



water & sanitation

Department:
Water and Sanitation
REPUBLIC OF SOUTH AFRICA



MEDIA STATEMENT

DWS funds a 23-year-old PhD student and winner of the Wetskills Challenge in Amsterdam

02 April 2025

The Department of Water and Sanitation (DWS) proudly celebrates Hope Thendo Mudau, a 23-year-old dedicated and passionate water professional, for her remarkable achievement at the prestigious Wetskills Challenge. This global competition brings together students and young professionals from across the globe to develop innovative solutions to real-life water-related challenges.

The 76th Wetskills Challenge was held in Amsterdam recently and concluded with a South African-led team emerging victorious. This is an inspiring milestone for the country's young talent in the water sector.

Mudau is a departmental bursar and PhD candidate in Civil Engineering at the University of Cape Town. She led her team to success with a groundbreaking case study titled, ***“Conceptualizing the AI-Driven Wastewater Treatment Framework – Wastewater Optimization for Sustainable Water Management.”*** This research focuses on integrating artificial intelligence into wastewater treatment processes, aiming to enhance efficiency and sustainability in water management.

Her journey to this international platform was made possible through the unwavering support of the DWS, which has played a critical role in Mudau's academic and professional development.

Since her undergraduate years, the Department has provided financial assistance, resources, and opportunities that have enabled her to excel in her field. Notably, the Department also sponsored her participation in the recent Amsterdam Wetskills Challenge, reinforcing its commitment to nurturing young talent and fostering innovative solutions in the water sector.

“The Department has been my biggest supporter, from funding my studies to gifting me my very first laptop and now sending me to Amsterdam for Wetskills. This victory validates the passion and dedication I've poured into this field and motivates me to continue innovating for a sustainable water future,” said Mudau.

Mudau's journey in the water sector started at an early age. In 2015, at just 14 years old, she won the Youth Water Prize Competition. This early recognition fuelled her passion for water science, leading her to pursue a career in engineering and research, with a strong focus on sustainable water solutions.

“The competition opened my eyes to the challenges facing our country's water sector. It made me realise the importance of awareness and innovation in solving these problems. That experience set me on the path that led to where I am today,” she shared.

SOUTH AFRICA IS A WATER-SCARCE COUNTRY



Department of Water and Sanitation South Africa



DWS_RSA



water & sanitation

Department:
Water and Sanitation
REPUBLIC OF SOUTH AFRICA



Beyond her academic and research achievements, Mudau is actively involved in her community in Benoni on the East Rand, Gauteng, using her knowledge to give back and inspire others. She engages in outreach programmes, mentors young students interested in science, and participates in initiatives that promote water awareness and sustainability. She believes that education and innovation should go hand in hand with community service, ensuring that scientific advancements translate into real-world solutions for those who need them the most.

To young people, especially women in the black community aspiring to enter the water sector, Mudau called for fearlessness and hard work.

“There is space for you here, and we need your ideas and energy. The water sector has traditionally been male-dominated, but it is evolving, and diversity brings strength. Find your passion, stay curious, and don’t be afraid to take up space,” she advised.

The Wetskills Challenge has established itself as a transformative learning experience, offering young professionals the opportunity to work on real-world cases presented by industry leaders, government bodies, and research institutions. The challenge emphasises out-of-the-box thinking and international collaboration, equipping participants with the necessary skills and networks to drive impactful change in the water sector.

This year’s event featured participants from South Africa, Vietnam, Romania, Oman, the United Arab Emirates, Bangladesh, and The Netherlands, all bringing diverse perspectives and expertise to the competition. The presence of South African talent on the global stage signifies the country’s ability to contribute significantly to water innovation.

The Department of Water and Sanitation remains steadfast in its commitment to investing in young professionals who will shape the future of water management in South Africa and beyond. By supporting initiatives such as the Wetskills Challenge, the Department continues to create opportunities for the next generation of engineers, scientists, and water specialists, ensuring a sustainable and secure water future for all.

Hope Mudau’s success is a testament to the power of education, innovation, and unwavering determination. Her journey serves as an inspiration to aspiring water professionals, especially young women in STEM (Science, Technology, Engineering, and Mathematics), proving that with the right support and dedication, South African talent can compete and excel on the global stage.

END

Issued by the Department of Water & Sanitation

For more information, contact Wisane Mavasa, Spokesperson for the Department of Water and Sanitation on 060 561 8935

SOUTH AFRICA IS A WATER-SCARCE COUNTRY



Department of Water and Sanitation South Africa



DWS_RSA



water & sanitation

Department:
Water and Sanitation
REPUBLIC OF SOUTH AFRICA



For media releases, speeches and news visit the Water & Sanitation portal at:
www.dws.gov.za

SOUTH AFRICA IS A WATER-SCARCE COUNTRY



Department of Water and Sanitation South Africa



DWS_RSA