



NETWORK FOR AFRICAN VOLCANOLOGISTS

Oversee – Promote – Strategize the future of volcanological education and research in Africa.

REPORT ON THE 1st INTERNATIONAL WORKSHOP OF THE NETWORK FOR AFRICAN VOLCANOLOGISTS (NAV), DEDAN KIMATHI UNIVERSITY OF TECHNOLOGY, NYERI, KENYA, 24th - 28th JULY 2023

Event Summary

Compared to other continents, Africa presents a severe absence of governmental institutions at the local or continental level with a clear mandate to oversee, promote, and strategize volcanological education and research. The continent has a sizable number of volcanoes, most of which remain scarcely studied leading to a poor representation of African volcanism in the academic literature. Besides, there is a notable want for local financial support and strong international linkages and networks for research and collaborations, a rarity of volcanologists and volcanological programs in university curricula in Africa, as well as local volcano observatories or research centers to monitor volcanoes for hazard assessment. To enhance and facilitate international collaborations and stimulate volcanology research, training of young African geoscientists, and promotion of research in sustainable exploitation and utilization of volcanic resources such as geothermal energy and contribution to studying environmental sciences and climate change, a group of African volcanologists led by Dr. Chako Tchamabe Boris decided in 2020 to create a Network for African Volcanologists (NAV). With the need to officialize the existence of the Network for African Volcanologists and give it international recognition, the group recently applied for and received funding from international organizations to organize a meeting. They presented the project entitled ***Towards creating and launching the Network for African Volcanologists (NAV)*** that was submitted by the IASPEI for the IUGG Grants Program 2022-2023 (Special Call - IYBSSD2022). The main target of the project was to bring African Volcanologists together from across the globe and allow them to discuss the difficulties faced by our researchers and students in the continent, and thus, illustrate by themselves the priorities and future for furthering Africa's volcanism. We hereby report on the meeting designated as the **First International Workshop of the Network for African Volcanologists** that took place in Kenya, hosted by Dedan Kimathi University of Technology, Nyeri, between 24th to 28th July 2023.

Organization and Overview of the Workshop

The workshop was technically organized by Dr. Boris Chako Tchamabe and Prof. Nicholas Mariita, who led the scientific committee (composed of Prof. Ezz Khalaf, Dr. Charles Balagizi, Dr. Abdelsalam Elshaafi, Dr. Geoffrey Mibei) and the local organizing committee (composed of Dr. Geoffrey Mibei, Dr. Isaac Kanda, Mr. Victor Otieno, and Mr. Enku Mulugeta), respectively.

Registration to the conference was free of charge and open to students, academics, and government officials working on volcanological topics. The event was advertised via our social media platforms (Facebook and Twitter), on the International Year of Basic Sciences for Sustainable Development 2022/2023 calendar, and in the Newsletters of the IUGG, IASPEI, and IAVCEI. Invitations were also sent directly to experts who were asked to participate as Keynote speakers. Finally, 20 people responded favorably and registered for the conference to give a talk. Of these, 12 attended physically and 8 made their presentation virtually. During the meeting, we were joined by 9 other people onsite and more than 25 virtually. Together, we critically examined the necessity to create a Network or Association for African volcanologists and the role this association could play in foreseeing the future of this geological discipline on the continent. [Photo 1](#) shows the participants who attended physically.



Photo 1: Participants who physically attended the NAV meeting at Dedan Kimathi University.

The event comprised a two-day mini-conference during which 2 formal scientific sessions of short presentations by the specialists were covered, and two other days of structured roundtable discussions on thematic interrelated to the challenges and opportunities related to the state of Volcano Research and Monitoring, Volcano Hazards Assessment, and Volcano Risk Reduction in Africa, as well as Problematics in developing education, research

collaboration, data sharing, and visibility enhancement in volcanology on the continent. During the plenary sessions (days 1 and 2), each speaker was given 20 minutes to present, followed by 5-10 minutes for questions. The next two days were reserved for roundtable discussion sessions allowing each participant to give his/her point of view on the topics under discussion. Time was also allocated at the end of each day for a reflection on the day's discussions.

The last day was devoted to a field trip to Menengai Geothermal Field operated by the Geothermal Development Company (GDC), located within the Menengai Caldera in the Rift Valley, where a brief description of the history of the volcano was given by Dr. Mibei Goeffrey, a GDC geologist who was also a workshop participant. Details were also provided on how the Menengai geothermal installation functions, along with some pilot projects being implemented using geothermal energy. [Photo 2](#) shows participants while in the field.



Photo 2: Participants while in the field at the Geothermal Development Company, Menengai

Funding Support

The event was supported by funding from the International Union of Geodesy and Geophysics (IUGG; 12,000 USD), the International Association of Seismology and Physics of the Earth's Interior (IASPEI; 2,000 USD), and the International Association of Sedimentologists (IAS; 1,000 USD). The money was used for buying air tickets, local

transport, accommodation for the participants, as well as the activities of the local organizing committee and conference services. Total expense was USD 14,609. This support is highly appreciated as it allowed us not just to organize the meeting, but also to meet our expectations for this first attempt to physically gather African volcanologists.

Meeting outcomes

A big satisfaction of the meeting was materialized by the positive response received from the African volcanological community with (1) the representation of 10 African countries including: Cameroon, Democratic Republic of Congo (DRC), Egypt, Ethiopia, Ivory Coast, Libya, South Africa, Tunisia, Tanzania, and Kenya; (2) the participation of 7 colleagues joining physically to represent their countries; (3) the active involvement of postgraduate students, four (one MSc and three PhD) of which attending with a talk (Foto 3) from Dedan Kimathi University of Technology (Kenya), South East Kenya University (Kenya), University of Maroua (Cameroon), University of Goma (DRC), the National Engineering of Tunis (Tunisia), and many others as online attendees.

We also appreciate the support of the international community through the participation of colleagues from Argentina, Belgium, Chile, Mexico, and Saudi Arabia, who honored the workshop with Keynote talks. Some of them participated as invited representatives of partnered international organizations such as the IAVCEI-INVOLC represented by Dr. Karen Fontijn, and the Latin American Association of Volcanologists (ALVO) represented by Dr. Pablo Forte.



Photo 3: Some of the postgraduate students who physically participated in the workshop.

As projected, the guidelines and statutes of the Network are being prepared and will be made available on our website very soon. Regarding the immediate plans, the participants asked for more scientific events with enough space for larger assistance. They also encourage the NAV to develop training programs and to foster the creation of master programs in volcanology in the university curricula. They also voted for the creation of a journal of African volcanology. We are working on these urgent petitions. Meanwhile, the current working group will continue disseminating short factual statements about African volcanoes and eruptions through our social media accounts and proceed with the identification and invitation of our leaders and younger colleagues to join and contribute. They will also keep reinforcing communication and collaboration with well-established scientific organizations and organize the elections for the next Executive Bureau of the NAV.

What next?

The enthusiasm registered before the meeting, and during and after the meeting demonstrates the necessity and the belief that the NAV could and should carry the mandate to fill the noticeable gap regarding the organization, overseership, promotion, and strategic development of volcanological education and research on the continent.

Elaborated by Dr. Boris Chako Tchamabe and Prof. Nicholas Mariita,
On behalf of the Organizing committee.

01st September 2023