

NEWS No. 3

October 2022

INTERNATIONAL ASSOCIATION
OF VOLCANOLOGY AND CHEMISTRY
OF THE EARTH'S INTERIOR



This Newsletter is intended to keep IAVCEI Members and individual scientists informed about the activities of the Association and its bodies, and the actions of the IAVCEI Executive Committee. Past issues are posted on the IAVCEI website. Your comments are welcome. The IAVCEI Newsletter may be forwarded to non-members who may benefit from the information.

FROM THE PRESIDENT



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Dear colleagues,

I hope you're fine. This Newsletter 2022-3 provides you with updates on the recent and future activities of the IAVCEI. You will find upgraded information on our membership, webinars, meetings, award nominations, Bulletin of Volcanology, IUGG-related business, and a new MoU. Be sure that our Executive Committee is actively working to promote the life of IAVCEI at his best.

Greetings,

Patrick Allard
October 16, 2022



Membership

Memberships	2019	2020	2021	2022
Total	1705	2010	2142	2239
Paid	801	1046	732	1282
Unpaid	904	964	1410	957

We are very happy to inform you that, despite the strong impact of the COVID-19 pandemic, our IAVCEI membership has grown substantially over the past four years. Increased paid membership in 2022 (by 18 % compared to 2020 and 38 % compared to 2019) reflects fee renewal by current members but also the arrival of (prevalently young) new members. This positive trend has been strongly stimulated by registrations to our new series of IAVCEI webinars, in addition to registrations to COV11 (June 2022) then to our Scientific Assembly in Rotorua (January–February 2023). Such a good health of our Association reinforces its financial capability to support meetings, travel grants and Commissions' activities, as well as its weight within IUGG. The 'Unpaid' figure is under checking by the IAVCEI secretariat to take account of retired/deceased members. However, it still require the Executive Board but also individual IAVCEI members to encourage the renewal/affiliation of numerous colleagues, active in various countries, who do not realize yet the mutual interest in paying IAVCEI membership fee.

IAVCEI Webinars

As mentioned above, the IAVCEI webinar series, launched since April 2021 and accessible to only due paid members, have gotten a great success in attracting the participation of registered colleagues from all over the world. In addition to webinars dedicated to recent/ongoing main eruptive events, new webinars have been programmed by our Early Career Research (ECR) Network and by some of our Commissions.

Here below is the updated list of webinars since last July:

- **December 20, 2021: "Remote Sensing of Volcanoes" (Early Career Researcher Network)**
 - "Multi-Disciplinary Characterization of the June 2019 Eruptions of Raikoke, Kuril Islands and Ulawun, Papua New Guinea Volcanoes Using Remote Observational Tools" by dr. Kathleen McKee
 - "Volcanic, Tectonic and Geothermal deformation in SW Iceland" by Dr. Cécile Ducrocq
- **February 10, 2022: "Mass Movements and their Associated Hazards" (Early Career Researcher Network)**
 - "Volcanic debris avalanche deposits and what they tell us about edifice collapse" by Engielle Paguican
 - "Experiments of impulse waves generated by gravity-driven flows: Focus on tsunami generation by pyroclastic flows" by Alexis Bouguin



- **July 5, 2022:** “*Volcanic plume electrification and volcanic lightning: mechanisms and occurrence, from the field to the laboratory*” (CEV) by Caron Vossen
- **August 24:** Social and Historical Volcanology (Early Career Researcher Network)
 - “*The dark geocultural heritage of volcanoes*”, by Jazmin Scarlett (Senior Research Associate at the University of East Anglia)
 - “*Contributions to the volcanic risk analysis methodologies: some applications in Latin American volcanoes*”, by Amiel Nieto-Torres (Postdoctoral researcher at the Escuela Nacional de Ciencias de la Tierra (NCES), UNAM, Mexico)
- **October 25:** “*Southern Andes as a natural laboratory to study explosive volcanism: findings after 15 years of research*”(CEV) by Jorge E. Romero Moyano (University of Manchester, UK)

For those who missed these webinars, recordings are posted in the Members' Zone of the IAVCEI site:

<https://www.iavceivolcano.org/media-gallery/webinars/>

We encourage you to propose topics of wide interest for future webinars!

Meetings

IAVCEI Scientific Assembly

Rotorua (New Zealand), January 30 – February 3, 2023

According to the local organizing Committee, the total of submitted abstracts reaches 1258. Although to be later confirmed, the number of presenters might be close to a thousand, as 960 have expressed their willing to attend in person and 39 virtually. We thus expect a well-attended IAVCEI Scientific Assembly in New Zealand. Two soon deadlines to be remembered:

- **October 22, 2022:** Authors notification of abstract acceptance
- **November 20, 2022:** Early-bird Registration

The scientific Program will be finalized accordingly. Updates can be obtained at: <https://confer.eventsair.com/iavcei2023>.

In particular, IAVCEI 2023 will be an inclusive and accessible conference for Early Career Researchers. The Early Career Researcher community will have key roles in the scientific program, with an Early Career Researcher chair and highlighted Early Career Researcher contributions for each symposia, among other initiatives.

In addition to the 17 planned pre- and post-conference Workshops, there will be a dedicated WOVO workshop (updates on the ongoing rejuvenation project) and a meeting of IAVCEI Commissions' Leaders together with the Executive Committee on January 31.

IAVCEI General Assembly (28th IUGG Assembly)

Berlin, July 11–20, 2023

The IAVCEI General Assembly will happen in July 2023, during the 28th General Assembly of IUGG (CityCube of Berlin, Germany). In planning the scientific program, the IUGG Executive Committee recommended us to promote joint Sessions with other Associations. By the end, the IAVCEI will have 14 own scientific Sessions of volcanology, will lead 5 joint Sessions and will co-participate to other 5 joint Sessions. The IAVCEI GA will also be the framework for honoring the selected nominees to the 2023 Thorarisson, Fisher and Krafft Medals and the second-round nominees for the G. Walker Award and Wager Medal (see thereafter).

Online registration and abstract submission to IUGG2023 are now open. Information about abstract submission, online registration fees, guidelines and how to complete your registration are accessible from the web portal: <https://www.iugg2023berlin.org>

Abstract will be accepted until February 14, 2023.

Early-bird registration will be possible until April 28, 2023.

Other meetings

Submarine Volcanism ECR Research Symposium

November 8–9, 2022


This symposium, organized by the *IAVCEI Commission on Submarine Volcanism*, is a networking and research event devoted to attract Early Career Researchers interested in submarine physical volcanology, igneous petrology, and geochemistry, water-magma interactions, volcanic hazards, and impacts, remote sensing, hydrothermal vents, oceanography, marine ecology, marine geophysics, outreach and education, technology, data, and computing relating to marine volcanism. It will include plenary talks from leaders in the field, ECR research and lightning talks, and will be held over all time zones in two online sessions:

- **November 8, 2022 from 16:00 till 19:00 UTC (Atlantic)**
- **November 9, 2022 from 01:00 till 04:00 UTC (Pacific)**

Symposium attendance, for free, is reserved to IAVCEI members with 2022 paid membership fee. For more details see the announcement on the IAVCEI website.

International Workshop on “Genesis and dynamics of large active calderas: the case of Campi Flegrei and the Campanian Plain”

Naples, May 2–5, 2023



**Genesis and dynamics of large calderas
Campi Flegrei and Campanian Plain**


International Workshop
May, 2-5 2023
Sala del Capitolo Convento San Domenico Maggiore, 18 - 80134, Naples, Italy

Scientific Committee
Patrick Allard (IAVCEI)
Giuseppe De Natale (INGV, IAVCEI Italy)
Mauro Di Vito (INGV)
Marco Sacchi (CNR-ISMAR, ECORD-IODP Italy)

Local Organizing Committee
Giuseppe De Natale (INGV)
Alessandro Fedele (INGV)
Donatella Ininga (CNR-ISMAR)
Flavia Molisso (CNR-ISMAR)
Paola Petrosino (UNINA)
Giuseppe Rolandi (UNINA, Retired)
Marco Sacchi (CNR-ISMAR)
Renato Somma (INGV)
Claudia Troise (INGV)

Logos: IAVCEI, ECORD-IODP ITALIA, icdp, CNR ISMAR, INGV

This international Workshop is aimed at making the point on our scientific understanding of the genesis and dynamics of large active calderas in general, with a focus on the very active Campi Flegrei volcanic system and new results from recent drillings in the area. The workshop is co-organized by the INGV-OV, the IAVCEI, ECORD-IODP and the University of Naples, with a thanked support of Naples' Municipality (above announcement). Scientific sessions on May 2-4 will be hosted in the Sala del Capitolo of the Convent San Domenico Maggiore, in the historical center of Naples. They will be followed by a one-day field excursion in Campi Flegrei caldera and the Campanian Plain on May 5. We welcome a large participation to this Workshop, in particular from members of the IAVCEI Commission on Collapse Calderas.



International Workshop
May, 2-5 2023
Sala del Capitolo Convento San Domenico Maggiore, 18 - 80134, Naples, Italy

The Workshop is aimed at bringing together researchers of the volcanological community to discuss open scientific questions related to the origin, evolution and activity of large calderas. It will focus, in particular, on discussing the outcomes and results of recent research activities on the Campi Flegrei caldera, Italy, in relation to the large Campanian Plain ignimbritic eruptions that occurred in the last 300 ka, including the Campanian Ignimbrite (40 ka) - the largest eruptive event ever recorded in Europe. Understanding the origin, evolution and dynamics of Campi Flegrei caldera, currently in unrest and one of the best monitored volcanic system in the world, can improve our broad understanding of the mechanisms of caldera formation and eruption worldwide and, thus, improve our capabilities to mitigate related hazards. We invite presentations focused on any innovative research and results on large volcanic calderas worldwide, and particularly on Campi Flegrei caldera and Campanian Plain Ignimbrites. The workshop will also provide an opportunity to discuss and plan future drilling research projects at Campi Flegrei caldera and the Campanian Plain, that can be jointly implemented by the International Ocean Discovery Program (IODP) and the International Continental Scientific Drilling Program (ICDP) (i.e. Land-2-Sea proposals). Finally, the Workshop will be complemented by a one-day field excursion in and around the Campi Flegrei caldera.

La Palma International Workshop on Reducing Volcanic Risks in Islands

June 2–6, 2023

This international Workshop in La Palma island (Canaries) will focus on how mitigate at best volcanic risks in islands, with a focus on the case of the Sept-Dec 2021 eruption in La Palma (see the announcement below)

**La Palma International Workshop
on Reducing Volcanic Risk in Islands**
2-6 June 2023



More information: www.involcan.org

Logos: INGV, IAVCEI, ECORD-IODP, CNR-ISMAR, and various international organizations.

IAVCEI Awards 2023

George Walker Award and Wager Medal

Both Awards will be delivered in two rounds in 2023, first during our Scientific Assembly in Rotorua then during our General Assembly in Berlin. This unusual short time between the two rounds is an unfortunate, direct consequence of the COVID-19 pandemic in 2020–2021.

The nomination call for the first round was closed on October 8. Eight nominations were submitted for the G. Walker Award and three nominations for the Wager Medal. The dossiers were transmitted for evaluation to the IAVCEI Awards Committee. Following our practice over the past decade, 2 nominees will be honored with each award.

For the second nomination round, the call will be issued in January 2023.

Thorarinsson, Fisher and Krafft Medals

The Executive Committee agreed to deliver these three IAVCEI Medals during our General Assembly in Berlin, July 2023. The nomination call will be issued by December 2022. For any information about these Medals and our Awards in general please refer to the IAVCEI website at:

<https://www.iavceivolcano.org/guidelines-for-iaxcei-awards/>

Bulletin of Volcanology

The present Editor-in-Chief team of Bulletin of Volcanology, Andy Harris and Frances van Wyk de Vries, will stop his service term in July 2023, after an additional 6-months extension upon request of the Executive Committee. We deeply acknowledge the great job made by Andy and Fran, together with their team of Associated editors and through continuous exchanges with Springer, in actively promoting BV over the past four years. The numbers reported below attest of a substantial increase of BV's impact factor under their leadership.

Year	Submissions	Publications	Impact Factor
2018	152	70	2.232
2019	150	81	2.032
2020	118	75	2.517
2021	153	88	2.906
2022 (07)	76	62	-

On October 10, the IAVCEI has launched a call for the new Editor in Chief of Bulletin of Volcanology for the term 2023-2027.

It would be ideal if the new Editor in Chief could overlap with the current team during a 4-months transition phase from February to June 2023.

Let us remind that Bulletin of Volcanology, the official journal of IAVCEI, is the most ancient journal in Volcanology (since 1922) and one of the most recognized in this research field. We are looking for a motivated Editor in Chief able to coordinate the team of Associate Editors and to maintain the high quality and reputation of BV. The Editor in Chief can be associated with an editorial assistant of his/her choice and can invite and substitute Associate Editors, pending agreement with IAVCEI Executive Committee. Beyond and besides the prestige of serving as Chief Editor, there is compensation for the service paid by Springer after signature of a contract. The service is expected for a minimum of 4 years, but any required extension/reduction may be negotiated with the IAVCEI Exec.

Please, send your candidature (CV and a motivation letter) and inquiries to the IAVCEI SG, Roberto Sulpizio (Roberto.sulpizio@uniba.it) by November 30, 2022.

IUGG-Related Information

2023 IUGG Awards

The 2023 IUGG Awards will be delivered in July 2023 during the 28th IUGG General Assembly in Berlin. Based on answers to our calls, two nominations were finally submitted by the IAVCEI:

- *Early Career Scientist Award*: Dr. Tarsilo Girona, Fairbanks University and Alaska Volcano Observatory, USA.
- *IUGG Gold Medal*: Prof. Don Dingwell, University of Bayreuth, Germany.

Our VP Jan Lindsay will represent IAVCEI in the IUGG Committee for the Gold Medal.

IUGG-IASPEI-IAVCEI support to the Kyoto Landslide Commitment (KLC2020)

The 2022-2023 IUGG Grant Programme has decided to support (USD 10,000) the Kyoto Landslide Commitment 2020, a project coordinated by Kyoji Sassa (Secretary General of the KLC2020) and supported by IAG, IASPEI and IAVCEI. Articles for the funding issue were submitted to Springer Nature (Vol.1, No.1 of the Open access Book Series "Progress in Landslide Research and Technology (P-LRT)").

IAVCEI-WMO

IAVCEI involvement into the UN's Initiative on Global Early Warning Systems

During a WOVO workshop in Heraklion (COV11), the IAVCEI board had fruitful discussions with representatives of the WMO (World Meteorological Organization) about the UN's Initiative

on Global Early Warning Systems. This 5-year global Initiative will be developed within the Sendai Framework for Disaster Risk Reduction 2015–2030, under the coordination of WMO. In

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WEATHER CLIMATE WATER
TEMPS CLIMAT EAU



WMO OMM

World Meteorological Organization
Organisation météorologique mondiale
Organización Meteorológica Mundial
Всемирная метеорологическая организация
المنظمة العالمية للأرصاد الجوية
世界气象组织

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Our ref.: 23414/2022/S/D

Annex: 1

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Dr Patrick Allard
IAVCEI President
University-Institut de Physique, Paris France
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10 October 2022

Subject: IAVCEI interest in participating to the WMO-coordinated UN's Global Early Warning Systems Initiative

Dear Professor Sulpizio and Dr Allard,

Thank you for your letter dated 24 September 2022 in which you express your interest in participating in the WMO-coordinated UN's Global Early Warning Systems Initiative. Indeed, on 23 March this year, the United Nations Secretary-General António Guterres tasked the World Meteorological Organization (WMO) with spearheading action to ensure every person on Earth is protected by early warning systems within five years. We acknowledge that to accomplish this, all sectors of society need to work together, including International Organizations, national governments and the private sector. It is therefore with great pleasure that we receive your proposal to participate in this Initiative.

In this regard, please find attached a two-page document describing the overall initiative. For further discussions on your involvement, kindly liaise with Mr Cyrille Honoré, Director of the Disaster Risk Reduction and Public Services Branch, who is the focal point of the initiative in the Secretariat (via email: CHonore@wmo.int).

I take this opportunity to inform you that Dr Stander will participate in the International Association on Volcanology and Chemistry of the Earth's Interior (IAVCEI) Scientific Assembly scheduled to take from 30 January to 3 February 2023 in Rotorua, New Zealand.

I have no doubt that practical ways of collaboration will emerge from your discussions and I look forward to hearing about positive updates about this important initiative.

Yours sincerely,

Prof. Petteri Taalas
Secretary-General

an official letter to the Secretary-General of WMO, Prof. Petteri Taalas, we expressed the interest of the IAVCEI in being associated to this UN's Initiative, through our competences in early warning systems devoted to the mitigation of volcanic hazards, volcano-atmosphere interactions and volcanic disasters. A positive answer from the President of WMO was received on October 10. We do hope that many of you will be interested in contributing to this UN Initiative. This latter offers

IAVCEI a rare chance for very rapid investment in volcano-related early warning systems (see *Tupper and Bear-Crozier*, BV 2022), as well as for promoting the role of the WOVO – in course of rejuvenation – within global plans of early warning and mitigation of natural hazards.

For those already interested, the 8th WMO International Workshop on Volcanic Ash (IWVA-8), entitled 'Managing

Ref.: 2304/2022-10 SDPS



WORLD
METEOROLOGICAL
ORGANIZATION



COP27
SHARM EL-SHEIKH
EGYPT 2022



EARLY WARNINGS FOR ALL

The UN Global Early Warning Initiative for the Implementation of Climate Adaptation

Introduction and political context

Early Warning Systems are a proven, effective, and feasible climate adaptation measure, that save lives[i], and provide a tenfold return on investment[ii]. The WMO State of the Global Climate 2021 report[iii] shows that extreme weather events (floods, drought, heatwaves, storms, etc.) led to hundreds of billions of dollars of economic losses and wreaked a heavy toll on human lives and wellbeing. The IPCC's Sixth Assessment Report on Impacts, Adaptation, and Vulnerability recognized early warning systems and disaster risk management activities as key cross-cutting adaptation options, that enhance the benefits of other adaptation measures when combined[iv].

And yet, major gaps in early warning systems remain, especially in developing countries. Furthermore, there is a global incapacity to translate early warnings into early action. The UN Secretary-General Antonio Guterres has tasked WMO with spearheading action to ensure every person on Earth is protected by early warning systems within five years. COP27 in Egypt will move the focus from promises and pledges to action on the ground. The practicality and implementability of early warning systems make them an ideal focus area for COP27. The UN Water Conference, the Mid-term Review of the Sendai Framework, the 2023 SDG Summit, and the UN Future Summit and COP28 all present additional key opportunities to advance implementation of risk-informed early warnings and early action to enable future preparedness.

Multi-Hazard Early Warning Systems (MHEWS)

A Multi-Hazard Early Warning System (MHEWS) is an integrated system which allows people to know that hazardous weather or climate events are on their way, and informs how governments, communities and individuals can act to minimize impacts. End-to-end MHEWS include disaster risk knowledge, monitoring, forecasting, warning, communication, and response[v]. MHEWS should be people-centred to empower those threatened by hazards to act in sufficient time and in an appropriate manner, and they build on partnerships within and across relevant sectors. See Figure 1 below.



Figure 1. Graphical presentation of a Multi-Hazard Early Warning System (MHEWS)

The state of MHEWS globally

An enhanced data collection campaign conducted since March 2022, shows that significant MHEWS gaps remain globally; only half of WMO Members report having a MHEWS in place. Even fewer countries have MHEWS that are based in national legislation and regulatory frameworks for emergency response, which are essential to ensure their effectiveness. Significant gaps remain in vital underpinning observations, especially in Africa, Small Island Developing States (SIDS) and Least Developed Countries (LDCs), and many African countries report to not have Standard Alerting Procedures to support MHEWS communication and dissemination. An updated high-level analysis of this data will be shared with key partners shortly. See Figures 2, 3 and 4.

To ensure robust monitoring for achieving the five-year goal, a composite Early Warning Index will be developed with Members and key partners in the months ahead. This index will better demonstrate changes in the global status of early warnings and early action going forward and highlight areas where urgent action is required.

Today, one third of the world's people, mainly in least developed countries and small island developing states, are still not covered by early warning systems... This is unacceptable, particularly with climate impacts sure to get even worse. Early warnings and action save lives. To that end, today I announce the United Nations will spearhead new action to ensure every person on Earth is protected by early warning systems within five years. I have asked the World Meteorological Organization to lead this effort and to present an action plan at the next UN climate conference, later this year in Egypt.



UN Secretary-General António Guterres on World Meteorological Day 23 March 2022

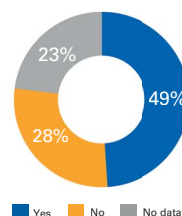


Figure 2. Percentage of WMO Members reporting to have MHEWS

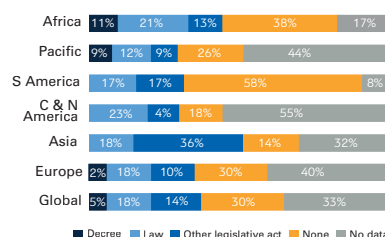


Figure 3. Percentage of Members reporting to have legislation on MHEWS

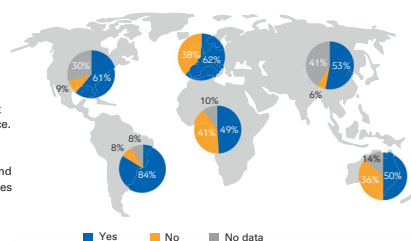


Figure 4. Percentage of countries reporting to have Standard Alerting Procedures (SAPs)

Source for data figures: WMO Performance Monitoring System, July 2022

and mitigating volcanic risks to aviation with an explosion of science!” will be held in Rotorua as a post-conference just after our SA (February 4–5, 1.5 days; see the SA2023 webpage).

“Building on the presentations, discussions and outcomes of the preceding 2023 IAVCEI Scientific Assembly, IWVA-8 will bring together research and operational experts and stakeholders from the volcanological, meteorological and aviation communities to

highlight and discuss the worldwide progress that has been made over the past decade, in supporting the scientific and technological advancement (research-to-operations, science-for-services) of the International Civil Aviation Organization (ICAO) International Airways Volcano Watch (IAVW).”

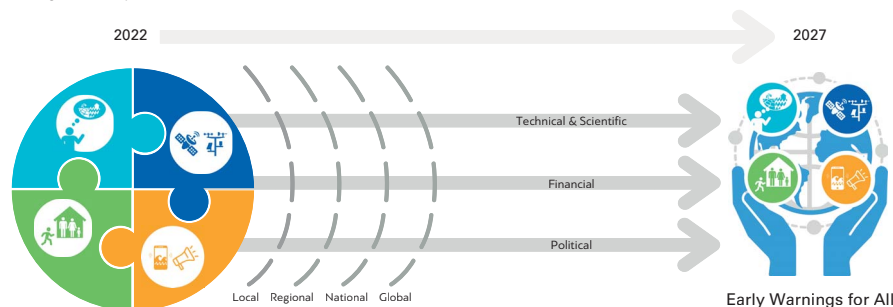
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Linking early warnings to early action

Early warning systems can only save lives and protect livelihoods if they incorporate clear roles, responsibilities and coordination mechanisms for action. The overall success of an early warning system ultimately depends on its ability to translate warnings, and particularly impact-based forecasts, into prevention and mitigation measures for all affected people, including hard-to-reach communities [vi]. Ensuring every person on Earth is protected by early warnings therefore requires greater collaboration across all potential data providers (from satellite imagery down to local data crowdsourcing), sector experts, media and other two-way communication services, decision-makers and end users. WMO is working with the United Nations Office for Disaster Risk Reduction (UNDRR) and a specially formed ‘Early Warnings for All’ Advisory Group from the Risk-Informed Early Action Partnership (REAP) to ensure the perspectives of all stakeholders across the full value chain of early warning are included in the design of the Action Plan.

Initiative architecture to deliver on the five year goal

WMO is developing with key partners transformation plans for each of the four components of the early warning value chain (see Figure 1), demonstrating the steps required to deliver on the five year goal, across the global, regional, national, and local level. These transformation plans will be developed according to the architecture shown below. The development of the plan is based on globally agreed guidance on MHEWS and will address the technical/scientific, financial, and political tracks required, for the hydro-meteorological, disaster risk and early action communities to work together to ensure every person on Earth is protected by early warnings within five years.



Building on the recently adopted WMO Executive Council Resolution (EC-75 4(2)/1) on the Early Warnings for All initiative, the plan will reflect WMO Members commitment to collective action on 1) Earth System observations and monitoring, 2) Predictive and warning capabilities, and 3) Coordinated communication for anticipatory action, in addition to other related work such as the WMO Global Multi-Hazard Alert System (GMAS) Framework, the WMO Coordination Mechanism (WCM) for Humanitarian Support, and the Global Water Information System (GWIS) as called for in the Water and Climate Leaders Action Plan[vii].

Effective implementation of the architecture will require inputs from a wide range of actors, including Academia, National Disaster Agencies, NGOs, the Private Sector, Climate Finance Institutions, the UN System, as well as the important role of National Hydrological and Meteorological Services and WMO Technical Commissions. Key components, overall targets, and the final scope of the architecture will be discussed with partners at a two-day workshop in Cairo in early September 2022.

Financing solutions

A range of new and pre-existing innovative financing solutions are required to implement the plan to protect every person on Earth. These include a scaling up of the Climate Risk Early Warning Systems (CREWS) Initiative[viii], the Systematic Observations Financing Facility (SOFF)[ix], and accelerated investment programmes of climate funds, such as the Green Climate Fund (GCF) and the Adaptation Fund, and key Multilateral Development Banks (MDBs), as well as other innovative new financial instruments across all stakeholders of the early warning value chain.

Milestones to COP27 and beyond



[i] WMO Atlas of Mortality and Economic Losses from Weather, Climate and Water Extremes (1970-2019) (2021) https://library.wmo.int/index.php?vi=notice_display&id=21930&YJmVH1jML0o

[ii] Adapt now: a global call for leadership on climate resilience. Global Commission on Adaptation (2019) <https://gca.org/reports/adapt-now-a-global-call-for-leadership-on-climate-resilience/>

[iii] WMO State of the Global Climate in 2021. WMO (2022) https://library.wmo.int/index.php?vi=notice_display&id=22080&YJmVH1jML0o

[iv] Climate Change 2022: Impacts, Adaptation and Vulnerability. Summary for Policy Makers. IPCC (2022) https://report.ipcc.ch/ar6wg2/pdf/IPCC_AR6_WGII_SummaryForPolicymakers.pdf

[v] Multi-Hazard Early Warning Systems: A Checklist. WMO (2018) https://library.wmo.int/index.php?vi=notice_display&id=20228&YJmVH1jML0o

[vi] Risk-Informed Early Action Partnership (REAP) Early Action: The State of Play 2021 (2022) https://www.early-action-reap.org/sites/default/files/2022-03/REAP_StateofPlay2021_FINAL.pdf

[vii] Water and Climate Coalition Leaders Action Plan https://www.water-climate-coalition.org/wp-content/uploads/2022/06/Endorsed_Action_plan.pdf

[viii] The Climate Risk & Early Warning Systems (CREWS) Initiative <https://www.crews-initiative.org/en>

[ix] The Systematic Observations Financing Facility <https://alliancymetromet.org/soff/>

African Volcanology

Nyiragongo – Aftermaths of the March 2022 International Conference on the Mitigation of Volcanic Risks in the Virunga Region

The tragic eruption of Nyiragongo in May 2021, heralded by only very short-term (40 min) signals (*Smitarello et al.*, Nature 2022), had motivated the RD Congo's government and the IAVCEI to co-organize in Goma an International Conference on the Virunga Volcanoes in March 2022 (IAVCEI Newsletter 2022–2021). The conference prepared international recommendations for improved volcano monitoring and mitigation of volcanic risks in the Virunga region, which were subsequently complemented then formally issued on June 8, 2022.

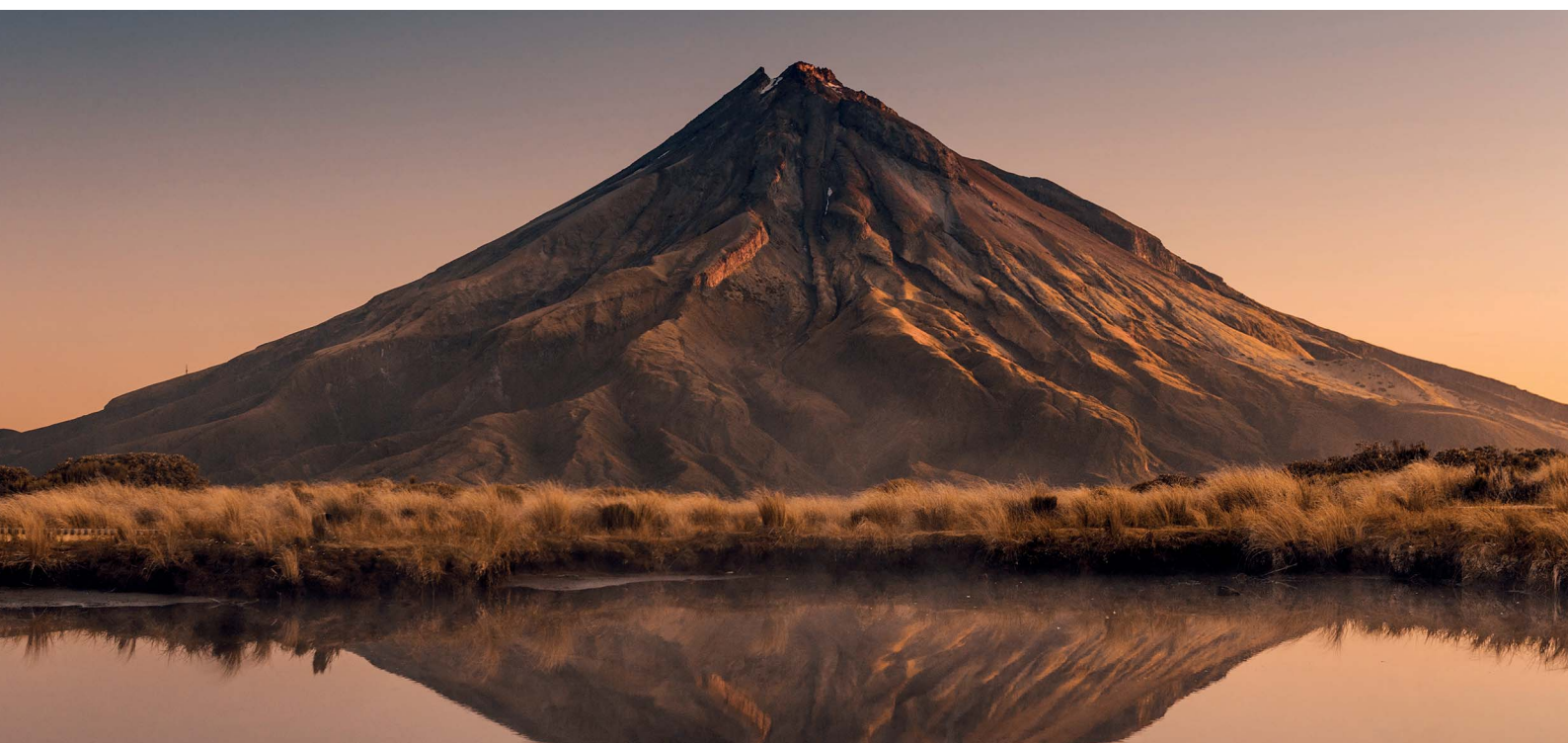
Since then, the IAVCEI side has promoted regular online meetings with the Goma Volcano Observatory (GVO) and his international partnerships. Three such meetings already occurred on June 29, July 19 and September 14. After the retirement of former ECGS partner from Luxemburg, GVO is re-organizing its capabilities in monitoring Nyiragongo with the support of the RDC government, the Congolese-USA Linda Project, and a panel of international partners (VDAP, INGV, MRAC, Chalmers University, Royal Belgian Institute for Space Aeronomy, OPGC-LMV, IPGP). By mid-September local data transmission had been activated for 12 seismic stations and is planned to be gradually activated for GNSS stations. New DOAS monitoring stations were set up by Chalmers University. Collaboration plans include the donation of new equipment to GVO, field measurements, and the training of GVO staff.

On October 13, the UNESCO office in Kinshasa organized a regional webinar on the aftermaths of the Nyiragongo's eruption, entitled "*Experience sharing on recovery and reconstruction after a volcanic catastrophe: the case of Nyiragongo 2021 eruption*". This webinar involved representatives of RD Congo's Ministries and Universities, the IAVCEI president, and the speakers of 5 oral presentations:

- Dr Soichiro Yasukawa, Chief of the Disaster Risk Reduction Section of UNESCO, Paris: « L'expertise multisectorielle de l'UNESCO dans la réduction des risques de catastrophe ».
- Dr Devy Kamil Syahbana, CVGHM, Indonesia: "Volcano monitoring and risk mitigation in Indonesia".
- Dr. Shinichi Sugimoto, President of the Memorial Museum of Mt Unzen, Japan: "Recovery plans after the 1990–1995 eruption of Mt Unzen".
- Dr. Hugo Delgado Granàs, UNAM, Mexico: "Volcano monitoring and hazard mitigation plans in Mexico".
- Dr. Adalbert Muhindo, OVG Director, RD Congo: « Etat des lieux du cadre de gestion des risques volcaniques en RDC et au Nyiragongo ».

IASPEI-IAVCEI-IUGG sponsorship to the creation of a Network for African Volcanologists

A project entitled "*Towards creating and launching the Network for African Volcanologists (NAV)*", led by Dr. Boris Chako Tchamabe and supported by IASPEI and IAVCEI, was submitted to IUGG Grants Program 2022–2023 (Special Call – IYBSSD2022). IUGG allocated 12,000 USD to this project, considering that it will promote a close cooperation between IASPEI, IAVCEI, IYBSSD2022, and other researchers dealing with the creation and launch of the Network for African Volcanologists. This represents a great step forward for African volcanologists, their continental links, and their representativeness at global scale, particularly within the IAVCEI.



MEMORANDUM

MoUs

The IAVCEI board recently signed a new Memorandum of Understanding with the *Italian Association of Volcanology (IAV)*. It is the first time IAVCEI contract a MoU with a national Association; this has been motivated by the fact that IAV is a very active Association, in a country with a large volcanological community, and involves numerous members from various research institutions in Italy. Among others, IAV regularly organizes the A. Rittmann scientific Conferences in Catania. Let me remind that Alfred Rittmann, famous Swiss magmatologist-volcanologist of the 20th century, was the first Director of the International Institute of Volcanology (IIV) in Catania, as well as President of the IAVCEI for three mandates from 1954 to 1963.

From September 29 to October 1 the IAVCEI SG and PR attended the 5th Rittmann conference (280 participants, 140 oral presentations, 80 posters, ended by a field trip on Etna) during which they officially signed the new MoU with AIV. Both Associations plan to actively cooperate in promoting volcanological exchanges in Italy and Europe. If desired, the IAVCEI could activate analogous MoUs with other national Associations in the future, even though MoUs with broader (regional or continental) Associations remain our preferred option.

5th Rittmann Conference in Catania, September 29 – October 1, 2022, and field excursion on Etna (Oct. 2).

