

FACULTY OF NATURAL SCIENCES NEWSLETTER: MAY 2025



Albert Modi,
Executive Dean, Natural Sciences

CONTENTS

Administration	3
Teaching and Learning	4
Research	6
Staff improvement	8
Community engagement.....	9
Notices and reminders.....	11

Administration

FNS graduated 230 students in May 2025 (Figure 1; 2). The faculty plans to improve systems and processes by increasing the efficiency of its academic committees (FNSC) and ensuring that the University Capacity Development Grant (UCDG) project leaders show evidence of project implementation. From the second semester, FNSC and UCDG reports will be ratified by the Faculty Board and linked to the WSU Directorate reports and updates. The Faculty welcomes Professors Kamande Kuria and Ifeanyi Egbichi as acting chairpersons of Faculty Research Ethics (FNSREC) and Faculty Research and Higher Degrees (FNSRHDC) committees respectively.

The faculty also welcomes new staff who joined us this Semester

Mr Victor Adeniji, NGAP lecturer in Computer Science

Dr Tanki Motsepa, Lecturer in Mathematics

Dr Leonard Chitongo, Lecturer, Environmental Sciences

Dr Michael Asemoloye, Lecturer, Botany

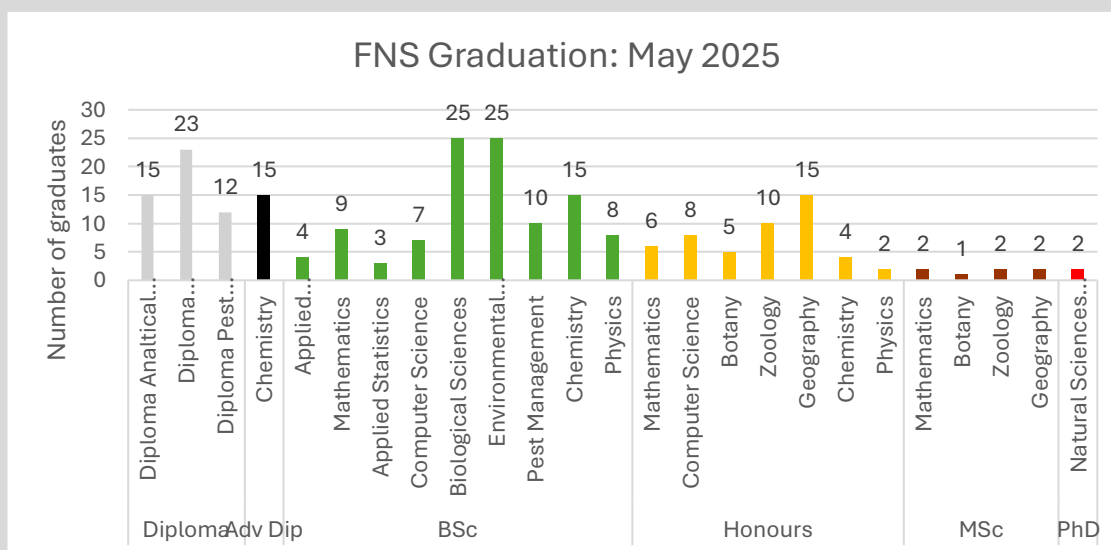


Figure 1. FNS graduation list for May 2025

Two PhD Graduates Co-supervised by Professors Okello and Okuthe, BES

XELELO Zanele
Thesis title:
Solid metal waste management practices: A case of metal waste pickers in O.R. Tambo District Municipality, South Africa

Citation:
Perspective on sustainable waste management, focussing on metal waste pickers in OR Tambo District Municipality. Findings revealed that 70% of waste pickers survive solely through this hazardous work, while 30% are both economically and environmentally motivated.



MATISO Lwanda
Thesis title:
Climate change adaptation strategies by small-scale farmers in selected local municipalities of the OR Tambo District Municipality, Eastern Cape, South Africa

Citation:
Important insights into climate change adaptation among smallholder farmers in this vulnerable region of South Africa. Using a mixed methods approach involving interviews with 200 farmers in three local municipalities and analysing 28 years of Landsat imagery (1994–2022), he examines land use and land cover change (LULCC) and its interplay with adaptation practises.


Figure 2. FNS PhD graduates in May 2025

Teaching and Learning


Staff and students are applauded for tenacity as they continue with their endeavours during challenging times on the NMD campus. The FNS Board resolved to provide guidance and support in order to accomplish duties according to the university calendar (Figures 3). Programme review plan for 2025 is shown in Table 1.

STATE OF FNS ACADEMIC ACTIVITIES

1. Self-evaluation reveals adherence to integrity
2. Strategic plan to remain in the WSU academic calendar unfolds
3. Staff-student nexus for successful Semester 1, 2025 evident



TEACHING AND ASSESSMENTS



Situation	Undergrad	Postgrad	WIL	Other
Teaching progress	<50%	50-75%	75%-80%	100%
Teaching mode at present (state number of affected modules)	Contact	Blended	Online	None (stopped)
Module assessment state	Not done	<50% done	>50% done	100% done
Module assessment report/uploading status	Not done	<50% done	>50% done	100% done
Examination papers submitted to Exams Office	Not done	<50% done	>50% done	100% done
Honours projects approval	Submitted	Presented	Approved	Outstanding
Postgraduate research activities (Select the relevant option)	Normal	Satisfactory (minor glitches)	Serious glitches	Not possible

SIX COMMANDMENTS

Avoid complaining. Keep your emotions in check and stay focused on what needs to be done, maintaining a positive outlook.

Have self-belief. Even if others doubt you, remain confident in your abilities and stay focused on your goals.

Acknowledge your mistakes. Be willing to admit when you're wrong and learn from the experience. No one has all the answers.

Be responsible. If you commit to something, follow through. Your reputation depends on it.

Remain calm. Don't let emotions cloud your judgment. People appreciate steadiness and dependability.

Set a positive example. Many people need guidance and purpose. Understand their needs and help them find their way.

Figure 3. Average state of FNS academic activities in May.

Table 1. Programme reviews for 2025

List of programmes under internal reviews 2025:		Determine the Action	Provide motivation	Final list of programmes for review
Biological and Environmental Science	Hons in Botany	Review	Compliance	Hons in Botany
	BSc Hons in Zoology	Review	Compliance	Hons in Zoology
	Dip & BSc Pest Management	Review	Compliance	Dip & BSc Pest Management
	BSc Biological Science	Review	Compliance	BSc Biological Sciences
Mathematical and Computing Science	BSc in Applied Mathematics	Review in 2026.	QMD to postpone review to 2026.	BSc in Applied Mathematics (pending Senate approval)
Chemical and Physical Science	BSc in Physics and Chemistry Science			
Applied Science	Diploma in Consumer Science in food and Nutrition	Review	Compliance	Diploma in Consumer Science in Food and Nutrition

Research

FNS journal research output for 2024 increased by more than 90% compared to the previous year (Figure 4). Many of our top researchers have already published an average of three co-authored articles in the first semester of 2025. Plans for future research impact include improving researcher H-index and targeting high Impact Factor journals (Figure 5). Postgraduate students who attended the WSU Research Writing Workshop in April responded to a survey by Ms Nofika Benxa. She is keen to see the impact of the workshop (Figure 6)

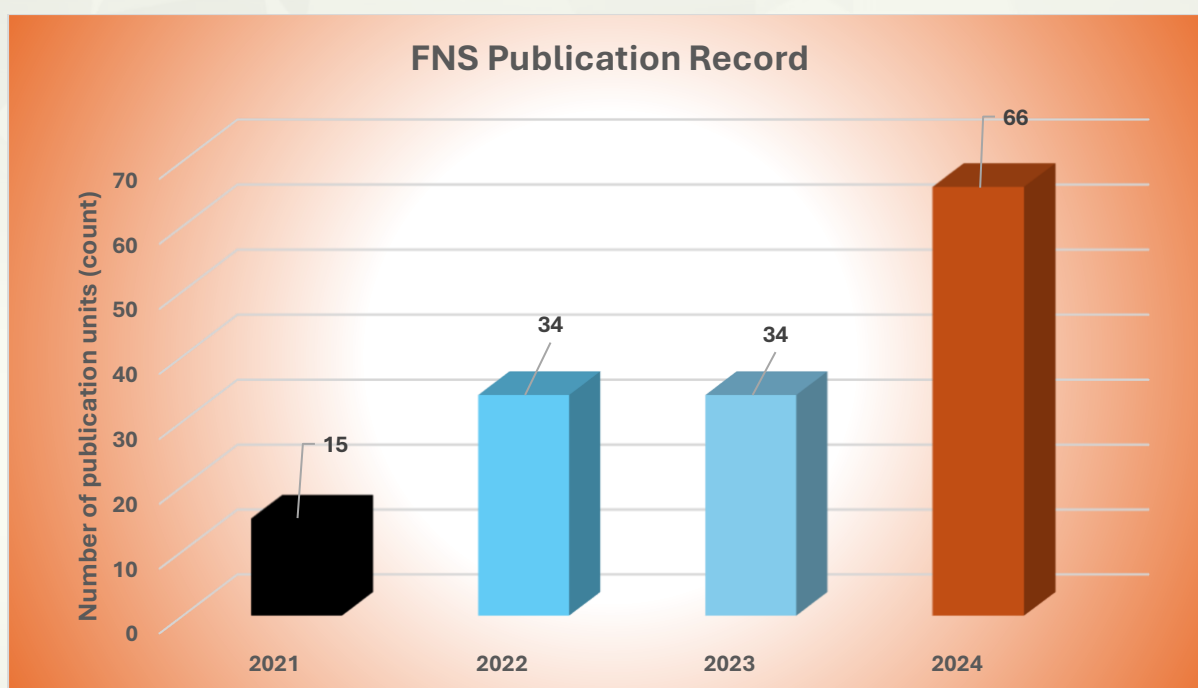


Figure 4. FNS publication record

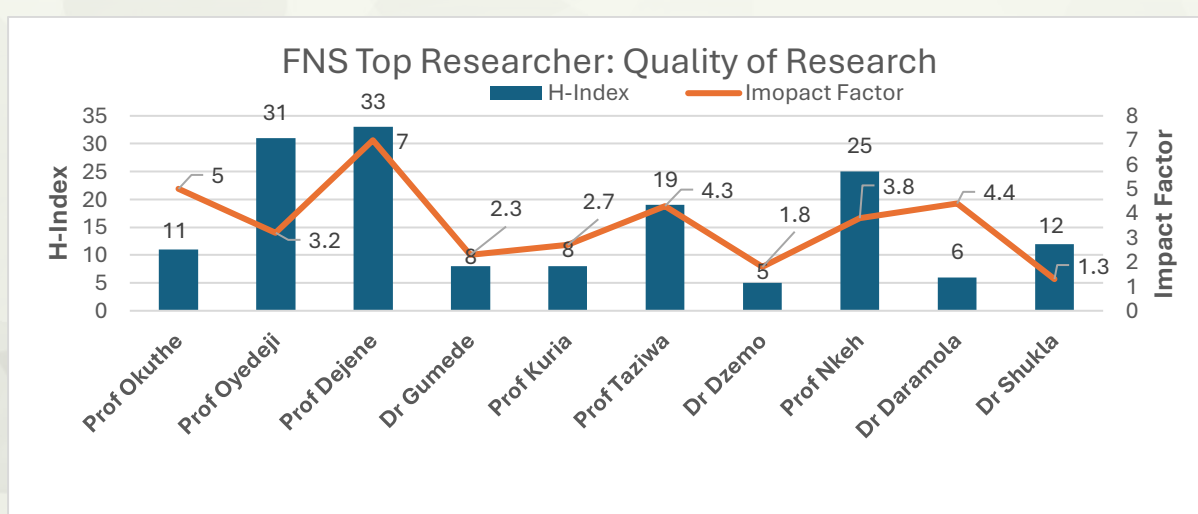
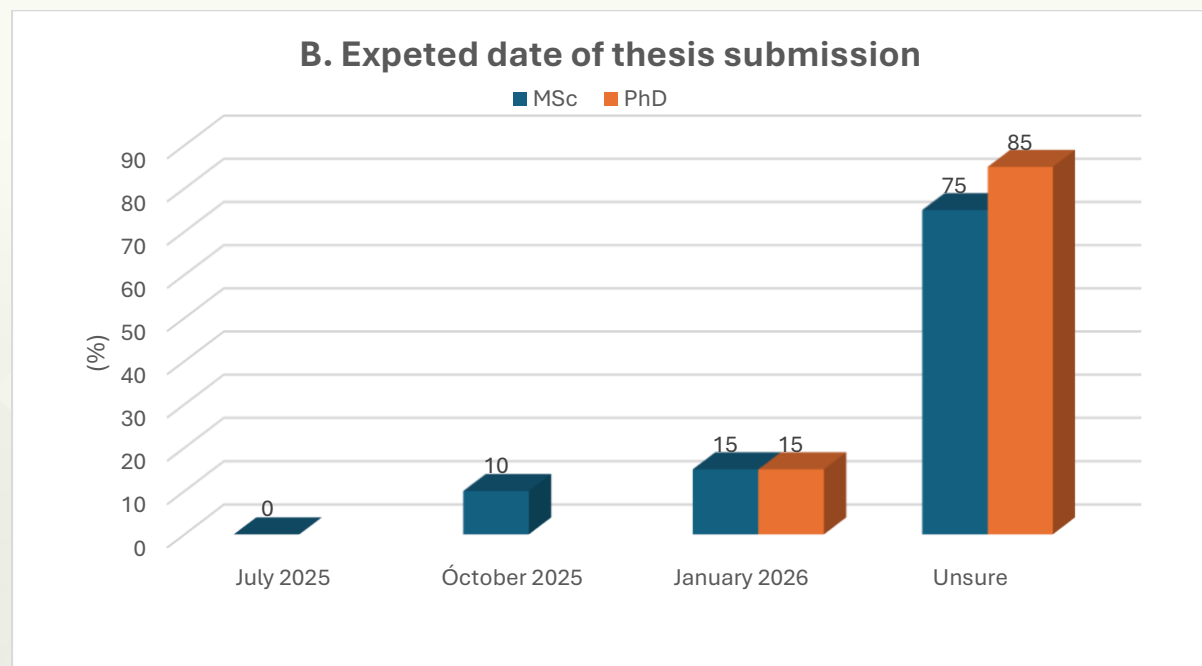
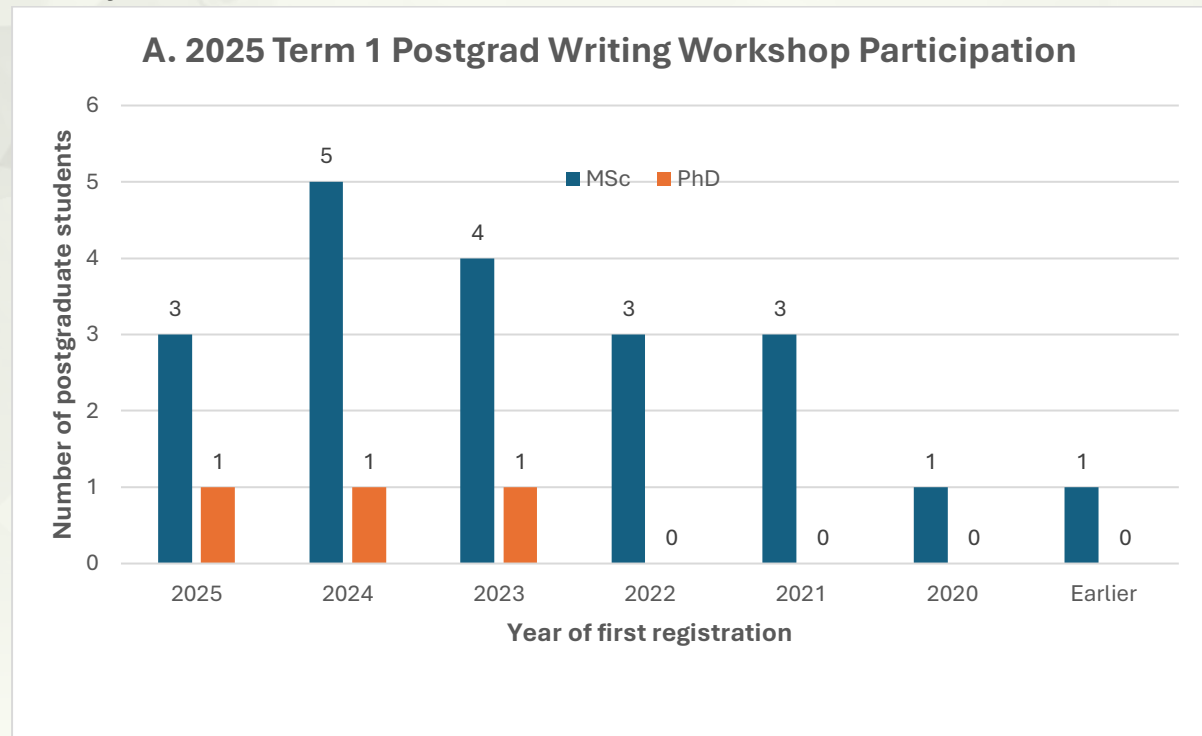


Figure 5. FNS top researcher H-Index and most recent (2024/2025) high Impact Factor journals



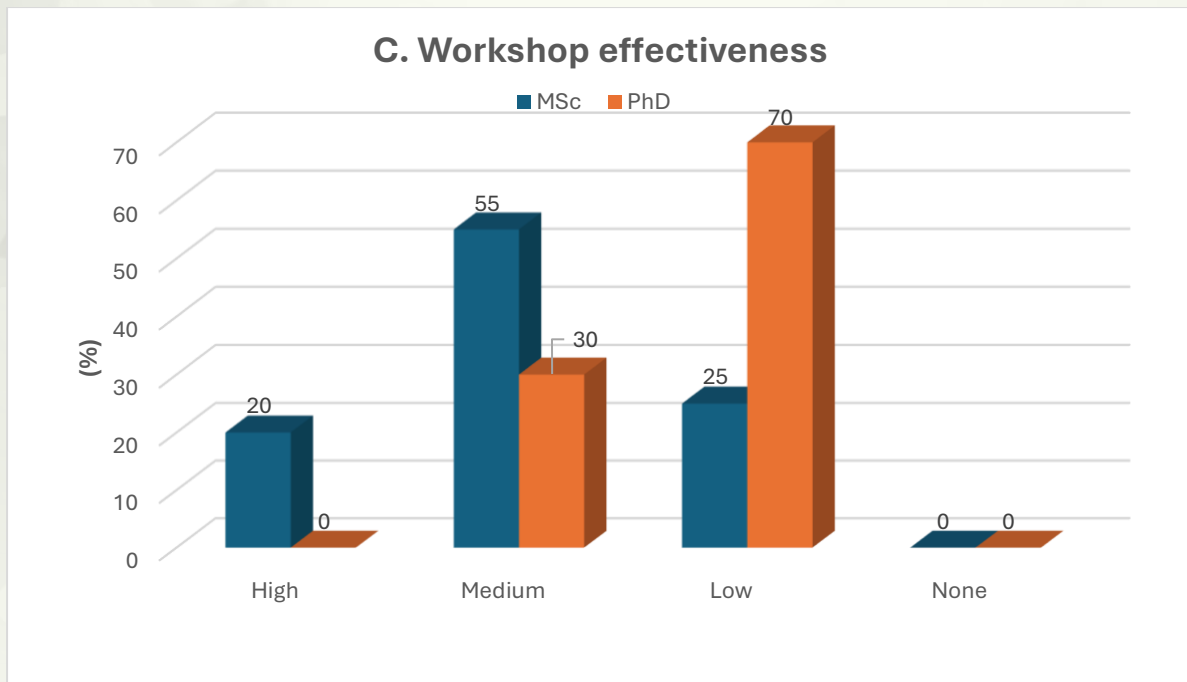


Figure 6. FNS postgraduate participation in the WSU Postgraduate Writing Workshop in April (A) and their responses regarding impact (B and C)


Staff improvement

Faculty staff continue to respond to the call for academic qualifications and skills improvement (Figure 7; 8)

FNS staff register for WSU supported Artificial Intelligence course for 2025/2026

Programme Details:

- i. Duration: Six weeks
- ii. Format: Two sessions per week (Tuesdays and Thursdays), each session lasting two hours from 16:00-18:00
- iii. Components: Individual and group assessments, including assignments



Participants will receive a short course certificate upon successful completion, and the certificate is based on assessed learning (not merely attendance or participation, says Mrs Phila Kuboni, WSU HR Senior Administrator.

Figure 7. Twenty FNS academic staff registered for AI training as part of some 150 cohort across WSU faculties

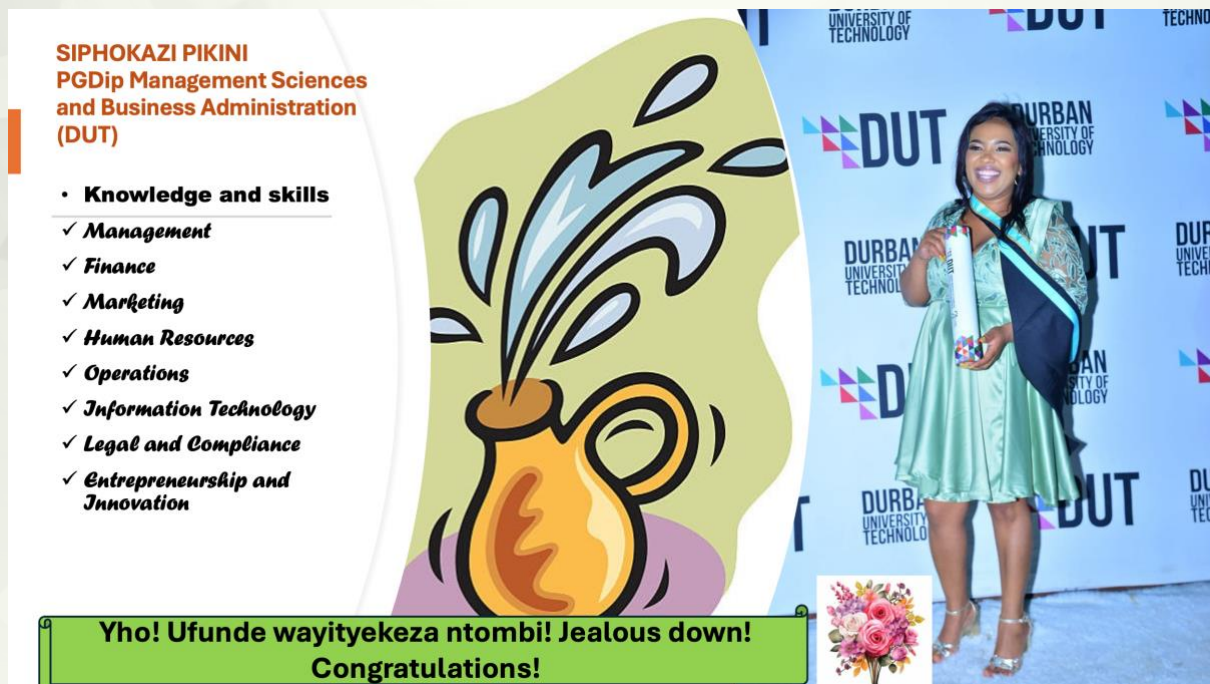


Figure 8. Improvement of skills for systems and processes of academic management will benefit from administration staff qualifications.

Community engagement

FNS has many continuing and planned community engagement projects. The highlights for May are (i) Applied Sciences new collaboration with Clicks, which is designed to be a future Short Learning Programme – thanks to Professor Taziwa (HOD, Applied Sciences) (Figure 9), (ii) Research-led understanding of subsistence farming in Baziya by Professor Kuria and his team of researchers is now embraced by locals (Figure 10) and (iii) Okuhle Nkondlwana used her portfolio to respond to a request for WSU participation in youth development programmes in Mthatha (Figure 11). In addition, we note with satisfaction that Professor Nakin's Centre for Global Change has received a new vehicle for research travel purposes.

APPLIED SCIENCES SIGNED AN INDUSTRY AGREEMENT THAT MAY BE A SHORT LEARNING PROGRAMME FOR WSU

The QCTO qualification for Pharmacy Technicians aims to prepare Learners for the role of Pharmacy Technician ("PT") through comprehensive theoretical and practical training.

- ✓ Pharmacist's Assistant Basic (Level 4)
- ✓ Pharmacist's Assistant Post Basic (Level 5)
- ✓ Pharmacy Technician (Level 6)



Figure 9. Applied Sciences sealed an agreement with Clicks

BAZIYA, MTHATHA FARMERS AGREE TO HAVE THEIR SUBSISTENCE FARMING EXPOSED THROUGH WSU SCIENTIFIC RESEARCH WITH FUTURE PROSPECTS FOR EASTERN CAPE GOVERNMENT INTERVENTION

PROFESSOR KURIA HAS LAUNCHED AN AGROECOSYSTEMS AND PLANT PROTECTION, CURRENTLY INVOLVING ONE POSTDOCTORAL FELLOW AND ONE HONOURS STUDENT.

Multidimensional Perspective of Sustainable Agroecosystems and the Impact on Crop Production: A Review

by

Zanele Adams, Albert Thembinkosi Modi and Simon Kamande Kuria

Department of Biological and Environmental Sciences, Walter Sisulu University, Mthatha 5117, South Africa

Agriculture 2025, 15(6), 581;
<https://doi.org/10.3390/agriculture15060581>



Figure 10. Baziya, Mthatha, research-led community engagement is embraced by local leadership towards a local government intervention.

OKUHLE NKONDWANA LAUNCHED TWO PROGRAMMES IN ONE WEEK



CAREER EXPO FOR FTEN CLASS REPS OBJECTIVES

- 1.Role Clarity
- 2.Communication Skills
- 3.Representation & Advocacy
- 4.Student Voice & Leadership
- 5.Institutional Knowledge services
6. Problem Solving & Conflict Resolution
- 7.Networking & Peer Support

Notices and reminders

- i. Ubumbano: Multi-faith prayer, cleansing and restoration
- ii. Launch of the Study Report and Stakeholder Consultation Workshop on HEPS for Curriculum Transformation
- iii. Submission of assessments and examination papers