

## International Network for Collaboration in Volcanology (INVOLC)

# Guidelines for Best-Engagement Protocols in International Collaboration

*This document presents a DRAFT set of guidelines for best-engagement protocols in international collaboration in volcano science, both related to times of volcanic crises (i.e. eruptive / volcanic unrest, operational setting) and research (i.e. operational and/or academic setting). An initial version of these guidelines were drafted via group discussion during an inaugural workshop of INVOLC, “Fostering developed-developing country partnerships for the advancement of global volcano science”, hosted by the University of the West Indies Seismic Research Centre (UWI-SRC) from 4-7 June 2019, and with support of 7 different international organisations/institutions, including IAVCEI and IUGG. In total 25 participants from 20 different countries, primarily Lower-and-Middle-Income Countries (LMICs), came together to discuss challenges to undertake volcanology in a resource-limited context, as well as mechanisms to advance volcanology and inclusion of all volcano scientists into the international community.*

*These guidelines were presented to the IAVCEI Executive Committee during the 27<sup>th</sup> IUGG General Assembly in July 2019, Montreal, Canada. The IAVCEI EC formally endorsed INVOLC to function as an IAVCEI network and requested some minor changes to the guidelines. The updated version is presented as a series of 15 recommendations and is presented to the wider volcanology community for additional feedback. Feedback and comments are welcome on the forum of INVOLC’s Vhub page.*

*A finalised version of the guidelines will be presented to the IAVCEI EC during the IAVCEI2023 Conference in January-February 2023 for final and formal endorsement and publication.*

*For IAVCEI-INVOLC, 3<sup>rd</sup> June 2022*

### Best-engagement protocols for international volcanology collaboration:

1. **Research activities** carried out by foreign teams in a country should be supported by (a) relevant local institution(s). This involves *at minimum* to inform the **local institutions** prior to research implementation as well as about research outcomes; but would preferably seek the involvement of the local institution in the research activity.
  
2. At the start of a partnership, the assessment of **needs and knowledge gaps** of the involved partners should be openly discussed. This assessment should be the basis for the definition of the objectives of the partnership and the selection of relevant partners.
  
3. Any partnership should consider the **long-term mission** of each of the partners and how the project will help fulfil these respective missions. This requires consideration of, for example:
  - the exchange of knowledge and building of human capacities in local institutions
  - the structural/sustainable development of infrastructures (including instrumentation)
  - the inclusion of local partners within the international research community (participation to conferences, ...)
  
4. During the design of a project, the **responsibilities and role** of each partner should be clearly defined, ideally as a component of a written partnership agreement. As much as possible, the project responsibilities should be shared between the foreign and local partner to favour equitable decision-making during the formulation and implementation of the project.
  
5. Prior to the establishment of a new partnership, a **data sharing and use policy** should be agreed upon, as one component of the partnership agreement. This policy should include the rights and limitations to use and share relevant existing and new data\* collected during the project to third parties for the duration of the partnership and beyond. *\*Subject to the agreement between all parties, "data" may include any samples, results, analyses, code ... collected.*
  
6. As part of the establishment of a new partnership, all partners should be aware of relevant **national regulations** related to scientific activities of foreign scientists in the host country. Compliance with these regulations is essential before starting the research activities.

7. The partnership agreement should clearly define the **contributions** from all parties, including financial and any other resources, e.g. human, existing infrastructure and equipment, ...

8. The partnership **agreement** should cover the disposition of tangible assets, intellectual property, research output, etc. after the **end of the partnership**.

9. **Duties and priorities** of the local partners should be considered so that the partnership activities do not impose an excess burden on the available resources of the host institution.

10. **Dissemination of the research output**, e.g. through scientific publications, should properly acknowledge the contribution of all partners and all data sources.

11. All partners should be **encouraged to contribute** to the interpretation and publication of all research results from the partnership. Local partners should be encouraged and supported to **lead publication** of the results coming out of the partnership.

12. Foreign partners should be aware of and respect the established relationships and trust between the **local partners and their stakeholders** (e.g. communities, civil protection, authorities, ...). As appropriate, the partnership should seek to contribute to the interactions with stakeholders, under the lead of the local partner.

13. Foreign partners should comply with the **existing IAVCEI protocols** regarding the professional conduct at **times of crisis** (IAVCEI Task Group on Crisis Protocols 2015; Newhall et al. 1999).

14. Foreign partners should consider and respect the **cultural realities** of the region involved in the partnership.

15. **Communication strategies** related to the partnership should be agreed upon among all project partners, including communication through social media, outreach activities, etc., and with specific attention to potentially sensitive information during crisis.