

Reflections of the representatives of the scientific, technical and academic sector who participated in the Fourth Session of the Regional Platform for Disaster Risk Reduction in the Americas (Guayaquil, Ecuador – 27-29 May 2014).

The year 2015 is a landmark year for three important and related global agreements – a post-2015 framework for disaster risk reduction (March 2015), sustainable development goals (September 2015) and climate change agreements through the UNFCCC (December 2015). We recognize that sustainable development goals cannot be achieved unless disaster risk reduction (DRR) and climate change adaptation (CCA) are integrated into development planning.

The role and value of science in informing these three interconnected frameworks has long been recognized. However, if the goals of these frameworks are to be achieved, it is vital that research supports evidence-based policy and practice more directly, showing that science is useful, usable and used. In order to achieve this, four axes of action are proposed for the period 2015 and beyond:

1. Research:

- Prioritize multidisciplinary scientific research as the basis for the generation of DRR and CCA policies and strategies for disaster risk management at the local, national, regional and global levels.
- Establish programs for local, national, regional and global governments and other organizations for development of more effective DRR and CCA strategies and to achieve a comprehensive understanding of the role of vulnerability in the construction of risk.

2. Education and training:

- Incorporate disaster risk reduction principles into the education of children, youths and professionals.
- Recognize the importance of higher education institutions, which are key resources for generating and disseminating new knowledge, for capacity building, for training of professionals, in order to achieve a change in behavior for DRR and CCA.
- Support and expand programs for undergraduate and postgraduate university studies on disaster risk management and prevention in the Americas, as well as programs for professional development in DRR. In order to provide greater access, the use of web-based platforms should be encouraged.
- Provide guidance on terminology, methodologies and standards for risk assessments, risk modeling, taxonomies and the use of data.

3. Integration:

- DRR and CCA related projects should be integrated, interdisciplinary and interagency.
- Coordinate the management and integration of the results and existing data generated by universities, research centres, networks and private initiatives and the DRR community to encourage open access.

4. Communication and transfer of knowledge:

- Ensure that scientific data and results that contribute to disaster risk reduction are understandable and accessible to decision-makers, practitioners and the public.

- Promote research approaches that contribute to practical applications, involving all sectors in the generation of knowledge and practices to address their local, cultural and gender needs.
- Promote the integration of knowledge bases, recognizing the importance of local and traditional knowledge for DRR and CCA.

Further observations

Within the Americas, there are many universities, academies and government scientific and technical institutions producing high-quality scientific data and supporting the practice of disaster risk reduction and climate change adaptation.

However, the DRR community has identified certain gaps which should be considered in the new framework for 2015 and beyond. In order to address these gaps, there is a need to improve the contribution from the scientific community to policy-makers and society in general. Specifically, there is need for:

- (a) producing periodic reports on current and future disaster risks and on the status of efforts to manage such risks at global, regional, national and local scales.
- (b) monitoring progress toward internationally-agreed targets for reducing disaster losses and building resilience to disasters.
- (c) providing guidance on terminology, methodologies and standards for risk assessments, risk modeling, taxonomies and the use of data.
- (d) convening stakeholders to identify and address demands for scientific research, information and evidence on disaster risk and resilience.
- (e) promoting the creation and strengthening of new and existing scientific networks which foster the creation of scientific communities of research, knowledge and practice.
- (f) enhancing the communication of scientific information and evidence to support the decision-making of policy makers and other stakeholders.
- (g) developing models, scenarios and tools to assess and demonstrate the economic and social benefits of DRR.

To help in addressing these gaps, it may be useful to consider the following:

1. Champion and reinforce existing and future programs and initiatives for integrated research and the scientific assessment of disaster risk. To strengthen the provision of actionable research, we particularly emphasize the importance of co-design, production and delivery of research with public, private and civil society stakeholders. Engagement of the global academic, scientific, technical and engineering communities is required to conduct research and

to connect research, policy and practice on disaster risk reduction and resilience across sectors and scales.

2. Promote the establishment of an intergovernmental scientific mechanism for disaster risk reduction to strengthen the evidence base to effectively reduce disaster risk and enhance resilience. The mechanism will provide scientific information and evidence to support countries and other stakeholders in the implementation of programs and monitoring and validation of progress on disaster risk reduction and climate change adaptation in the context of the post 2015 sustainable development agenda and the successor to the Hyogo Framework for Action. The mechanism will draw on existing programs, initiatives and resources and introduce new elements where appropriate.