

Executive summary

CERG-C workshop “Risk management: which strategies in a world of increasing complexity?”

4 November 2011, Geneva

The CERG-C workshop “*Risk management: which strategies in a world of increasing complexity?*” was held at the University of Geneva, Switzerland, under the sponsorship of the Société académique de Genève and the University of Geneva, and organized by the unit of Geological Risk, which manages the CERG-C.

The objective of this workshop was to bring together scientists from various disciplines and practitioners working in the field of disaster risk to share experiences, discuss potential lines of collaboration and identify targets for training and research in this field. The workshop gathered about 50 people actively engaged in disaster risk reduction at local, regional and international levels, working in research institutes, governmental agencies, non-governmental organizations or international organizations.

The lectures of the invited speakers and the associated thematic discussions highlighted important gaps in current risk studies and helped to identify fundamental issues that can only be addressed with a joint effort amongst all disciplines involved in the development and optimization of risk reduction strategies.

The needs for research in disaster risk reduction can be examined at three levels:

1. Understanding risk and disasters

Even though risk studies have been flourishing since the 1970s, there is still a need to better understand risk and its dynamics, especially in our fast evolving and interconnected world, where an event can trigger a domino effect at regional or even global scale. Scale issues, both temporal and spatial, are increasingly important and recognized as crucial for effective risk reduction strategies. In terms of spatial scales, the interconnectedness of levels must be acknowledged, while as for temporal scales issues that have been neglected until now, like long term consequences or damage of disasters must be reconsidered. Reconstruction and recovery processes are not always positive and the challenge is today to understand how researchers can better advise practitioners and decision-makers based on lessons learned from positive and negative experiences in past events.

Understanding potential risk can be achieved through the analysis of past disasters to decipher the causes and effects of what works and fails in extreme events. There is a clear need to develop methodologies and analytical tools to carry out forensic disaster investigations. Results from these studies will contribute to the growth of *evidence-based decision making*.

2. Social demand for security

Detailed data on disaster issues are becoming increasingly available and new techniques are being developed to improve the quality of data. However, a fundamental need in risk reduction is no longer the amount or availability of data, but the development of a general multidisciplinary and multi-hazard-based strategy for risk assessment that can be used across a wide variety of data types collected using a variety of techniques.

Droughts and other climate-change related risk have often been overlooked in favour of hazards with shorter durations, the beginnings and ends of which are easier to define. Improvement of risk assessment and development of local scenarios accounting also for climate-related hazards are strongly needed.

Finally, risk assessment should be considered with respect to populations, with a special focus on security and sustainability of infrastructures.

3. Risk management as part of sustainable development

Risk management is a complex process that requires the development of comprehensive and integrated approaches. These approaches, or methodologies, should be applicable, durable and adapted to the national context.

Furthermore, risk is a dynamic process that should be examined over short and long time spans. Risk reduction could be achieved through a variety of means, including development of new public and private financial investments and partnerships. To facilitate this, there is a need to develop tools for the three facets of risk management, i.e. corrective, prospective and compensatory.

It has also been recalled that risk management should not be considered separately from development. Disaster risk reduction is a development issue, even though it should be recalled that not any kind of development will be beneficial in terms of vulnerability reduction. As a result, special care must be taken so that sustainable development will go hand-in-hand with disaster risk reduction efforts.

Furthermore, in every country affected by disasters that is followed by a humanitarian response, strategies should be found to harmonize agendas between humanitarian actors and developers, as disaster risk reduction is a cross-cutting issue. In order to avoid the next disaster or to compound existing ones, solutions should be implemented as early as possible. This also requires donors. Financial support is usually given for rapid response, but implementing disaster risk reduction requests either before a disaster or in post-disaster reconstruction is a long-term vision requiring up to 5-10 years of time or more. It is where coordination among different types of donors is required, to bridge between phases of relief, rapid recovery, rehabilitation and development. Convincing donors or governments of the need for financial support and to follow through with support requires more favourable cost-benefit ratios. This includes improving methods for cost-benefit analysis and the identification of the most efficient measures for reducing risk.

Finally, risk as a constructed concept should be examined considering the socio-cultural context. Perception and tolerance (acceptance) of risk levels vary from country to country and community to community. Risk management cannot be achieved without taking this into consideration.

International training network and training support

Training in disaster risk reduction is crucial and should target people directly concerned with risk issues (i.e. not only earth scientists and engineers, but also economists, urban planners, and finance ministries, for example). Technological aspects need also to be carefully taken into consideration. The fast development of new tools has made possible things that were unconceivable a couple of decades ago (interactive mapping; high resolution satellite images; iPads and iPhones that permit internet at “every” location). Yet many challenges still persist, particularly in the way of adapting tools to users and using the tools in the most efficient and innovative way.

On the aspect of academic networking and training support, challenges lie at the level of financing and of leadership. A major concern is that the on-going economic crisis has resulted in deep cuts to education and research programs significantly reducing existing financial support to risk-reduction trainings.

On the side of academic networking on disaster risk reduction, requested key elements for a success are: i) a joint vision on the issue, ii) a clearly defined objective for the network, iii) mutual interest and benefits among members and iv) an institution that is recognized as a leader for organizing activities and for information sharing. A crucial aspect of training is also the adaptation and transfer of local strategies to regional, national and global levels.

Think global but act local

Finally the fundamental issue of risk-reduction strategies is how to adapt academic theories on risk to the needs of the population requiring safety and durability of housing, return on investment in terms of prevention costs. We are experiencing now a new situation in which, perhaps for the first time, politicians, administrators and decision makers are increasingly calling for a more responsible behaviour in mitigating and reducing risks. Innovative juridical tools may become the next frontier in holding decision makers liable for their evident errors (when those are such).

Program and speaker presentations can be found at:

www.unige.ch/hazards/Riskmanagement/Program.html

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