



20 YEARS
— 2005-2025 —

Intuthuko

UNIVERSITY OF JOHANNESBURG'S DEVELOPMENT AND FUNDRAISING OFFICIAL MAGAZINE | JOHANNESBURG | SOUTH AFRICA
MARCH/APRIL 2025 EDITION

Celebrating 20 years of Academic Excellence

UJ@20 – 2005–2025: Upholding South Africa's Human Rights over Twenty Years

"THE RIGHT TO QUALITY EDUCATION: BUILDING SOCIETAL IMPACT
THROUGH THE FOURTH INDUSTRIAL REVOLUTION (4IR/4.0)
AND FIFTH INDUSTRIAL REVOLUTION (5IR/5.0) ERAS"





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1. Acknowledgments

About the Organisation, the Authors/Editors

The Development and Fundraising Office of the University of Johannesburg (UJ), South Africa acknowledge the continued efforts in the publication of the Intuthuko Magazine by both authors and editors Ms. Daphney Nemakhavhani, and Dr. Dawn Isabel Nagar, both from the Development Office, University of Johannesburg, South Africa.

We express our gratitude to the Intuthuko Magazine's former editor and pioneer, Ms. Thuli Hlabahlaba who initiated this magazine in 2021. Ms. Hlabahlaba resigned in 2025 in pursuit of new frontiers. We thank her sincerely for her initiative and tireless commitment made to several editions over four consecutive years between 2021–2024 and wish Ms. Hlabahlaba well in her future pursuits. Similarly, we acknowledge the continuous inputs of UJ's Faculties and UJ's Graphic Studio's support for graphics, design and layout.

UJ@20 – 2005–2025: UPHOLDING SOUTH AFRICA'S HUMAN RIGHTS OVER TWENTY YEARS

EDITION MARCH/APRIL 2025:

Copyright to Intuthuko: The Development Office Editors, Nemakhavhani, and Nagar

20 YEARS

2005-2025

Our Future. Reimagined.



2. Prof Letlhokwa Mpedi's Culture of Giving

In the realm of education, fundraising is more than just a financial exercise, it is considered a catalyst for opportunities, a driver of research, and a foundation for student success.

BEHIND EVERY SUCCESSFUL FUNDRAISING INITIATIVE ARE INDIVIDUALS WHOSE LEADERSHIP AND PERSONAL COMMITMENT MAKE A MEANINGFUL DIFFERENCE. AT THE UNIVERSITY OF JOHANNESBURG, ONE SUCH INDIVIDUAL IS THE VICE-CHANCELLOR, PROFESSOR LETLHOKWA MPEDI.

Under Prof Mpedi's stewardship, fundraising at UJ has become a shared mission rather than a standalone task. His efforts to foster a culture of giving, engage with potential donors, and lead by example have been instrumental in advancing the University's strategic priorities. Prof Mpedi has shown an unwavering commitment to identifying and cultivating new donor relationships. His outreach to potential supporters has helped secure critical funding for a range of initiatives. Moreover, his emphasis on long-term relationships over short-term gains, has been key to strengthening the university's financial sustainability.

Prof Mpedi has demonstrated personal dedication to UJ's mission. He does not merely advocate for support, he embodies it. His own financial contribution to the University, directed

towards the Centre for Neurodiversity, is a powerful testament to his belief in the transformative power of education. This centre support postgraduate research, enabling students to pursue their studies in a dynamic, advanced and inclusive academic environment.

Prof Mpedi's leadership par excellence serves as a reminder that impactful fundraising is grounded in integrity, vision, and personal investment. He inspires others not just to give, but to believe in the future of education and research. With that, we would like to say, thank you, Prof Mpedi, for walking the talk. ■

3. From the desk of the Chief Financial Officer: Ms. Nolwazi Mamorare

As a basic human right: Education holds the key to solving the complex problems that South Africa faces as a country. The recent 2025 national budget revealed significant reductions in social grant allocations, with a decrease from 2 percent to 0.5 percent over the next two years (2025–2027). This decision comes amid an already challenging economic climate, placing further strain on vulnerable communities. Already, South Africa's intergenerational mobility is low, meaning inequalities are passed down from generation to generation with little change over time. While significant progress has been made in improving the well-being of citizens since the shift to a more inclusive government in the mid-1990s, advancements have slowed down in recent years. The percentage of the population living below the upper-middle-income country poverty line fell from 68% to 56% between 2005 and 2010, 57% in 2015, and is projected to have reached 62.7% in 2023¹, which is very low for close to 63 million total population.¹

We as an institution is thus mindful that challenging economic climate would adversely affect the financial sustainability of the university. The University of Johannesburg serve students from disadvantaged backgrounds, and it is essential to ensure they receive the education they deserve. This requires careful budget planning and the availability of financial assistance.

THE UNIVERSITY OF JOHANNESBURG SERVE STUDENTS FROM DISADVANTAGED BACKGROUNDS, AND IT IS ESSENTIAL TO ENSURE THEY RECEIVE THE EDUCATION THEY DESERVE. THIS REQUIRES CAREFUL BUDGET PLANNING AND THE AVAILABILITY OF FINANCIAL ASSISTANCE.



¹See, *South Africa Overview: Development news, research, data* | World Bank; and *South Africa Economic Outlook* | African Development Bank Group (afdb.org). According to Chief Economist Lullu Krugel of Price Waterhouse Coopers (PwC): "Consumers are the lifeblood of the South African economy. More than 60% of the country's GDP comes from household spending. As such, the health of the consumer wallet is integral to the country's economic prosperity and social stability. South Africa needs accelerated employment growth in order to support a large-scale improvement in household financial wellbeing. This is only possible if all social partners – government, the private sector, labour unions, and community organisations – work together for the betterment of the economy and its people" Lullu Krugel | PwC South Africa Chief Economist, *South Africa Economic Outlook 2024* | Press release (pwc.co.za), July 2024.



We are committed to providing the necessary resources and support to make this possible – we do so with the view to obtain value for return on investment made to our students who are navigating financial adversity. Our funding targets must be accurate and ethically managed. Indeed, over a 20-year intense journey 2005 to 2025, we have annihilated an education poverty cycle for thousands of our students. We have seen value for return on investments made to our most disadvantaged student community.

We know the importance of providing human rights of quality education, crucial to uphold in all its forms and in-so-doing we can achieve socio-economic

growth and development, aligned to continental and global sustainable development goals. We are ensuring that our students excel and obtain their degrees. During our March 2025 Autumn graduation ceremony – our throughput comprises – 62 graduation ceremonies spread over fifteen weeks, with more than 13 000 students who have completed their qualifications.

Of this number, more than 9 000 were undergraduate students, while the rest are postgraduates, including 2 310 Honours, 308 Masters, and 68 Doctoral candidates.

We are indeed seeing return on investment and reaching human rights that have a solid grip on robust

education – so vital to our country's socio-economic growth – the right to receiving and achieving quality education – with a degree in your hand – one that has the backing of bold research, teaching and learning – where the world will become your oyster!

Together, we can move South Africa to become powerful drivers of socio-economic development and growth with unwavering achievements of academic success, so vital to create a strong youth intelligentsia within a capable developmental state. We as South Africa want to be delisted from the World Bank as the most unequal society in the world and the poorest of the poor and listed as a capable developmental state. ■

4. Foreword: from Development and Fundraising Director: Ms. Daphney Nemakhavhani



In taking stock of the work and progress of our fundraising efforts, we have surely held the UJ banner high and continued to raise and contribute to the funding stream of the students facing financial hardship such as the missing middle (students of middle-class working parents, but who are too poor to afford to pay fees). Everyone matters in our world and our work is filtering through each and every facet of society and communities which we serve. In this Fourth Industrial Revolution era (4IR/4.0) and while we are entering the Fifth Industrial Revolution (5.0/5IR) era, our students are being equipped with future skills.

Mindful that as we celebrate Human Rights month in March 2025, and 31 years into our democratic dispensation, education unfortunately is lagging and is not translating into the desired impact to end pervasive socio-economic under-development in South Africa.

Alarming results reveal that we have to tighten the nuts and bolts in resource mobilisation practices. According to the Statistics South Africa (StatsSA) 2024 report: of South Africa's 61 million people (currently 63 million), 20 million of the total population of youth aged between 15–34 in 2022 (at the time of writing) had only 5,8 million participating in educational institutions. During that same period: of the 20 million youth, only 567,000 obtained a Bachelors degree (statsSA 2024 report: p. 12). Similarly, millions of youths across Africa remain jobless <Youth employment | International Labour Organization>; and <Youth jobless rate falls to 15-year low, says UN labour agency | UN News>. Therefore, the Development and Fundraising Office is building solid collaborative partnerships. We view Human Rights as a holistic movement – one that does not straddle education growth – and as an institution we cannot go it alone.

Our funding inputs is providing the requisite research robustness outputs – so that we can change a vice-grip of education and socio-economic poverty. It is thus imperative that year on year we raise enough funds for our poorest of the poor student population and in-so-doing towards achieving the solid research outputs and throughput for all our faculties.

We can proudly say that our track record demonstrates, UJ through the Development Office is hard at work in developing solid collaborative partnerships. With the generosity and endless efforts of our collaborative partners, this University, is undoubtedly consistent

in capacitating academically deserving students with limited financial means to complete their studies and create an established future. Moreover, through collaborative partnerships and tireless commitment, we are bridging the gender gap and capacitating more female students to take up their rightful space in the world of work. In furtherance of our solid commitment, our students and their families, and the communities, which they serve, are becoming the next beneficiaries, owing to skilled youth, which are propelling the economic industry so vital to progress this country, and breaking the generational curse that bereft us of endless hardship, sorrow, economic distress and poverty.

During our journey we are clear: as our audits demonstrate of over twenty years (See UJ annual reports between 2005 and 2023 Annual Reports - University of Johannesburg), we have propelled ourselves as a Pan-African Institution that is globally recognized for rigorous education, profoundly shaping the future of our youth matched by the requisite financial support through bursaries, learnerships and internships, among numerous teaching pedagogies fundamental to building our human rights trajectory with integrity.

It is therefore imperative that we celebrate this twenty-year milestone in reaching human rights adequately. We thank all our collaborative partners in navigating a challenging terrain towards achieving greater heights in building South Africa's human rights for our youth for another twenty years and beyond. ■

5. Executive Summary

Provisor of Human Rights Over Three Distinctive Transformation Eras 2005–2025: Progress, Problems and Prospects

As we turned 20 years old in January 2025, we have moved exponentially forward and without a doubt consistently increasing our footprint of Global Excellence and Stature (GES) 2025-2035 vision and mission of building and contributing towards achieving the African Union's (AU) Agenda 2063 and related United Nations (UN) 2030 Global Sustainable Development Goals (SDGs) Agenda. We are celebrating a 20-year intense journey, this March/April 2025 Edition namely: UJ@20 – 2005–2025 in upholding South Africa's human rights by providing its youth with "the right to robust education, teaching and learning: Building societal impact through the Fourth Industrial Revolution (4IR/4.0) And Fifth Industrial Revolution (5IR/5.0) Eras.



Picture acknowledgement, source: knowledgehub@southernafricatrust.org
Eleven years after South Africa's post-apartheid dispensation of 1994, the Gauteng-based University of Johannesburg, South Africa was created in January 2005. This creation was a reconfiguration of a national agenda that focused on how to build robust education holistically. The 2005 merger was a significant education policy and an implementation effort led by the former South African President Thabo Mbeki's government administration.



Former South African President
Honourable Dr Thabo Mvuyelwa Mbeki
Source: UNISA.



Late and Former South African
National Minister of Education
Professor Kader Asmal
Source: alchetron.com

These achievements were made possible through the determined efforts of a key figure who worked tirelessly to dismantle the segregation within the education system, addressing the divisions between various types of educational institutions and ensuring a more inclusive approach to education: and thus, to provide and establish a single higher education institution by

bringing together in totality (Technikons and Universities), Today, 26 Universities were created.

In this light the Rand Afrikaans University; Technikon Witwatersrand; and the East Rand and Soweto Campuses of Vista University merged and created the University of Johannesburg in January 2005.

Therefore, this Intuthuko March/April 2025 edition is proudly showing how UJ is propelling Human Rights: The Right to Quality Education. This University is showing the tumultuous efforts made over twenty years of building solid robust education for its youth and the communities which we serve.

Propelling Human Rights of Robust Education through three distinctive transformation waves of UJ – 2005–2025

First Transformation Wave

During the first five-year 2005–2010 transformation era under the tutelage of Vice-Chancellor and Principal Professor Ihron Rensburg's stewardship, by 2010 the University of Johannesburg established itself academically, and was recognised as an Institution of Global Excellence and Stature.

Second Transformation Era:

Under the second wave of UJ's transformation era, the intra- and inter-strengthening of education and research within South Africa was necessary to bolster efforts significantly to move South Africa from the outer periphery of the periphery towards the periphery and semi-periphery of economic growth. By October 2012 UJ put forward:

– A Strategic Plan encompassing six goals and included:

- 1) Global Excellence in Research and Innovation;
- 2) Global Excellence in Teaching and Learning;
- 3) An International Profile for Global Excellence and Stature;
- 4) An Outstanding Student experience;
- 5) Active Global Reputation Management; and,
- 6) An Institution and People fit for Global Excellence and Stature.

This robust implementation Plan took the University of Johannesburg to new heights, and the Institution was ranked among the top four percent of universities in the world by the global Quacquarelli Symonds World University Rankings system.

THE MERGER WAS AN ASTOUNDING SUCCESS, AND HOW AND WHY SUCH SUCCESS WAS POSSIBLE, WAS OWING TO UJ'S UPHOLDING OF SOUTH AFRICA'S HUMAN RIGHTS FOR ITS ENTIRE ACADEMIC COMMUNITY – EMBRACING RACE, CREED, CULTURE AND ETHNICITY IN ALL ITS FORMS, DIVERSITY, EQUITY, BELONGING AND CRITICAL EDUCATION THOUGHT PROCESS AND LEADERSHIP WERE ENTRENCHED.

Continued efforts made by UJ was to uphold human rights of excellence through education. Indeed, as the University of Johannesburg was growing in global stature – our major challenge was to keep students at our institution. Such challenges were amid a strained South African economy, evidently brought about by the 2016 global financial crisis, when the Organisation of the Petroleum Exporting Countries (OPEC) flexed their muscles owing to geo-political tensions among the bloc with super power rivalries such as the United States (US), which significantly raised oil prices – placing much pressure on oil-sapping countries with large oil appetites to keep mega industries afloat,

such as China and Russia. There was also the uncertainty during that period of the United Kingdom (UK) exiting the European Union (EU) and the emergence of Brexit – as South Africa's key trading partners, all added to South Africa's economic deluge.²

SOUTH AFRICA'S HUMAN RIGHTS CHALLENGED IN ALL FORMS: UJ'S RESILIENCE REMAINS UNQUESTIONABLE!

South Africa was thus not spared from the economic financial crises

² See former International Monetary Fund (IMF) Boss, and former President of the European Central Bank and her analysis on the 2016 financial crisis, Christine Lagarde, "What does 2016 hold for the global economy?", World Economic Forum, January 6, 2016 <What does 2016 hold for the global economy? | World Economic Forum (weforum.org)>.

occurring across all economies and saw its own down-turn of its economy significantly contracting, and severely plummeted, given its major trade partnerships within both BRICS (now BRICS Plus) and EU markets. Bearing this in mind, thus, a significant decline occurred within economic activity across the trade spectrum of South Africa's industries, even mega textile industries crumbled.³ These impacts also had further negative effects on the University of Johannesburg's working-class parents and their affordability to pay for children's university fees. Such non-payments negatively impacted UJ's budgets and hampered UJ's efficacy.

Hence, in strengthening the sustainability and financial activities, while also striving to operate against reduced government subsidies owing to the severe contractions of South Africa's economy during 2016, the University of Johannesburg's MEC introduced a progressive funding income-generating stream initiative, namely: University Resolution Circle.⁴

Great collaborative partnerships, which included government, business, civil society, and the Alumni in South Africa and the Diasporas was the support anchor during these turbulent periods.

Among the stranded students in the 2016 financial chaos, were the missing middle – working class parents too poor to pay fees. These challenges led the University to create the biggest fundraising drive ever initiated by a South African Higher Education Institution (HEI) – a major campaign) happened during 2016 for “the missing middle”.

Significantly leaning on its new fundraising strategy: the University of Johannesburg remained resilient and raised an astounding R101 million by 31 December 2016 benefiting thousands of deserving students.

The Third Wave of UJ's Transformation: A Pan-Africanist convergence Approach, 2018 to 2025

Amid these changes, UJ inaugurated its second Vice-Chancellor and Principal Professor Tshilidzi Marwala – an Engineer-scholar-diplomat who took office. What Marwala inherited was the tail-end of uprisings of the #Fees must Fall movements, the #Rhodes must Fall movements, amid other student demonstrations, amid a sea of UJ debt. The Vice-Chancellor Professor Marwala

was tasked by MEC to build UJ's 2020 Strategic Framework of 4IR and to become more interdisciplinary and socio-economic and politically relevant, while also being more accessible to society and the world at large. UJ's track record in this area, was building critical research about 4IR, including increasing academic publications: scholarly articles, opinion editorials, briefs and books, the

latter notably, Artificial Intelligence and Economic Theory: Skynet in the Market in 2017; and among several others.⁵ In critiquing contemporary issues situated within the 4IR under the rubric of South Africa's Education research outputs, students were guided in the scholarly academic research debates that ultimately provide research outputs that focuses on the problems facing the real world.

THE 2015/2016 STUDENT DEBT CRISES EXPERIENCED WAS A “WAKE-UP-CALL”, FOR THE INCOMING DIRECTOR OF THE DEVELOPMENT OFFICE, DAPHNEY NEMAKHAVHANI IN 2021 AND SHE RAISED THE ALARM SIGNIFICANTLY LOUDER TO ENSURE THAT UJ'S GOALS ARE ALIGNED TO RELEVANT FUNDING STREAMS AND SPECIFICALLY SUCH THAT ADDRESS A DIVERSE HIERARCHY OF CORPORATE SOCIAL RESPONSIBILITY AND STRATEGY.⁶ NEMAKHAVHANI'S OUTSTANDING FUNDING STRATEGY INCREASED AND WIDENED DONOR OUTREACH. THIS STRATEGY PLACED MORE EMPHASIS ON THE BUSINESS INDUSTRY.

³ See the crumbling of South Africa's textile industries in Dawn Nagar, *Politics and Pan-Africanism: Diplomacy, Regional Economies and Peace-Building in Contemporary Africa* (London: Bloomsbury, 2021), i–310 see particularly, p. 85.

⁴ UJ Annual Report 2016, pp. 1–505, see particularly p. 35.

⁵ Tshilidzi Marwala and Evan Hurwitz, *Artificial Intelligence and Economic Theory: Skynet in the Market* (Springer: Switzerland, 2017); Marwala, “Artificial Intelligence Techniques for Rational Decision Making” (Heidelberg: Springer, 2014, ISBN 978-3-319-11423-1); Marwala, “Economic Modeling Using Artificial Intelligence Methods” (Heidelberg: Springer, 2013 ISBN 978-1-84996-323-7); Marwala, “Condition Monitoring Using Computational Intelligence Methods” (Heidelberg: Springer, 2012, ISBN 978-1-4471-2380-4); Marwala and Monica Lagazio, “Militarized Conflict Modeling Using Computational Intelligence” (Heidelberg: Springer, 2012, ISBN 978-0-85729-789-1). See also Alex Broadbent, “UJ's Prof explores the human dimension of the fourth industrial revolution”, University of Johannesburg (UJ), South Africa, 25 September 2018 <www.uj.ac.za>; and Dumisani Moyo, *Admire*

⁶ University of Johannesburg 2023 Annual Report, pp. 424–425. 7



RECENTLY, UJ CONFERRED AN HONORARY DOCTORATE TO ANTI-APARTHEID STALWART AND NATION-BUILDER.

By 2022 funding figures increased significantly to a total of R916 million raised, which was further contributed to the lives of 13,978 students, receiving full bursaries. At the end of the financial years of 2023, and 2024, funding targets of R1 billion and more were reached.

2023 to 2025 and beyond: At the helm of academic robustness, now sits UJ's Vice-Chancellor and Principal

George Letlhokwa Mpedi⁷ – a social scientist-advocate-diplomat-engineer scholar (which took over the successful reins from his predecessor Professor Tshilidzi Marwala⁸ on 1 March 2023 after completing his exciting 5-year term in office). Mpedi is bringing South Africa towards the core of global wealth driven through his 4IR societal impact and human capital development strategy –

which goes to the heart of connecting the dots where it matters.

On Monday, 24 March 2025 Professor Lumkile Wiseman Nkuhlu, a visionary leader whose life and work have shaped South Africa's accounting profession, education system, and broader society was recognised with an honorary doctorate by the University of Johannesburg.

WE ARE DRIVERS OF SOCIO-ECONOMIC GROWTH AND DEVELOPMENT WITH THE ABILITY TO WORK IN COLLABORATIVE PARTNERSHIPS.



Education is not a choice, it is a necessity and one of our most basic human rights: the right to be taught, the right to learn, and in turn the responsibility to be taught, to practice and complete degrees. The University of Johannesburg produced solid technocrats over two decades between 2005 to 2025 when it amalgamated in January 2005. Today, UJ is top achiever in several academic rankings (see further below).

Headcount

53 524 Headcount

41 097 Undergraduate

86% Module Success Rate

13 506 Graduate Output

Source < University of Johannesburg - UJ University in South Africa - University of Johannesburg >

⁷Professor Letlhokwa George Mpedi University of Johannesburg's newest Vice-Chancellor and Principal as of 1 March 2023 also holds an advanced management and leadership qualification from the Saïd Business School, University of Oxford (2022), as well as Leading in Artificial Intelligence: Exploring Technology and Policy Programme from the John F. Kennedy School of Government at Harvard University, Executive Education (July 2022) <Mpedi replaces Marwala as UJ's vice-chancellor and principal (sundayworld.co.za)>.

⁸ UJ's Second Vice-Chancellor and Principal, Professor Tshilidzi Marwala – viewed as a world-renowned engineering scientist and Fourth Industrial Revolution (4IR) doyen of Artificial Intelligence and Virtual Reality (VR), was elected as a member of the prestigious American Academy of Arts and Sciences – this academy notably includes global thinkers such as Elbert Einstein, Charles Darwin, and Werner Heisenberg <American Academy of Arts and Sciences (amacad.org)>.

UJ the top university for engineering and technology in South Africa

Our Human Rights are Sound. We are providing the right to robust education. Without the correct education research models, there can be no economic growth.

In honour of our sure beliefs, Vice-Chancellor and Principal, Professor Letlhokwa Mpedi conferred an honorary Doctorate in Politics and International

Relations on former South African President Kgalema Motlanthe on Tuesday, 18 March 2025.

Professor Mpedi notes: "Former President Motlanthe's belief in education as a catalyst for change resonates deeply with the University of Johannesburg's mission. His life's work reflects the heart of what this Institution stands for: integrity, social justice, advancing education, and excellence in service to humanity."

WE ARE DRIVERS OF SOCIO-ECONOMIC GROWTH AND DEVELOPMENT WITH THE ABILITY TO WORK IN COLLABORATIVE PARTNERSHIPS.



Source: < UJ honours former SA President Kgalema Motlanthe with prestigious doctorate | UJ News>

OUR VICE-CHANCELOP AND PRINCIPAL PROFESSOR MPEDI NOTES THAT "WE ARE PROUD TO OBSERVE DURING OUR 2025 REGISTRATION SEASON, OUR INSTITUTION WAS HARD AT WORK IN GATHERING TOGETHER OVER 600,000 APPLICANTS, CHOOSING THE UNIVERSITY OF JOHANNESBURG AS ITS CHOICE."

Professor Mpedi recently highlighted UJ's excellence in education. As a vibrant and cosmopolitan institution, since its 2005 creation closing in on almost two decades in January 2025, UJ has ever since remained robust in overall academic performance in the African continent and globally. As a leading research university in South Africa and Africa with a long-standing reputation for academic excellence and a strong commitment to advancing education, human rights are indeed being taken

seriously. Our education provided is robust as demonstrated in our excellent subject-ranking achievements. The QS (Quacquarelli Symonds) Subject Rankings assess universities across 55 academic disciplines, employing five key performance indicators that measure academic reputation, research excellence and employer reputation ranked UJ as a top-notch high-flyer. UJ ranked in the top 200 in the world, including: Hospitality & Leisure Management (101-150 globally),

which is ranked #1 in South Africa and Anthropology (101-170 globally) ranked #3 in SA. UJ remains a leader in several other subject areas within South Africa, securing #2 nationally. These include Education and Electrical & Electronic Engineering, while Environmental Sciences ranked #3," 17 March 2025, UJ rises in 2025 QS Subject Rankings | UJ News. ■

Executive Summary, by Dr. Dawn Nagar

6. Shining the light on our Donor's Impact

Shoprite Joins the Fight Against Student Hunger at UJ

UJ has once again witnessed the power of partnerships in action. The Shoprite Group, South Africa's largest retailer, recently extended a helping hand to the UJ Food Bank through a generous donation aimed at alleviating food insecurity among students. This support comes at a crucial time when many students face the daily challenge of learning on an empty stomach. The contribution forms part of Shoprite's wider #ActForChange initiative, which channels resources toward hunger relief and community upliftment. Their involvement is a testament to the impact that socially responsible corporates can have on the lives of young South Africans striving for a better future through education.

The UJ Food Bank continues to serve as a critical safety net for students in need, offering food parcels through campaigns such as #NoToStudentHunger. Shoprite's support not only provides tangible

relief but also affirms the importance of collective action in addressing systemic issues like student hunger. The University expresses its sincere gratitude to Shoprite for standing in solidarity

with our students. This partnership reinforces the call for more institutions and individuals to join hands in building a more equitable and nurturing academic environment for all. ■



Bridging the Gap: Optimi Workplace Supports the UJ Missing Middle



In a step toward making higher education more accessible, UJ proudly welcomed Optimi Workplace as a key partner in supporting students caught in the 'missing middle', those who do not qualify for government financial aid yet still face significant financial constraints in pursuing tertiary education. In a momentous occasion, Optimi Workplace personally delivered a financial contribution to UJ, building on an ongoing tradition of corporate support for higher education.

Aunyana Moloiwane, Managing Director of Optimi Workplace, has been a vocal advocate for private sector involvement in bridging this gap "Our young people are our greatest asset. If we do not invest in them, we are failing not only them but the future of our country," he asserts. At the heart of this partnership lies a shared vision: to create sustainable funding mechanisms that empower students and contribute to national development. Vice-Chancellor, Professor Letlhokwa Mpedi, expressed deep appreciation for Optimi Workplace's unwavering commitment to education and its belief in the potential of UJ's students. "This meaningful contribution will profoundly impact the lives of many, ensuring that financial challenges do not stand in the way of our students academic and professional aspirations," he noted. ■



7. Our basic human rights are met through the Right To Work, Grow, and Build Economic Growth: Through Greater Entrepreneurship Projects and Skills Development

We are enhancing South Africa's Human Rights exponentially through greater socioeconomic growth and development. The Johannesburg Business School Centre for Entrepreneurship (JBSCE) of UJ, initiated the Entrepreneurial Development Programme (EDP). This programme fosters skills development, capacity building, employment, and general youth and women upliftment. The initiative fundamentally empowers individuals in Soweto, the greater Johannesburg metropolis, and rural areas by providing them with the essential skills and knowledge to develop and grow Small, Micro, and Medium Enterprises (SMMEs).

THROUGH OUR ACADEMIC INITIATIVES WE ARE CREATING ENHANCED JOB CREATION AND SOCIOECONOMIC GROWTH VITAL TO SOUTH AFRICA'S ECONOMIC GROWTH.

Programme Manager, Carol Keshy (seen in the picture), oversees the Johannesburg Business School Entrepreneurship programmes and among other and highlighted is one of their flagship projects: "The Johannesburg Business School Centre for Entrepreneurship.

Carol notes that at the JBSCE, we provide integrated entrepreneurial development support, aimed at building the culture of entrepreneurship, developing start-ups and existing businesses for increased participation in the economy <Centre for Entrepreneurship | Johannesburg Business School (JBS)>. Without a vibrant economy there can be no job creation.

For example, South Africa is home to more than 500 townships, of which Soweto, in Johannesburg, is the largest with more than 1.3 million residents. In 2022, StatsSA reported that there are 30-40 businesses per 1,000 people in townships. This translates into 800,000 to one million businesses in townships. These SMMEs are estimated to have



Carol Keshy

contributed R900 billion to the national economy, in 2022. Thus, our proposed programme aims to provide knowledge and applied skills that are relevant to a range of micro-business-related start-ups. The programme further aims to equip township-based micro-business with skills and knowledge to be compliant and effectively operate their businesses. On completion of the programme, the beneficiaries will be legally registered and have business structures essential for them to operate.

Source: <Centre for Entrepreneurship / Johannesburg Business School (JBS)>.

THE CENTRE FOR
ENTREPRENEURSHIP
IS SUPPORTED BY
PROFESSOR ADRI
DROTSKIE (SEEN IN
THE PICTURE ACROSS),
ACTING DEAN OF
THE JOHANNESBURG
BUSINESS SCHOOL.

Through our work:

- UJ's business technocrats and experienced instructors and industry experts conduct classes, ensuring high-quality education.
- Through our Grad Connect post programme support initiative, the Center provides ongoing support to ensure the success of start-ups.
- Equip participants with essential entrepreneurial skills to start and formalize businesses, thereby fostering skills development and capacity building initiatives.
- Creating viable start-ups, and contribute to job creation and economic growth, addressing the unemployment generation.
- Empowering youth and women by providing support and resources to help them succeed in their entrepreneurial ventures.
- Providing comprehensive training modules of essential business skills such as business planning, financial management, marketing, and operations, and among other things.
- Providing a compliance clinic to guide participants on legal and regulatory requirements, ensuring



their businesses operate within the necessary framework.

- Provide a pitching skills session to enhance participants' ability to effectively present their business ideas to potential investors and stakeholders.

Our Key Theory of Change and expected outcomes:

Participants will be able to use the skills learned and knowledge gained to formalize their businesses and operate successfully and build job creation. Beneficiaries will create high-quality, sustainable, and profitable start-ups. Upon completion of the program, participants will receive a University of Johannesburg Accredited Enterprise Development certificate.

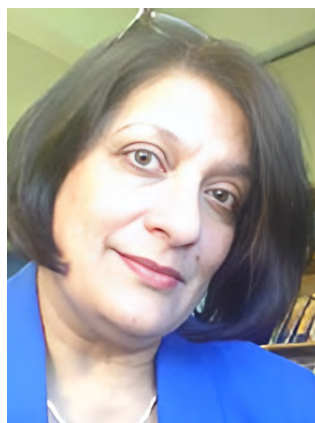
To execute this work, we require any donation – **we want to reach 60 participants annually, at R67,335 each participant.**

Please donate by contacting: Precious Ncongwane, Manager, Development Office & Fundraising Finance Division,

Tel: +27 011 5596189; E-mail: preciousn@uj.ac.za.

Thank you. ■

8. The most Basic Human Right – to be taught in your mother tongue



Professor Leila Kajee

South Africa's history of unequal education, language and ethnicity divided people — shaping separate living areas and influencing education policies, including what was taught in schools and in which languages. These divisions have left lasting effects on the education system today.

The Faculty of Education's Professor Leila Kajee is breaking down these barriers and amplifying voices in the mother tongue of learners at school level. The improvement of education in post-apartheid South Africa is in fact predicated upon the ideals of social justice that is consistent with objectives ranging from creating a vision of culturally responsive schools to leave no child behind.

To redress the injustices the South African Schools Act 84 of 1996 (SASA), the National Education Policy Act of 1996, and the Norms and Standards for Educators are critical processes allowing for: increased funding for education, particularly for quintiles 1, 2 and 3 schools with a view to address the desegregation of schools, curriculum reform, nutrition programmes, no-fee schools as well as the provision of stationery in schools that serve poor communities.

Notably: the government also implemented the Language Policy in Education (LIEP, Act no. 27 of 1996) for equal treatment of all official languages (namely, Afrikaans, English, isiNdebele, isiZulu, isiSwati, isiXhosa, Sepedi, Setswana, Sesotho, Tshivenda and Xitsonga) in all South African public schools. South African sign language has also been recently declared official by President Cyril Ramaphosa (Patrick & Bhengu, 2023). In addition to fostering multilingualism, the policy also seeks to dismantle linguistic injustices in township schools by responding to language diversity in learner populations (Sefotho, 2022), a fundamental feature of the country's schools.

Thus, the aims of the Department of Basic Education (DoBE) (2011), in the Curriculum and Assessment Statement (CAPS) of 2011, accentuates the significance of valuing learners' sociocultural diversity as well as that of equipping them with listening, speaking, reading, and writing skills of the language education. To foster the idea of embracing and protecting diversity, while promoting social cohesion, the DoBE (2013) also introduced the Incremental Introduction of African Languages (IIAL) – a policy obliging all schools that do not offer African official languages, to teach one African language along with English (Sapire et al., 2023) or Afrikaans.

While, language technologies are similarly becoming critical in preserving and harnessing the power of multilingualism, Professor Kajee is going down to the roots, to societal level of Gauteng and the countryside of South Africa to work side by side within rural and semi-rural and urban schools to build languages of maths and science pedagogy with both learner and teacher. 21 February 2025, marked 25 years of celebrating Mother Language Day globally < International Mother Language Day (IMLD)> and South Africa is lagging behind.

At a global level, the United Nations Educational, Scientific and Cultural Organization (UNESCO) advanced efforts to preserve and promote linguistic diversity in the world. In this regard, UNESCO established the International Decade of Indigenous Languages (IDIL) 2022–2032 and celebrated the International Mother Language Day 2025 that preserves language as a cultural heritage. ■

Source: Anna Forlati, <UNESCO celebrates multilingualism with a new book published in Hawaiian | UNESCO>



Source: <Language Technologies for All – LT4All 2025 | UNESCO 2025 | UNESCO>

9. A basic human right – the right to quality service delivery



His Excellency, Honourable President Cyril Ramaphosa of South Africa, source: egolijozinews.co.za

A Basic Human Right – The Right To Quality Service Delivery – running water, electricity, ablution facilities, workable sewerage pipes to avoid floods and in working condition during tumultuous climate change knock-on effects.

A Great Collaborative Partnership is happening between University Of Johannesburg's Office For Government And Stakeholder Relations (GSR) aligned to the Development Office, Fundraising And Revenue Administration with Respective Local Government Entities' Of The City Of Johannesburg And Ekurhuleni.

As this work is being interrogated by Stakeholder and Governance Relations' stalwart, Rudy Petersen, Senior Manager of UJ's Government and Stakeholder Relations, he clearly enunciates that UJ is about to turn the tide of service delivery for South Africa by working

hand in glove with our municipalities – and where the basic human rights of all South Africans matter.

Mr Petersen further notes that we are heading to do great work: "We are collaborating with the respective Local Government Entities namely the City of Johannesburg (CoJ) and the City of Ekurhuleni's (CoE) Municipality Spaces Toward The Strengthening Of A District Developmental Model Within a Fourth Industrial Revolution (4IR/4.0) Era And one that is geared for a Fifth Industrial Revolution (5IR/5.0), Leaving No-One Behind towards Creating A Capable Developmental State for South Africa."

Twenty years into Our history: UJ is Building service delivery: which can be achieved only through the correct medium – a capable developmental state.

OUR PRESIDENT CYRIL RAMAPHOSA REMINDS US DURING THE 2025 SONA THAT: "WE WILL INTRODUCE A GRADUATE RECRUITMENT SCHEME SO THAT WE MAY ATTRACT THE BEST AND THE BRIGHTEST INTO THE PUBLIC SERVICE. A CAPABLE STATE MUST START WHERE PEOPLE LIVE AND WORK."

This medium is clear: Use the youth intelligentsia available to us, make use of all their knowledge and skills available to us right now to create solid municipal service delivery vital to boost economic growth.

Municipalities are the bloodline of the economy. Without a workable and functional municipality, the State in its entirety cannot function, nothing will work, all will be lost.

We will remain at the periphery of the periphery of the continental and global economy. Therefore, through UJ's academic muscle of masters research students UJ are making use of their strengths relevant to building a District Developmental Model for Municipalities to Work optimally.

A partnership between the University and the City of Johannesburg, is being governed by a vibrant MoU representing a model relationship fit for purpose for requisite regional development, which is critical towards strengthening a District Development Model.

The Innovation & Knowledge Management Unit (IKM), located within Group Strategy, Policy Coordination and Relations (GSPCR), is entrusted the responsibility of managing the partnership between the City of Johannesburg and Higher Education Institutions (HEIs) with the aim of leveraging on the intellectual capital and expertise offered by these higher education institutions in an effort to enhance service delivery, focusing on capacity-building, knowledge-sharing and broadening the city's knowledge base.

The facilitation role in the

implementation of the partnership between CoJ and the Universities of Johannesburg, Witwatersrand and South Africa, include interactions between the city departments/municipal entities and the three universities related to the agreed focus areas developed and signed off on an annual basis.

Mr Petersen highlight the critical importance of a results-based driven monitoring and evaluation Plan and he notes that: "A work plan is developed annually by the Innovation & Knowledge Management Unit, in collaboration with higher education institutions, CoJ core departments and municipal entities. This M&E Plan outline critical outcome indicators of knowledge generation and exchange engagements, research & development focus areas, undertaken jointly during the year. For the Plan to succeed, all role players' progress matters and thus assessed are implementation architecture that is reviewed and revised at regular intervals. These processes are taking into account challenges experienced at a particular time as well as changes in municipal context.

Also, recently during the SONA 2025 Address, President Ramaphosa reminds us that: "South Africans want a state that treats all people with dignity, humility and respect. A state with leaders who are prepared to serve our people with complete dedication, and public servants who are ethical, skilled and properly qualified."

President Ramaphosa further highlighted that:

- "In many cities and towns across the country, roads are not maintained, water and electricity supply are often disrupted, refuse are not collected, and sewage runs in the streets. In part this has happened because:
- Many municipalities lack the technical skills and resources required to meet people's needs.
- Many municipalities have not reinvested the revenue they earn from these services into the upkeep of infrastructure.
- Starting this year [2025], we will work with our municipalities to establish professionally managed, ring-fenced utilities for water and electricity services to ensure that there is adequate investment and maintenance.
- Many of the challenges in municipalities arise from the design of our local government system. We will therefore undertake extensive consultation to develop an updated White Paper on Local Government to outline a modern and fit-for-purpose local government system.
- We will review the funding model for municipalities as many of them do not have a viable and sustainable revenue base" (SONA 2025).

Petersen says that critical work by UJ in 2025 is to boost service delivery and elevate basic human rights: Training workshops conducted on 21 Feb and 14 March 2025 respectively successfully contributed to our common goal of improved municipality capabilities; as well as a workshop on research indexing on 11 April 2025 at UJ facilitated by Prof Danie Meyer.

Joburg Water	Johannesburg Water has approved entry into Service Level Agreement with the University of Johannesburg. The purpose being that the Higher Education Institutions will conduct specific project related work to the improvement of productivity in the organization. Water pressure management (4IR) "Industry 4.0 Development for Water (Integrated Industry 4.0 water platform (IWP))"	Quarter 2: The MoU between UJ and JW has been signed by both parties. UJ has commenced work on the development of the conceptual framework for the architecture based on international best practices
Department of Health	Collaboration with University of Johannesburg Faculty of Health Sciences in providing Clinical services in Podiatry, Optometry, Nursing and Environmental health Services including research. Collaboration with University of Johannesburg in joint programmes on Environmental health.	

CITIES OF JOHANNESBURG AND EKURHULENI: THEIR MAJOR VISION AND MISSION – ALIGNED TO PRESIDENT RAMAPHOSA'S 2025 SONA ADDRESS AND THE WORK AT UJ



The Johannesburg Social Housing Company's (JOSHCO) Commercial Space is a hub for entrepreneurial opportunities

"As Johannesburg evolves, the need for integrated spaces that combine residential living with business opportunities has never been greater. The Johannesburg Social Housing Company is leading this charge, transforming its developments into vibrant economic hubs that not only provide affordable housing but also foster entrepreneurship, create jobs, and drive financial growth." <JOSHCO's Commercial Space is a hub for entrepreneurial opportunities>

"The core business of Economic Development is to push back the frontiers of poverty, underdevelopment and unemployment, strive to stimulate economic development, growth and transformation through pursuit of economically vibrant, inclusive and development friendly policies, strategies, and programmes that position the City as a preferred destination for trade, investment and tourism. In collaboration with various national and provincial structures, it facilitates job creation, skills development, poverty alleviation and enhancement of industrial competitiveness. It focuses on arresting flight of strategic investments by facilitating reduction in the cost of doing business within Ekurhuleni. In addition, this department facilitates SMME and co-operatives development; investment promotion, facilitation and retention; and EPWP and CWP development and job creation programmes in the City" <Economic Development - City of Ekurhuleni>.

Thus, the University of Johannesburg have great intentions to match what is required for CoJ and CoE Municipalities by making available to these two Municipalities, Masters students to conduct research and provide technical skills in the required and needed areas

THE JOHANNESBURG SOCIAL HOUSING COMPANY'S (JOSHCO) COMMERCIAL SPACE IS A HUB FOR ENTREPRENEURIAL OPPORTUNITIES



City Of Ekurhuleni Municipality – A Snapshot Of Collaborative Partnerships With University Of Johannesburg

as indicated by the municipalities of CoJ and CoE on, and from, our various academic disciplines and interdisciplinary approaches including and among other:

- School of Business Economics – building a vibrant municipality with the correct business models;
- Engineering: infrastructural development: Quantity Surveying; Roads, Ablution, Water and Sewerage, and housing;
- Green renewable energy initiatives;
- Artificial Intelligence and the digitisation of the municipality for an effective service delivery;
- Faculty of Art Design and Architecture – Town Planning;
- Transport and Supply Chain Management systems and Infrastructure so that Rail and Bus Networks run smoothly and smartly Rail and Bus Networks;
- Entrepreneurship within Municipalities towards community development projects;

- Health Mobile Clinics including diabetes; HIV/Aids; Neurodivergent people and providing health facilities that are accessible to our people;
- Gender-based Violence and Municipalities – protecting the Night Life Economy – (Community Engagement Department of UJ);
- Building urban and semi-rural as well as rural spaces of agro-ecological farming practices (Centre for Ecological Institute [CEI]; and among others.

To do this work, adequate funding is required, and the key contact person is Mr. Rudy Petersen: Senior Manager, Government and Stakeholder Relations, Development Office, A Division of Finance and Revenue Administration, University of Johannesburg, South Africa.
Tel: +27 (0) 11 559 6043;
Mobile: +27 (0) 82 463 4110;
E-mail: rupdyp@uj.ac.za;
and Mrs Veronica Diale,
email: veronicad@uj.ac.za. ■



10. The Right to Quality Education: Advancing Chemistry and Science in Previously Disadvantaged Schools by the Department of Chemical Sciences

Global trends in the fast-growing advancement of information and technology point to the need for qualified physicists, mathematicians, chemists, biologists, engineers, technicians, technologists, and other professionals to strengthen human resource capacity in the sciences field of practice. Given South Africa's critical challenges in the Mathematics, Science, Engineering, Technology and Innovation sector, and the huge gap and shortage of human capital development resources, largely due to the slow trail of a growing number of sustainable pipeline of scientists; as well as the huge shortage of female professionals, South Africa is lagging behind in its education inequality and remain the most unequal society 31 years into its democratic dispensation – this disempowerment, however, is fundamentally being changed and leveraging on solid education in the fields that matter.

THEREFORE, UJ'S DEPARTMENT OF CHEMICAL SCIENCES OF THE FACULTY OF SCIENCE IS RESPONDING ACUTELY TO SOCIO-ECONOMIC DISPARITIES AND EDUCATIONAL CHALLENGES.

With the support from the Department of Basic Education (DBE), South Africa, the University of Johannesburg developed a Public and Community engagement project, notably: "Making Chemistry Experiments accessible", and equipping learners from previously disadvantaged schools with Practical Chemistry/Science experience.

At the heart of this work is Dr Mathapelo Seopela, Prof Ndinteh, Dr Maketha and Dr Fotsing's solid research aligned to the Department of Chemical Sciences, which aims to contribute to building the science information database as well as improving our young people's understanding regarding the inherent processes, in creating a sustainable economy and environment. This the colleagues achieve by generating innovative scientific methods that can be applied effectively by industries and regulation institutions to ensure economic progression and ecological conservation. Participating in interdisciplinary partnerships, interrogating solutions into greener energy solutions, using environmentally friendly research methods, as well as involving community participatory approaches, the science capacity is infinite. **Dr Seopela (as shown in the picture immediately above)** and the team are developing robust collaborative partnerships and



relationships with their peers, society and institutions at large. In addition, they endeavour to undertake research that contribute to the progression of science and that encourages economic growth.

The Department of Chemical Sciences is continuing the work in the trajectory of improving understanding in the application of analytical chemistry, electrochemistry, catalysis, materials, sensors, digital and computational chemistry, natural products in policy, mitigation, rehabilitation and implementation, particularly in the context of South Africa, which is plagued with a mirage of issues.

Thus, by bridging the gap between basic and higher education, fostering community involvement, and empowering educators and learners, this work and among others: aim to create a sustainable impact on STEM education. The Department of Chemical Sciences is focused on improved learner outcomes, enhanced teacher capacities, and increased community engagement, which will contribute to long-term educational advancement and socio-economic development.

The Department's work firmly set its targets and do not shy away from its mission which it does best – which is to educate and provide robust skills and learning in building South Africa's human capital socio-economic development through solid education and bridging the divide in the field of STEM. We are largely working toward fulfilling the ideals of global leaders of 193 countries that have committed in 2015 and 55 African countries in 2013 respectively to the achievement of the United Nations (UN) Global 2030 Sustainable Development Goals (SDGs) and the aligned African Union's (AU) Aspirations and Goals of the continental Agenda 2063 notably: SDG 4 "Ensure inclusive and equitable quality education and promote lifelong learning opportunities for all"; SDG 5 "Achieve Gender Equality and Empower all women and girls";

and, AU Aspiration 1 Goal 2: "Well educated citizens and skills revolutions underpinned by science, technology and innovation – developing Africa's human and social capital through an education and skills revolution emphasizing science and technology".

Central to the Department of Chemical Sciences' capacity-building projects, are the following major aims and objectives:

- **Addressing Educational Disparities:** Focusing on improving pass rates and reducing dropout rates in STEM subjects, particularly in under-resourced schools, imperative for fostering a skilled workforce.
- **Building Community Engagement and Stakeholder Collaboration:** Through collaborative efforts involving educators, learners, and local communities, we seek to create an ecosystem conducive to holistic education and skills development.
- **Promoting Capacity Development of Educators:** Equipping teachers and subject specialists with effective teaching tools and methodologies, aligned with university-level expectations, crucial for achieving sustainable impact.
- **Enhancing Learner Exposure and Interest in Sciences:** By providing hands-on experience with laboratory

equipment and experiments, we aim to ignite curiosity and drive a passion for science among learners.

- **Integration of Postgraduate Students:** Involving postgraduate students from partnering institutions in community-level teaching and learning activities not only enriches their academic experience but also enhances community engagement.

Dr Seopela highlights that: We have created a track-record of working with rural and semi-urban communities. For example: As the epicenter of pedagogic innovation, our Soweto Science Centre is adopting nuanced approaches in dealing with the critical challenges associated with learner performance in mathematics and science within a broader context.

Rather than waiting for the learners to come to the universities (by then it is too late). Therefore, the Centre provides appropriate interventions for high school learners in mathematics and sciences to prepare them for higher education. The UJ Soweto Science Centre serves as a gateway to nearest communities while the learners and the teachers in those communities use it as a gateway to unlock their creative potential. Please see a small review and a snapshot of UJ's engaging lab work an example, as demonstrated in the picture. ■





11. A Basic Human Right: The Right To Food

**TOGETHER, WE CAN
BUILD A FUTURE WHERE
NUTRITIOUS FOOD IS A
RIGHT, NOT A PRIVILEGE.**

Food security is a fundamental human right, yet millions of people worldwide suffer from chronic hunger and malnutrition. Climate change, economic instability, and political conflicts continue to disrupt global food systems, exacerbating food insecurity. For example, in developing countries: 162 million children are stunted; 99 million are underweight and 51 million are wasted due to acute malnutrition. The projected costs to the global economy owing to malnutrition could be up to 3.5 trillion per annum. Similarly, the cost of undernutrition and micronutrient deficiencies are estimated at US\$1.4–2.1 trillion year on year. South Africa and its close neighbours: Angola, the Democratic Republic of the Congo (DRC), Malawi, and Zimbabwe had 50.8 million food-insecure people in 2021/22 and 55.7 million in 2022/23. (Southern African Development Community [SADC] Regional Indicative Strategic Development Plan [RISDP] report, 2022/2023, p.7).

According to Statistics South Africa (Stats SA), in 2021, approximately 2.6 million households (15%) had inadequate access to food, and 1.1 million (6%) faced severe food insecurity. Hunger disproportionately affects low-income communities, rural

areas, and female-headed households. These statistics highlight the urgent need for sustainable, community-driven food production systems that improve access to nutritious food and enhance self-sufficiency. Grocery bills soar at an alarming rate, while the impact of food inflation hits the poorest of the poor South African households. The latest Bureau for Food and Agricultural Policy food inflation report paints a worrying picture for South African households, with prices for staples such as fruit, beverages, and vegetables are on the rise.

The University of Johannesburg (UJ), through its Centre for Ecological Intelligence (CEI), is at the forefront of addressing these challenges through innovative research, education, and hands-on food production initiatives.

CEI applies a multi- and cross-disciplinary approach in close collaboration with many academic hubs at UJ, including engineering, health, entrepreneurship/business, design and architecture, humanities, and science, among others in tackling the complex problems of food and nutrition insecurity.

Through our applied and practical Research and Development, training, and capacity building initiatives, equipped are undergraduate and postgraduate students in agroecological sciences with hands-on experience in diverse food systems and embracing Fourth Industrial Revolution (4IR/4.0) technologically advanced systems, all of which are used to demonstrate our



CEI Grows not only food but grows and nurtures people. (in the picture above Tanaka Mugweni, CEI Research Coordinator, Engineering Technologist

social, environmental, and economic impact. Our work at the Centre resonates with UJ's overall vision, mission, and mandate in building a formidable Food security-UJ greening and feeding project. Our Vice-Chancellor and Principal Professor Letlhokwa George Mpedi, emphasises the importance of both 4IR and Societal Impact to which CEI aligns.

The Centre for Ecological Intelligence has extensive experience in research, training, teaching, and advocacy related to agroecology, agricultural value chain development, entrepreneurship and agribusiness. The CEI has set up community-based food gardens at schools, villages, and on campuses in several provinces and has established strong collaboration and partnerships with key stakeholders and the communities in which we work. These partnerships make sure that CEI is aware of an integrated driven community in meeting their needs and helping communities finding solutions to food

insecurity in the area where it is located.

Effective monitoring and evaluation of these projects are an essential component of our work, ensuring the success and progress of the projects, deployed through a results-based monitoring and evaluation approach, which matches strong inputs and outcome indicators with tangible outputs. These outcomes include the following:

■ **Sustainable Agricultural Practices:**

By applying ecological natural farming practices, the communities in which we work can enrich their

farming knowledge and skills, with active remote tracking.

■ **Increase community participation:**

Encouraging the culture of self-sufficiency.

■ **Publications of applied research:**

Spearheading research into innovative agroecology science methods which are hands-on incubation and coaching (online and in-person), to develop advance solutions and drive technological breakthroughs in the agroecology science field.





CEI Food Hub at UJ Bunting Road Campus

Tanaka's journey with CEI is a testament to the power of interdisciplinary learning and innovation. Originally trained as a mechanical engineer with no formal background in agriculture, Tanaka joined CEI with curiosity about how engineering principles could be applied to sustainable farming. Over time, his work with aquaponics, solar-powered irrigation systems, and energy-efficient farming solutions ignited a passion for agriculture. Through hands-on research, collaborations with industry experts, and leading innovative projects, he has transitioned from an engineering technologist to an aspiring farmer. His vision now extends beyond technology — he aims to integrate engineering with ecological intelligence to revolutionize food production in Africa. Tanaka's story indeed highlights the transformative role of education and research in fostering the next generation of sustainable agriculture leaders.

To scale up its impact, CEI is pioneering research and development in aquaponics, waste management, and renewable energy solutions, the following are required:

- Funding is needed to further develop the CEI's Food Systems Hub at UJ's Bunting Road campus as well as the other four gardens that have been set up and many food gardens planned for the Residences on UJ campuses.

- CEI's projects serve as a skills training centre and research and development hub for climate-smart agriculture. Our Centre hosts up to 14 Work Integrated learning students every year, 10-15 interns and many under- and post-graduate students from UJ.
- The facility includes irrigation and essential tools for year-round crop production, a nursery structure to support seedling cultivation for community and school gardens, and a vermicomposting system, transforming food waste and producing organic fertilizers to enhance soil health. These investments all strengthen food security, sustainability, and training opportunities for UJ students and staff, as well as emerging urban farmers in the Gauteng community (with annual costs at R75,000).

For the Aquaponics and Waste Management initiative we require:

Aquaponic Modular System Research & Development with a cost of (ZAR 85,000) – such funds allocated can substantially aid to design and prototype modular aquaponics systems. These systems are user-friendly, scalable, and equipped with technology for monitoring water quality and nutrient balance.

- **Waste Management & Composting Research and Development (ZAR 70,000)** is required to invest in waste processing technologies to convert farm and organic waste into valuable by-products such as compost, biofertilizers, and biogas.
- **Technology Package for Vermicomposting (ZAR 7,000)** is necessary to develop comprehensive user manuals, setup guides, and training materials for aquaponics and waste management systems.
- **Skills, Knowledge Transfer & Student Supervision and Mentoring (ZAR 70,000)** is what we require in support of structured training programmes, including on-site workshops, online learning modules, and mentoring for University of Johannesburg students.
- **Operation and Administration (ZAR 35,000)** funds are also required to facilitate student administration, project management and monitoring and evaluation of projects for results-based reporting that speaks to our baseline indicators.

CEI's initiatives align with the **United Nations Sustainable Development Goals (SDGs)**,

CEI addresses the Water-Energy-Food Nexus and demonstrates how to utilize limited resources for sustainable farming practices, advancing ecological intelligence and resilient food systems.

Sustainable Development Goals



TRANSFORMING OUR WORLD:
THE 2030 AGENDA FOR SUSTAINABLE
DEVELOPMENT | DEPARTMENT OF ECONOMIC
AND SOCIAL AFFAIRS (UN.ORG)

- Goal 1.** End poverty in all its forms everywhere.
- Goal 2.** End hunger, achieve food security and improved nutrition and promote sustainable agriculture.
- Goal 3.** Ensure healthy lives and promote well-being for all at all ages.
- Goal 4.** Ensure inclusive and equitable quality education and promote lifelong learning opportunities for all.
- Goal 5.** Achieve gender equality and empower all women and girls.
- Goal 6.** Ensure availability and sustainable management of water and sanitation for all.
- Goal 7.** Ensure access to affordable, reliable, sustainable and modern energy for all.
- Goal 8.** Promote sustained, inclusive and sustainable economic growth, full and productive employment and decent work for all.
- Goal 9.** Build resilient infrastructure, promote inclusive and sustainable industrialization and foster innovation.
- Goal 10.** Reduce inequality within and among countries.
- Goal 11.** Make cities and human settlements inclusive, safe, resilient and sustainable.
- Goal 12.** Ensure sustainable consumption and production patterns.
- Goal 13.** Take urgent action to combat climate change and its impacts.
- Goal 14.** Conserve and sustainably use the oceans, seas and marine resources for sustainable development.
- Goal 15.** Protect, restore and promote sustainable use of terrestrial ecosystems, sustainably manage forests, combat desertification, and halt and reverse land degradation and halt biodiversity loss.
- Goal 16.** Promote peaceful and inclusive societies for sustainable development, provide access to justice for all and build effective, accountable and inclusive institutions at all levels.
- Goal 17.** Strengthen the means of implementation and revitalize the global partnership for sustainable development.



CEI HAS A PROVEN TRACK RECORD OF SUCCESSFULLY IMPLEMENTING SUSTAINABLE AGRICULTURAL PROJECTS AIMED AT FOSTERING COMMUNITY ENGAGEMENT, ENVIRONMENTAL STEWARDSHIP AND FOOD SECURITY AND THESE EXAMPLES INCLUDE:

- **Phumulani Agri-village:** A sustainable Agri-village project that has fostered rural economic development, enhanced food security and created income-generating opportunities for local farmers.
- **Tshwane School Gardens:** Six school gardens across Tshwane provide students with hands-on agricultural learning and promote eco-friendly farming practices and a provider of nutritious food.
- **Eastern Cape's Success:** These food Gardens demonstrate the importance of partnerships, collaboration and sustainability.
- **CEI Food Hub at UJ Bunting Road Campus and other sites at UJ:** Urban and campus food hub offering agricultural training, research, food production, and sustainable practices for students and the community. **Funda School Garden Project:** A school-based garden project at UJ's Funda Ujabule Primary School that teaches students about organic farming and nutrition and integrates the food garden as an outdoor classroom.
- **Yeoville School Gardens at Yeoville Boys and Yeoville Community School:** Two school gardens have been implemented that support food security and provide practical farming education for learners and the wider Yeoville community.

Source: Centre for Ecological Intelligence <UJ's Centre for Ecological Intelligence is leading sustainable food systems for the future | UJ News>.

CEI's work has been instrumental in educating communities, creating jobs and promoting sustainable food systems through strong collaborations with local schools, universities and communities.

Our work aims to promote food sovereignty, economic empowerment, and sustainable farming. Fundamentally our projects promote food and nutrition security, promote dietary diversity, and create employment opportunities by training and upskilling up to five unemployed individuals from the village in crop production and related practices within targeted projects.

Source: <UJ's Centre for Ecological Intelligence is leading sustainable food systems for the future | UJ News>.

Join us in transforming South Africa's food security landscape. Your contribution will directly support sustainable farming initiatives that create jobs, improve nutrition, and Empower communities.

We invite philanthropists, corporate partners, and development agencies to support CEI's mission. To discuss funding opportunities, please contact our colleague, overseeing fundraising: Mr Jacob Senoamadi, Senior Project Lead Development Fundraising and Revenue Administration, Tel: +27 011 5599097 mobile: +27 (0) 78 963 3330; E-mail: jacobs@uj.ac.za. ■

12. Our Basic Human Right: The Right to Holistic Health

Neurodivergent individuals in underserved areas face limited access to diagnosis, education, and psychological support. Without timely intervention, neurodivergent children are at higher risk of school dropout, unemployment, and mental health challenges, reinforcing cycles of poverty and exclusion.

OUR WORK GOES TO THE HEART OF PROVIDING A WORK SKILLS PROGRAMME BY ADDRESSING THE SKILLS DEFICITS, LABOUR MARKET INTEGRATION CHALLENGES AND PROVIDING PURPOSE FOR YOUTH WITH AUTISM AND DOWN SYNDROME.

To this end, through baseline research conducted during 2023 and 2024 on autistic and down syndrome youth for the world of work, orchestrated by the Centre for Neurodiversity at UJ, best-practice and collaborative partnership initiatives in this field emerged.

These collaborative partnerships evolved through physical Internationalisation visits globally and were formed with two key world-renowned institutions namely: Pontificia Universidad Católica de Chile; and University of California Davis.

What our research tells us that:

- 1 in 5 children with neurodevelopmental disorders go undiagnosed.
- Few public facilities provide psychoeducational assessments and therapies.
- Many teachers and caregivers lack the knowledge to support neurodivergent learners.
- Parents need consistent support to understand how to deal with their children.

The Centre is thus undertaking to obtain funding and roll out its work towards building the capacity of students with Autism and Down Syndrome.

The programme is addressing the skills deficits, labour market integration and providing purpose for youth with autism and down syndrome. Participants are invited from the Centre's local partners, namely the Randburg School of Autism and also from the Gauteng Department of Education. The work aims at a specialized Non-Degree integration skills-based programme, which runs over a 36-month period, and provides an Experience-Based Certificate of Participation for both the youth and for their supervisors/mentors.

Work Entry Points: UJ's Faculties of Education, Law, College of Business Economics and the library on Soweto campus will serve as pilot sites for placement to test the workability of our students in the second year of the Centre's programme.

UJ's community and friends with UJ's Vice-Chancellor and Principal Professor George Letlhokwa Mpedi (third from the left) and Professor Maximus Sefotho (far right).



The pilot also incorporates research, through post graduate research projects, in order to contribute to knowledge production in the field. The Mpedi Family Scholarship (aligned to UJ's Vice-Chancellor and Principal) plays a pivotal role in funding research for further knowledge production.

The Centre's community outreach is vital therefore, the Centre for Neurodiversity's wishes to acquire a Mobile Therapy & Support Unit aimed to extend life-changing assessments, therapies, and training to marginalized communities in South Africa, while piloting this work in the areas of Gauteng, including Soweto and Alberton sub-regions. With adequate funding support we can build substantial robust research, teaching, learnership as well as critical service delivery in our communities that goes to the heart of providing adequate support to neurodivergent individuals <Centre for Neurodiversity - University of Johannesburg>.

Thus, to execute its work effectively, Professor Maximus Sefotho (as seen in picture further below), says that:

“WE ARE HOPEFUL THAT OUR WORK WILL HELP TO ADDRESS THIS IMPORTANT CONCERN POSED TO US IN A RECENT FORUM HELD BY THE CENTRE WHERE A DAD ASKED: “WHAT WILL HAPPEN TO MY CHILD, WHEN I AM NO MORE?”

Addressing this complex question is the driving force behind the various projects particularly implementing the Experience-Based Certificate of Participation for Youth with Autism and Down syndrome.”

The Centre, in partnership with the Gauteng Department of Education, has already started holding training seminars for parents, teachers and educational psychologists. We are expanding our work across the borders of South Africa and building solid collaborative partnerships with our neighbours – we are going intra-continently to build knowledge production that criss-cross



Professor Franaaz Khan (left) with Professor Maximus Sefotho (right). Professor Khan represents a pivotal role at UJ and established an Intra-University of Johannesburg space for our parents with neurological children.

boundaries and societies in developing greater research in the understanding of neuro-divergent youth – particularly in responding to the parent's question posed as noted – in view of empowering our neurodivergent youth with jobs in the real world. To this end, this Centre is conducting a two-day Autism in Africa Conference during 9–10 April 2025 including participation for example from: (Southern Africa: Lesotho, Eswatini, South Africa, and among other countries), (East Africa: Uganda and Tanzania); (North Africa: Tunisia); (West Africa: Nigeria) and among others.

Our training workshops are simultaneously used for data collection and findings are disseminated on a continuous basis to inform best practice. Together with the GDE, the Centre has been instrumental in founding a Fathers of Children with neurodiversity Tribe (Forum).

The Centre's first forum was held about a year ago on 25 May 2024 at the Randburg School of Autism, which was a major breakthrough with the parent community and academia interrogating these issues. One of the main concerns the fathers also raised related to the post-school space for youth with autism and down syndrome is how they can be assisted for meaningful livelihoods. Therefore, the Africa Autism April 2025 Conference will add great value to our

research inputs and outputs as we move towards developing groundbreaking research.

The Centre has an important wish list that also include the Neurodiversity Mobile Therapy & Support Unit, which requires the use of a versatile mobile 22-seater bus that will be transformed and redesigned to accommodate educational psychologists, students, mental health professionals, and medical personnel where possible.

THE NEURODIVERSITY MOBILE THERAPY & SUPPORT UNIT WILL PROVIDE ASSESSMENT AND DIAGNOSIS OF CHILDREN WITH NEURODIVERSITY WHILE SYNCHRONIZING SCREENING, IDENTIFYING, ASSESSING, AND SUPPORTING (SIAS) FRAMEWORKS FOR PSYCHOEDUCATIONAL ASSESSMENTS.



Professor Maximus Monaheng Sefotho

Our work is carried out by Honours, Masters, and Doctoral students under the supervision of qualified and registered educational psychologists and other professionals.

Additionally, the unit will serve as a mobile research hub, further supporting research conducted by Masters and Doctoral students, Postdoctoral Research Fellows, and faculty members. The interior spaces will be remodeled as a mobile consulting space, while ensuring accessibility and inclusivity of neurodiverse individuals.

The Neurodiversity Mobile Therapy & Support Unit will fundamentally provide:

- **Screening & Psychoeducational Assessments for neurodivergent individuals, youth and children.**
- **Community-based interventions including therapy, counselling, and coaching.**

- **Workshops & training for educators and caregivers on neurodiversity inclusion.**
- **Awareness Campaigns to promote early diagnosis and reduce stigma.**

About Professor Maximus Monaheng Sefotho:

He is a Full Professor in the Department of Educational Psychology – University of Johannesburg. His research focuses on disability, career transition of youth with disabilities and hephapreneurship, a neology he coined for persons who are neither in education, employment or training and is geared towards transformation and social change. Prof. Sefotho coined another portmanteau: Technopedandragogy, which was created owing to the disruption of teaching and learning during the Corona 2019 virus (COVID-19) that soon became a global

pandemic. Technopedandragogy finds a home in Open Distance e-Learning (ODEL) Universities.

Prof. Sefotho is the Director of the Centre for Neurodiversity@UJ
«Prof Maximus Monaheng Sefotho - University of Johannesburg»
«<https://scholar.google.co.za/citations?user=vkN3gWEAAAJ&hl=en>»

Please donate and contribute any amount of funding, “each and every drop counts” towards the Neurodivergent community and research, and contact Jacob Senoamadi, Senior Development Office & Fundraising Finance Division Project Leader.

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Thank you. ■**