The Biennial Conference of the Southern African Association

of Geomorphologists (SAAG 2025)

Oudtshoorn, Western Cape, South Africa, 15–18 July 2025

Report

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Report on Fostering Research Development in Geomorphology: Reflections from the Southern Africa Young Geomorphologists Conference, Oudtshoorn 2025

As a young researcher I had an opportunity of a life time to attend and participate in the Southern African Association of Geomorphologists Conference (SAAG 2025), held in the Western Cape, South Africa, from 16–18 July 2025. This conference was very enriching academically and helped me develop professional cooperation with established researchers in the field of Geomorphology. The conference offered a valuable platform to engage with cutting-edge research in geomorphology, share my own findings, and participate in focused fieldwork. It reinforced the critical role of interdisciplinary collaboration in tackling soil erosion and land degradation

challenges across Southern Africa while still teaching us that we have to remember that we are not only researching but trying to find ways to solve issues that affect real people.

The conference organizers selected an ideal setting to orient us for a full-day field excursion to the Cederberg Mountains. Observing the folded sandstone formations of the Cape Fold Belt firsthand provided a vivid illustration of tectonic processes and their significant influence on shaping modern landscapes. This experience was directly relevant to my research on slope stability and erosion dynamics. Moreover, engaging with peers and experts during the excursion facilitated valuable exchanges on field techniques and in-depth discussions regarding regional sediment transport patterns. This immersive field experience reinforced the critical role of fieldwork in validating remote sensing data and enhancing the accuracy of erosion models.

A highlight of the conference was the opportunity to present my research titled, *"Soil Erosion Patterns and Controlling Factors in the Highveld of Eswatini: Implications for Sustainable Land Use Management."* My study integrates the Revised Universal Soil Loss Equation (RUSLE) with remote sensing data to identify erosion hotspots and key controlling factors such as slope gradient, land use intensity, and rainfall erosivity. I received insightful feedback from established authors who had done similar work before which was instrumental, especially regarding calibrating the model and effectively communicating complex findings to diverse audiences. I can say that I was encouraged to add more to my research, especially incorporating machine learning to model to increase accuracy. I was also encouraged to incorporate socio-economic variables into erosion models to refine my methodology for greater practical applicability.

The conference featured diverse sessions that deepened my understanding of contemporary geomorphological research. What interested me was the variety of works that were done by the Geomorphologists in the conference which was from all aspects of geomorphology. I was quite interested on the presentations on remote sensing and GIS applications which I believe introduces innovative techniques for erosion monitoring, including machine learning approaches and cloud-based platforms like Google Earth Engine. However, senior researchers warned us on the overdependence on these tools and encouraged a hands-on experience to master the science and verify the result of remotely sensed data.

Beyond academic sessions, the conference provided excellent opportunities for networking. I connected with prominent researchers from Southern Africa, such as Dr. Kwanele Phinzi (University of Zululand) and Tatenda Musasa (Midlands State University), with whom I am actively exploring collaborative projects on Geomorphic controls of soil erosion. Returning home I hope to have further conversations with policymakers from Eswatini's Ministry of Agriculture open a dialogue on how my research might directly inform national land restoration strategies. These interactions have laid the groundwork for future interdisciplinary partnerships.

SAAG 2025 was a transformative experience that has significantly shaped my academic and professional trajectory. I came back from the conference rejuvenated and determined to push gain towards more research on Geomorphology. The blend of presentations, fieldwork, and networking provided me with new methodologies and potential collaborations to advance my PhD research. Moving forward, I am eager to include machine learning techniques in my erosion models and to pursue policy-relevant applications of my findings. I extend sincere gratitude to the conference organizers, the IAG for funding me to attend this conference, my co-authors, and the University of Eswatini for their unwavering support. This conference has strengthened my dedication to contributing meaningfully to sustainable land management in Eswatini and Southern Africa.

Regards

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