



# IAVCEI *News* 2014 No: 2

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

## FROM THE PRESIDENT



*Ray Cas*  
*President of the IAVCEI*

Dear Colleagues,

**There are several very important matters I will address in this IAVCEI News:**

### **IAVCEI ADOPTS THE “PRINCIPLE OF FREEDOM OF PARTICIPATION IN LEARNED SOCIETIES (LPFLS)”**

In the previous, April edition of IAVCEI News, in discussing the difficulties of IAVCEI's relationships with IUGG, I mentioned that a major problem IAVCEI has with IUGG is that IUGG statutes prevent IAVCEI from allowing scientists from non-IUGG Member countries from participating in the governance of IAVCEI. The IAVCEI Committee, after considerable consultation, has drafted and adopted the following “PRINCIPLE OF FREEDOM OF PARTICIPATION IN LEARNED SOCIETIES (LPFLS)”

1. All scientists should be able to apply for, and be accepted for, individual membership of scientific learned societies or associations, and should be able to participate freely irrespective of age, cultural background, race, religion, political or scientific views, disability, gender, gender orientation, country of origin, country of residence, or financial status of those countries in the learned society or association.
2. All scientists who become individual members of scientific learned societies or associations should be able to participate in the activities of such societies or associations, including attendance at conferences and other activities, voting on matters that are brought to the membership, nominating others for committee positions, being nominated for committee positions and serving in those capacities if voted in by the membership.
3. Membership of a learned society or association may only be rejected or cancelled if the candidate or member has been guilty of (a) professional malpractice, (b) discrimination against others on the grounds of age, cultural background, race, religion, political or scientific views, disability, gender, gender orientation, country of origin, country of residence, or financial status of those countries in the learned society or association, or (c) bringing the society or association into disrepute by unfairly maligning it.
4. Disagreeing with the policies of the association or society in good faith is not deemed to malign the learned society or association, but represents the democratic right of any member of an enlightened learned society or association to state their views.

As President, I forwarded a copy of the PFPLS to IUGG and the Presidents and Secretaries-General of the other seven IUGG associations two months ago, with a recommendation from IAVCEI that IUGG also adopts the PFPLS. It is no surprise to me that neither the President nor the Secretary-General of IUGG has even acknowledged receiving my communication, and thus not given any indication as to how or even whether IAVCEI's recommendation about adopting the PFPLS will be considered.

Only one President of the other seven associations sent an encouraging response. I think that says it all about IUGG.

That then brings me to the matter of whether or not IAVCEI should remain a member of IUGG, which I foreshadowed in the previous newsletter would be discussed more comprehensively in this newsletter.

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## SHOULD IAVCEI LEAVE IUGG AND BECOME AN INDEPENDENT LEARNED SOCIETY? – Pros and Cons

### Abstract

IAVCEI has been one of 8 scientific associations in the International Union for Geodesy and Geophysics (IUGG) for almost one hundred years. Although there are some benefits in being part of an interdisciplinary scientific organization (e.g. opportunities for interdisciplinary interaction, receiving limited funding, opportunity to contribute to scientific policy), the reality is that few IAVCEI members undertake interdisciplinary research through IUGG, relatively few IAVCEI members bother to attend IUGG General Assembly conferences, and IUGG has achieved almost nothing in terms of developing significant international science policy. IAVCEI is required to abide by IUGG statutes and these IUGG statutes prevent scientists who come from countries that are not financial member countries to IUGG from being nominated, elected to, or holding committee positions on any IUGG association committees (including the IAVCEI committee), or even voting on any issues that may arise within IAVCEI. This is unacceptable discrimination in a modern scientific learned community. In addition, IUGG is a very bureaucratic organization resistant to change, even though IAVCEI has been proactive in proposing reforms. In the light of these issues, *the IAVCEI committee, in a majority recommendation, recommends that IAVCEI members vote to leave IUGG and become an autonomous, independent, inclusive and democratic learned society*, when a plebiscite is held later this year or early next year. The IAVCEI Committee has undertaken a business assessment of the viability of this proposal and considers that IAVCEI can exist as a financially independent, not-for-profit society. For a more detailed assessment of the pros and cons of IAVCEI leaving the IUGG organization and the business case for doing so, please read on.

### A. INTRODUCTION AND BACKGROUND

IAVCEI is one of eight scientific associations that make up the International Union for Geodesy and Geophysics (IUGG) that was founded in 1919. The other associations cover the disciplines of atmospheric science, geodesy, ice or cryospheric science, hydrology, earth magnetism, oceanography, and seismology. IUGG has a General Assembly every 4 years, the next one being the assembly in Prague, 2015, during which IAVCEI will also hold its IAVCEI2015 General Assembly. IUGG receives its income from annual financial contributions from member countries. Country membership fees vary from thousands to tens of thousands of dollars per year depending on the economic status of each country. However, there are currently only 62 financial member countries of IUGG, out of more than 200 countries in the world. IUGG is therefore not truly international.

There are benefits in being part of a large international geophysical sciences union, including the opportunities for interdisciplinary collaboration. In addition, IAVCEI receives an annual grant from IUGG in proportion to the number of IAVCEI members who attend the IUGG General Assemblies. However, there are also problems with this old organization, which in part arise from its historic beginnings and its reluctance to change.

For some time now IAVCEI members and the IAVCEI committee, have questioned whether or not IAVCEI should remain in IUGG, or leave it and become an independent, truly international, learned society.

To help members understand the issues, following is a summary of the pros and cons of staying in IUGG, and leaving it. There is then an outline of what IAVCEI might look like if it became independent, then a business model showing that IAVCEI can be self-sufficient financially, and finally a recommendation from the committee to members on whether to stay in or leave IUGG.

### B. THE POSITIVE ASPECTS (PROS) OF IAVCEI REMAINING AN ASSOCIATION OF IUGG

1. *Opportunity to participate in an inter-disciplinary geophysical organization and its symposia and research commissions involving other IUGG associations at IUGG conferences.*
2. *IAVCEI receives modest income from IUGG of ~ 17,000 Euros per year, plus a “bonus” of ~ 8,000 each 4 years, based on pro-rata levy per IAVCEI member attending IUGG conferences. At the 2011 IUGG General Assembly about 400 IAVCEI members attended, and so IAVCEI now receives about 40 Euros per person per year from IUGG.*
3. *Opportunity, though limited, to provide input into science policy through IUGG; then ICSU, the International Council of Scientific Unions, of which there are currently 130 unions (another even bigger bureaucracy!), and then the United Nations.*

### C. THE NEGATIVE ASPECTS (CONS) OF IAVCEI REMAINING AN ASSOCIATION OF IUGG

1. *IAVCEI is not an autonomous learned society.* As a member of IUGG, IAVCEI is bound by IUGG statutes or regulations, and any policy decisions we make regarding IAVCEI affairs, must be ratified by IUGG Council, after proceeding through the IUGG Executive Committee. If IUGG disagrees with IAVCEI decisions (e.g. individual membership, participation of scientists from non-IUGG member countries in governance) it can reject IAVCEI's policies. That is, IUGG is a top down, very bureaucratic organization, rather than a democratic, bottom up organization.
2. *Participation in the governance of IUGG/IAVCEI and their committees is restricted only to scientists from financial member countries of IUGG (only 62 at present).* Scientists from other non-IUGG member countries (more than 140) cannot be nominated for, vote for or be elected to the IAVCEI committee. They also cannot vote on any policy decisions that the committee proposes to the membership. They can attend IAVCEI conferences, but not participate in governance in IAVCEI, no matter how much they contribute to IAVCEI. IUGG, and as a consequence, IAVCEI, is therefore not a modern, truly democratic,

inclusive, equal-opportunity international organization for all scientists. It operates like an exclusive club. The IAVCEI committee strongly disagrees with this IUGG regulation and is trying, and has been trying, to change this within IUGG for a long time. It is a discriminatory policy because individual scientists cannot determine if their country can pay the IUGG country membership fee, and secondly because it favours scientists from countries that can afford to pay the membership. By contrast of course, anyone can join AGU and then be nominated for committee positions in AGU. IAVCEI has in fact contravened and ignored this IUGG regulation twice by allowing IAVCEI members from non-IUGG countries to be nominated for, and be elected to its committee.

3. *IUGG is very bureaucratic and resistant to change.* IAVCEI has been pushing for change on individual membership and the rights of individual members to participate in IAVCEI governance for many years, without significant progress. Only now that IAVCEI has foreshadowed that it may leave IUGG over the membership issue and the extremely bureaucratic processes of IUGG, is IUGG asking for opinions on individual membership from the eight associations. To the time of writing this, only the International Association for hydrology (IAHS) has supported the IAVCEI proposal to allow individual membership and then rights to participation in governance for all scientists from all countries. Four associations have rejected the proposal and two have not yet replied. The likelihood of any change is therefore poor.

4. *IUGG seems to achieve very little else other than facilitating inter-disciplinary interaction at conferences and in some commissions.* There is no evidence that other than releasing platitudinous, inconsequential statements on some natural disasters when they happen, that it lobbies governments directly on specific issues, and achieves anything concrete on science issues. For example, since IUGG has an atmospheric science association (IAMAS), it might be expected that IUGG was instrumental in setting up the Intergovernmental Panel on Climate Change (IPCC) and can claim credit for the achievements of the IPCC. But this is not so. IUGG plays no pivotal role in the IPCC. So what has it achieved?

IAVCEI's efforts to take action on the protection of scientists involved in hazard assessment and risk mitigation, following the conviction of the L'Aquila earthquake scientists, was met by stone-walling from IUGG, which said we should not comment on this matter because it was still before the Italian courts (and of course will be for another 5 years!!). Subsequently, a relatively bland statement was put on the IUGG website, but no action or investigation on how to assist scientists involved in hazard assessment, has been initiated by IUGG. By contrast, IAVCEI's actions on this matter, with direct approaches to the Italian government, and the setting up of its Protocols Working Group, are proactive and completely overshadow anything that IUGG has done.

IAVCEI's involvement in the Global Volcano Model (GVM: <http://www.globalvolcanomodel.org>) has led to direct submissions to the United Nations Office of Disaster Risk Reduction (UNISDR) on global volcanic risk for their 2015 Global Assessment report on Disaster Risk Reduction. This was a lot more direct, less circuitous and much quicker, than going through IUGG, then ICSU and then to the UN.

5. *IAVCEI members do not like attending IUGG General Assembly conferences (meetings involving all IUGG associations, which are like a mini-AGU conference).* Only ~300-400 IAVCEI

members attend IUGG General Assembly conferences, which is only about 1/3 that at IAVCEI only Scientific Assembly conferences (e.g. 800 IAVCEI members attended the IAVCEI Pucon meeting in Chile 2004, and over 1,000 attended the recent IAVCEI Kagoshima meeting in Japan in 2013).

6. *Income from IUGG to IAVCEI, based on the number of IAVCEI members who attend IUGG General Assemblies, is therefore limited.*

7. *Most IAVCEI members who go to IUGG conferences do not participate in the symposia of other IUGG associations, or even inter-disciplinary inter-association symposia, and very few IAVCEI members actually interact directly with scientists from other IUGG associations.* Many IAVCEI members who desire interdisciplinary conference options prefer to attend AGU and EGU conferences because they are more dynamic. The affiliation with IUGG therefore benefits relatively few IAVCEI members scientifically.

8. *IUGG General Assemblies are twice as long (10 to 12 days) and much more expensive than IAVCEI conferences (4 to 5 days)* because they represent the bringing together of 8 associations, which all conduct their own conference. Even attending just the IAVCEI scientific program (~4 to 5 days) during a 10 day IUGG conference, does not lead to a reduced registration fee because the costs for the whole infrastructure of the conference have to be covered.

9. *Most IUGG meetings are not held in volcanically active regions, limiting fieldtrip opportunities, and also making them unattractive to most IAVCEI members.*

10. *Decision-making processes are very slow and bureaucratic.* Major policy decisions take between at least 2 to 4 years and sometimes it takes two IUGG terms of 8 years. This is because IUGG policy decisions must be ratified by IUGG Council, which only meets every 4 years, and then only after policies have been considered by the associations, then the IUGG Bureau and then the IUGG Executive. By contrast, the IAVCEI committee does its business progressively and promptly by email (ecomunication mode), as it should be in this day and age for any modern organization.

11. *IUGG country delegates can be selected by their countries at very short notice to attend IUGG Council meetings, without any understanding of how IUGG works, what it stands for, and the policy matters that the delegates are required to vote on.* Country delegates usually receive some funding to attend from their country, which means of course that many country delegates are happy with the current, exclusive structure of IUGG.

## **D. THE ALTERNATIVE – IAVCEI AS AN INDEPENDENT, AUTONOMOUS STAND-ALONE, VOLCANOLOGICAL LEARNED SOCIETY – THE INTERNATIONAL ASSOCIATION FOR VOLCANOLOGY (IAV)**

1. If the IAVCEI membership approves, *IAVCEI will become an independent, autonomous, inclusive, democratic, international, scientific learned society.*

2. IAVCEI will be able to completely review, and where necessary, revise its statutes, quickly, to reflect the needs of a modern, democratic and inclusive scientific community.

3. In response to the discriminatory policies of IUGG about the non-participation of scientists from non-IUGG member countries in the governance of IUGG and its associations, *the IAVCEI committee has already adopted the newly created Principle of Freedom of Participation in Learned Societies\**, as follows::

1. All scientists should be able to apply for, and be accepted for, individual membership of scientific learned societies or associations, and should be able to participate freely irrespective of age, cultural background, race, religion, political views, gender, country of origin, country of residence, or financial status of those countries in the learned society or association.
2. All scientists who become individual members of scientific learned societies or associations should be able to participate in the activities of such societies or associations, including attendance at conferences and other activities, voting on matters that are brought to the membership, nominating others for committee positions, being nominated for committee positions and serving in those capacities if voted in by the membership.
3. Membership of a learned society or association may only be rejected or cancelled if the candidate or member has been guilty of (a) professional malpractice, (b) acts of discrimination against others on the grounds of age, cultural background, race, disability, religion, political or scientific views, gender, country of origin, country of residence, financial status of those countries in the learned society or association, or (c) has brought or brings the society or association into disrepute by unfairly maligning it.
4. Disagreeing with the policies of the association or society in good faith is not deemed to malign the learned society or association, but represents the democratic right of any member of an enlightened learned society or association to state their views.

(\* As President of IAVCEI, I sent as copy of the PFPLS and news of IAVCEI's adoption of it to IUGG and all its associations two months ago. Receipt of this was not even been acknowledged by the IUGG President and Secretary-General, and only one President of the other seven IUGG Associations contacted me to express support. IAHS, the International Association for Hydrology has just now followed IAVCEI and effectively adopted the PFPLS as IAHS policy.)

4. IAVCEI will be managed by an executive committee, which will be elected every 4 years and will consist of the *elected* positions of

- President
- two Vice Presidents
- Secretary-Treasurer
- four Committee Members,
- one dedicated Early Career Scientist (someone within 8 years of PhD graduation at the start of the committee's 4 year term of office; ECRs can also nominate openly for any of the other committee positions),

and in addition, two *ex-officio* positions including

- the immediate past-President (to provide continuity from one committee to the next),
- the Editor of Bulletin of Volcanology.

Not more than two elected members can reside and work in the same country. The term of the President will be limited to one 4 year term, that of the Secretary-Treasurer to two 4 year terms. Committee members may stand for re-election after each 4-year term. A pro-active policy to encourage more women to stand for office, should be adopted to ensure a better gender balance than in the past. Historically, very few women have been nominated and elected to office, even though there has been no impediment to this.

5. *The IAVCEI Committee will be vested with making all policy decisions regarding IAVCEI matters on behalf of all IAVCEI members, and communicating them to members.*

6. *Meetings for all IAVCEI members with the IAVCEI Committee to consider reports and discussions on policy matters will be organized at each major IAVCEI conference.*

7. *IAVCEI will strive to remain the pre-eminent international volcanological learned society by*

(a) organising a vibrant program of major international conferences, workshops and courses at significant volcanically active locations around the world,

(b) representing the interests of its profession and member scientists,

(c) continuing to be the principal international reference organization on policy and commentary relating to volcanological research, volcanic eruptions, hazards and risks.

8. *IAVCEI will hold a major conference every 2 years, in volcanically active regions around the world.*

9. *IAVCEI will mentor early career scientists and research students by providing financial support to attend its activities, further developing the recently initiated early career program, and involving early career scientists in co-convening roles in symposia at conferences.*

10. *IAVCEI will maintain its awards to celebrate the research and service achievements of both award winners and those who are nominated for awards.*

11. *IAVCEI is cashed up to be independent, with reserves and a projected income stream from membership and abstract fees, as outlined below in the proposed business model (see Section E below). IAVCEI's current financial assets will remain with the new association. IAVCEI's bank account is in IAVCEI's name in Spain, where IAVCEI's current Secretary-General, Joan Marti, is the signatory for the account. It is not an IUGG account. There is nothing in the IUGG or IAVCEI statutes that require transfer of funds to IUGG in case an association should leave IUGG. The majority of our income is now from donor members, and conference abstract fees – i.e. from members paying directly to IAVCEI, not from IUGG. So the IAVCEI committee considers that IUGG cannot claim our funds.*

12. To ensure that IAVCEI remains financially viable and independent, IAVCEI will need to re-introduce limited membership fees (as it had in place before 2012, before being told by IUGG that this was against IUGG Statutes and was "illegal"). The proposed membership fee will be uniform for all members, of

40 Euros per year, or a discounted fee of 100 Euros for a 3 year membership term could be provided, or Life Membership which will remain at 800 Euros. The proposed 40 Euros annual membership fee is a similar membership fee model to that adopted by AGU. Although it could be argued that we could introduce a scaled membership fee model depending on country of origin or income level, it is clear that the Global Financial Crisis has hit funding for science in all countries, not just the developing countries. A uniform, modest annual fee for everyone is therefore probably the fairest way to charge membership fees in the present global financial environment.

13. To ensure that IAVCEI remains financially viable, as with AGU, *everyone attending IAVCEI conferences and wanting to present their research or participate in IAVCEI conferences, workshops or fieldtrips, will have to become a member of IAVCEI.*

14. As adopted since 2012 to maintain its financial viability, *IAVCEI will continue to apply an abstract fee of 30 Euros per abstract at all major IAVCEI conferences (GA, SA, CoV), as is done at AGU and EGU conferences, and most major conferences world-wide.*

15. Scientists who choose not to be IAVCEI members may attend IAVCEI conferences at a higher registration fee, but cannot present papers.

16. IAVCEI could nominate national representatives or correspondents to promote IAVCEI activities in their national volcanological organisations or groups.

17. *IAVCEI could consider a minor name change, to make its name simpler.* IAVCEI was first called the International Association of/for Volcanology when it was first formed and joined IUGG early last century. To dissociate ourselves from IUGG we suggest adopting the original name and using the acronym IAV. IAVCEI owns the domain name iavcei.org, and will retain ownership. However, given that IAVCEI is a mouthful, we suggest having a new web domain name, although we will also retain “iavcei”, and link it to the new domain website. The domain name “iav” is already taken by another organization or business (not related to volcanology) and every other three letter acronym has already been registered by businesses and organisations, so we will use the web domain name iavolc.

18. IUGG may try to resurrect a volcanology association or it may be glad to be rid of volcanology. We have no control over this. However, given how few volcanologists attend IUGG meetings, and many of those who do, do so out of a sense of duty to IAVCEI, we doubt that such a future IUGG volcanology association would thrive within IUGG, with all the issues we have summarised. Given how dynamic IAVCEI is, most volcanologists will remain affiliated with IAV(CEI). However, it is obviously up to IAV(CEI) to remain dynamic to ensure its future success. We should have enough confidence in our ability to remain dynamic and the major international volcanological learned association.

19. *IAVCEI should remain a non-profit organization to avoid paying tax on membership fees.* One of the complications for any international learned society, when there is no permanent secretariat permanently based in a country that allows tax-free existence of not-for-profit organisations, is moving the administrative and financial base from one country to another,

when a new Secretary-Treasurer is elected, often involving changes in laws about taxation and not-for-profit status. However, this is irrespective of whether or not IAVCEI remains in IUGG, because after the next committee is elected the base will change from Spain to another country. This happened most recently when Joan Marti took over from Steve McNutt in Alaska.

20. *Will IAVCEI have to make major changes to an Independent Learned Society?* IAV(CEI) will have to set itself up as a legal, not-for profit entity, with a constitution or statutes. Joan Marti is seeking legal advice on this. Once we know, we will have to update our statutes to reflect our new goals, principles, and modus operandi. We have our existing statutes and once we incorporate the PFPLS and statute(s) covering compulsory membership fees, our statutes should be ready as a formal constitution.

## **E. THE BUSINESS CASE FOR IAVCEI BEING A FINANCIALLY VIABLE, INDEPENDENT, INTERNATIONAL LEARNED SOCIETY OR ASSOCIATION:**

1. **IAVCEI currently has a financial reserve of ~\$100,000 Euros**, which will be necessary to safeguard IAVCEI's financial stability for several years after becoming independent, to be able to assess how the income stream is working for IAVCEI.

2. **IAVCEI's annual expenditure at present varies between 40,000 and 55,000 Euros per year**, consisting of providing seed money for major conferences, workshops, postgraduate courses, providing financial support for students and scientists in need to attend IAVCEI conferences, workshops and courses, and operational expenses such as maintaining the IAVCEI website.

3. **Expected income per year will be from**

(a) the proposed *new membership fees* based on 1,000 members\* @ 40 Euros = **40,000 Euros** per year  
(\* Currently IAVCEI has over 2,000 members, but membership is free. Since 2012 IAVCEI has been receiving ~15,000 Euros per year from ~500 Donor members, who have generously supported the objectives of IAVCEI by providing Donor membership fees. However, in 2014, the number of members who have renewed their Donor membership has dropped dramatically, making it clear that IAVCEI must introduce modest compulsory membership fees to be able to maintain its level of activities. IAVCEI hopes that at least 1,000 of the current >2,000 members will become financial members if we adopt the AGU membership fee model and charge a modest 40 Euros per year.)

(b) Expected income from conference *abstract fees* at major IAVCEI conferences, based on income at CoV7 (Mexico 2011, ~10,000 Euros), and IAVCEI2013 (Kagoshima, ~ 26,000 Euros), estimated income from CoV8 (Yogyakarta 2014, ~ 6,000 Euros), = average **14,000 Euros** per year

(c) **Total expected income per year = ~ 54,000 Euros per year**

(d) **SUMMARY:** On the foregoing projections IAVCEI will be financially independent for the foreseeable future

if the projected income and expenditure, and its cash reserves remain as forecast.

## F. IAVCEI COMMITTEE RECOMMENDATION

**After considerable discussion, the IAVCEI Committee, in a majority decision, recommends to the membership that IAVCEI should leave IUGG and become an independent, not-for-profit, learned society.**

*Is Staying in IUGG an option?* While IUGG's statutes exclude scientists from non-IUGG member countries from participating in the governance of the associations, as a modern community of intelligent educated scientists, the IUGG regulations about this are totally unacceptable to the IAVCEI committee. In addition, IUGG's reluctance to consider constructive suggestions for modernizing, and its geological time scale rate of considering proposals for reform, let alone acting on them, makes it unlikely that anything will change in the next 20 years. If IUGG were to miraculously adopt the major reforms for modernizing, becoming more democratic and less bureaucratic that IAVCEI has proposed to it (along the lines outlined above for IAVCEI) by the time of the Prague IUGG General Assembly, then there may be a case for retaining affiliation with IUGG, and the IAVCEI Committee would consider this. However, this would indeed be a miracle.

**Footnote:** Irrespective of whether IAVCEI decides to stay in, or leave IUGG, IAVCEI will go ahead with its General Assembly in Prague in July 2015, because many people have committed time to preparing symposia and fieldtrips. The IAVCEI2015 General Assembly in Prague, will also include presentation of awards for research excellence and service to volcanology, the announcement and handing over to the newly elected IAVCEI Committee for 2015-2019, and a major IAVCEI dinner.

## PRELIMINARY NOTIFICATION OF THE CALL FOR NOMINATIONS FOR THE NEXT IAVCEI COMMITTEE FOR 2015-2019, TO BE MADE IN THE NEXT NEWSLETTER

Irrespective of the outcome of foregoing discussion, the election for the next IAVCEI committee is scheduled to be held in late 2014 to early 2015, before the IAVCEI2015 General Assembly that will be held in Prague, in July 2015. The committee term is a 4-year term from July 2015 to July 2019. 2019 will be IAVCEI's 100th birthday, so the new committee will have a very special occasion to plan for and to celebrate!

This is therefore a preliminary notice that the formal call for nominations will be made in the September issue of IAVCEI News, with a closing date for nominations in January, 2015. Information regarding the nomination process will be available in the next IAVCEI News. Only those who are members of IAVCEI can be nominated for committee positions, nominate others for committee positions or vote when the election is held.

Women and early career researchers are particularly encouraged to consider nominating for committee positions when the time comes. Unfortunately, very few women have been nominated and served on the IAVCEI committee historically. Our statutes already ensure that there is diversity of nationalities on the IAVCEI Committee, but it would be very healthy for IAVCEI to have a better gender and age balance on its committee.

Being on the IAVCEI committee, requires time and commitment, but it is not too onerous if you keep up with it. Everyone is expected to contribute to committee work in some capacity or another as requested by the President and Secretary-Treasurer, so please don't nominate if you are not prepared to contribute. If anyone would like to know more about what is involved in being on the IAVCEI Committee, I suggest you contact any of the current committee members:

- **Ray Cas**, *President*, Australia, role: Co-ordination of IAVCEI activities and business, including representing IAVCEI at IUGG meetings. email: [ray.cas@monash.edu](mailto:ray.cas@monash.edu)
- **Hugo Delgado**, *Vice-President*, Mexico, role: Co-ordination of IAVCEI Research Committees and Working Groups. email: [hugo@geofisica.unam.mx](mailto:hugo@geofisica.unam.mx)
- **Steve Self**, *Vice President*, United States, role: Co-ordination of IAVCEI Research Committees and Working Groups. email: [stephen.self@open.ac.uk](mailto:stephen.self@open.ac.uk)
- **Joan Marti**, *Secretary-General*, and Treasurer, Spain, role: Co-ordination of IAVCEI activities and business, including representing IAVCEI at IUGG meetings, and finances. email: [joan.marti@ictja.csic.es](mailto:joan.marti@ictja.csic.es)
- **Patty Mothes**, Ecuador, *role: history of IAVCEI*, email: [pmothes@igepep.edu.ec](mailto:pmothes@igepep.edu.ec)
- **Hiroshi Shinohara**, Japan, *role: IAVCEI2013 Kagoshima Scientific Assembly Organising Committee*, email: [shinohara-h@aist.go.jp](mailto:shinohara-h@aist.go.jp)
- **Karoly Nemeth**, New Zealand, *role: Editor of IAVCEI News, IAVCEI-Springer-Verlag: Advances in Volcanology book editor*, email: [K.Nemeth@massey.ac.nz](mailto:K.Nemeth@massey.ac.nz)
- **Greg Valentine**, USA, *role: IAVCEI Early Career Scientists program liaison*, email: [gav4@buffalo.edu](mailto:gav4@buffalo.edu)
- **Setsuya Nakada**, *Immediate Past President (ex officio)*, Japan, *role: Committee continuity, IAVCEI2013 Kagoshima Scientific Assembly Organising Committee*, email: [nakada@eri.u-tokyo.ac.jp](mailto:nakada@eri.u-tokyo.ac.jp)
- **James White**, *Editor of Bulletin of Volcanology*, New Zealand (ex officio), email: [james.white@otago.ac.nz](mailto:james.white@otago.ac.nz)

## REMINDER: Cities on Volcanoes CoV8 Conference in Yogyakarta, Indonesia, 9 – 13 September, 2014.

The 8<sup>th</sup> Cities on Volcanoes (CoV8) conference will be held in Yogyakarta, Indonesia, in the shadows of one of Indonesia's most active volcanoes, Merapi Volcano, from 9 – 13 September this year. CoV conferences focus on issues related to volcanic hazard and risk management, and a significant part of the program involves contributions on risk and crisis management, including contributions from relevant civil and government organisations. **The scientific program, including some great volcano fieldtrips, and information on how to register** is on the conference website at: <http://www.citiesonvolcanoes8.com>

## IAVCEI 2015 Prague, Czech Republic, 5 day Conference during 22 June to 2<sup>nd</sup> July (probably 27<sup>th</sup> June to 2<sup>nd</sup> July) – a must attend conference

Planning is well advanced for the next major IAVCEI scientific conference, the IAVCEI2015 General Assembly, to be held in the beautiful city of Prague in the Czech Republic as part of the

IUGG2015 General Assembly. The recent call to IAVCEI members for symposium themes, together with the submissions from IAVCEI's research commissions has resulted in 36 individual thematic symposia, 5 symposia that will be joint symposia between IAVCEI and other IUGG Associations, 2 IUGG Union symposia, several workshops and already 9 possible fieldtrips throughout Europe and eastern Europe.

This is shaping up to be another great IAVCEI conference, so please, put this conference in your electronic diaries as a "must attend" conference. Remember, you can go to an AGU or EGU conference every year, but you can only go to a IAVCEI General Assembly once every 4 years, and probably only once in your life to one held in beautiful, exotic city of Prague. I hope to see you all there. The IAVCEI2015 website will become live through the IAVCEI general website soon, and will be updated regularly as information becomes available. Details of symposia titles and convenors will be available in the next issue of IAVCEI News, after the IUGG Scientific Committee has met in late April. Some further details about IAVCEI 2015 are provided below.

Best wishes,



Ray Cas,  
President of IAVCEI,  
Monash University and the University of Tasmania, Australia

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## **BULLETIN OF VOLCANOLOGY**

### **Electronic Submission Site via Editorial Manager**

Bulletin of Volcanology now operates an on-line submission tool such as Editorial Manager.

Please submit your manuscript on-line via

<http://buvo.edmgr.com/>

Before submitting your manuscript you need to register then log in by your user name and password.

Best regards,

James White  
Executive Editor, Bulletin of Volcanology

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## **ADVANCES IN VOLCANOLOGY**

### **Springer Book Series**

Advances in Volcanology (AiV) is developing well. Beside the first volume is nearly ready, new proposals have arrived from respected Authors on cutting edge subjects.

Currently the Editorial Manager system of AiV is ready to put on the book website already accepted book chapters available electronically as an "Online First" article. This new system will automatically apply for edited books, where the approval of the

book editor(s), the editor-in-chief, and the publisher technical editor will direct the accepted chapters to be electronically available as an "Online First" publication. To emplace the same system for Authored books will always be discussed carefully with the Authors, and the decision will stay in the hand of the Authors, if they wish to have their already completed chapters available "Online First" or they rather wait until their entire book will be completed.

The AiV is also planning to provide an avenue to publish more regional-centred works from volcanic regions that couldn't be considered as an active volcanic region on Earth, but still represent an important part of understanding the global volcanism or provide an up-to-date summary of our knowledge on an iconic volcanic region. So, we would like to see proposals on such works. Just for thinking some exciting ideas for book proposals here we list some interesting options that may trigger new proposals; *Karoo flood basalts*, *Deccan flood basalts*, *Cenozoic intracontinental volcanism in the SW US*, *Cenozoic intracontinental volcanism in North Africa*, *Jeju volcanic island*, etc.

The Editorial Manager for *Advances in Volcanology*:

<http://www.editorialmanager.com/avol>

Technical information for book chapter manuscript preparation can be accessed via the submission site. For further information or submission of book proposals please contact the Series Editor (Karoly Nemeth) on [k.nemeth@massey.ac.nz](mailto:k.nemeth@massey.ac.nz)

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## **IAVCEI 2015 General Assembly, at**

### **26TH IUGG GENERAL ASSEMBLY, 2015,**

### **PRAGUE, CZECH REPUBLIC**

The 26<sup>th</sup> IUGG General Assembly will be held in Prague, Czech Republic. IAVCEI as an IUGG member organization arrange an IAVCEI General Assembly for this event. The program of sessions and field trips organized and supported by IAVCEI are getting ready, and below you can see the tentative list of sessions, workshops, courses and field trips related to IAVCEI. The program looks fantastic, and certainly we hope that large number of IAVCEI member would consider to submit their research results to one of the sessions, participate on workshops and/or fascinating field trips.

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### **List of IAVCEI Symposias**

**Symposia:** Lava emplacement: Understanding the mobility of silicic and basaltic lava flows and impact melt flows

**Chairs:** Chris Hamimlton, Steve Self

**Symposia:** LIPs and Metallogensis

**Chairs:** S. Jowett, R. Ernst

**Symposia:** LIPs: vents and volatiles

**Chairs:** I Utskins-Peate, S Bryan, S. Self

**Symposia:** Collapse calderas

**Chairs:** A. Geyer, N. Geshi, C. Bouvet, O. Bachmann

**Symposia:** Ground to Satellites Observations for imaging, monitoring and risk evaluation of active volcanoes and geothermal fields: Electromagnetic and other geophysical methods.

**Chairs:** J. Zlotnicki, Y. Sasai, Malcolm Johnston, V. Tramutoli, G. Currenti, T. Hashimoto

**Symposia:** Recent eruption impacts and mitigation within urban areas

**Chairs:** Graham Leonard, Grant Heiken, Bruce Houghton

**Symposia:** Benchmarking pyroclastic density current models: code inter-comparison and field validation

**Chairs:** Sylvain Charbonnier, Tomaso Esposti-Ongaro

**Symposia:** Pyroclast Textures and Volcano Dynamics

**Chairs:** Lucia Gurioli, Thomas Shea

**Symposia:** Explosive Basaltic Eruptions on Earth and other Planets

**Chairs:** Michael Ort, Fabrizio Alfano, Steve Self

**Symposia:** Experimental fluid dynamics and explosive volcanic eruption

**Chairs:** Olivier Roche, Amanda Clarke, Kirsten Chojnicki

**Symposia:** Statistics in volcano remote sensing

**Chairs:** Patrick Whelley, Simon Carn, Gro Pedersen

**Symposia:** Probabilistic Volcano Hazard Analysis

**Chairs:** Eliza Calder, Mark Bebbington, Jacopo Selva

**Symposia:** Short-term forecasting of volcanic hazard: so far, so good?

**Chairs:** Andrew Bell, Roberto Carniel, Henry Odber, Laura Sandri, Jacopo Selva

**Symposia:** Understanding volcanic lakes: a multi-disciplinary approach

**Chairs:** Franco Tassi, Dimitri Rouwet

**Symposia:** Mineralogy and geochemistry of mineral dusts in relation to human health

**Chairs:** Claire Horwell

**Symposia:** Unlocking the enigma of monogenetic volcanism from a historic perspective to the most novel recent approaches

**Chairs:** Ian Smith, Karoly Nemeth

**Symposia:** Water and magma

**Chairs:** Martin Jutzeler, James D.L. White, Magnus T. Gudmundsson, Adam Soule

**Symposia:** Mechanisms of volcanic ash generation: from lab to field

**Chairs:** Emma Nicholson, J. Eychenne, A.C. Rust, & K.V. Cashman

**Symposia:** Dynamics of eruption clouds

**Chairs:** Antonio Costa, Yujiro Suzuki

**Symposia:** Rock physics in crustal processes

**Chairs:** Katsura Tomoo, Catherine Mccammon

**Symposia:** Material properties of lower mantle and core constituents

**Chairs:** Katsura Tomoo, Catherine Mccammon

**Symposia:** Physical properties of the crust, upper mantle and transition zone

**Chairs:** Katsura Tomoo, Catherine Mccammon

**Symposia:** Volcanic ash aggregation

**Chairs:** Costanza Bonadonna, Adam Durant, Alexa Van Eaton, Corrado Cimarelli

**Symposia:** Phreatomagmatism - molten fuel-coolant interactions to explosions and deposits

**Chairs:** Brittany Brand, Greg Valentine, Karoly Nemeth

**Symposia:** Volcanic risk - bridging hazard assessment, modeling volcanic processes, and society

**Chairs:** Jo Gottsmann, Jenni Barclay, Eliza Calder

**Symposia:** Rheological and mechanical influences on volcanic eruptions

**Chairs:** J. E. Kendrick, C. Cimarelli, B. Cordonnier, B. Scheu

**Symposia:** Volcano Geology

**Chairs:** Gianluca GropPELLI, Claudia Principe, Roberto Sukpizio

**Symposia:** Remotely sensed mapping of volcanic regions

**Chairs:** Patrick Liam Whelley, Gro Birkefeldt Møller Pedersen

**Symposia:** Volcanic landscapes across the solar system: From field to remote sensing analysis

**Chairs:** M. O. Chevrel, D. Baratoux, T. Platz, B. Cordonier

**Symposia:** Shallow magma chambers: mechanisms and rates of construction and magma withdrawal

**Chairs:** Filip Tomek

**Symposia:** Understanding VIPS (Volcanic and Igneous Plumbing Systems) through multidisciplinary research

**Chairs:** Steffi Burchardt, Olivier Galland and Valentin R. Troll

**Symposia:** Volcaniclastic Sedimentation: Linking Deposits to Emplacement Processes

**Chairs:** Thomas C. Pierson, Vernon R. Manville, and Marco Pistolesi

**Symposia:** Volcaniclastic sediments: Modern applications for Marine and Earth Sciences

**Chairs:** Steffen Kutterolf, Richard W Murray, Julie C Schindlbeck

**Symposia:** Quantifying and communicating uncertainty during volcanic crisis

**Chairs:** Rosa Sobradelo, Joan Martí

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## **Workshops**

**Workshop:** Volcano Geology

**Leaders:** Gianluca GropPELLI, Claudia Principe, Roberto Sukpizio

**Workshop:** New Processing and Interpretation Methods in Volcano Seismology (IAVCEI, IASPEI), 2 days

**Leaders:** Jurgen Neuberg, Art Jolly & Jessica Johnson

**Workshop:** Workshop on best practices and recommendations for tephra measurements

**Leaders:** Raffaello Cioni, Arnau Folch, Costanza Bonadonna, Simona Scollo, Bruce Houghton, Jeremy Phillips

**Workshop:** Effective communication tools: what can volcanology learn from other hazards?

**Leaders:** Carina Fearnley, Sally Potter, Emma Hudson-Doyle, Christina Neal

**Workshop:** Remote Sensing and Modelling of Volcanic Ash in Latin America

**Leaders:** Soledad Osoro, Guillermo Toyos

**Workshop:** Quantitative (analogue) modeling and dimensionless analysis strategies

**Leaders:** Sam Poppe, Olivier Galland, Eoghan Holohan, Matthieu Kervyn, Audray Delcamp, Ulrich Kueppers

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### **Panel discussion and outreach**

**Theme:** Protected Volcanic Areas and Volcanological Heritage (IAVCEI, UNESCO, IUGS)

**Leaders:** Joan Marti and Karoly Nemeth

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### **Field trips**

**Field trip:** Large Volume, Crystal-rich Ignimbrites and Calderas: The origin, structure and deposits of the Permian Ora Ignimbrite and Caldera, Athesian Volcanic Group, Dolomites, Northern Italy.

**Leaders:** Maddy Willcock, Guido Giordano, Corrado Morelli, Ray Cas and Giuseppe Bargossi

**Field trip:** From maar-diatremes to scoria cones in the Plio-Pleistocene fluvio-lacustrine western Pannonian Basin (Hungary)

**Leaders:** Karoly Nemeth, Gabor Kereszturi

**Field trip:** Volcanism of Eger Rift (Czech Republic)

**Leaders:** Vladislav Rapprich

**Field trip:** Permian, Miocene a Pliocene mafic monogenetic volcanoes of Bohemian Paradise (Czech Republic)

**Leaders:** Vladislav Rapprich

**Field trip:** Depositional record of ancient volcano failure – Oligocene Doupovske Hory Volcano (Czech Republic)

**Leaders:** Vladislav Rapprich

**Field trip:** Carboniferous rhyodacitic calderas in Czech/German border region

**Leaders:** Christoph Breitreuz, Vladislav Rapprich

**Field trip:** Volcanism of post-collisional intermontane Intra- and North-Sudetic Basins (Poland)

**Leaders:** Marek Awdankiewicz

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**Field trip:** Miocene volcanic debris avalanche deposits and exhumed volcanic landforms along the Danube near Budapest, North Hungary

**Leaders:** David Karatson, Szabolcs Kosik, Tamas Biro

**Field trip:** Eifel Quaternary volcanism in continental Europe (Germany)

**Leaders:** Gerhard Wörner

**Field trip:** From silicic arc volcanoes to monogenetic alkaline volcanism in Southern Slovakia

**Leaders:** Jaroslav Lexa

**Field trip:** The land of devastating ignimbrite deposits, inviting wine cellars and the fabulous fairy chimneys, Hungary

**Leaders:** Szabolcs Harangi, Reka Lukacs

**Field trip:** Granitic plutons in Central and Southern Bohemia (Czech Republic)

**Leaders:** Vojtech Janousek, Jiri Zak

**Field trip:** Variability of continental within-plate alkaline volcanism: French Massif Central (France)

**Leaders:** Benjamin van Wyk de Vries

**Field trip:** Italian volcanic lakes

**Leaders:** Dimitri Rowet, Fabio Tatsi

**Field trip:** Thermal and Mineralised Springs and Mofettes in west Bohemia (Czech Republic)

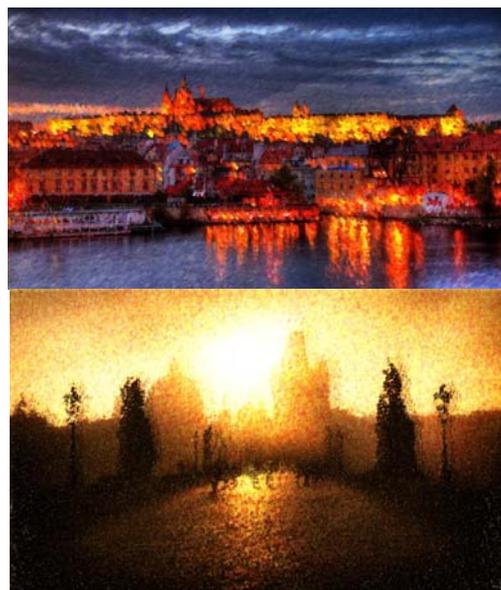
**Leaders:** Aleš Špičák

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### **Courses**

**Course:** Introduction to volcanology and volcanic textures

**Manager:** Christoph Breitreuz



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## CALL FOR NOMINATION FOR THE JIM LUHR AWARD 2014

Between 17 and 22 of November 2014, Querétaro, Mexico will host the IAVCEI – IAS 5<sup>th</sup> International Maar Conference (SIMC) – An interdisciplinary congress on monogenetic volcanism.

The SIMC Local Organizing Committee calls nominations for the **Jim Luhr Award** given to a nominated person during the SIMC for her/his outstanding work on researches on monogenetic volcanism including any aspects of research on maar/diatremes, tuff rings, tuff cones, scoria cones, volcanic fields and their hazards.

Each nomination should be emailed to **one of the Chairpersons of the SIMC**

**Gerardo Carrasco-Núñez** - gerardoc@geociencias.unam.mx  
**José Jorge Aranda-Gómez**, - jjag@geociencias.unam.mx

by **1<sup>st</sup> November 2014.**

The nominations should come from a nominating person based in a different country as the nominated person and accompanied with at least 2 supporting letter from people based in different institutions than the nominating and nominated person.

The nominating letter as well as the supporting letters should outline briefly why the nominated person should be awarded by the Jim Luhr Award.

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## WORKSHOP REPORT

**2013 Geosciences Society of New Zealand field symposium to Taupo Volcanic Zone in honour of Professor James W. Cole; November 21-23, 2013**



Jim talking to group on top of Tarawera

As part of the 2013 Geosciences Society of New Zealand (GSNZ) Annual Conference, a pre-conference field trip was held on

November 21-23, 2013, to honour Professor James W. Cole. Jim Cole is Professor of Geology at the Department of Geological Sciences, University of Canterbury, New Zealand, and Director of the Natural Hazard Research Center. With a career spanning more than 45 years, Jim has had an illustrious career in volcanology, and has influenced the lives of many students and scholars as a teacher, supervisor, and researcher. He is a Fellow of the Royal Society of New Zealand.



Photos by R. Turnbull, A. Kuwata, and D. Hill – *From top to bottom:* Group at top of Tarawera; Group at 1886 Tarawera Fissure; Group at old tephra section in Taupo)

The field trip, to the Taupo Volcanic Zone (of course!), allowed friends, colleagues, and former students to reflect upon and celebrate the contribution Jim has made to volcanology, while enjoying a guided fieldtrip through some of the key locations studies during Jim's illustrious research career. Some 25-30 people (variable on some parts of the trip) were treated to a day on and around Tarawera volcano, and another day on some highlights of Taupo volcano. Jim and his wife Christine were the leaders; Ben Kennedy and colleagues from University of Canterbury and GNS-Science, NZ, were co-leaders. Participants came from far and wide, the weather held up, and a fine experience at the hands of the "master" was had by all!

Jim is internationally renowned. He has shaped and embodied the multidisciplinary nature of modern volcanology by working across physical volcanology, petrology, geochemistry, natural hazards, economic geology, and geothermal geology. Perhaps what sets Jim apart the most is his passion for his students. He has inspired thousands of undergraduates, and has supervised over 150 postgraduate thesis students – an astonishing record.

Following the field symposium, a special session in honour of Jim was held at the annual GSNZ conference at the University of Canterbury, Christchurch. This session will form the basis of a special journal issue.

**Submitted by** *Steve Self* (US-NRC), *Rose Turnbull* (GNS Science, Dunedin), *Ben Kennedy* and *Darren Gravely* (Dept. of Geological Sciences, University of Canterbury), and *Graham Leonard* (GNS Science, Lower Hutt)

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## **CITIES ON VOLCANOES 8 Yogyakarta, Indonesia 2014**

**Document in preparation of the IAVCEI meeting on Best Practices and Communication of Volcanic Risk at next CoV8**

**By Guido Giordano, Ray Cas, Joan Marti**

### **FOREWORD**

A series of recent natural disasters have attracted the attention of the media and public, both on the dramatic outcomes for the people affected and on the role of scientists in the management of the crises.

This was the case of the April 6, 2009 L'Aquila earthquake in Italy, when 308 people died in a Mw 6.3 earthquake under earthquake-prone buildings, and the aftermath of which involved the unprecedented conviction of the scientists of the Italian National Risk Committee in the first stage of the trial for supposed misuse and miscommunication of data in their possession.

As the demand for protection from natural disasters increases, so too do the responsibilities and the role of scientists in society, and scrutiny by society and the potential liability for scientists' actions.

IAVCEI, as the representative association of scientists working in volcanic risk management and prevention, wishes to stimulate discussion amongst the scientific community on issues including

- the role of scientists prior to and during crises
- the nature of their relationships with the population, the media and the government authorities;
- the kind and level of involvement of scientists with processes that eventually lead Authorities to decision-making and the extent of their liability
- the role of national and local culture and perception of risk on mitigation policy and on the communication of hazards
- the effectiveness of various representations of natural phenomena and of their associated uncertainties;
- how best to increase the awareness, preparedness and empowerment of individuals and society as a whole toward natural disasters;

A previous IAVCEI committee in the late 1990s worked on some but not all of these issues (IAVCEI sub-Committee for Crisis Protocols; see related documents published in Bulletin of Volcanology between 1999 and 2000 and available at [www.iavcei.org](http://www.iavcei.org)). Ultimately all these questions and the general discussion around them, aim at devising the best practices to improve effectiveness in protecting people, promoting empowerment of individuals and society as a whole against natural disasters, and also in protecting us scientists and our very important and difficult work, which deals with enormous complexities in nature.

### **ACTORS AND FACTORS**

Whatever the actual scheme for civil protection, anywhere in the world, the stakeholders who interact prior to and during crises are scientists (both within Government agencies and universities), emergency management officials and responders, media and the public. The effectiveness of civil protection actions is largely based on the kind and strength of the relationships among stakeholders, the actual ability of each, and whether the actors act "correctly." However what is "correct" is not well defined; therefore it is easier to start from what is problematic. We now very briefly list some of the most common problems that occur, which may cause difficulties during crises (the order is generic).

- 1) Events do not go as expected
- 2) Conflicts among scientists sending mixed messages to emergency managers and the public
- 3) Disagreement on the level of public access to monitoring data and interpretations during crises and to publicity concerning such information
- 4) Inadequacy of scientific understanding (due both to uncertainties associated with the extent of scientific knowledge and with the intrinsic nature of volcanic processes) or of monitoring instrumentation available during the course of a crisis
- 5) Lack of clearly identified and identifiable spokespersons to communicate scientific issues and poor ability of scientists to properly communicate scientific understanding and associated uncertainties with emergency managers, media and the public.
- 6) Lack of understanding of scientific outcomes and their representation by emergency managers, media and/or the public;
- 7) Significant distortion of reality and misrepresentation of data and interpretation by media due to ineffective communication or in an attempt by media to "raise the stakes." May include involvement of well-meaning, but poorly informed

scientists to comment on the situation, or in the worst case, pseudo-experts to criticise scientists and administration

8) Attempt by government officials and/or influential commercial entities to control or manipulate the outcome of scientific findings in fear of public turmoil and/or to protect economic and/or political interests;

9) Alternatively, scientists unilaterally softening their message to avoid potential panic or economic disruption;

10) Lack of trust by the public in government officials and in scientists

11) Lack of awareness and preparedness

12) Lack of awareness of roles and responsibilities and poor coordination between those involved in responding to a crisis

13) Lack of awareness by involved scientists of the responsibilities and expectations of them in managing communication

This list could easily be improved and extended. However we want to focus here on discussing whether there are some common denominators that underlie these foreseeable issues and how and what positive responses could be put into place by the scientific community.

There may be two end-members in the ways to approach the reduction of the problems summarised above. The first is “top-down”, the second is “bottom-up”. The top-down approach aims at endorsing regulations on behaviours of scientists and all other stakeholders, given the prior identification of protocols, which themselves vary depending on national and local culture and on the legal and political constraints within the area of concern. The bottom-up approach requires the involvement of all stakeholders, to different extents and with different responsibilities, in the development and selection of best practices.

Both approaches have advantages and disadvantages and most commonly the actual civil protection practices involve a mixture of the two, and the blend largely varies across countries and cultures.

## **RELATIONSHIPS BETWEEN SCIENTISTS AND GOVERNMENT AGENCIES**

This section focuses on the delicate issues around the definition of the relative roles and responsibilities of scientists and decision-makers.

Hazards scientists have an ethical responsibility to move beyond “pure” science. For example, a hazard map cannot just be delivered to emergency managers as it is, but needs to be discussed, explained and qualified by instructions for use provided by the authors, relating to the approach and database it is built on, its reliability and limitations, its symbols and legend, so that decision-makers are enabled to translate it into practical use (i.e., for use in building codes, funding schemes, evacuation plans, etc). Scientists’ ethical responsibility may even extend to limiting possible misuse of scientific products, which may ultimately undermine the trust of society in science.

Furthermore, whether or not specific scientific products actually help in civil protection depend on the understanding of the specific cultural context in which the information will be released, so that scientists should also be well aware of that cultural context.

For example, an assessment of a high probability of an eruption of a nearby volcano in the next years may be a relatively minor concern for a population in the midst of a humanitarian crisis.

For these reasons scientists involved in hazard assessment usually accept the challenge of also being involved in civil protection and to be held responsible for one’s actions. The question is what level of responsibility is acceptable and how to deal with uncertainties and with the potential for retrospective criticism and even legal action?

The other question is understanding the very high levels of uncertainty associated with forecasting natural disasters and their intensity. This should be taken in due consideration in assessing the responsibility and accountability of the scientists. This issue needs to be discussed and agreed upon between scientists, society and government authorities.

In general, many societies are asking for more and more transparency, where all different aspects that constitute the hazard/risk assessment process, including the relationship between scientists, emergency managers and other government authorities are open, accessible and auditable. These involve all steps, from funding to applied scientific projects, to the relevance and usefulness of their results and products, to the building of hazard and risk codes, thresholds, regulations; to civil protection procedures and actions prior to, during and after crises.

In this regard, the scientific community may identify elements of self-regulation by adoption of publicly illustrated and auditable best practices, which can improve the effectiveness of scientific actions in civil protection and at the same time protect scientists involved in civil protection, who follow those best practices. Such best practices should also move beyond self-regulations and be opened to dialogue and partnership with the other stakeholders.

## **IMPORTANCE OF PUBLIC AWARENESS AND PREPAREDNESS**

The end-users of civil protection actions are the citizens. While top-down procedures are essential when it comes to decisions about issuing an alarm or an evacuation order, science needs a well-informed audience to be understood and to develop the co-operation of the public. If that does not happen, then the science may not be used, and risks being perceived, as happens in places, as being part of the “establishment” instead of a resource. In democratic nations, citizens have the right to know the nature of the environment they live in and to be able to choose accordingly what kind of public, private and personal policies should be adopted (at least to the degree that they do not infringe on the rights of others or on the public good). In short, they have a right to contribute to direction of publicly-funded applied science. It is widely accepted that individuals have the right to know basic information that is necessary for self-protection and to see a consistent program of public and private investments in risk mitigation. However, the situation worldwide varies enormously in terms of the amounts of resources and time dedicated to developing public awareness and preparedness, as well as self-empowerment against natural disasters. Preparedness is fundamentally important in helping not only the success of civil protection actions at the time of crisis, but also in providing relief and assistance with post-disaster psychological trauma in affected populations.

The average level of advanced scientific education of the public at large is in general quite low and more so when it comes to describing and representing complex natural physical and geochemical processes involved in volcanic eruptions, characterised by large uncertainties: How long will an eruption last? How many phenomena will it encompass? When will it start? When will it finish? What are the possible scenarios? What is a probabilistic map? What is an event tree? What is a probability threshold?

Yet, public expectations from science are enormous and, if the language used to express phenomenologies and uncertainties is not effective, not only to the emergency managers during a crisis, but also to the affected public, the risk of misunderstandings and disappointments becomes very high. Public patience with science, especially when evacuations result, may also be short-lived, especially in cultures where standards-of-living are low and access to one's land is essential for life.

Furthermore, those involved in hazard mitigation know that the relationship between scientists and the public cannot be effective if it is a one-way proposition as opposed to a dialogue. The success of a civil protection action must carefully take into account the real situation of each society involved, which includes the structure and culture of the society, societal and economical conditions, the volcanic risk perception compared to other "more immediate" risks, the kind of spiritual/religious/ethical relationships with nature and disasters, and so on. There is no doubt that communication of hazards and risks, including the way maps, documents, and alert level systems that convey concepts and actions to undertake are actually presented, cannot be standardised across different cultures, but need to be shaped and tailored for each specific situation. This means that scientists also need to learn from the public and establish a mutually respectful relationship aimed both at raising the level of public awareness and also to become solidly worthy of trust.

## RELATIONSHIPS BETWEEN MEDIA AND SCIENTISTS

The media always play a significant role in how scientific outcomes reach the public. More so, media play a major role and at times, a contradictory role during crises. There are several examples that could be quoted when media have approached in a rather scandalous manner very serious issues, contributing significantly in generating confusion and misunderstandings of the scientific message. Similarly, there are cases in which scientists have misinformed the media, in some cases with regrettable results. In addition, scientists have been known to use the media to generate attention on individual views and to promote their own or their institutions' agendas.

That said, the media are potentially an immense resource as they can almost instantaneously spread precious information, at times vital if conveyed on time and correctly. We are aware of numerous individual cases, as well as institutional examples (e.g., within volcano observatories), but we wonder how much attention has been given by the broader volcanological community to building solid relationships with the media, promoting dedicated workshops, conferences, field excursions and so on. In our view, the media and scientists need to become positive, mutually supportive partners in risk reduction. A first step to achieve this goal is to share a common language, where phenomena, their complexity and associated uncertainties are well understood well ahead of the time of crisis. Furthermore the media are a significant

part of the civil protection chain, with incumbent responsibilities. A challenge is how to achieve such level of co-responsibility, especially in a media world of increasing sensationalism, especially with regard to natural disasters.

## OPENING THE DEBATE

*IAVCEI welcomes and encourages an open discussion on the following questions:*

- 1) What kind of practical processes should the scientific community adopt to define self-regulations resulting from auditable best practices in order to improve the positive relationships with the other stakeholders?
- 2) Can scientific products for long term and short term hazard/risk assessment and mitigation (Hazard maps, Probabilistic assessment, scenarios etc) be improved in their effectiveness to achieve goals in civil protection?
- 3) What level of direct responsibility should the scientists accept in civil protection and what kind of external/internal control (self-regulation, accountability/liability) can be accepted?
- 4) To what extent and with what level of responsibility should scientists be directly involved in raising awareness, preparedness and empowerment of the public towards volcanic disasters?
- 5) To what extent and with what level of responsibility should scientists be directly involved with the media?
- 6) Should scientists establish a clear understanding with emergency managers and local, regional and national political authorities as to the expectations and level of responsibility of their role during a crisis, and should there be professional guidelines available to them to help in this process?
- 7) Are there common best practices that can be adopted internationally, and if so, how can they incorporate the wide diversity in society, culture, and political/legal regulation?

Open discussion of these questions, and of others that may arise, will help to prioritize further discussion during COV8, in Yogyakarta, Indonesia, in September 2014.

## Acknowledgements

The authors wish to thank M Todesco, C Newhall, G Jolly, R Bretton, J Gottsmann, C Fearnely, P Papale for thoughtful discussions, criticism and constructive comments.



## **FUTURE EVENTS for IAVCEI member's interest**

### **Tephra 2014 - Maximizing the potential of tephra for multidisciplinary science**

**Date:** 3-7 August 2014

**Venue:** Portland State University, Portland, Oregon, USA

**Contact:** Marcus Bursik, Stephen Kuehn, and Solene Pouget

**Web:** <http://www.geohazards.buffalo.edu/documents/Tephra2014.shtml>

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### **19th International Sedimentology Congress**

**Date:** 18 – 22 August 2014

**Venue:** Geneva, Switzerland

**Web:** <http://www.sedimentologists.org/meetings/isc>

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### **21st General Meeting of the International Mineralogical Association (IMA2014)**

**Venue:** Johannesburg, South Africa

**Date:** 1 – 5 September 2014

**Web:** <http://www.ima2014.co.za/>

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### **Cities on Volcanoes 8 (Yogyakarta, Indonesia)**

**Date:** 9-13 September 2014

**Venue:** Grha Sabha Pramana, Universitas Gadjah Mada, Yogyakarta, Indonesia

**E-mail:** [info@citiesonvolcanoes8.com](mailto:info@citiesonvolcanoes8.com)

**Web:** <http://www.citiesonvolcanoes8.com>

Sponsored by the IAVCEI



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### **6th International UNESCO Conference on Global Geoparks**

**Date:** 19 – 22 September, 2014

**Venue:** Saint John, New Brunswick, Canada

**Web:** <http://www.geoparks2014.com/main.html>

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### **GeoFrankfurt 2014**

#### **Dynamik des Systems Erde / Earth System Dynamics**

*Various volcanology-related sessions such as*

*A16 - Maar sediments as fossil deposits and climate archives*

*B09 - Active geodynamics magmatically induced? Comparison of western Eger Rift - Eifel - Massif Central*

*B10 - Rates of magmatic processes: from crystal to orogenic scale*

*B11 - New results on the investigation of European volcanic fields*

*B12 - Mantle dynamics*

**Date:** 21 – 24 September 2014

**Venue:** Goethe Universität Frankfurt a.M., Germany

**E-mail:** [geofrankfurt@fu-confirm.de](mailto:geofrankfurt@fu-confirm.de)

**Web:** <http://www.geofrankfurt2014.com/index.html>

### **XX Congress of Carpathian Balkan Geological Association**

**Various volcanology-related sessions such as**

*SS1 - Genesis and emplacement of ophiolites in SE Europe and related areas : New insights*

*SS5 - Formation and modification of the oceanic and continental mantle lithosphere*

*SS12 - From magma genesis to volcanic edifice growth and destruction: The Carpathian-Balkan and*

*adjacent regions as a natural laboratory to contribute to the source to volcano model*

*SS21 - Cenozoic magmatism in the Carpathian-Balkan and surrounding areas: complex mantle-crust*

*dynamics processes*

*SS23 - Natural hazard and risk assessment*

**Date:** 24 – 25 Sept 2014

**Venue:** Tirana International Hotel, Tirana, Albania

**E-mail:** [info@cbga2014.org](mailto:info@cbga2014.org)

**Web:** <http://www.cbga2014.org/index.html>

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### **8th International Symposium on Eastern Mediterranean Geology**

**Date:** 13 – 17 October 2014

**Contact:** Dr. Gonca GENÇALIOĞLU KUŞCU

**Venue:** Muğla Sıtkı Koçman University

Department of Geological Engineering

Kötekli-Muğla TR-48000

Turkey

**Email:** [gkusc@mu.edu.tr](mailto:gkusc@mu.edu.tr)

**Web:** <http://isemg.org/>

Sponsored by the IAVCEI Commission on Monogenetic Volcanism



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### **3rd INTERNATIONAL COURSE IN VOLCANOLOGY (in spanish)**

**Date:** 13-26 October 2014

**Venue:** Olot, Spain

**E-mail:** [ageyertraver@gmail.com](mailto:ageyertraver@gmail.com)

**Web:** <http://www.gvb-csic.es/CURSO/Home.html>

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### **GSA 2014**

**Date:** 19 – 22 October, 2014

**Venue:** Vancouver, Canada

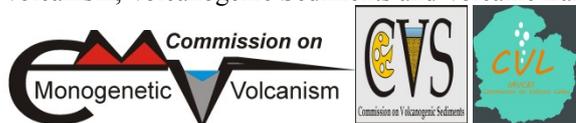
**Web:** <http://community.geosociety.org/gsa2014/home>

**“Different time scales of volcano-tectonic processes” at the International Lithosphere Program Workshop 2014**

**Date:** 16 - 20 November 2014.  
**Venue:** King Abdulaziz University, Jeddah, Saudi Arabia  
**Contact:** [ruchjo.ch@gmail.com](mailto:ruchjo.ch@gmail.com) and [sigurjon.jonsson@kaust.edu.sa](mailto:sigurjon.jonsson@kaust.edu.sa)  
**Web:** <http://cdi.kaust.edu.sa>

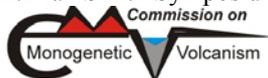
**5th International Maar Conference**

**Date:** 17 – 22 November 2014  
**Venue:** Queretaro, Mexico – (date to be confirmed)  
**Contacts:** Gerardo Carrasco [gerardoc@geociencias.unam.mx](mailto:gerardoc@geociencias.unam.mx)  
Jorge Aranda  
[jjag@geociencias.unam.mx](mailto:jjag@geociencias.unam.mx)  
**Web:** <http://maar2014.geociencias.unam.mx/>  
**Sponsored** by the IAVCEI Commission on Monogenetic Volcanism, Volcanogenic Sediments and Volcanic Lakes



**Annual Conference of the Geoscience Society of New Zealand**

**Date:** Monday 24th to Thursday 27th of November 2014  
**Venue:** New Plymouth, New Zealand  
**Volcanology Sessions**  
2.1 Richard Price Symposium on Igneous Petrology and Volcano Geochemistry  
2.2 Ian Smith Symposium on Monogenetic Volcanism



2.3 Physical volcanology  
2.4 Tephrochronology  
**Information**  
<https://custom.event.com/7D44ECD432654B6DA64826C592F01E88/files/2e3642b5720342fabcc51aba6f41b926.pdf>  
**Web**  
<http://www.cvent.com/events/geosciences-2014-conference/custom-17-851c800ba71f4bc996cdb138da703363.aspx>

**12th Field Workshop on Volcanic Gases**

**Date:** 17-25 November 2014  
**Venue:** Atacama, Chile  
**Contact:** Science / Workshop: Dr. Felipe Aguilera ([felipe.aguilera@uda.cl](mailto:felipe.aguilera@uda.cl)) Logistics / Trip: Cristian Tambley ([ctambley@campoalto.cl](mailto:ctambley@campoalto.cl))  
**Web:** <http://iavcei12.campoalto.cl/>

**Georisk 2014 : “IMPROVING GEOPHYSICAL RISK ASSESSMENT, FORECASTING, AND MANAGEMENT”**

**Date:** 18-21 November 2014  
**Venue:** Madrid, Spain  
**Contact:** Joan Marti ([joan.marti@ictja.csic.es](mailto:joan.marti@ictja.csic.es))

**E-mail:** [joan.marti@ictja.csic.es](mailto:joan.marti@ictja.csic.es)  
**Web:** <http://www.georisk2014.com>

**5th International Workshop on Collapse Calderas**

**Date:** 7 – 11 December 2014  
**Venue:** Taupo, New Zealand  
**Contact:** Jim Cole, Darren Gravley, Ben Kennedy  
Department of Geological Sciences, University of Canterbury, Christchurch, New Zealand  
[jim.cole@canterbury.ac.nz](mailto:jim.cole@canterbury.ac.nz)  
Nico Fournier, Gill Jolly, Trudy Stuart  
GNS Science, Wairakei Research Centre, Taupo, New Zealand  
[n.fournier@gns.cri.nz](mailto:n.fournier@gns.cri.nz)  
**Web:** <http://www.gvb-csic.es/CCC.htm>

**Sponsored by the IAVCEI Commission on Collapse Calderas**



**26th IUGG General Assembly, 2015,**

**Date:** 22 June – 2 July 2015  
**Venue:** Prague Congress Centre, Prague, Czech Republic  
**E-mail:** [info@iugg2015prague.com](mailto:info@iugg2015prague.com)  
**Web:** <http://www.iugg2015prague.com/>

**IAVCEI Scientific Assembly - 2017**

**Date:** 14-18 August, 2017  
**Venue:** Portland, Oregon, USA



Next Issue of the **IAVCEI News** will be published on **15<sup>th</sup> October 2014**. Articles, notes, news or any items relevant to the IAVCEI community must be submitted by **1<sup>st</sup> October 2014** to be published in the next Issue.  
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