

Tokyo Conference on International Study for Disaster Risk Reduction and Resilience

High-Level Panel Session

(15:20 - 17:05, 14 Jan 2015)

How to strengthen the DRR activities with utilizing science and technology

- What are constraints to apply appropriate science and technology to DRR activities?
- How can we overcome those constraints to build resilient societies?

Vivi Stavrou, Senior Executive Manager, ISSC.

Your Highness,

Mr Chairman,

Distinguished guests,

Ladies and Gentlemen,

Konnichiwa.

It is with great pleasure that I am here today on behalf of the International Social Science Council (ISSC).

2015 is a landmark year for all those working in disaster risk reduction (DRR). Research and consultations done regarding the Hyogo Framework for Action and formulating DRR strategic goals for inclusion in the Strategic Development Goals (SDGs) have been intense and widespread.

Our work over the next couple of days will strengthen international partnerships to mobilize science for action on DRR and resilience building, and channel good practice into actionable strategies for the post Hyogo Framework for Action and for inclusion into the SDGs.

Allow me to briefly introduce the ISSC in terms of our DRR related work. We are a membership organization, based in Paris, France, bringing together the social, behavioural and economic science disciplines at the global level. This includes the professional and disciplinary associations, national Academies and Research Councils – including the Science Council of Japan - as well as Funding Agencies and research producing NGOs.

Our core mission is to promote the production and use of international, inter-disciplinary scientific research that contributes solutions to key global challenges.

Mechanisms to achieve this include:

- Playing a representational role within UN processes and scientific assessments (e.g.: UN Major Groups on Sustainable Development, Science and Technology Alliance for Global Sustainability, Future Earth)
- Convening global platforms for the science-policy-practice interface, such as the World Social Science Forums. The topic of the next WSS Forum is *Transforming Global Relations for a Just World* (13-16 September 2015, Durban South Africa).

- Building and connecting global knowledge through the production of scientific reports on the state of the world and the state of the art in terms of social science. These include the triennial World Social Science Reports, that are written by researchers from across the world representing multiple disciplines, and review the role of social sciences in developing new instruments of analysis and innovative solutions, and help to set the research agenda for the years to come. The 2016 report theme, decided upon after an intense consultative process within our members, an experts consultation facilitated by UNESCO and a survey of experts, is on *Inequalities and Social Justice*.
- Advancing science by building capacity and mobilising resources through,
 - Our new global funding programme, the Transformation to Sustainability programme - ISSC's major contribution to the work of Future Earth
 - Fostering a cadre of future science leaders via the World Social Science Fellows programme (focus on post-doc, early career scientists)
 - Co-sponsoring international, inter-disciplinary research programmes and networks like the Comparative Programme on Poverty Research (CROP), the Trans-Atlantic Platform, and together with ICSU and other partners in this room, the Integrated Research on Disaster Risk programme (IRDR).
 - Finding ways to overcome some of the obstacles to international research funding that constrain efforts to support international, interdisciplinary and transdisciplinary research.

The ISSC has played a leading role in mobilising and integrating the social, behavioural and economic sciences in the field of global change and sustainability research. I would like to highlight two documents - the *Transformative Cornerstones* report¹ and the 2013 World Social Science Report on *Changing Global Environments*². They are milestone publications that provide a framework for understanding environmental change and sustainability as social processes embedded in specific social systems. They make an urgent call to action, calling for a transformative social science that is,

- *Bolder* in reframing and reinterpreting global environmental change as a social problem.
- *Better* at infusing social science insights into real-world problem solving.
- *Bigger* in terms of having more social scientists to focus on global environmental change, and
- *Different* in the way it thinks about and does research that helps meet the complex sustainability challenges faced today

Everything we know about global change today calls for social transformation – for profound social change. This includes disaster risk. Exposure and vulnerability are key determinants of disaster risk. The causes of our increasing exposure to more risk are partly or even mainly social – deeply personal and deeply political problems - and interventions aimed at addressing them will require not only scientific advances and technological adjustments but also deep and enduring social change.

This implies that we need to foster a deeper understanding of the complexity of social behaviour and practice, and on how to effect social change. This is a key realization that must guide research, policy and action in the coming years and decades.

¹ Source: Hackmann, H. and A. L. St. Clair (2012), *Transformative Cornerstones of Social Science Research for Global Change*, International Social Science Council, www.worldsocialscience.org/documents/transformative-cornerstones.pdf.

² http://www.oecd-ilibrary.org/social-issues-migration-health/world-social-science-report-2013_9789264203419-en

A new approach to DRR and sustainability research from the angle of *social transformation* will require not only a contribution but also *real leadership* from social sciences - bringing relevant existing knowledge to the table, framing the research questions, co-designing and co-implementing the research with the active involvement of relevant societal stakeholders at all stages of the research and policy process.

We have been doing this work for a long time - Gilbert White wrote about disaster science in the 1940s, bringing together the interaction between human society and the environment in his dissertation on floodplain management. We have a ton of research and a ton of answers. But our work is often not heard and not used. Business as usual is not an option. We need new ways of producing knowledge and making sure it gets used. Critical interactions between science, risk and society occur within places that are not traditional terrains for scientists, like legal and statutory systems. If science – and we’re talking across the spectrum of fields and disciplines here – is to contribute to finding solutions, a key challenge is to exploit the role of science as a player in the world of politics and power.

Social science knowledge is needed on how political decisions are made in the face of uncertainty; what pathways are available for influencing decision-making; where the limits of expert knowledge lie; what determines the success or failure of political agreements; and what drives political will.

We need to be aware of our political role and of the implications of this engagement – that such support and critique through research does not mean that the scientist is completely unfettered by external constraints, nor advocating for a particular political position. For the most part we are working to inform rather than to make political policy. The aftermath of the 2011 nuclear meltdown in Fukushima resulted in Japanese scientists and officials taking a critical look at advisory practices, and the updated *Code of Conduct for Scientists* published by the Japanese Council of Science³ is a valuable guide for our practice.

Scientific traditions and silos have hobbled us in moving forward in a connected world. Commercial innovations like Google or example, via Google Scholar and Earth Engine, are probably the strongest driving forces in transdisciplinarity today. Our research systems require radical innovation and renewal to meet the demands society now places on science

On-going work awaits us on institutional design and reform, and on building structures to enable dialogue across competing interests, values and worldviews - all under conditions of uncertainty.

Colleagues,

This is a time of urgency and of unrelenting pressure on scientists to make a difference. The ISSC is keen to strengthen collaboration between organizations in DRR research and advocacy. I look forward to participating in the deliberations of the next couple of days and to the outcomes of this conference.

Thank you.

Vivi Stavrou

³ Science Council of Japan: Code of Conduct of Scientists – Revised Version (SCJ, 2013); available at <http://go.nature.com/nhrnbb>. In, Gluckmann, P. Policy: *The art of science advice to government*. *Nature* 507, 163-165 (13 March 2014). Doi:10.1038/507163a