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Southern African Mountains: Overcoming Boundaries and Barriers

Champagne Sports Resort, KwaZulu-Natal, South Africa

17 to 20 March 2025

Conference Report





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Executive Summary

The 2nd Southern African Mountain Conference (SAMC2025) was held from 17 to 20 March 2025 at the Champagne Sports Resort in KwaZulu-Natal, South Africa. With the theme 'Southern African Mountains – Overcoming Boundaries and Barriers', the broad aims of SAMC2025 were:

- To provide a platform to integrate science, policy, and practitioner sectors for sustainable interventions in southern African mountains.
- To share and disseminate information between interested and affected stakeholders concerning the vulnerabilities, challenges, and opportunities with and surrounding the mountain areas of southern Africa.
- To improve co-operation and communication between various groups of influence, where civil society, traditional, and elected leaders are crucial in ensuring the sustainability of natural resources for current and future beneficiaries.
- To highlight the complexities and sensitivities of mountain social-ecological systems and the importance of fully understanding the impact of the human footprint as well as climate change variabilities.

SAMC2025 brought together 313 academics, researchers, early career professionals, practitioners, policymakers, postgraduate students, and government officials, from 22 countries; 29% of delegates were from other African countries, Europe, North America, and Asia.

SAMC2025's impact was achieved through four high profile keynote speakers, 249 presentations (21% delivered by postgraduate students) across disciplines – including a very strong arts and humanities component – in eight parallel sessions, seven special/breakaway sessions, one poster session, three book launches, and a film premiere ([QwaQwa: Place of Barriers and Bridges](#)). The oral presentations were organised in the following sub-themes:

- Environmental Management of Mountain Areas.
- Invasive Species in Mountains.
- Land Use and Land Cover Change.
- Making a Difference Through Partnerships and Platforms.
- Mountain Biodiversity – Animals.
- Mountain Biodiversity – Vegetation.
- Mountain Communities.
- Mountain People's Livelihoods.
- Mountain Water Security and Water Quality.
- Mountain Wetlands.
- Mountains and Climate Change.

Special/Breakaway Sessions were organised around themes of strategic importance for southern African mountains. These were:

- African Mountainscapes and the Anthropocene.
- Management of Transboundary Water Resources: Perspectives from the Source.
- Promoting Transboundary Ecosystem Linkages: The Role of Southern African Development Community (SADC) Transfrontier Conservation Areas (TFCAs) in Southern African Mountain Regions.
- Towards a Southern African Mountain Treaty/Convention.
- Measurements on Mountains.
- Towards an African Mountain Biodiversity Assessment.
- Contextualising Mountain Carbon.

A highly impactful first-ever Royal Mountain Indaba was hosted, which raised recognition of the role of traditional authorities in mountain landscapes at SADC scale.

Capacity building was a high priority for enabling the next generation of science, policy, and practitioner sectors for southern African mountains. This was achieved by postgraduate students and postdoctoral fellows presenting alongside seasoned scientists, a dedicated Postgraduate Early Career Summit, and a technical workshop on mountain instrumentation.

The social programme included a Meet-and-Greet, a dignitary reception with 52 delegates from two embassies, UNESCO, government representatives and traditional authorities from Eswatini, Lesotho, and South Africa, and a gala dinner with internationally acclaimed speaker Ms Saray Khumalo and entertainment provided by the renowned Drakensberg Boys' Choir.

In a summary of conference-wide outcomes, the following deserve highlighting in line with the theme of the conference “Overcoming boundaries and barriers”:

- SAMC2025 was a key activity in the Primary Partners' combined contribution to the United Nations' Five Years of Action for the Development of Mountain Regions (2023–2027), successfully built on SAMC2022, and further enabled the vibrant, growing Community of Practice for southern African mountains.
- SAMC2025 created an enabling environment for stronger transboundary mountain co-operation from local to SADC scale.
- SAMC2025 enabled conversations for bridging traditional and elected governance systems for mountains, bridging disciplines for sustainable mountain futures, and bridging science, policy and practitioner sectors.
- It also enriched the discussion on cross-border environmental problems, early warning systems, and disaster risk management with a competent mountain perspective that is otherwise largely missing.
- Through high-level representation – at Ambassadorial, Vice-Chancellor, SADC Secretariat, UNESCO, Royal House, Alpine Convention, International Mountain Conference, and United Nations scale – SAMC has become an accelerator for stronger representation of African mountains at global scale.
- The special session on ‘A proposed SADC Mountain Treaty/Convention’ culminated in the successful proposition to be presented to SADC Member States.
- Two anticipated special issues (due in 2026) in the journals *Transactions of the Royal Society of South Africa* and *Transformation: Critical Perspectives on Southern Africa*.
- Participation of three SAMC2025 doctoral delegates at the International Mountain Conference in Innsbruck, Austria (September 2025).

The SAMC2025 Partners express deep gratitude to UNESCO for Official Patronage, and to the generous sponsors and funders: Mountain Club of South Africa, University of the Free State, Centre for Development and Environment (University of Bern), Global Mountain Biodiversity Assessment, Campbell Scientific, GIZ, National Research Foundation, National Convention Bureau, reNOKA, SADC, and UNESCO Southern Africa. The Primary Partners express sincere appreciation to The Peaks Foundation for implementing SAMC2025, and Champagne Sports Resort for the magnificent facilities.

As the SAMC2025 Primary Partners, we look forward to SAMC2028!

Afromontane Research Unit (University of the Free State)
Global Mountain Safeguard Research Programme (Eurac Research & United Nations University),
African Mountain Research Foundation
Implemented by The Peaks Foundation



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CONFERENCE REPORT

About the Southern African Mountain Conference (SAMC) series

The Southern African Mountain Conferences (SAMC) series is an initiative of three Primary Partners: The Afromontane Research Unit (ARU) based on the Qwaqwa Campus of the University of the Free State (UFS) (South Africa); the Global Mountain Safeguard Research Programme (GLOMOS), a joint research initiative between Eurac Research (Italy) and the United Nations University Institute for Environment and Human Security (UNU-EHS) (Germany); and the charitable trust African Mountain Research Foundation (AMRF) (United Kingdom).

The overall mission of the SAMC series is to draw attention to the importance of mountain areas in southern Africa and to promote a robust community of practice that bridges science, policy, and practitioner sectors.

SAMC success is attested through two major conferences (SAMC2022 and 2025) and one intervening workshop in 2022 (*Safeguarding and Preservation of the Dragon Heritage*), UNESCO Patronage, and a wide array of sponsorship.

SAMC 2025 – An Overview

SAMC2025 (17 to 20 March 2025) built on the highly successful 1st Southern African Mountain Conference (SAMC2022) held in March 2022 and the subsequent Maloti Drakensberg Workshop (*Safeguarding and Preservation of the Dragon Heritage*) held in December 2022.

With the theme '**Southern African Mountains – Overcoming Boundaries and Barriers**', the broad aims of SAMC2025 were:

- To provide a platform to integrate science, policy, and practitioner sectors for sustainable interventions in southern African mountains.
- To share and disseminate information between interested and affected stakeholders concerning the vulnerabilities, challenges, and opportunities with and surrounding the mountain areas of southern Africa.
- To improve co-operation and communication between various groups of influence, where civil society, traditional and elected leaders are crucial in ensuring the sustainability of natural resources for current and future beneficiaries.
- To highlight the complexities and sensitivities of mountain social-ecological systems and the importance of fully understanding the impact of the human footprint as well as climate change variabilities.

SAMC2025 brought together academics, researchers, early career professionals, practitioners, policymakers, postgraduate students, and government officials, amongst others, to engage and exchange experiences, research findings, problem-solve, and foster partnerships toward the transboundary and transdisciplinary sustainability of southern African mountains.

This SAMC event was the second of its kind in the southern Africa region and expanded its reach to be more inclusive of policy and practitioner sectors.

SAMC2025 was purposefully multi- and trans-disciplinary, with a strong impetus to link science, policy, and practitioner realms, and included plenary sessions, parallel oral paper

presentation sessions, poster sessions, panel discussions, sessions for special interest groups, and targeted capacity development interventions.

SAMC2025 was attended by 313 delegates from 22 countries including 10 African countries. Most SADC countries were represented, including policy representation at Southern African Development Community (SADC) level; 29% of delegates were from other African countries, Europe, North America, and Asia.

SAMC2025's impact was achieved through four high profile **keynotes**, 249 presentations (21% delivered by postgraduate students) across disciplines – including a very strong arts and humanities component – in eight parallel sessions, seven special/breakaway sessions, one poster session, three book launches, and a film premiere.

The **oral presentations** were delivered by established researchers, policy makers, practitioners, post-doctoral fellows, and postgraduate students, in 27 sessions held in eight parallel tracks. In addition, nine posters were displayed and presented during the poster session. Based on the abstracts received, reviewed and accepted, the following sub-themes and were identified and formed the basis of the programme:

- Environmental Management of Mountain Areas.
- Invasive Species in Mountains.
- Land Use and Land Cover Change.
- Making a Difference Through Partnerships and Platforms.
- Mountain Biodiversity – Animals.
- Mountain Biodiversity – Vegetation.
- Mountain Communities.
- Mountain People's Livelihoods.
- Mountain Water Security and Water Quality.
- Mountain Wetlands.
- Mountains and Climate Change.

In addition, seven **Special/Breakaway Sessions** were organised around themes of strategic importance for southern African mountains. Their programmes included papers and presentations from abstracts submitted, as well as solicited and invited presentations. The Special/Breakaway Sessions were:

- African Mountainscapes and the Anthropocene.
- Management of Transboundary Water Resources: Perspectives from the Source.
- Promoting Transboundary Ecosystem Linkages: The Role of Southern African Development Community (SADC) Transfrontier Conservation Areas (TFCAs) in Southern African Mountain Regions.
- Towards a Southern African Mountain Treaty/Convention.
- Measurements on Mountains.
- Towards an African Mountain Biodiversity Assessment.
- Contextualising Mountain Carbon.

A highly impactful first-ever **Royal Mountain Indaba** was hosted, which raised recognition of the role of traditional authorities in mountain landscapes at SADC scale. The event allowed stakeholders from various domains to meet and share matters aligned with sustainable mountain management.

Capacity building was a high priority for enabling the next generation of science, policy, and practitioner sectors for southern African mountains – especially given that Africa's population is the world's youngest on average. This was achieved by postgraduate students and

postdoctoral fellows presenting alongside seasoned scientists, a dedicated Postgraduate Early Career Summit, and a technical workshop on mountain instrumentation. The top poster presentation and the top three Master's and Doctoral presenters were awarded SAMC2025 prizes, with the top three Doctoral presenters also awarded travel grants by the International Mountain Conference (#IMC) to attend the IMC and its Summer School in Austria (September 2025).

The social programme included a Meet-and-Greet, a dignitary reception with 52 delegates from two embassies, UNESCO, government representatives and traditional authorities from Eswatini, Lesotho, and South Africa, and a vibrant gala dinner with internationally acclaimed speaker Ms Saray Khumalo (Speaker, Expedition Leader & Trailblazer, the first Black African woman to summit Mount Everest, and a member of the Mountain Club of South Africa), and entertainment provided by the renowned Drakensberg Boys' Choir.

In a summary of conference-wide outcomes, the following deserve highlighting in line with the theme of the conference i.e. "Overcoming boundaries and barriers":

- SAMC2025 was a key activity in the Primary Partners' combined contribution to the United Nations' Five Years of Action for the Development of Mountain Regions (2023–2027), successfully built on SAMC2022, and further enabled the vibrant, growing Community of Practice for (southern) African mountains.
- SAMC2025 created an enabling environment for stronger transboundary mountain co-operation from local to Southern African Development Community (SADC) scale.
- SAMC2025 enabled conversations for bridging traditional and elected governance systems for mountains, bridging disciplines for sustainable mountain futures, and bridging science, policy and practitioner sectors.
- It also enriched the discussion on cross-border environmental problems, early warning systems, and disaster risk management with a competent mountain perspective that is otherwise largely missing.
- Through high-level representation – at Ambassadorial, Vice-Chancellor, SADC Secretariat, UNESCO, Royal House, Alpine Convention, International Mountain Conference, and United Nations scale – SAMC has become an accelerator for stronger representation of African mountains at global scale.
- The special session on 'A proposed SADC Mountain Treaty/Convention' culminated in the successful proposition to be presented to SADC Member States in May 2025.
- Two anticipated special issues (due in 2026) in the journals *Transactions of the Royal Society of South Africa* and *Transformation: Critical Perspectives on Southern Africa*.
- Participation of three SAMC2025 doctoral delegates at the International Mountain Conference in Innsbruck, Austria (September 2025).

Event Governance and Management

As for SAMC2022, **Official Patronage** of SAMC2025 was generously provided by UNESCO. This was awarded on a recommendation by the Secretary-General of the South African National Commission for UNESCO (Mr Carlton Mukwevho). Regional UNESCO logistics and support were provided by the Southern African Office (Harare, Zimbabwe), notably Dr Guy Broucke and Ms Gugu Zikalala. UNESCO Head-office (France) was represented in-person through the Programme Specialist, Man and the Biosphere (MAB) Programme (Dr Kelly Cerialo), who also presented a Keynote.

Financial and in-kind support was received from a variety of sponsors, for which we are deeply appreciative. These were the Global Mountain Biodiversity Assessment (Switzerland), Centre for Development and Environment, University of Bern (Switzerland), the South African National Convention Bureau, Mountain Club of South Africa, National Research Foundation (South Africa), Southern African Development Community, Gesellschaft für Internationale Zusammenarbeit (Germany, co-funded by the European Union), Campbell South Africa, and

the International Mountain Conference (Austria). Extensive support was received from the University of the Free State, including from the Office of the Deputy Vice-Chancellor for Research, Innovation, and Postgraduate Studies; the Directorate for Research Development; the Office for International Affairs; the Principalship of the Qwaqwa Campus; the Faculty of Humanities (Office of the Assistant Dean, Qwaqwa Campus); and the Afromontane Research Unit.

Overall **strategic guidance and governance** of SAMC2025 was provided by the Primary Partners: Afromontane Research Unit (University of the Free State), Global Mountain Safeguard Programme (Eurac Research and United Nations University), and the African Mountain Research Foundation, with overall responsibility by the Conference Chair: Director of the Afromontane Research Unit (Prof Ralph Clark).

The Peaks Foundation provided **Conference Secretariat expertise** for the organisational and financial administration of the event. This included chairing the SAMC2025 Local Organising Committee, consisting of six staff members from the University of the Free State (Bloemfontein and Qwaqwa campuses; Prof Ralph Clark, Ms Sithando Jwara, Dr Divane Nzima, Dr Stephanie Payne, Ms Precious Shamase, and Dr Adriaan van der Walt) and one community representative (Mr Sechaba Motsumi, advisor to the Batlokoa and Bakona Royal Houses, QwaQwa).

Content quality management was provided by the Conference Chair together with the dual Scientific Chairs (Prof Katinka de Wet and Prof Peter Taylor, both University of the Free State) covering both natural sciences and humanities. In addition, over 260 reviewers from 19 countries assisted in reviewing abstracts. Given that SAMC2025 encouraged contributions from beyond academia, the review process included tracks for academic, policy, and practitioner sectors to avoid unnecessary academic hurdles for non-academic contributions.

SAMC2025 Programme

Opening Session

Chair: Prof Ralph Clark (SAMC2025 Chair and Director: Afromontane Research Unit, University of the Free State)

The **Official Opening** of SAMC2025 was held on the morning of Monday, 17 March 2025. This included an opening welcome and housekeeping by the Conference Chair, Welcoming Statements by invited dignitaries, an Official Welcome by the Patron, the Official Opening, the first Plenary Keynote Address, three Book Launches, and a Film Premiere.

The Session commenced in the welcoming of delegates by the SAMC Chair, Prof Ralph Clark, who highlighted the historic role of mountains as both barriers and opportunities for co-operation. Prof Clark emphasised that with increasing environmental challenges, increasing transboundary collaborative efforts are necessary to ensure the sustainable management of mountain ecosystems. He outlined that SAMC2025 was part of the Primary Partners' contribution to the United Nations' Five Years of Action for the Development of Mountain Regions (2023–2027), and to create an enabling environment for a vibrant, growing Community of Practice for southern African mountains.

Six **Welcome Statements** – representing the Primary Partners and strategic policy sectors were presented by high profile delegates:

- The **President of Eurac Research** (Italy), Prof Roland Psenner, emphasised how Eurac Research was delighted to have been invited to the Southern African Mountain Conference and to have the opportunity to actively participate. In Eurac, 18 institutes and

centres either deal with mountains by definition – such as the Institute for Mountain Rescue Medicine and the Institute for Alpine Environment – or are involved in studies on mountain populations, mountain risks, and mountain technology. GLOMOS, our Global Mountain Protection Research Centre, acts as a link to UN frameworks and UN activities, such as the United Nations University, to advocate for mountain issues and needs. As a globally networked hub and think-tank for interdisciplinary and applied mountain sciences, Eurac Research is ready to support mountain research in southern Africa and all efforts to establish an agreement for cross-border co-operation in mountain research.

- **Founding Trustee and Chair of the African Mountain Research Foundation** (United Kingdom), Mr Alex Hickman, highlighted the role of the Foundation in promoting African meteorology and capacity building in mountain contexts as a collaborative endeavour with local partners in Malawi, South Africa, and Zimbabwe to date. Mr Hickman introduced a pre-recorded Message of Support for SAMC2025 from Prince Harry, Duke of Sussex who spoke of his great affection for the region, how climate change was damaging the health and livelihoods of its people, and the importance of urgently addressing the lack of data measuring how global warming and extreme weather events are impacting countries like Lesotho, Botswana, and South Africa.
- The **Vice-Chancellor and Principal of the University of the Free State** (South Africa), Prof Hester Klopper emphasised that the University of the Free State's role in this groundbreaking initiative reflects their commitment to academic capacity-building and regional societal impact. She acknowledged the work done by the Afromontane Research Unit in conceptualising the SAMC series, and as a champion for creating stronger intra-African collaboration and strengthening North-South and South-South partnerships with other continents in mountain research.
- The **Mountain Partnership Secretariat**, Food and Agricultural Organisation of the United Nations (Italy), was represented by Mrs Sara Manuelli, who underscored the urgent challenges mountain ecosystems face, particularly in Africa, and highlighted the solutions driven by mountain communities – especially Indigenous Peoples, women, and young people.
- The **Secretariat of the Southern African Development Community (SADC)** (Botswana), represented by Ms Ndapanda Kanime, acknowledged the value of the chosen venue of SAMC2025: the Maloti-Drakensberg mountains – known for its rich natural heritage, and not just as a landscape, but as a vital ecosystem that supports biodiversity, water resources, and the livelihoods of the region's people. Ms Kanime emphasised the value of SADC being part of SAMC2025, and the regional shared responsibility towards southern African mountains. She emphasised the need to address issues of transboundary collaboration by stressing the importance of co-operation across national borders for effective mountain management. She thanked the Government of the Republic of South Africa for hosting this conference, and all the partners and donors.
- His **Excellency the Ambassador of Switzerland to South Africa, Botswana, Eswatini, Lesotho, Mauritius, Namibia, and the Southern African Development Community** (SADC), Mr Mirko Manzoni, reminded delegates that the University of Bern has played an important role in contributing to global mountain research and the conservation of vital mountain ecosystems. He expressed pride in Prof Clark, an alumnus of the Swiss Government's Excellence Scholarship Programme, for his outstanding collaboration with Swiss researchers such as Dr Davnah Urbach, Prof Theresa Tribaldos, and Dr Susanne Wymann von Dach, all of whom actively participated in SAMC2025.

The **Official Welcoming Address** was delivered by the Programme Specialist on UNESCO's Man and the Biosphere (MAB) Programme (France), Dr Kelly Cerialo, for UNESCO as Patron of SAMC2025.

The **Official Opening** of SAMC2025 was conducted by the Director: Earth Systems Science, National Department of Science, Technology and Innovation (South Africa), Mr Leluma Matooane, on behalf of Minister Blade Nzimande.

The **Opening Plenary Keynote Address** was delivered by Dr Willem Daffue (South Africa), who spoke on '*The Mountains of Africa*', from personal observation over 20 years of experience in working in these mountains. Dr Daffue highlighted the seriousness of the challenges being experienced in African mountains, and how drastic change has been over 20 years. Dr Daffue had kindly agreed to step in as keynote speaker at very short notice, after the advertised speaker, Dr Steve Boyes (a National Geographic Explorer and Founder of the Wild Bird Trust), had withdrawn due to ill-health.

Book launches for three books on mountains formed part of the Opening Session:

- *Sustainable Futures in Southern African Mountains: Multiple Perspectives on an Emerging City* (2023). Editors: Andrea Membretti, Sue Jean Taylor, Jess L. Delves. Published by Springer as part of the *Sustainable Development Goals Series*. ISBN 978-3-031-15773-8. This book was conceptualised by the Afromontane Research Unit (University of the Free State) and implemented as a collaboration with the Global Mountain Safeguard Research Programme (Eurac Research and United Nations University). Chapter contributions came from across disciplines, with a joint foreword by the Vice-Chancellor and Principal, and Campus Principal: Qwaqwa Campus (University of the Free State). Publication support was provided by the Directorate Research Development (University of the Free State) and formed a key output from the Risk and Vulnerability Science Programme administered by the Afromontane Research Unit. Presented by the Director: Afromontane Research Unit (University of the Free State) and Programme Chair: Global Mountain Safeguard Research Programme (Eurac Research and United Nations University).
- *Safeguarding Mountain Social-Ecological Systems* (Vol 1, 2023, and Vol 2, 2024). Editors: Stefan Schneiderbauer, Paola Fontanella Pisa, Joerg Szarzynski, John F. Shroder. Published by Elsevier. ISBN 978-0-12-822095-5. This two-volume book project conceptualised and implemented by Global Mountain Safeguard Research Programme (Eurac Research and United Nations University) provides an overview of the relevant research in mountain regions worldwide, identifying existing challenges and providing an understanding of the diversity of mountain ecosystems in different regions. Mountain ecosystems are increasingly vulnerable to modified climate conditions and other global changes (demographic, migration, urbanisation). The Director: Afromontane Research Unit (University of the Free State) co-ordinated the African section in Vol 2. Presented by the Programme Chair: Global Mountain Safeguard Research Programme (Eurac Research and United Nations University).
- *Environment Knowledge, and Injustice in Lesotho: The Poverty of Progress* (2024) – Christopher R Conz. Published by Boydell & Brewer. ISBN 978 1 84701 330 9. This book, presented by the author, provides an environmental history of the Qacha's Nek district in southern Lesotho, describing how Basotho drew on local and global sources of knowledge and how this small nation surrounded by South Africa can serve as a valuable case-study for wider conversations about 'progress' and 'modernization' in the Global South.

To conclude the Opening Session the **premiere screening** of '*Qwaqwa: Place of Barriers and Bridges*' (available at: [QwaQwa: Place of Barriers and Bridges](#)) was held after lunch. This documentary was produced with funding provided by the Deputy Vice-Chancellor for Research, Innovation, and Postgraduate Studies, University of the Free State (South Africa), Prof Vasu Reddy, who was also the Executive Producer. The documentary film, directed by Prof Reddy and the Assistant Dean: Humanities (Qwaqwa Campus, University of the Free State), Prof Jared McDonald, explores the mountainous region of Qwaqwa, South Africa, and its unique challenges and opportunities, highlighting the deep connection between the people and the surrounding mountains, while also addressing issues like climate change and

ineffective local governance. It also showcases the potential for development and progress within the region, emphasising the importance of asset-based community development.

Scientific Programme

SAMC2025 was intentionally multi-disciplinary, with a strong impetus to link science, policy and practitioner realms, and thus all approaches were encouraged. The scientific programme included plenary, oral, and poster sessions. The call for abstracts was open to any discipline – single, multi-, inter- or trans-disciplinary, and could be submitted in any of the following categories: (i) Science, (ii) Policy, and/or (iii) Practitioner, with separate review tracks for each sector. A total of 283 abstracts were received and reviewed by relevant members of the Review Panels (over 260 members). Final decisions were taken by the Scientific Committee, co-chaired by Prof Katinka de Wet and Prof Peter Taylor (both University of the Free State, South Africa). Abstracts were accepted for either full oral presentation (126), short oral presentation (41), postgraduate presentation (38), or poster presentation (17). The final programme of sessions was determined by the subjects of the abstracts received and accepted.

1. Keynote Plenary Speakers

In addition to Dr Daffue who was the Keynote Plenary speaker on Day 1, there were three invited Keynote speakers in the programme.

On the morning of Day 2 (Tuesday, 18 March), **Mrs Sissie Matela** delivered an address on '**Building resilient communities through partnerships and healthy ecosystems**', drawing on her extensive experience as Director of Environmental and Rural Solutions, which works with rural communities in the Matatiele area (Eastern Cape, South Africa). This thought-provoking paper set the scene for the Southern African Development Community: Transfrontier Conservation Areas (SADC: TFCAs) special session on '*Promoting transboundary ecosystem linkages*' which followed.

The afternoon Plenary Keynote address was delivered by Dr Kelly Cerialo on 'The World Network of Mountain Biodiversity Biosphere Reserves', which presented excellent opportunities for researchers and institutions. Dr Cerialo replaced Minister Mohlomi Moleko, Minister of Natural Resources for the Kingdom of Lesotho, who had to withdraw at very short notices due to governmental requirements in his country.

The final keynote address was delivered on the morning of Day 4 (Thursday, 20 March) by Prof Steve Goodman, MacArthur Field Biologist at the Field Museum of Natural History in Chicago and Vice-President of Association Vahatra in Madagascar. The title of his address was 'A review of high mountains of Madagascar: Ecology, biodiversity, and conservation status', bringing a refreshing insight into activities in another southern African country.

2. Oral Presentations

The oral presentations were delivered held each day in eight parallel sessions. The sessions were:

- Environmental Management of Mountain Areas (Day 1).
- Invasive Species in Mountains (Days 2 and 4).
- Land Use and Land Cover Change (Day 2).
- Making a Difference Through Partnerships and Platforms (Day 2).
- Mountain Biodiversity – Animals (Days 1 and 2).
- Mountain Biodiversity – Vegetation (Days 1 and 2).
- Mountain Communities (Days 1 and 4).
- Mountain People's Livelihoods (Days 1, 2 and 4).
- Mountain Water Security and Water Quality (Day 4).

- Mountain Wetlands (Day 2).
- Mountains and Climate Change (Days 1 and 2).

A collection of papers delivered at SAMC2025 will be published in a special edition of *Transactions of the Royal Society of South Africa* (Q2 CiteScore Best Quartile; Impact Factor 3.1), following the trend set for SAM2022. We are grateful to the Editor-in-Chief, Prof Trevor Hill (South Africa), for his support and encouragement of the SAMC series.

3. Poster Presentations

Poster display boards were available for viewing throughout the conference. During the official poster session (held on Tuesday, 18 March – Day 2) the designated poster presenter (author or co-author) presented their work by means of a “lightning talk”.

4. Awards

Several awards were made for postgraduate student presentations and poster presentations. Over and above the usual SAMC awards (monetary award), additional awards, sponsored #IMC, were awarded to the top three doctoral presentations. The prizes include the opportunity to attend, participate in, and present their SAMC2025 presentations at the prestigious International Mountain Conference (#IMC), as well as attend the pre-conference summer school, in Austria (September 2025).

The awardees in each category were:

- SAMC2025 Doctoral 1st Prize (two awardees): Mr Conor Eastment (South African Environmental Observation Network and University of KwaZulu-Natal, South Africa) and Ms Sanele Mnkandla (University of the Free State, South Africa).
- SAMC2025 Doctoral 2nd Prize (two awardees): Ms Alexandra Howard (University of the Free State) and Ms Abusiswe Ndaba (University of Cape Town).
- SAMC2025 Doctoral 3rd Prize (two awardees): Mr Jaco Kotze (University of the Free State, South Africa) and Ms Ariel Prinsloo (University of the Witwatersrand).
- #IMC PhD Awards: Mr Conor Eastment, Ms Sanele Mnkandla, and Ms Abusiswe Ndaba.
- SAMC2025 Master’s 1st Prize (two awardees): Ms Thembelihle Mofokeng and Ms Zinhle Sithole (both University of the Free State).
- SAMC2025 Master’s 2nd Prize: Ms Victoria Roetger (University of the Witwatersrand).
- SAMC2025 Master’s 3rd Prize: Ms Nomcebo Ndlovu (University of the Free State).
- SAMC2025 Best Poster Prize: Dr Simone Dahms-Verster (University of the Witwatersrand).

Special/Breakaway Sessions

A feature of SAMC2025, which extended it beyond the vision of SAMC2022, was the range of Special/Breakaway Sessions. These were organised to highlight areas of significant interest and strategic importance for southern African mountains. Their programmes were individually developed to best achieve their specific objectives (primarily by sponsors in consultation with SAMC2025) and included papers and presentations from abstracts submitted, as well as solicited and invited presentations.

1. African Mountainscapes and the Anthropocene

Convenors/Chair: Prof Vasu Reddy, Prof Jared McDonald, and Dr Grey Magaiza (all University of the Free State, South Africa)

Sponsors: University of the Free State, South Africa

Widely studied in the natural sciences, mountains are investigated for their geodiversity, the richness of species, high levels of endemism, and association with a rich diversity of

ecosystems. Mountain regions are usually complex human-environment systems; they are highly heterogeneous, dynamic, and increasingly vulnerable to rapid changes in the Anthropocene. Mountains are not just physical and material geospatial sites but are, in fact, also ontological (they tell us stories and narratives about being and existence) and epistemological (they are signifiers and repositories of knowledge that give effect to different forms of knowledge).

This special session, advocated and developed by Prof Vasu Reddy (Deputy Vice-Chancellor: Research, Innovation, and Postgraduate Studies, University of the Free State), Prof Jared McDonald (Assistant Dean, Humanities, University of the Free State), and Dr Grey Magaiza (Head of the Community Development Programme, University of the Free State), sought to highlight the importance of scholarship in the humanities and social sciences, and the critical role they play in the sustainability of our mountains. To this end, abstracts were invited on scholarship that explores the relationship between mountains and the deeper meanings they enable in relation to the human and the social is sought. The call for papers resulted in a compelling programme with 23 papers and a panel discussion (addressing the documentary: *Qwaqwa: Place of Barriers and Bridges*).

The convenors of the special session, which was held on Days 1, 2, and 4, were impressed with the overall quality of the papers; the standard was facilitated by the rigorous peer-review process that was followed prior to the acceptance of abstracts for inclusion in the programme. A wide range of topics was covered, ranging from mountains and identity, mountains and gender, climate change and geopolitics, and literary and film representations, among others. The presenters represented multiple disciplines, including Film Studies, Political Science, Gender Studies, Philosophy, Anthropology, Indigenous Knowledge Systems (IKS), and Fine Arts, among others. The session had an eclectic mix of presenters from various stages of their academic careers – from PhD students to Professors.

Guest edited by Prof Jared McDonald and Prof Vasu Reddy, a themed issue is arranged: *Transformation: Critical Perspectives on Southern Africa* (indexed as Emerging Sources Citation Index) on the Web of Science (a journal turning 40 years in 2026). This edition will be published as T#117 (December 2025) and features a detailed editorial essay, three articles, a commentary, a critical film review of *Qwaqwa: Places of Barriers and Bridges*, and two book reviews. In the context of crisis and disruption, orographical humanities offers conceptual and methodological tools for exploring human–nature intersections, and well-aligned to SAMC2025's focus and remit. They are also exploring the possibility of an edited volume with either Routledge or Palgrave Macmillan to publish a selection of the papers that do not appear in the special issue of *Transformation*.

2. Management of Transboundary Water Resources: Perspectives from the Source

Convenors/Chair: Ms Keitumetse Tsubane (Technical Advisor at Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ) GmbH)
Sponsors: ReNOKA, Lesotho

Mountains can be seen as massive water towers providing water and ecosystem services to people hundreds of kilometres from their foothills, often with a transboundary dimension. The special session titled 'Management of Transboundary Water Resources: Perspectives from the Source', supported by ReNOKA and GIZ, was held on Monday, 17 March (Day 1) and included speakers from SADC, Komati Basin Water Authority (KOBWA), Orange-Senqu River Commission (ORASECOM), Lesotho Highlands Development Agency (LHDA), Department of Forestry, Fisheries, and the Environment (DFFE), and ReNOKA. They shared their perspectives from a transboundary water lens along with the significance of mountain ecosystems and highlighted the relevance of national programme's contributions to River Basin Organisations for transboundary water resources management and water security in the region.

3. Promoting Transboundary Ecosystem Linkages: The Role of Southern African Development Community Transfrontier Conservation Areas in Southern Africa's Mountain Regions

Convenor/s: Ms Joyce Loza (Maloti-Drakensberg Transfrontier Programme), Mr Steve Collins (SADC TFCA Network Co-ordinator), Mr Lebohang Maseru (Ministry of Water, Government of Lesotho), Mr Refilwe Ramone (Maloti Transfrontier Tourism Working Group), and Dr Brigid Letty (University of KwaZulu-Natal).

Sponsors: Deutsche Gesellschaft für Internationale Zusammenarbeit, Germany

A dedicated session on Transfrontier Conservation Areas (TFCAs) hosted by the SADC Secretariat in partnership with the Maloti-Drakensberg Transfrontier Programme (MDTP) and South Africa's Department of Forestry, Fisheries, and the Environment (DFFE), was held on the morning of Day 2 (18 March). It focused on the role of TFCAs in regional conservation efforts. These cross-border initiatives support biodiversity protection, sustainable tourism, and research collaboration. The session, involving presenters from SADC, Lesotho, Malawi, South Africa (Eastern Cape, KwaZulu-Natal), and Zimbabwe, and addressed issues related to TFCA governance mechanisms, TFCA community beneficiation (natural resources management and food security, and tourism development.

Presentations were followed by a panel discussion addressing the question "How can the SADC TFCAs better facilitate collaboration and improvement in the mountainous areas, and what role do the public and private sector partners play?" The session highlighted the role of TFCAs as platforms for socio-ecological sustainability and transboundary co-operation. The MDTFCA exhibition provided further insight into conservation efforts in the region.

The session was primarily organised by a multi-party organising committee, ably led by Ms Joyce Loza from MDTP. SADC Secretariat participation in the special TFCA session at SAMC2025 were supported by the Joint Action NaturAfrica / Climate Resilience Natural Resource Management (C-NRM), a partnership programme co-funded by the German Federal Ministry for Economic Co-operation and Development (BMZ) and the European Union.

The major recommendations emanating from the discussion included:

- Promote inclusive approaches to conservation of natural and cultural resources, including through intentional engagement with Traditional Leadership, the broader community, the public, private partners, and academia. Conservation approaches should be centred around elevating the voice of the community and promoting community ownership of development interventions for the benefit of current and future generations.
- Promote sustainable financing mechanisms by integration into project design to promote continuity of interventions and independence from external funding.
- Enhance regional cooperation, which is the bedrock of transboundary conservation initiatives.
- Upscale interventions to enhance community beneficiation to increase resilience of communities and promote sustainable livelihoods. The importance of skills development and other capacity building was also underscored.
- Enhance tourism development (including eco-cultural tourism) in mountain regions.

4. Towards a Southern African Mountain Treaty/Convention

Convenors/Chair: Mr Raphael Lelouvier (Secretariat for the Alpine Convention, Austria/Italy) and Dr Stefan Schneiderbauer (Eurac Research, Italy)

Sponsors: None.

One of the flagship sessions focused on the potential development of a regional framework for mountain conservation in SADC. The session, which followed from discussions first raised at SAMC2022, was jointly planned by the Afromontane Research Unit (University of the Free State, South Africa), Office for International Affairs (University of the Free State), the Secretariat for the Alpine Convention (Austria/Italy), and Global Mountain Safeguard Programme (Eurac Research, Italy), with the Alpine Convention and Global Mountain Safeguard Programme facilitating the session.

The Session proposed a rationale for a SADC Mountain Treaty/Convention drawing on examples elsewhere in the world, including Europe (Alpine and Carpathian Conventions), South America (Andean Mountain Initiative), the Himalayas (International Centre for Integrated Mountain Development, ICIMOD, Nepal), and eastern Africa (Albertine Rift Conservation Network, ARCOS, Rwanda). This provided examples for considering the pros and cons of different forms of multinational agreements from other mountain regions around the world.

A specific case for a SADC Mountain Treaty/Convention was presented by showing that a more specific focus on mountains is critical to achieving SADC Vision 2050 and the SADC Regional Indicative Strategic Development Plan (RISDP 2020–2030). SADC mountains speak to all five Focus Areas and align with numerous international conventions to which SADC Member States are signatories. A SADC Mountain Treaty/Convention also has merit in terms of unique regional features and is supported by precedents from current SADC instruments, UNESCO instruments regionally, and via other international agreements between Member States (e.g. Treaty on the Lesotho Highlands Water Project between the Government of the Kingdom of Lesotho and the Government of the Republic of South Africa).

Through panel engagement – including UNESCO, the South African Department of Science, Technology, and Innovation; Environmental and Rural Solutions; SADC Transfrontier Conservation Areas; and the Office for International Affairs (University of the Free State) – the session was able to net a collection of opinions and possible ways forward. This included a dialogue on possible legal or goodwill mechanisms under SADC with a potential future upscaling to the African Union for continental ratification.

As a direct outcome of the session the Afromontane Research Unit, in collaboration with the Office for International Affairs, Alpine Convention (Europe), and GLOMOS, has initiated a proposed SADC Mountain Treaty/Convention process that has generated interest with the SADC Secretariat and South Africa's Department of Forestry, Fisheries, and the Environment. DFFE offered to compile a report on the Session to the South African National Minister. Key topics will include the potential development of a regional mountain conservation framework and enhanced collaboration with UNESCO. The Afromontane Research Unit has lead the drafting of a short communication on the Session for publication in a special issue on SAMC2025 in *Transactions of the Royal Society of South Africa*. GLOMOS, the Alpine and Carpathian Conventions, Andean Mountain Initiative, ICIMOD, and ARCOS have all offered ongoing support.

5. Measurements on Mountains and Automatic Weather Station Technologies Workshop

Convenors/Chair: Mrs Clara Hickman (African Mountain Research Foundation, United Kingdom) and Prof Alistair Clulow (University of KwaZulu-Natal, South Africa)
Sponsor: Campbell Scientific, South Africa

Measurements in mountainous regions provide insight into hydrology, vegetation dynamics, plant physiology, biodiversity and animal behaviour amongst others. In particular, climate data is crucial in supporting the case for protecting these regions. The need for the discussion on the subject was identified by the African Mountain Research Foundation, who have

established and partnered on ten weather stations in southern African mountains. A common challenge on instrumentation management is enough suitably trained technicians in the region to service these sites.

The special session, held on the afternoon of Tuesday, 18 March (Day 2), was a forerunner to a training workshop, which was held on Wednesday, 19 March (Day 3).

In the special session presentations were delivered by Mr Kent Lawrence, Hydro-Meteorological Technician from the South African Environmental Observation Network (SAEON) and Gilbert Mwangi, Technical Director from the Trans-African Hydro-Meteorological Observatory (TAHMO, Kenya). Their presentations highlighted both the significance and the challenges of conducting measurements in mountainous terrain. The remoteness and inaccessibility of many sites pose logistical difficulties, while extreme weather conditions often damage equipment. As a result, there is a significant lack of data from mountainous regions. Topics of discussion included experiences with transboundary measurement systems, suitable equipment to ensure reliable data collection, strategies for data retrieval and equipment maintenance, and noteworthy findings related to extreme weather conditions and microclimate variations.

The specialised Automatic Weather Station Technologies Workshop, held the following day, was led by Prof Alistair Clulow. It focused on both theoretical and practical training in environmental measurement techniques, with a particular emphasis on automatic weather stations in the mountainous regions of southern Africa.

The training, conducted using the latest equipment from Campbell Science, covered sensor and datalogger technology, power systems, and methods for direct or remote data retrieval. Participants gained hands-on experience in writing and uploading programs to dataloggers, wiring sensors, and collecting data, which they then downloaded and analysed.

6. Towards an African Mountain Biodiversity Assessment

Convenors/Chair: Dr Davnah Urbach (Global Mountain Biodiversity Assessment, University of Bern, Switzerland) and Prof Peter Taylor (Afromontane Research Unit, University of the Free State, South Africa)

Sponsors: Global Mountain Biodiversity Assessment, Switzerland

The special session on “Towards an African mountain biodiversity assessment”, held on Thursday, 20 March (Day 4) of SAMC2025, was co-organised by the Global Mountain Biodiversity Assessment (GMBA) (Dr Davnah Urbach) and the Afromontane Research Unit (Prof Peter Taylor). Together, GMBA and ARU offer both a global perspective on mountain biodiversity and the strong local anchorage and network needed for catalysing collaborative efforts towards consolidating and expanding the knowledge base on mountain biodiversity in southern Africa.

In recent years, the amount, coverage, and accessibility of biodiversity data and knowledge have been steadily increasing. This is the case also for mountains, where long-term monitoring programmes, research projects, citizen science initiatives, as well as BioBlitz and remote sensing campaigns, are contributing to an increasingly detailed mapping of species and their distributions. Such developments are particularly timely in view of the United Nation’s Sustainable Development Agenda and the new targets agreed upon in the Kunming-Montreal Global Biodiversity Framework, which call for reporting on biodiversity protection also in mountains. With the increasing availability of mountain biodiversity data, local, national, regional, and global, assessments of biodiversity facets and research have become possible. Whereas some of these data and knowledge have already been explored in the IPBES regional assessment report on biodiversity and ecosystem services for Africa, no systematic assessment of mountain biodiversity has yet been performed. The GMBA network

of the Swiss Academy of Natural Sciences and Future Earth has set itself the goal of filling this gap and has designed a first of its kind comparative assessment of biodiversity across our world's mountains. This endeavour consists of a systematic mapping of mountain biodiversity literature and an assessment of status and trends in mountain species.

This session and workshop aimed at convening mountain biodiversity scientists interested in participating in an assessment of the status of and trends in African mountain species and in African mountain biodiversity research. The specific objectives were to (1) bring together African mountain biodiversity specialists, (2) share examples of ongoing African mountain species accounts and assessments, and (3) identify research questions and hypotheses as well as policy needs underlying an African assessment of mountain biodiversity knowledge and trends.

The GMBA-ARU session on mountain biodiversity data attracted approximately 50 participants. The session convened a panel of five speakers who were invited for their expertise in African mountain mammals, amphibians, fish, modelling, and indigenous knowledge. To facilitate the exchange, each presentation was followed by an interaction between the speaker and a so-called respondent, who was invited to provide an own perspective on the topic and ask questions. The contributors and respondents were:

- Bats and rodents: Prof Ara Monadjem (University of Pretoria) and Ms Alexandra Howard (University of the Free State, South Africa).
- Amphibians: Dr Jeanne Tarrant (ANURA Africa, South Africa) and Dr Adrian Armstrong (Ezemvelo KwaZulu-Natal Wildlife, South Africa).
- Fish: Prof Paul Skelton (South African Institute for Aquatic Biodiversity, South Africa) and Dr Samuel Motitsoe (University of the Witwatersrand, South Africa).
- Modelling: Dr Yvette Ehlers-Smith (Ezemvelo KwaZulu-Natal Wildlife, South Africa) and Ms Alexandra Howard (University of the Free State, South Africa).
- Indigenous knowledge: Dr Lerato Seleteng-Kose (National University of Lesotho) and Mr Sechaba Motsumi (Advisor to Bakona and Batlakoa Royal Houses, South Africa).

The series of inputs ended with additional presentations by three renowned African biodiversity experts – Prof Peter Taylor (University of the Free State, South Africa), Prof Julian Bayliss (Oxford Brookes University, United Kingdom), and Prof Ralph Clark (University of the Free State, South Africa).

The subsequent discussion, which aimed at identifying priority questions and hypotheses in comparative African mountain biodiversity research, started with a summary of an ongoing prioritisation effort carried out at global scale, as well as with some preliminary results of the ongoing systematic mapping of research on mountain mammals. The ensuing exchange amongst the approximately 20 scientists who participated in the roundtable discussion, resulted in an initial set of 20 questions deemed useful and interesting to tackle collaboratively across African mountain biodiversity researchers.

The questions, listed below, partially overlapped with those gathered globally but a specific focus on endemism speaks to the high level of endemism detected in the mountains of southern Africa in particular:

- What species are mountaintop specialists?
- What are mountaintop specialist hotspots?
- What are the major biogeographic barriers to dispersal for different groups of mammals?
- What traits of the mammals allows them to disperse over those barriers?
- What rates of species shift are described, and do they differ between taxonomic groups?

- Who are local inhabitants who would collect good data and how can we encourage them to do so?
- Where are centres of floral and faunal endemism, do those centres differ for flora and fauna and if so, why?
- How does climate change affect centres of endemism?
- How do biotic interactions between species affect elevator-to-extension patterns?
- How are we defining mountain species and does it depend on the taxa and the geography?
- What is the frequency of extreme events in mountains?
- Are species that are co-occurring reacting similarly or differently to climate change and is this location-dependent?
- How much ecological redundancy is there in mountain biomes?
- Does the resilience of mountain ecosystems qualitatively differ from the lowlands because there is comparatively more variation in mountains?
- What have been and are barriers for species?
- How are the paths of least resistance to migration characterized in the mountain context?
- What impacts have corridors in mountains?
- Are established corridors highways for invasive species?
- What do we know about “ancient corridors” that could explain current distributions?
- Where are species refugia?

The discussion was a first step towards the collection of a list of questions and hypotheses that can be addressed building upon databases of publications, streamlined workflows, as well as well-established collaborations. This list will be further developed through a collaborative online effort. We hope that local engagement will enable the collection of questions and priorities from members of local communities.

Speakers and participants alike shared their interest for the newly started assessment of mountain biodiversity. The GMBA regional hub for Africa, established at the ARU after SAMC2022, represents a unique platform to move such an assessment forward in the specific context of Africa and the enthusiasm of the participants for the preliminary assessment results for mountain mammals is encouraging. The speakers valued existing data and highlighted data and knowledge gaps, emphasised the importance of modelling and of citizen science, and reminded us of the importance but also the challenges of incorporating the mountain biodiversity knowledge held by local communities.

7. Contextualising African Mountain Carbon

Convenor/Chairs: Prof Johan van Tol (University of the Free State, South Africa), Prof Linus Franke (University of the Free State, South Africa), and Dr Lindokuhle Dlamini (South African Astrobiom and Rhodes University, South Africa)

Sponsors: None.

Carbon offset and restoration have become big ecological and business enterprises in Africa in recent years. This session sought to explore and discuss controversial carbon and restoration agendas as relating to African mountains. Presentations, selected from approved abstracts and invited presentations, highlighted and discussed the following issues:

- Afromontane carbon dynamics and processes, with presentations by Prof Linus Franke (University of the Free State, South Africa), Prof Rob Marchant (York University, United Kingdom), and Dr Lindokuhle Dlamini (Rhodes University, South Africa).
- Spatial patterns, modelling and mapping, with presentations by Dr Robyn Nicolay (Nelson Mandela University, South Africa), Mr Jaco Kotze (University of the Free

State, South Africa), and Dr Botle Mapeshoane (National University of Lesotho, Lesotho).

- Carbon credits programmes, with presentations by Prof Peter Taylor (University of the Free State, South Africa, on behalf of Dr Lauren Liebenberg, Vhembe Biosphere Reserve Board, South Africa) and Mr Thor Kuchler (Gorongosa National Park, Mozambique).

The session closed with a discussion on the topic 'Credible Carbon – Potential and Pitfalls'. A paper will flow from this session which will be a combination of a review, identification of poor science in the carbon sector, identification of gaps and some lighthouse projects (e.g. Mount Gorongosa, Mozambique).

8. Royal Mountain Indaba

Convenors/Chairs: Mrs Sissie Matela (Environmental Rural Solutions, South Africa), Dr Molapo Qhobela (University of the Free State, South Africa)

Sponsors: UNESCO Southern Africa (Harare Office, Zimbabwe), Qwaqwa Campus Principalship (University of the Free State, South Africa)

A highlight of SAMC2025 was the first-of-its-kind Royal Mountain Indaba, held on Wednesday, 19 March (Day 3). Sponsored by UNESCO Southern Africa and the Principalship of the UFS Qwaqwa Campus. The Sustainable Development Goals (SDGs) were central to the discourse. Bringing together Royal leaders, academics, practitioners, and policy makers, this landmark gathering convened custodians of customary law, indigenous knowledge systems, and key stakeholders to address pressing transboundary issues threatening the sustainable development of the greater Maloti-Drakensberg region. The event aimed to foster dialogue and collaboration, recognising the critical role of Traditional Authorities, in safeguarding this vital ecosystem.

Representatives of invited Royal Houses and Traditional Authorities who actively participated in the Indaba were:

- Nkosi Hlongwane (AmaNgwane Traditional Authority, KwaZulu-Natal, South Africa).
- Morena Tsolo Mopeli (Bakoena Royal Council, Free State, South Africa).
- Morena Thabang Kuali (Bakuena Royal Council, Eastern Cape, South Africa).
- Kgosana Kgosi Lioma (Baralong-Bo-Seka Royal House, Free State, South Africa).
- Mofumahadi Vuyelwa Tsotetsi (Batlokwa ba Mokgalong Royal House, Free State, South Africa).
- Morena Matooane Mota (Batloko ba Mota Royal House, Free State, South Africa).
- Mofumahadi Mkwanazi Mabareng (Batloko ba Mota Royal House, Free State, South Africa).
- Chief Maliwa Maziya (Lebombo Region, Eswatini).
- Chief Ernest Moloi (Makholokoe Royal House, Free State, South Africa).
- Chief Lukhwabitsi Dlamini (Manzini Region, Eswatini).
- Chief Mpiti Letsie (Qhoali Basotho, amaXhosa, Baphuti and amaNdebele tribes of Basotho in the Kingdom of Lesotho).

Facilitated by Mrs Sissie Matela (Director of Environmental and Rural Solutions) and Dr Molapo Qhobela (Deputy Vice-Chancellor of Strategic Initiatives, International and Institutional Affairs, University of the Free State), the Indaba provided a crucial platform for diverse perspectives to converge. Discussions were arranged around four focus areas, with a lead presenter for each, followed by moderated discussion. These were:

- What is the mandate of Traditional Authorities? (Dr Jacques Matthee, Law Faculty, University of the Free State, South Africa).

- Management of biodiversity and leveraging of livelihood opportunities (Mr Sechaba Motsumi, Environmental Advisor to the Bakona and Batloko Royal Houses, South Africa).
- Transboundary migration and law enforcement (Ms Ndapanda Kanime, Southern African Development Community Secretariat, Botswana).
- Management of cultural heritage (Dr Mayashree Chinsamy, DSI-NRF Centre of Excellence in Indigenous Knowledge Systems, University of KwaZulu-Natal, South Africa).

To encourage Traditional Authorities to become diplomatic champions for southern African mountains, Ms Sara Manuelli, Advocacy and Outreach Officer of The Mountain Partnership (United Nations, Italy), informed delegates about the opportunities presented by Mountain Partnership Ambassadors programme.

Ending on a high note, Mr Sechaba Motsumi announced the pending QwaQwa Maloti Natural Protected Environment as a mountain environment governed by two Traditional Authorities.

The Indaba served as a vital forum for exchanging knowledge, sharing differing experiences and views, building relationships, and identifying collaborative solutions. Participants engaged in robust discussions, exploring strategies to harmonise customary law with contemporary environmental management practices. The focus on transboundary issues recognised the interconnected nature of the Maloti-Drakensberg ecosystem and the need for a unified approach to its sustainable conservation. The platform has been laid for ongoing debate and interaction, which the Traditional Authorities are committed to taking further.

9. Early Career Summit

Convenors/Chair: Dr Davnah Urbach (University of Bern, Switzerland) and Mrs Cheryl Lombard (The Peaks Foundation, South Africa)

Sponsors: Centre for Development and Environment (University of Bern, Switzerland)

A particular highlight was the Postgraduate and Early Career Summit, sponsored by the Centre for Development and Environment, University of Bern. Held on Wednesday, 19 March (Day 3), which brought together over 30 young scientists, ranging from master's student to postdoctoral research fellows and early career academics.

The purpose of the Summit was to strengthen the southern African mountain community of practice and help to grow the pipeline of future research expertise. The highly interactive and engaging programme, co-facilitated by Dr Davnah Urbach and Mrs Cheryl Lombard, included a training session, short (five-minute) talks on relevant topics, and round-table discussion in a World Café format.

The training session addressed 'How to get your paper published' and was presented by the editors of *Mountain Research and Development*, Prof Theresa Tribaldos, and Dr Susanne Wymann von Dach (University of Bern, Switzerland).

The discussion topics with lead presenters were:

- Communication and public engagement: Prof Jennifer Fitchett (University of the Witwatersrand, South Africa).
- Engaged scholarship and citizen science: Prof Peter Taylor (University of the Free State, South Africa).
- How to raise funding: Ms Alexandra Howard (University of the Free State, South Africa).
- Teamworking, collaboration and networking: Dr Davnah Urbach (Global Mountain Biodiversity Assessment, Switzerland).

- Early career challenges: Dr Tiwonge Mzumara-Gawa (Malawi University of Science and Technology, Malawi), Dr Divane Nzima (University of the Free State, South Africa), and Dr Mpho Ramoejane (University of the Free State, South Africa).
- How to present/pitch your research: Prof Aliza le Roux (University of the Free State, South Africa), and Mr Luyanda Shabalala (Louis R Pictures, South Africa).
- Alternatives to academic careers: Mr Seth Maphalala (Indalo Eswatini, Eswatini), Prof Steve Goodman (Association Vahatra, Madagascar), and Dr Jessica Leaver (Wild Bird Trust, South Africa).

With no exception, all participants shared their experiences, questions, doubts, and hopes in a reciprocal and respectful exchange with those tasked to spark discussions.

Exhibitors

In contrast to SAMC2022, there was an expanded selection of exhibits at SAMC2025. These were displayed in the same hall as the posters and solicited great interaction. We are grateful to the following exhibitors for adding colour and vibrancy to the conference:

- Afromontane Research Unit, University of the Free State.
- Campbell Scientific SA.
- Centre for Development Support and Environment, University of Bern.
- Grassland Society of Southern Africa (GSSA).
- Northern Drakensberg Collaborative (NDC).
- South African Association of Botanists (SAAB).
- South African Environmental Observation Network (SAEON).
- SADC Transfrontier Conservation Areas (TFCAs).
- Witsieshoek Mountain Lodge (South Africa).

Social Programme

While the Scientific Programme set a high content standard for SAMC2025, the Social Programme balanced it perfectly. As was said for SAMC2022, many delegates particularly remembered the food and the Social Programme. The catering by Champagne Sports Resort was first class. The Social Programme was varied and provided an interesting mix of what the region has to offer.

The **Meet-and-Greet**, held on the evening of Tuesday, 17 March (Day 1) and sponsored by the Office for International Affairs (University of the Free State, South Africa), set the tone for the rest of SAMC2025, with a relaxed, engaging atmosphere of international flavour. Compared to SAMC2022, the favourable weather meant it could be held Poolside. To keep with the “international” flavour, participants were encouraged to wear or bring something that reflected their culture or nationality, making this a festive, inter-cultural event. Entertainment was provided by the popular South African band, **Qadasi and Maqhinga** (<https://www.davidjenkins.co.za/qadasi-maqhinga/>).

A **Dignitary Sundowner Reception**, sponsored by UNESCO Southern Africa and hosted by the African Mountain Research Foundation and UNESCO, was held for invited guests on the evening of Tuesday, 18 March (Day 2). The event served as a bridge between the Southern African Mountain Treaty/Convention Session (held that day) and the Royal Mountain Indaba, which was held the following day (Day 3).

SAMC2025 purposefully encouraged tourism in the area by arranging and/or promoting excursions (before, during, and after the conference) in partnership with local tourism-related organisations and small-medium economic entities, such as the KwaZulu-Natal section of the Mountain Club of South Africa, Witsieshoek Mountain Lodge, Into the Berg, and the Drakensberg Canopy Tour. One day of the conference (Wednesday, 19 March, Day 3) was

set aside for participants to explore the area and engage with many of the tourist attractions and facilities of the region. It would be fair to note that specially the foreign delegates were impressed by the quality, diversity and beauty of the Maloti-Drakensberg area and the facilities offered by the local hospitality industry, some staying on for several days after the conference ended, either for guided hikes or simply enjoying South African hospitality.

The conference concluded on an exceptionally high note with the **Gala Dinner** and Prize-giving on the final evening (Thursday, 10 March, Day 4). Guests were entertained by the world-renowned Drakensberg Boys' Choir and subsequently enthralled by Ms Saray Khumalo (Speaker, Expedition Leader & Trailblazer, and a member of the Mountain Club of South Africa) who recounted her personal physical and emotional journey to be the first black African woman to summit Mount Everest. The Gala Dinner also provided the platform for the presentation of awards to the top presenters in the student and poster categories (see Item 4 above). These awards, sponsored by SAMC and the International Mountain Conference (#IMC), were enthusiastically received and celebrated.

Outcomes

SAMC2025 sought to “Provide a platform to integrate science, policy and practitioner sectors for sustainable interventions in southern African mountains”.

In meeting specific objectives, SAMC 2025 successfully:

- Brought very diverse but relevant people together into one space for networking and information sharing.
- Blended strong policy sector involvement, with representatives of government and policy sectors from Eswatini, Lesotho, Mozambique, South Africa, Southern African Royal Houses, SADC, UNESCO, and the United Nations.
- Addressed the full spectrum of diversity across all scientific and social economic factors within the context of southern African mountains.
- Promoted and elevated important issues to people with influence in communities and policy matters.
- Inspired young researchers to be engaged and participate in the sustainable future of our mountains.
- Forged new ties and collaborations between researchers from across the southern African region.
- Highlighted goals regarding cross border collaboration, institutional, and international treaties.
- Provided a platform for collaboration between tourism and conservation efforts, across boundaries and barriers.

At a higher level, SAMC2025 contributed to the United Nations' Five Years of Action for the Development of Mountain Regions (2023–2027), and further enabled the vibrant, growing Community of Practice for (southern) African mountains.

SAMC2025 created an enabling environment for stronger transboundary mountain co-operation from local to Southern African Development Community (SADC) scale. It enabled conversations for bridging traditional and elected governance systems for mountains, bridging disciplines for sustainable mountain futures, and bridging science, policy and practitioner sectors. It also enriched the discussion on cross-border environmental problems, early warning systems, and disaster risk management with a competent mountain perspective that is otherwise largely missing.

Through high-level representation – at Ambassadorial, Vice-Chancellor, SADC Secretariat, UNESCO, Royal House, Alpine Convention, International Mountain Conference, and United

Nations scale – SAMC has become an accelerator for stronger representation of African mountains at global scale.

Challenges

As was the case in 2022, the breadth and depth of the programme offered by SAMC2025 presented delegates with conflicting choices. There was so much going on and so many facets covered, that delegates simply could not attend everything they were interested in. Although this was mentioned by a few delegates as a negative component, the Primary Partners are of the view that these three-yearly events are there to spawn further engagements and offshoots to explore various outcomes of the conference to a greater depth and to perpetuate dialogue and action plans going forward.

There is still a significant amount of work to do to engage all southern African stakeholder countries on a more permanent basis and to elevate findings to broader policy interventions. We are, however, mindful of the fact that governmental change takes time and we are encouraged at the extent to which participation has grown. It is a long-term project, and logistical and financial challenges will always remain and be addressed through avenues as and when they become available.

Geo-political challenges and shifts had a direct impact on funding for some delegates. We foresee this as an ongoing challenge to find new and innovative forms of support from countries and organisation within the southern Africa.

All conferences face the similar challenge of late withdrawal of presenters, or non-registration of potential delegates. For SAMC2025 this was most often linked to financial constraints.

Concluding Remarks

The Primary Partners of the 2nd Southern African Mountain Conference (SAMC2025) are pleased to share that the event achieved all key outcomes.

The SAMC2025 Partners express deep gratitude to UNESCO for Official Patronage, and to the generous sponsors and funders: Mountain Club of South Africa, University of the Free State, Centre for Development and Environment (University of Bern), Global Mountain Biodiversity Assessment, Campbell Scientific, GIZ, National Research Foundation, National Convention Bureau, reNOKA, SADC, and UNESCO Southern Africa. The Primary Partners express sincere appreciation to The Peaks Foundation for implementing SAMC2025, and Champagne Sports Resort for the magnificent facilities.

The SAMC Partners are looking forward to planning SAMC2028 in due course!

Main Sponsors and Funders



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