

Report on the Southern African Mountain Conference 2022, Southern African mountains – their value and vulnerabilities

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From 14 to 17 March 2022, the first Southern African Mountain Conference (SAMC 2022) was held at the transboundary Maloti-Drakensberg World Heritage Site, which straddles South Africa and Lesotho. The conference, under the patronage of UNESCO, was the first regional mountain research conference focusing specifically on the Southern African region, which includes the areas south of the Congo Rainforest and Lake Rukwa in Angola, Botswana, Comoros, Democratic Republic of Congo (southern mountains), Eswatini, Lesotho, Madagascar, Malawi, Mauritius, Mozambique, Namibia, La Réunion, South Africa, southern Tanzania, Zambia and Zimbabwe.

With the conference theme *Southern African mountains – their value and vulnerabilities*, the organizers used the UN's International Year of Sustainable Mountain Development 2022 to raise awareness of the importance of the conservation and sustainable use of African mountain ecosystems.

Organized by the Afrimontane Research Unit (ARU) of the University of the Free State (South Africa), the African Mountain Research Foundation (AMRF; United Kingdom) and Global Mountains Safeguard Research (GLOMOS; a joint initiative of EURAC Bolzano and the Institute for Environment and Human Security of the UN University, Italy and Germany), and supported by several sponsors, including the Mountain Research Initiative (MRI), the conference was a great success, with over 250 participants from 21 countries. Many of the presenters, who numbered nearly 200 in all, were young MSc and PhD students.

The importance of the conference was underlined by several prominent keynote speeches, for example by Caroline Adler (MRI), Martin Price (University of the Highlands, Scotland) and Lyn Wadley (University of Witwatersrand, South Africa). A total of 17 sessions covering a wide variety of topics (including Protected Areas & Conservation, Biodiversity: Plants, Biodiversity: Animals, Mountain Invasives, Communities & Livelihoods, Education & Research Management and Water Resource Management) and about 200 scientific contributions brought together stakeholders from governments, international organizations, academic institutions, research institutes, NGOs and private individuals. The conference also hosted two workshops, on how to write scientific articles and competitive project proposals. This forward-thinking idea of the conference organizers is certainly an example of best practice example for knowledge transfer and capacity building; it could thus serve as a model for future conferences as well.

The UNESCO Special Session on Regional Collaboration, organized by the UNESCO Regional Office in Harare (Zimbabwe), aimed to highlight the benefits of regional cooperation from the perspectives of African stakeholders and of the Austrian National Committee for UNESCO's Man and the Biosphere (MAB) programme. The subsequent discussion focused on looking beyond a one-off conference and provided an excellent opportunity to exchange ideas, establish connections, and explore possibilities for cooperation, such as the newly created UNESCO World Network of Mountain Biosphere Reserves.

From this author's point of view, the conference was definitely a great success and is a positive sign for the future. However, the fact that science and research in the southern part of Africa are severely underfunded was confirmed in numerous presentations and discussions with African colleagues. For example, a number of talks can be interpreted as *emergency calls* for much-needed research funding. The effects of the lack of money are so varied that only a few examples can be given here, but for readers interested in an overview of the conference as a whole, the Book of Abstracts can be downloaded from <https://www.samc2022.africa/Documents/Abstracts.pdf>

In Southern Africa as a whole, there are still many mountain areas that have not been explored at all in terms of biodiversity research, or where such research has been very limited (for example, the mountainous areas in southern Angola or the inselbergs in northern Mozambique). It is very likely that many species will become extinct before they are even discovered. Since the possibilities for long-term biodiversity monitoring studies are usually severely limited, it is also difficult to make statements about changes in mountain ecosystems, for example caused by climate change. Illustrative of the difficulties is the failure, due to lack of funding, to establish a permanent monitoring plot in the Maloti-Drakensberg as part of the renowned global climate change monitoring network GLORIA (Global Observation Initiative in Alpine Environments) region (Ralph Clarke, ARU, personal communication).

Due to underfunding, protected areas in southern Africa are often unable to fulfil their basic mission of protecting fauna and flora, and may be just so-called *paper parks* – i. e., areas which have been established legally as PAs but which do not function as such in reality. Frequently, very few staff are available, so that the PA management (if it exists at all) is unable to address adequately or to solve many problems, such as poaching, pressure from the rapid increase in the rural population, or wildlife-population conflicts (e. g., damage to agricultural land by elephants).

Significantly and perhaps encouragingly, the conference showed that collaborations with research institutions from this region would have a comparatively large impact on environmental science in southern Africa. Let us end, therefore, with a quotation from a conversation with a colleague from the University of Malawi: „*You can't imagine how much we could do here with a few thousand euros!*“