

### **Growing a culture of innovation in agriculture**

The [Oslo Manual 2018](#) defines innovation as 'a new or improved product or process (or a combination thereof) that differs significantly from a business's previous products or processes and that has been made available to potential users (a new product) or brought into use by the business (a new process)'. This means that innovation in the agricultural sector can take many forms, including the adoption of new technologies such as drones and robotics to improve the speed and accuracy of planting and harvesting, new irrigation methods that use sensor technologies to save water, the adoption of drought-resistant seeds, or new business processes that reduce environmental pollution.

These innovations can have significant benefits for agriculture by increasing yields, reducing cost, increasing productivity and profitability, and contributing to the sector's long-term sustainability.

The UN's [Food and Agriculture Organization](#) (FAO) maintains that, for agriculture and aquaculture to respond to future global challenges, innovation is needed to improve the efficiency of turning inputs into outputs, conserving scarce natural resources and reducing waste. Furthermore, these demands must be addressed in the context of increased global competition and climate change.

## Addressing the limitations of available data and indicators

Without appropriate measurement that is contextually relevant to the challenges faced by the agricultural sector and the needs of farmers, it is difficult to determine how innovations contribute to the long-term sustainability of the agricultural sector.

In a policy context that values evidence-based decision-making, it is critical to measure the scale, nature and outcomes of innovation in South African agribusinesses. However, scholars and policymakers lack appropriate longitudinal data on agricultural business innovation, so they resort to estimation devices and proxies that almost certainly generate inconsistent outcomes.

Crude extrapolations present a data challenge that is not always immediately apparent. For example, policymakers often use statistical data on patent applications to stimulate investment in R&D or to inform policies on intellectual property rights. Although this approach may be useful, it potentially ignores the fundamental differences in technological capabilities of different types of businesses (large, medium and small), their access to financial and non-financial resources, or the different innovation characteristics of subsectors (agriculture, forestry and fisheries). Policies based on such extrapolations could be inadequate or fail to address the needs of agricultural stakeholders.

Data on innovation investments and activities, and factors that support or constrain innovation and its outcomes, have been difficult to obtain. This is because South Africa's main business innovation survey largely excludes the agricultural

sector. In addition, this type of information must be collected systematically using appropriate measurement frameworks. Most agricultural businesses do not publicly disclose this proprietary information in their annual reports in a way that is useful to researchers and policymakers.

## South Africa's first agricultural business innovation survey

To address this evidence gap, the DSI commissioned a baseline survey in 2019 of agricultural business innovation in South Africa for the reference period 2016–2018. Conducted by the HSRC's Centre for Science, Technology and Innovation Indicators (CeSTII), the data provided a foundation to understand the innovation landscape of commercial agricultural businesses.

The results indicated that 62% of South African agribusinesses were innovation-active. This means they took some scientific, technological, organisational, financial or commercial steps during 2016–2018 towards implementing innovation. In total, 99.5% of these innovation-active firms introduced an innovation in their businesses or to markets in this period. More businesses implemented process innovation (47.9%) than other types of innovation such as product innovation (42.2%), organisational innovation (32.3%) and marketing innovation (31.4%).

The findings of the baseline Agricultural Business Innovation Survey (AgriBIS) 2016–2018 provide the foundation for a longitudinal data series on agricultural business innovation. Understanding the nature of innovation in the sector can inform the design of indicators to monitor progress towards policy goals.



Photo: Freepik



### SA's second AgriBIS now underway

The AgriBIS is now in its second cycle, collecting data on agricultural innovation for the reference period 2019–2021, covering the agriculture (animal and crop farming), forestry and fisheries subsectors. The survey takes into consideration the contextual issues and characteristics of South African agriculture that distinguish it from other sectors of the economy, as well as from the agricultural sector in developed countries. The results of AgriBIS 2019–2021 will be published in 2023.

Innovation, through the adoption and diffusion of new technologies along every link of the value chain, can be a key enabler, changing and improving traditional methods of production. The second survey will deepen and expand our understanding of innovation in the farming, forestry and fisheries enterprises, and contribute to the development of a long-term trend analysis that will guide policymakers into the future.

### About the second SA Agricultural Business Innovation Survey

Globally, governments are spearheading efforts to measure innovation in their economies. By working with businesses and innovators, they can figure out what policies are effective or where improvements are needed. This data is vital for a more innovative South Africa.

South Africa's second Agricultural Business Innovation Survey (AgriBIS), covering the period 2019–2021, will examine innovation activities in approximately 1,700 agricultural firms, from small to very large, and across a range of agricultural subsectors. In the same way that a company's financial statement is an essential tool for performance monitoring and planning, the second AgriBIS will deliver a national picture that shows what innovations are taking place, how they occur and what can be done to enhance innovation capacity in this vital sector.

To read South Africa's first Agricultural Business Innovation Survey 2016–2018, see <https://bit.ly/AgriBIS2016-18>.

**Author:** Dr Yasser Buchana is a senior research specialist at the HSRC's Centre for Science, Technology and Innovation Indicators (CeSTII) where he leads the measurement of innovation in the agricultural sector in South Africa.

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# Indicators of R&D, innovation in South African SOEs

State-owned entities can and should play a catalytic role in innovation in South Africa. Revitalising their contribution is an explicit policy outlook for the National System of Innovation, as reflected in the [2019 White Paper on Science, Technology and Innovation](#). The HSRC convened a policy dialogue in October 2022 to contribute research on new indicators for research, development and innovation by state-owned entities to inform this commitment. By **Gerard Ralphs** and **Nazeem Mustapha**

Recent public policy debate has been all but overwhelmed by the immediate impacts of large state-owned entities (SOEs), such as Eskom and Transnet, on South Africa's fiscal and economic performance.

Far less attention has been paid to their role in innovation, whether sectorally, nationally or globally.

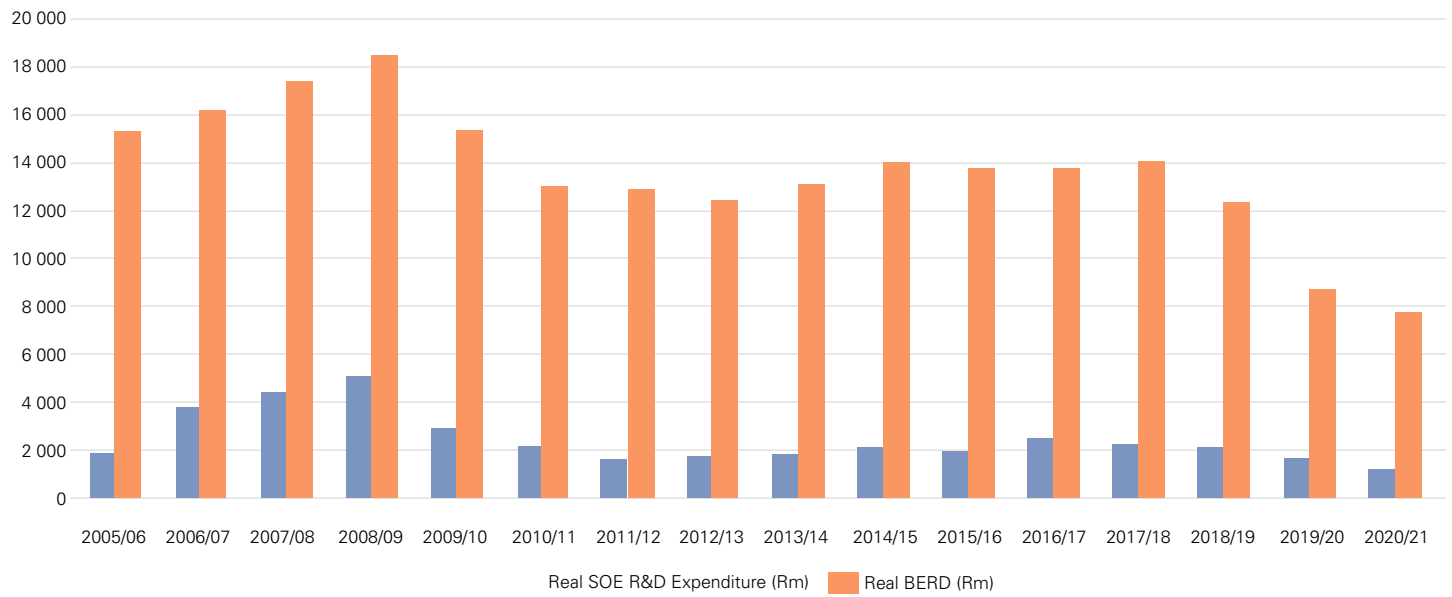
Policy initiatives such as the [2010 Presidential Review Committee on SOEs](#), the [2014 OECD stocktaking of SOE challenges and reforms in Southern Africa](#) and, most recently, the Zondo Commission, have served the purpose of a much-needed status check-in. New governance structures such as the [Presidential State-owned Enterprises Council](#) have placed improved SOE organisational performance squarely in the crosshairs at the highest level of decision-making.

Within this context, the [October 2022 dialogue](#) served to reinforce the value of systematically tracking research, development and innovation in SOEs. Such tracking, to the extent it informs broader SOE governance decision-making, has thus far been largely peripheral or missing within organisational monitoring and evaluation towards improved delivery of their mandates. This is an evidence gap the HSRC is working with partners across government to redress.



A Transnet coal train near Amanzimtoti in KwaZulu-Natal  
 Photo: Bob Adams, [Wikimedia Commons](#)

**Figure 1. R&D expenditure by SOEs has declined since the global financial crisis.**



Source: R&D Survey/HSRC

## A look back on key trends

Before the global financial crisis of 2008/2009, SOEs formed a fairly substantial component of R&D activity in South Africa’s business sector, contributing as much as 28% in 2008/09 to this sector’s expenditure on R&D.

Notwithstanding current challenges, applied R&D conducted at entities such as Eskom and allied energy SOEs such as the South African National Energy Development Institute (SANEDI), has served to reinforce the country’s capacity for generation of electricity reaching both industry, municipal users and household consumers, as well as to explore energy alternatives.

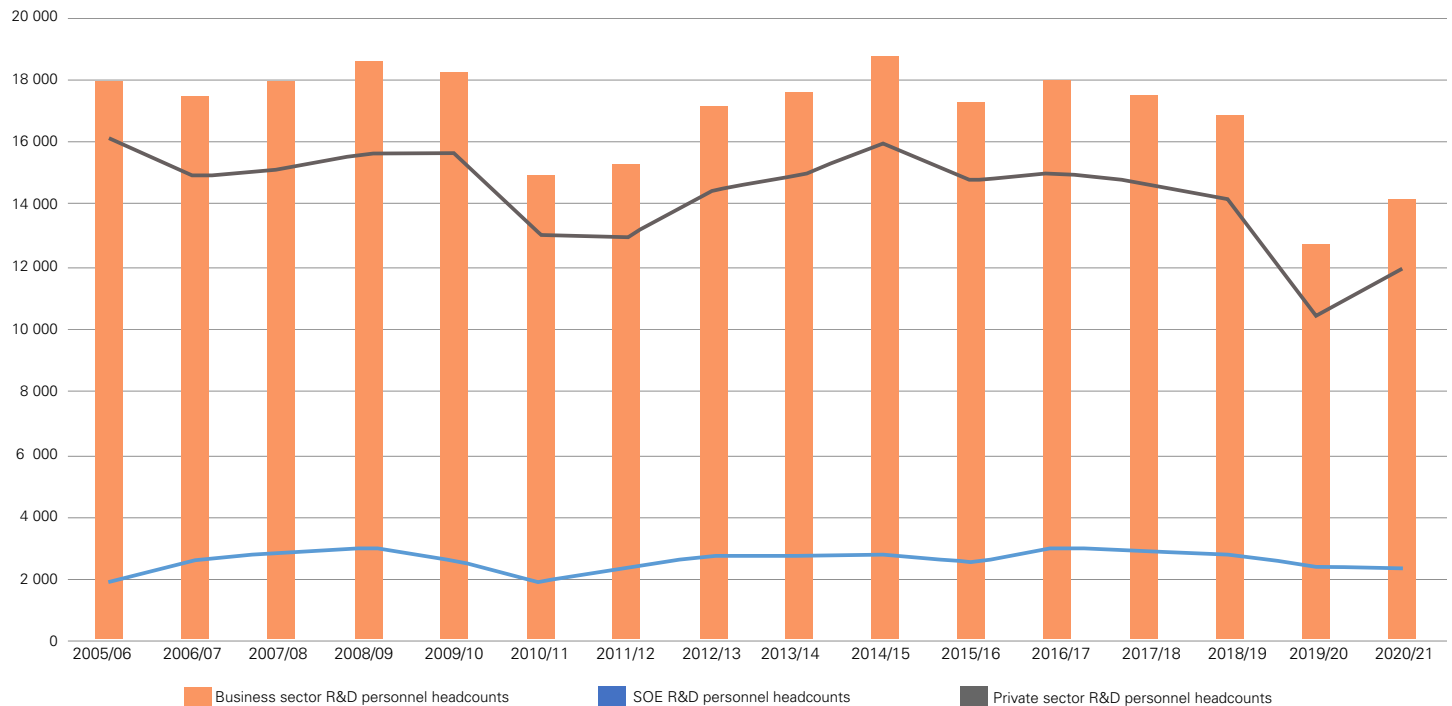
The same “taxpayer subsidisation of industry” argument may be attributed to other SOEs, for example, Transnet whose infrastructure advantage, where leveraged, has helped to reduce transport costs of goods and services.

Again, the role of R&D should not be discounted.

Particularly worrying, then, is that in real terms, SOEs’ expenditure on R&D in 2020/21 was the lowest since 2005/06. Reflecting on the trend R&D data presented by HSRC (Figures 1 and 2), Dr Mmboneni Muofhe, a senior official in the Department of Science and Innovation (DSI), expressed particular concern.

SOEs are economically important for various reasons, he explained. Historically, they have served as a training ground for many young professionals. Muofhe argued, however, that one of the characteristics that once helped them to thrive – close relationships between different players in this space – is now putting them at risk. So, when investment decreases for some – for example, an academic institution that SOEs have agreements with – it affects the entire ecosystem, he explained.

**Figure 2. The number of R&D personnel employed by SOEs has remained static, despite increasing numbers of overall R&D personnel in South Africa.**



Source: R&D Survey/HSRC

## Research informing this dialogue

In 2016, the HSRC’s Centre for Science, Technology and Innovation Indicators (CeSTII) began working closely with the DSI on an analytical project to explore data on SOEs from the HSRC’s yearly R&D survey.

The centre followed this with in-depth research focusing on three SOEs: the SANEDI, Air Traffic and Navigation Services (ATNS), and South African Forestry Company SOC Limited.

An interrogation of the conditions that enable, support and facilitate R&D and innovation in SOEs (Table 2) informed a proposal for new indicators that SOEs and the government more broadly can use to track R&D and innovation (Table 1).

Speaking at the dialogue, HSRC director of strategic partnerships Dr Palesa Sekhejane said it was important to convene public policy dialogues to share this information.

## Vital to understand SOE post-apartheid mandates

In his remarks to the panel, HSRC research director Dr Thokozani Simelane, who has worked on SOEs for several decades, discussed two distinct ways in which SOE mandates were expanded after the end of apartheid.

The first shift, he argued, was towards profit-making, while the second was driven by the state's articulation of a parallel responsibility to "answer to the many social needs and aspirations of the country". While laudable, putting these mandates into operation proved challenging in practice, Simelane said. "When South Africa opened up as a market, it found most SOEs not gearing."

The case study research performed by the HSRC adapted the management concept of gearing to shed light on the organisational features of SOEs considered key for R&D and innovation. These features included human and technological capabilities, networks, research infrastructure, and governance.

The HSRC team's working hypothesis was that if an SOE was gearing appropriately, then it would be in a position to leverage R&D and innovation to achieve its multiple mandates efficiently and effectively, and this would show up in the research findings. If it was not gearing appropriately, then a set of questions arise as to what investment or organisational change would be required to facilitate the development of R&D and innovation capabilities in the future.

## Overcoming barriers

Reflecting on the HSRC case study results for ATNS, their senior manager for infrastructure research and management Nokuthula Phakathi said declining research funding, technology adoption and skills shortages in robotics and AI were among the barriers to advancing R&D and innovation.

Solving these challenges could help ATNS provide cheaper air travel.

Networks and leadership were key to driving R&D and innovation investments, Phakathi said. "We all know the environment is tricky and [there are] regulatory challenges. We need to be agile. We need to work towards goals [and] we need to allow our employees to be creative."

## Policy options

In summative remarks at the dialogue, CeSTII executive head Dr Glenda Kruss said there "is no single policy option for government". She highlighted the systemic, organisational and institutional dimensions of innovation policy interventions (see box).

### Dialogue takeaways from innovation policy specialist Dr Glenda Kruss

#### **Systemic level**

"We need to think in terms of platforms, enablers and funding streams; and start with R&D and innovation as strategic drivers."

"We must talk systems – the language of ecosystems, NSI and sectoral systems – linking to value chains, and putting competition front and centre."

#### **Institutional level**

"Systems are located within policy regulation frameworks and it is important to promote alignment across the work of different government departments."

"The dialogue discussion emphasised the need to pay attention to the layer of institutions, including leadership, agility and skills. We need to build institutional capabilities in SOEs."

"Indicators are needed at different levels for different purposes. Policy actors need systems indicators to see how the system is doing but SOEs themselves need RDI performance indicators and institutional indicators to strengthen organisational capabilities, which are difficult but vital to design."

#### **Organisational level**

"Most of the R&D is applied research, which puts it very close to the domain of innovation."

"One of the dimensions most picked up is collaboration [but] this is not an easy activity to incentivise. How do we incentivise collaboration?"

**Table 1. Proposed indicators of R&D and innovation activities in SOEs**

Dimensions measured	Significance	Indicators
R&D performance	The extent to which resources are dedicated to R&D	<ul style="list-style-type: none"> <li>• R&amp;D expenditure over time</li> <li>• R&amp;D spend as a proportion of total firm budget</li> <li>• Type of R&amp;D conducted (basic, applied, experimental)</li> </ul>
Innovation performance	The extent to which resources are dedicated to innovation	<ul style="list-style-type: none"> <li>• Innovation expenditure</li> <li>• Type of innovation</li> <li>• Business improvement due to innovation</li> </ul>
IP	The extent to which knowledge is protected and commercialised	<ul style="list-style-type: none"> <li>• Patents</li> <li>• Plant breeders' rights</li> <li>• Trademarks and Copyrights</li> <li>• Licences</li> <li>• Revenue generated from licensing</li> </ul>



**Table 2. Conditions that enable, support and facilitate R&D and innovation in SOEs**

Dimensions measured	Significance	Indicators
Human capabilities	Human resources dedicated to R&D and innovation	<ul style="list-style-type: none"> <li>• Human Resources dedicated to innovation</li> <li>• Human Resources dedicated to R&amp;D</li> <li>• Type of HR</li> <li>• Qualifications</li> <li>• Training facilities</li> </ul>
Technological capabilities	A history of capability within a particular technological domain is a potential area of strength for technological innovativeness	<ul style="list-style-type: none"> <li>• Technologies in which the firm historically has proficiency</li> </ul>
Research infrastructure	The maintenance and renewal of research infrastructure is a necessary element for current and future knowledge generation	<ul style="list-style-type: none"> <li>• R&amp;D expenditure on equipment etc</li> <li>• Research facilities and infrastructure</li> <li>• Co-operative agreements around infrastructure</li> </ul>
Linkages, collaboration and networks	Linkages to support R&D and innovation	<ul style="list-style-type: none"> <li>• Linkages with national, regional and global partners</li> <li>• Cooperation around training</li> <li>• Cooperation around research infrastructure</li> <li>• Cooperation around research</li> <li>• Co-operative agreements around training</li> </ul>
Governance	Integration of R&D and innovation in business strategy	<ul style="list-style-type: none"> <li>• Does the SOE have an R&amp;D strategy?</li> <li>• Does the SOE have an innovation strategy?</li> <li>• Does the SOE have an IP and technology commercialisation strategy?</li> <li>• Is R&amp;D included in the performance compact?</li> <li>• Is there a dedicated R&amp;D structure within the SOE?</li> <li>• Is there a dedicated innovation structure within the SOE?</li> <li>• Is there a dedicated IP protection structure within the SOE?</li> <li>• Does the SOE have a legal framework within which it can commercialise products?</li> </ul>

To download the reports, visit <https://hsrc.ac.za/press-releases/cestii/policy-dialogue-rdi-soes/>.

**Authors:** Dr Nazeem Mustapha, chief research specialist; and Gerard Ralphs, programme manager, in the HSRC's Centre for Science, Technology and Innovation Indicators

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Eskom's Medupi Power Station in construction  
**Photo:** Wikimedia Commons



# Graduate unemployment: closing the demand-supply gap

Graduate unemployment is on the rise in South Africa. Investing in new research infrastructure and in absorbing young and highly skilled graduates should be stock-in-trade for science councils and higher education institutions. Instead, declining or stagnating research and development (R&D) human resources, together with under-investment on R&D infrastructure in these vital public institutions, have created systemic vulnerability. By **Natalie Vlotman and Mario Clayford**



South Africa's universities and science councils can play a more pivotal role in capacitating the national system of innovation. They can do this through performing and funding research, as well as attracting and equipping a more highly skilled R&D workforce.

The future vitality of the national system of innovation may rely on this workforce.

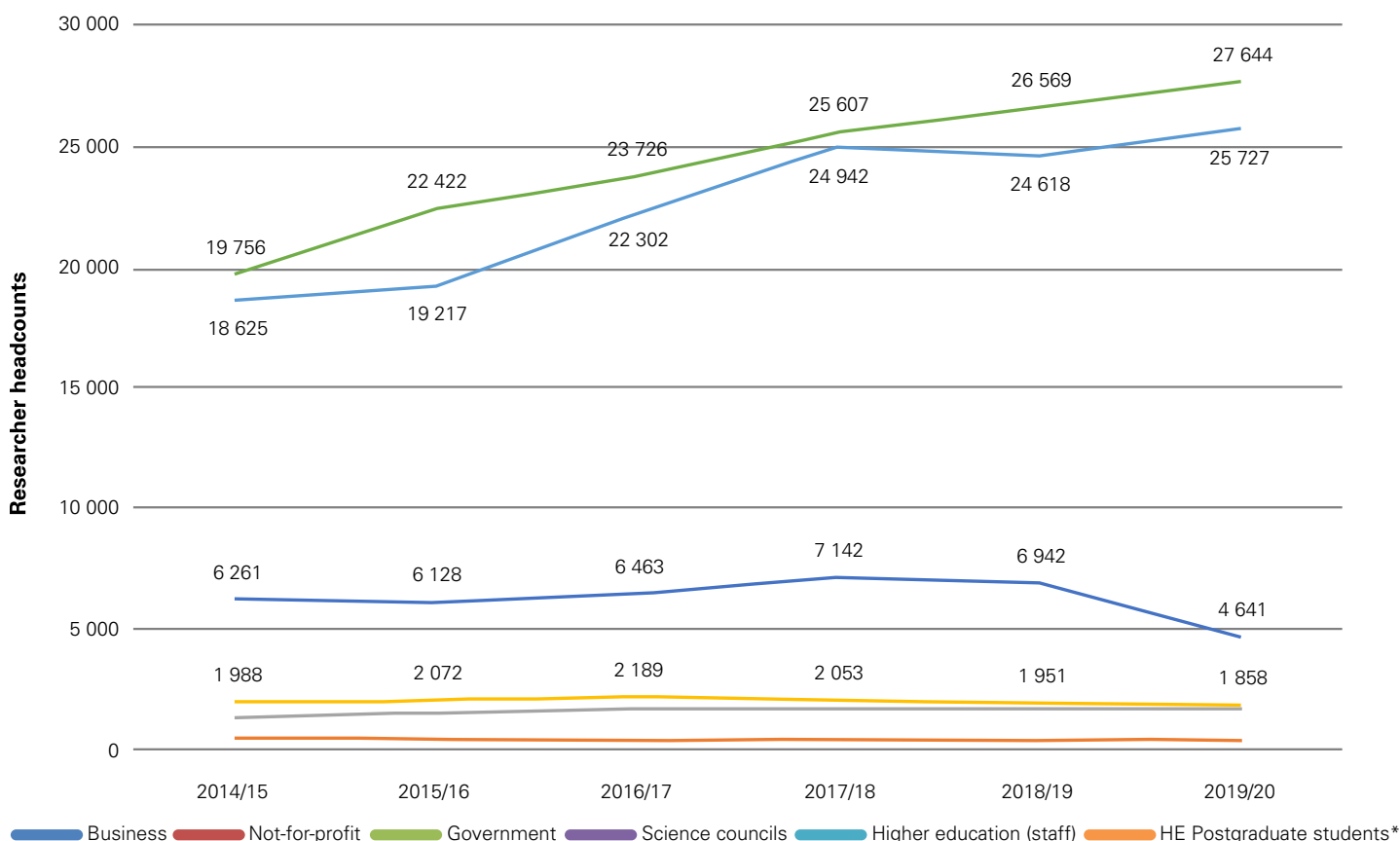
According to the [South African National Survey of Research and Experimental Development Statistical Report 2019/20](#), higher education institutions and science councils combined were the largest contributors to R&D in South Africa, spending a total of R20.377 billion on R&D and performing 59.1% of the country's R&D.

The HSRC's Centre for Science, Technology and Innovation Indicators (CeSTII) has conducted this annual survey for the Department of Science and Innovation since 2001/02. (The 2020/21 report has just been released and further analysis of its data is still underway, hence this article draws on data from the 2019/20 report.)

### Decline and stagnation

The survey shows that there is a decline in researchers in science councils (Figure 1). And, while South Africa has seen an increase in the number of graduates from higher education institutions, growth in researcher numbers is largely driven by an increase in postgraduate students and the presence of skilled non-South African staff.

**Figure 1. Researcher headcounts by sector, 2014/15–2019/20**



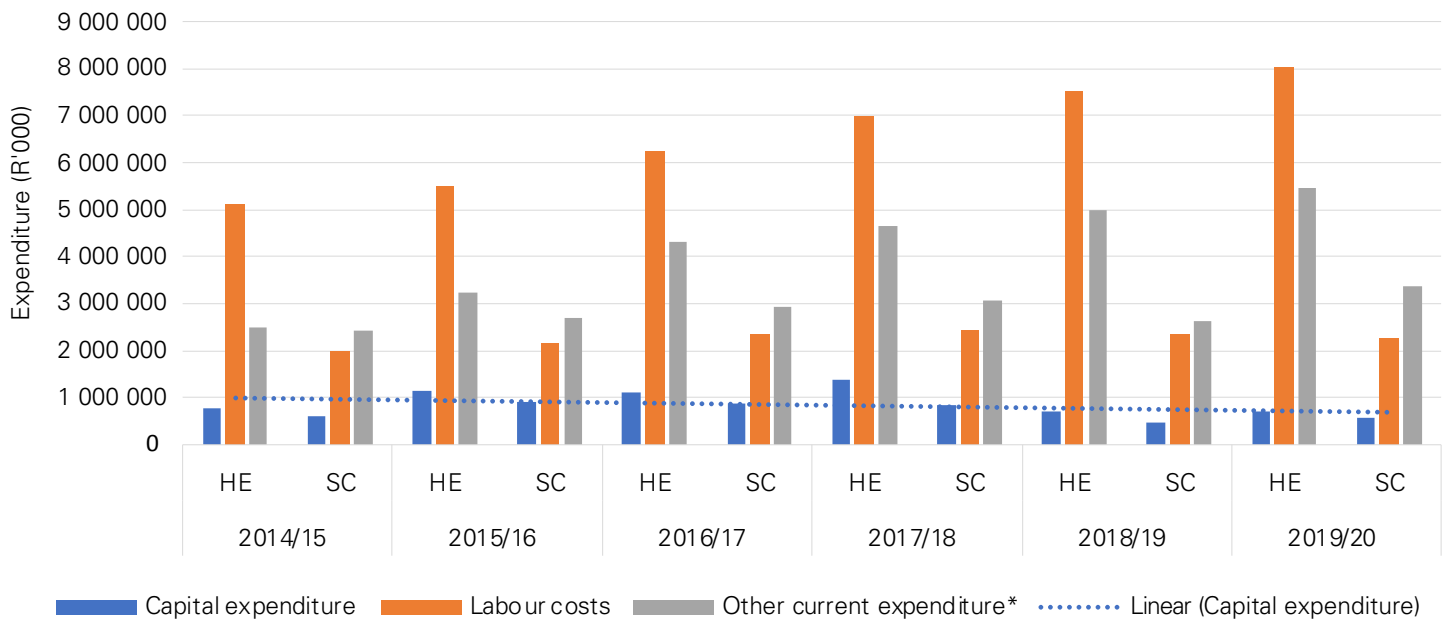
Source: [South African National Survey of Research and Experimental Development Statistical Report 2019/20](#)

In addition, postgraduate students, namely postdoctoral fellows and doctoral students, outnumber the staff responsible for supervising and mentoring students. This is without considering the undergraduate, honours and master's students who also rely on these same staff members.

The absorption of qualified people into the R&D workforce is not clearly visible in the R&D data. The proportion of university personnel, particularly students, is significantly greater compared with the business and science councils' sectors, but the absorption of graduates cannot be traced effectively.

It is equally worrying that there is not enough budgetary provision, as seen in the underinvestment in R&D infrastructure in the higher education and science council sectors. Salaries and operating costs comprise the bulk of the R&D investment, with less than R1 billion invested in R&D infrastructure in 2019/20 (Figure 2).

**Figure 2. R&D expenditure breakdown in higher education institutions and science councils, 2014/15–2019/20**



Source: [South African National Survey of Research and Experimental Development Statistical Report 2019/20](#)

The question is: if the survey data reveals declining expenditures, under-investment in infrastructure and slow growth in personnel in the R&D sector, what can be done?

### Labour market dynamics and the future R&D workforce

We suggest starting with labour market dynamics. Overall, South Africa still suffers large skill gaps and is grappling with a very high unemployment rate. Young people in particular continue to have an unemployment rate higher than the national average. According to the [Quarterly Labour Force Survey](#) for the first quarter of 2022, the unemployment rate was 63.9% for those aged 15–24 and 42.1% for those aged 25–34 years, while the current official national rate stands at 34.5%.

On the demand side, even though the graduate unemployment rate remains relatively low in South Africa compared to other educational levels, it is still rising. The unemployment rate of young graduates aged 15–24 years fell from 40.3% to 32.6% in Q1: 2022, while it increased by 6.9 percentage points to 22.4% for those aged 25–34 years.

Graduate unemployment wastes scarce human resources, which over time has a negative impact on the economy.

On the supply side, the number of graduates has increased as a result of higher educational attainment.

However, due to mismatches between labour market demands and educational qualifications, graduates have difficulty finding employment after graduation.

In fact, South Africa appears to be producing graduates faster than the economy can employ them.

Closing the demand-supply gap will have a direct impact on reducing the unemployment of a very skilled labour force. Assuming skills are not exported, it will contribute to a skilled workforce which can be absorbed into the national system of innovation.

Indeed, graduate employability has become the cornerstone for a bigger strategy to widen the skills base of young people.

By emphasising labour market needs, individual attributes and social inequalities in programme design, public entities such as higher education institutions and science councils, along with industry, can close this gap.

**“ In fact, South Africa appears to be producing graduates faster than the economy can employ them. ”**

## Towards practical solutions

Many developing countries have struggled to fully exploit the opportunities and potential of science, technology and innovation to address economic, developmental and societal challenges.

Higher education institutions produce and share South Africa's skilled public workforce with science councils, state-owned enterprises and government research institutes.

These institutions form the basis for [South Africa's long-term development plan](#), focused on eliminating poverty, promoting an equal society and reducing inequality.

Securing work for South African unemployed graduates can be difficult because of a lack of relevant work experience, limited information about an efficient job search and low social capital, according to a [study](#) published in the *Journal of Education and Work* (2019) by Lauren Graham, Leilanie Williams and Charity Chisoro from the University of Johannesburg.

This article therefore suggests that educational institutions and science councils should serve as hubs or incubators to redress these challenges.

By designing relevant curricula or job opportunities (through internships, for example), they can ensure that graduates become more valuable to the labour market.

## Retaining a systemic lens

Given the global shift to building more technologically intensive societies that require highly skilled staff, South Africa should be accelerating investment in R&D-related infrastructure. It should also allocate far more resources to growing its base of R&D personnel, especially academic staff.

Boosting the country's R&D capacity through institutions with a public mandate to conduct research is an opportunity to make scientific advances and address developmental challenges.

From a systems perspective, these challenges are urgent and need to be addressed, now.

**Authors:** Natalie Vlotman is a research manager and Dr Mario Clayford is a research specialist in the HSRC's Centre for Science, Technology, and Innovation Indicators. The centre conducts an annual survey on R&D indicators which forms part of the country's national statistics system.

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# Vijay Reddy:

## 20 years of pushing boundaries



In high school, Vijay Reddy faced a trigonometry problem that she struggled to solve. She remembers spending hours building models out of ice-cream sticks until she cracked the problem. With parents and a grandfather who were deeply committed to education, she already saw problems as challenges to be overcome, a perspective that has driven her throughout her career. Spanning her 20-year career at the HSRC, Reddy spoke to **Andrea Teagle** about her contributions to studies in education, skills planning and the public relationship with science.

Early in her career, Vijay Reddy joined a non-governmental organisation committed to improving mathematics and science education in South Africa. With several years of experience as a school teacher, a recent master's degree in science education, and a belief in the ability of mathematics to create opportunities for individuals, she began to work with teachers in different parts of the country.

"It was an enlightening experience because I got to travel to remote areas and see the different contexts of South Africa in the 1980s," she recalls. At the time, apartheid laws enforced inferior education for black children, and Reddy and her colleagues had to devise ways to undertake their teacher training discreetly.

"I was interested in teaching and learning science," Reddy recalls, "but then realised that if you have big classes, poor infrastructure, no resources, and hungry children, they're not going to be able to learn. Seeing the whole picture was an education for me. It's not just about the science – to understand how to teach and learn science you must also understand the political economy around education."

### A tale of two education systems

After working in the NGO sector, Reddy became a college and university lecturer. She joined the HSRC in 2002. Since then, she has held the positions of research director, executive director and distinguished research specialist. Arriving at the HSRC from a university environment, Reddy was intrigued by the work happening at the research-policy nexus. It was a time when the country was trying to formulate policies that responded to the twin imperatives of participating in the global agenda and responding to local development challenges, Reddy says. She recalls vibrant discussions with colleagues from other research disciplines, early attempts to respond to social challenges through a holistic, multidisciplinary lens.



Commitment to education has been a through-thread of Vijay Reddy's varied career. "Working in the education field, I felt my accountability to the school child I met in rural areas navigating multiple deprivations," she says. "The ultimate goal for that child was to move out of intergenerational poverty and map a different life trajectory."

**Photo:** HSRC

In 2003, Reddy led the Trends in International Mathematics and Science Study (TIMSS) in South Africa. As the only study to provide robust trend achievement estimates, TIMSS is an important indicator of the health of South Africa's education system.

In its early years of participation, the country was constantly bottom of the log.

But this was not the only story to tell. "As a researcher, you've got to look deep," Reddy emphasises. "How do you tell the many stories that emerge? What's the analytical lens through which to look at the data?"

In their analysis of TIMSS 2003, Reddy and her team at the HSRC revealed that South Africa's academic performance cannot only be conveyed by a single national score, but rather requires an appropriate demographic breakdown. They considered factors such as home and school socio-economic status, the apartheid racial classifications of schools and gender.

In 2004, they reported that the educational outcomes of learners reflect South Africa's extensive societal and school disparities. The substantial variance in mathematics scores highlighted two education systems persistently operating at different levels of effectiveness and perpetuating existing inequalities.

"This characterisation continues to this day," says Reddy.

### **Equity and excellence in education**

Since 2003, South Africa's school performance has gradually improved, with TIMSS recording increases in the average mathematics and science scores between 2003 and 2019. However, Reddy acknowledges that there is still much work to be done to achieve a level of education that can respond to the needs of our society and the economy.

Reddy emphasises that striving for excellence in education should also be a priority in South Africa. Understandably, South Africa has traditionally focused on equity. But, she says, equity and excellence are two sides of the same coin. "We've seen that if you don't focus on both, the system will not show the desired improvements. It's the same with the labour market – we need to focus on both the employed and the unemployed workers."

### **Skills planning mechanism for South Africa**

In 2014, Reddy and her colleagues supported the government to build a skills planning mechanism to tackle the mismatch between skills demand and supply in South Africa.

The aim of the Labour Market Intelligence Partnership (LMIP) was to provide labour analyses that could align the country's economic and industrial priorities with education and training outputs. The LMIP was unique in the nature of the collaboration between the government and the research community, as well as in scale and scope. "It was a learning experience for both on how to navigate the research-policy nexus," Reddy recalls.

Reddy led the LMIP project by accident rather than design. But, she had the right people on her team: six experts leading each of the research themes. And, unexpectedly, she found that her background in organic chemistry helped her to see the problem of how to build a skills planning mechanism in a new light.

"Traditionally, we focused on skills development. Skills planning required first considering the nature and trajectory of the economy and then identifying the skills that were required. In the context of South Africa, it was essential to consider the skill needs of both the employed and unemployed," Reddy says.

### **A science-literate and science-aware society**

While Reddy is committed to improving the school mathematics and science knowledge, she is also invested in democratising science information to all sectors of the population. In the last 15 years, she has engaged in the global research agenda of understanding the knowledge, views and attitudes of the public towards science and technology.

The passing of the [White Paper on Science, Technology, and Innovation](#) signalled South Africa's commitment to fostering a science-literate and science-aware society. This goal gained even greater significance in the wake of the COVID-19 pandemic.

Since 2020, Reddy has led the HSRC in collaboration with the Department of Science and Innovation to develop a survey that measures public attitudes towards science and technology. Having successfully completed data collection, the team is now working on the first-ever South African Public Relationship with Science Study, an important step to realising the vision of a science-literate society.

This is also the year that, after 20 years of groundbreaking research contributions, Reddy steps down from her full-time position at the HSRC. She hopes that she has contributed meaningfully to the skills and education landscape by enhancing research skills (especially in quantitative data), institutionalising HSRC research in government policy, and emphasising the importance of continuously seeking new insights and striving for excellence in research.

Further reading: [TIMSS in South Africa: Making Global Research Locally Meaningful](#)

Author: Andrea Teagle, HSRC Impact Centre science writer, with input from Dr Vijay Reddy, a distinguished research specialist in the HSRC's Equitable Education and Economies division

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With a doctoral degree in organic chemistry and extensive experience in social science research, Vijay Reddy has always been drawn to transdisciplinary thinking – trying to understand social issues in a holistic way. “When people ask, ‘Are you a quantitative or qualitative researcher?’ I think it’s a non-question. My response is always that doesn’t matter. What is it you want to know? Your question matters.”

**Photo:** HSRC



# ***#FeesMustFall and its Aftermath***

**published by HSRC Press**

Based on the photographic exhibition *Aftermath*, the book *#FeesMustFall and its Aftermath* was recently published by HSRC Press. It is subtitled *Violence, Wellbeing and the Student Movement in South Africa*, and is written by **Thierry M. Luescher, Angelina Wilson Fadiji, Keamogetse G. Morwe, Antonio Erasmus, Tshireletso S. Letsoalo and Seipati B. Mokhema**.

The book documents the experiences of violence and wellbeing of 35 former student activists from a range of South African universities. Developed through the research method of “rapid photovoice”, the students’ reflections on their experiences are presented in 13 themed chapters that make up the photo exhibition of the book as well as 5 commentary chapters.

The exhibition chapters start with a set that focuses on the context and reasons for protesting, themed “A history of struggle”, “Oppressive spaces” and “The violence of institutions”. Another set of chapters deals with the protesting itself, such as “Conscientise and mobilise”, “Protesting and violence”, and “Fire”. The third set considers the dynamics of the student movement and the impact of the protesting on students: “Gender inside the movement”, “Fear and trauma”, and ‘Outcomes of protests’. A final set of exhibition chapters then focuses on student wellbeing, wellbeing in the movement and resources that help to restore student wellbeing in the aftermath of protests. They are thematised as “Unity and solidarity”, “Wellbeing”, “Escape and safe spaces”, and “Movement with a purpose”.



These four groups of chapters are framed by and interspersed with five chapters that deal with the research project. This includes the researchers' reflections on the research problem, the goals of the research, key concepts and methods they employed. They also analyse the contributions of the study with respect to creating awareness of the violence that accompanies student protests and their advocacy of greater political responsiveness, democracy and social justice. The final chapter highlights the important learnings that can be derived from the book, including student conceptions of violence and wellbeing implicit in their reflections.

The book has received great acclaim from reviewers:



*"#FeesMustFall and its Aftermath makes a critical methodological contribution. ....The book challenges higher education institutions to think seriously and creatively about what to do about violence, including structural, symbolic, and physical violence in and around institutions and the interventions needed to ensure the well-being and success of the students these institutions enrol."*

Prof Relebohile Moletsane, JL Dube Chair in Rural Education and Pro Vice-Chancellor: Social Cohesion at the University of KwaZulu-Natal



*"Ethnographically, [this book] is extraordinary. We don't know enough about the lives of our students. We don't have enough ethnographies about any of them. [This book] strikes one in the face. It provides a view of the student movement in South Africa which is fresh, grounded and forthright."*

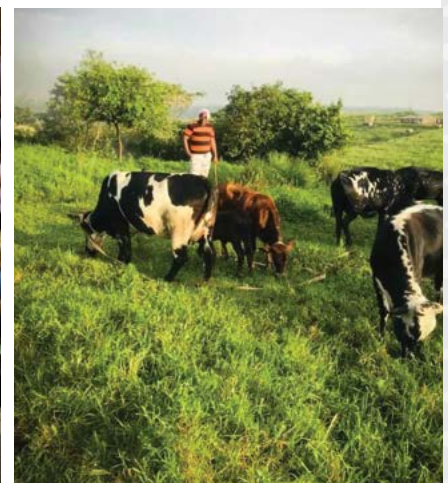
Prof Crain Soudien, Honorary Professor, formerly CEO: HSRC

*"In this book, students tell their stories in grippingly and incontestably authentic narratives and show us images, taken by themselves; their cellphone cameras providing often alarming and shocking visual images of campuses as akin to war zones. I know not of another scholarly work making such effective use of personal thoughts and writing and these same people's mobile phone images. ...This work ... is of such an exceptionally high standard that it can reasonably be expected to garner major book awards, nationally and internationally."*

Anonymous peer reviewer

*"An exceptional book by socially committed scholars that is original, conceptually innovative, and creatively narrated and presented."*

Prof Saleem Badat, University of KwaZulu-Natal, former vice-chancellor, Rhodes University



**Read more:**

[An interview with Prof Thierry Luescher about the #Feesmustfall photography project](#)

[Order the book](#)

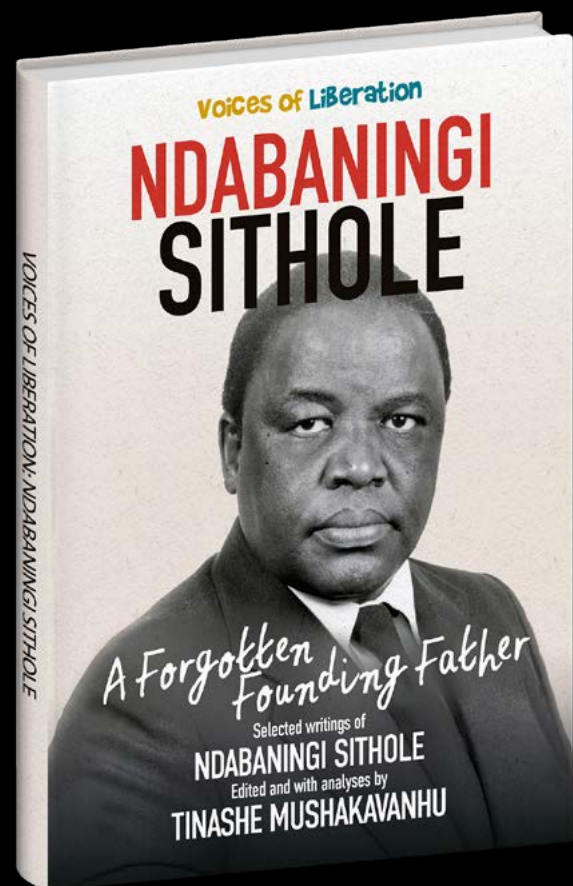
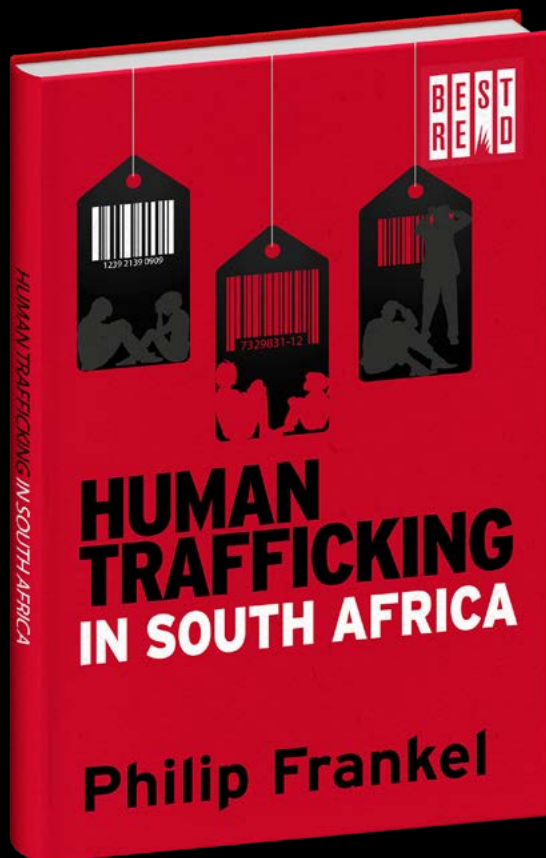
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# HSRC PUBLISHING

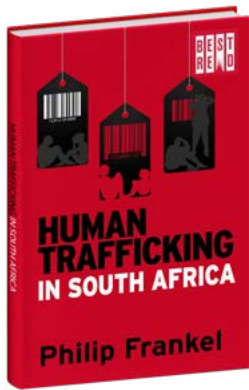


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## Human Trafficking in South Africa

Price **R340**

Author: Philip Frankel  
 ISBN (soft cover): 978-1-928246-58-9  
 Format: 216 mm x 138 mm  
 Extent: 282 pp

**ABOUT THE BOOK**

Human trafficking is a worldwide problem with tens of millions of victims that has become one of the most urgent human rights issues of our time.

It is fuelled by a lethal mix of poverty, inequality, mass migration (especially undocumented migration), trans-governmental corruption and digital communications that decrease the distance between victim and perpetrator in this form of modern slavery.

Proliferating from its initial concentration points in underdeveloped parts of South and South-East Asia, human trafficking today has a global reach. Southern Africa now has the dubious distinction of being one of the world's major transit points for this trade.

*Human Trafficking in South Africa* provides an analysis of the development and incidence of human trafficking in South Africa and Southern Africa. It focuses on the need to re-empower victims in the face of ongoing globalisation, climate change and a post-COVID-19 world in which the number of vulnerable people has increased while law enforcement systems' capacities have decreased.

**CONTACT:**

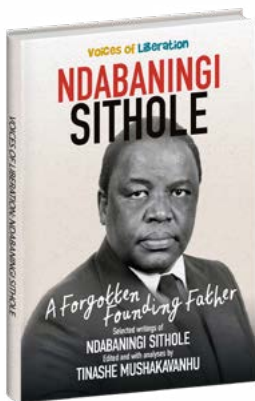
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## Taking African research to the world

## Voices of Liberation: Ndabangini Sithole

A Forgotten Founding Father

Price **R450**

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**ABOUT THE BOOK**

*Ndabangini Sithole: A Forgotten Founding Father* is a biographical mapping of the political and intellectual contributions of Reverend Ndabangini Sithole to the liberation of Zimbabwe.

As the founding president of Zimbabwe African National Union, Sithole was at the vanguard of the nationalist movement in the 1950s and '60s. He was also one of the first black writers in the former Rhodesia and made prolific contributions in various genres including fiction, poetry, polemics and autobiography.

Despite all this, Sithole has receded from view, partly because of his own political misfortunes and partly through the manoeuvring of his former comrades and political opponents. Sithole has therefore not been given due credit for the contributions and sacrifices he made towards the independence of Zimbabwe.

This is the first major book on Sithole and, therefore, a unique contribution to Zimbabwean historiography. This book will be important to a new and emerging discourse re-appraising this country's nationalist history.

A new addition to the Voices of Liberation series, the book maps Sithole's life, looks at his key texts and provides insightful analyses of his important contributions. The book is divided into three broad categories: His Life, His Voice and His Legacy.

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