

### **Third UN World Conference on Disaster Risk Reduction**

*Preparatory Committee – First Session (Geneva, 14-15 July 2014)*

#### Science and Technology Major Group Statement (delivered by R. Klein, ICSU-IRDR)

This statement seeks to synthesize research and reflections produced by programmes and policy initiatives led by members of the S&T Major Group, in the context of HFA, but in part also independently as expression of the scientific quest for new knowledge in interaction with society. In the run-up to the first session of the preparatory committee meeting, the Organising Partner for the S&T Major Group, ICSU (the International Council for Science), had organized an open consultation process that generated further input from S&T communities worldwide, across fields of knowledge as diverse as the natural, engineering, and health sciences as well as the socio-economic and human sciences. The resulting statement focuses on an over-arching mechanism to improve the usefulness, usability and use of S&T knowledge in and by society as key action point for the post-2015 HFA-II agenda.

Scientific research and practitioner experience have revealed that disasters, sustainable development and poverty are intimately linked. It has become clear that the economic impact of disasters exceeds the costs of mitigation and preparedness, and that disasters can turn back successes in poverty alleviation. At the same time, integrated disaster risk science, that draws on the natural, engineering, and health sciences as well as on the socio-economic, and human sciences, and that works closely with affected communities, produce insights and tools that allow societies to better prepare for, mitigate and react to disasters, possibly even prevent some of them. Science is evolving rapidly and continuously so that regular reviewing and peer learning experiences are needed, across sectors and at different scales, to make best use of cutting-edge S&T in the pursuit of resilient societies.

For this to occur, we need to work towards new forms of interaction bringing together S&T knowledge, political decision-making and community involvement. New data sharing technologies, advanced observatory and ICT (Information and Communication Technology) capabilities, complex risk modeling and the development of predictive analytics, adaptation technologies, as well as the deeper engagement of communities through new communication tools, to name but a few areas, have revolutionized the ways in which S&T can help societies strengthen their resilience. Socio-economic and cultural analysis helps us to understand the root causes of disasters, assess the weight of socio-economic differentials, enhance awareness for the need to ensure business continuity in the face of disaster risk, gender-sensitive approaches, and the consideration of cultural patterns, ethnic diversity and local institutional specificities among

the factors influencing of risk literacy. The specific vulnerabilities of groups such as migrants, the elderly, different groups of disabled persons, children, etc should also be included. Already, the S&T community has demonstrated their commitment to bring about real change in disaster risk reduction, with initiatives such as the IRDR research programme and its June 2014 Beijing conference on integrated disaster risk science as a tool for sustainability. Another example is the upcoming global S&T conference in January 2015 in Tokyo, which will highlight the importance of capacity building, global education, training, and knowledge co-production worldwide.

Given the multiple factors related to DRR and the increase of disaster impacts, advancing our predictive capabilities is critical. Yet, whilst we must accept that knowledge gaps continue to exist and that not all needs for data, tools and methodologies are fulfilled, we *cannot* accept that the knowledge that we already have remains unused in policies and practices that aim at effective disaster risk management and prevention.

This is why we advocate, as a key element for an action agenda for the post-2015 world, the establishment of a mechanism that would enhance closer interaction between the S&T actors and decision-makers in the public domain. In line with the recommendations of the 2013 Global Platform for DRR, and with support from the regional consultative platforms in Africa, Asia and the Americas, we invite all governments and all stakeholders involved in the 3<sup>rd</sup> World Conference on DRR, to support our call for an international science advisory mechanism that will result in more evidence-based DRR strategies and better-informed DRR investments by governments, donors, and businesses alike. We believe that such a mechanism will make it easier for the S&T communities to understand specific knowledge gaps that address unevenly distributed vulnerabilities. We propose to make use of inclusive, consultative platforms at different levels such as the existing DRR national and regional platforms that would allow all partners to work jointly towards articulating knowledge needs that we can address together in a process of co-design and co-production of knowledge for action. The resulting integrated disaster risk science will produce better scientific assessments of disaster risk at all levels and enable a more meaningful monitoring of progress towards resilience.

The international science advisory mechanism for disaster risk reduction here proposed seeks to enhance the resilience of communities by recognising: (1) the growing and increasingly uneven

incidence of disaster risk that demands special attention for capacity building in SIDS and LDC's without, however, neglecting the exposure of middle and high-income countries; (2) the need for mutual reinforcement of DRR and SDG's in strategies for development cooperation, notably through capacity building and education at all levels; (3) the role of awareness-raising and transparency in the use of evidence with the help of educational, and monitoring efforts and cross-sectoral engagement, as well as, very pragmatically, (4) that best use be made of the existing programmes and instruments that already generate and communicate S&T evidence for DRR.

The S&T community is eager to assist in developing and strengthening science with a view to building resilient societies through curbing disaster losses. We look forward to working closely with you in the next eight months, which will be critical for the success of HFA-2.

Composition of the Major Group Delegation Science and Technology (PrepCom I, Geneva 14-15 July 2014)

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Global Young Academy, Berlin, Germany / Nice, France / Japan

InterAcademy Partnership (IAP), Trieste, Italy

Integrated Research on Disaster Risk (IRDR), Beijing, China

International Council for Science (ICSU), Paris / Regional Office, Pretoria

International Institute for Applied Systems Analysis (IIASA), Laxenburg, Austria

International Tunnelling Association

International Union of Geodesy and Geophysics (IUGG), Potsdam, Germany

National Autonomous University of Mexico (UNAM), Mexico City, Mexico

Natural Environment Research Council (NERC), Swindon, United Kingdom

Public Health England, United Kingdom

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