Principal Topics to be covered by the commission

1. Hazard Mapping: The methods and best practices of generating effective hazard maps based on an understanding of the physical processes involved. Including integration of field and where appropriate modeling methods (both deterministic and probabilistic) for different hazards associated with volcanic eruptions.

2. Hazard Assessments: The methods and best practices of estimation of hazard, or hazard assessment (which do not always include maps). The integration of field and modeling methods for all hazards associated with volcanic eruptions including those for individual volcanic edifices, site-specific assessments, regional volcanic hazards, and volcanic hazards associated with volcanic field volcanism.

3. Risk Assessments: Integration of hazard assessments with exposure and vulnerability studies, and thus a highly multidisciplinary area.

4. Risk Communication and Perception: An emerging but critically important field and again a highly multidisciplinary area. Risk communication is the means by which warnings or technical information about volcanic activity is used and understood by populations around volcanoes in order to formulate decisions that reduce individual and societal risk. The effectiveness of communication can be modulated by complex social and political issues as well as varying perceptions and expectations of activity or even warnings. The lack of effective translation of warnings or technical information into actions to reduce risk provides a significant additional input to risk. Efforts here would be to promote new analyses of these processes and their impact, encouraging improved collaboration between volcanologists and social scientists and to apply these findings with more effective interactions between physical volcanologists and those involved in research or policy decisions that act to mitigate risk.

5. Science into Policy: An emerging but critically important field, involving two-way knowledge transfer between scientists and end-users. A key aspect of this work will be to help guide the needs-defined development of hazard science and products in order to tailor our science better to what is needed by the community. Efforts here may include engineering amelioration as well as issues and policy that affect a society's capacity to recover; building resilient and sustainable communities in volcanically active regions.

This list is ambitious, but not exhaustive. As the commission matures, we expect other topics to become the focus of its work.

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