



The importance of professional skills alongside scientific and technical excellence to underpin ethical geoscience practice

Ruth Allington (1) and Isabel Fernandez-Fuentes (2)

(1) President, European Federation of Geologists, Brussels, Belgium; Chair of IUGS Task Group on Global Geoscience Professionalism (international); and Joint Senior Partner, GWP Consultants LLP, Charlbury, Oxfordshire, United Kingdom (rutha@gwp.uk.com), (2) Executive Director, European Federation of Geologists, Brussels, Belgium (isabel.fernandez@eurogeologists.eu)

There is consensus that reliable ground models, based on a sound understanding of the geology and surface processes are vital as a basis for natural hazard identification and risk assessment, and there is a great deal of skill and experience in the geoscience community with mapping, modelling and predicting natural hazards and their likely impacts. This presentation will highlight the contributions of geology and geomorphology in the identification of natural hazards and mitigation of their impacts. It will then consider a range of “professional skills” that are needed by geoscientists working with other specialists and non-specialists (e.g. engineers, emergency services, land-use planners, architects responsible for building codes, politicians, regulators, the public etc) alongside technical and scientific excellence. It will argue that development and application of both scientific/technical and professional skills is essential to ensure that the maps, models and other data relevant to natural hazards and environmental change are used to provide effective public protection through communication, land-use planning and planning for resilience.

The professional skills of particular importance include interdisciplinary collaboration; project management; cost-benefit analysis; effective communication with specialists and non specialists (especially the public); and facilitative skills. All the technical, scientific and professional skills need to be applied competently and with the highest standards of ethical underpinning.

The contribution will consider how this can be achieved (or at least facilitated) through professional training, award of professional titles, licensure etc, drawing on international examples of best practice in professional codes of conduct and regulation directed to the protection of the public.