

Making better Use of Disaster Risk Information: Lessons for a Post-2015 Framework for Disaster Risk Reduction

A UNISDR–Australia Workshop, Canberra Australia, 27-28 June 2013

First session-Objective of the Workshop: how should the post-2015 framework for disaster risk reduction provide guidance on making risk data more useful, usable and used?

The Fourth Global Platform for Disaster Risk Reduction (21-23 May 2013) called for the post-2015 framework for disaster risk reduction (Hyogo Framework for Action 2) to provide guidance on how countries and communities should implement DRR. It called for HFA2 to function as a plan of action underpinned by a clear set of principles. The Chair's Summary recognises the vital role of evidence-based, credible data and information as the basis of decision making around risk. The 2013 report of the UNISDR Scientific and Technical Advisory Group Using Science for DRR states that 'The more widespread integration of science into DRR policy-making will depend on science being useful, usable and used' (p6). The same may be said about all types of data and information pertaining to disaster risk, whether drawn from physical or social sciences, economics or traditional knowledge. It was recognised that need of scientifically sound risk information has to be coupled with making such information available, accessible and understandable to all the stakeholders. A clear message from UNISDR's consultations and the Global Platform therefore is that making better use of disaster risk information has to be a priority theme for HFA2.

The Canberra workshop is the first UNISDR consultation to take place after the Fourth Global Platform. Its purpose is to distil practical guidance on how risk information can inform sound decision making, drawing on the many good examples from governments, scientific and technical agencies, the private sector and communities, particularly across the Asia Pacific region. The workshop will agree on clear messages about what works and why and how these messages can be incorporated as a priority theme into the first draft HFA2.

Second session - Accounting for disaster losses

If decisions are to be well informed and risk information is to be widely available then the first step is to compile data. Economic losses from disasters already amount to hundreds of billions of dollars annually and are projected to double by 2030. Yet repeated, local events, which undermine livelihoods in arid areas and small island developing states particularly, are rarely recorded. Nor are indirect losses regularly accounted for. The 2013 Global Assessment Report tells us that total losses from natural disasters are likely to be 50% higher than the global figures we are familiar with.

Without an accurate knowledge of what has been lost and the continued exposure of people and assets to risk neither governments, the private sector nor communities can plan for and mitigate against hazards. Risk information is rarely available to guide either private or public decision-making and transfer of risk between the private and public sectors and between both and civil society are rarely explicit. Vietnam is a good example of a national government investing in risk databases that capture quality and detail. This information will be used to further improve Vietnam's community resilience and to direct its investments. A better understanding of the different layers of risks will, for example, help the government decide what risk it will absorb, mitigate, or transfer. It can also help the private sector decide what it can allocate to business continuity planning.

Questions for the workshop to consider:

- 1) *How can we improve the way we capture economic losses from natural hazards?*
- 2) *What types of important risk data are not being collected and why?*

Third session -Developing ownership by making risk information available to all

UNISDR's consultations on HFA have revealed a large and unmet need for data, tools methods and guidance on how to reduce risk. Stakeholders are saying that information must be driven by the needs of people at risk

and should be in a form they can understand and use. The Chair's Summary of the Fourth Global Platform calls for more holistic and comparable methodologies for risk assessments. Sharing data and creating open systems promotes transparency and accountability, and ensures a wide range of actors are able to play a role in building resilience.

There are many obstacles to making data more useful, usable and used. Research and data collection can be fragmented or duplicated, and different methodologies and approaches can give inconsistent results. Both the public and private sectors can be reluctant to release and share information for proprietary, security or privacy reasons. The UNISDR effort to produce a global risk analysis through the Global Assessment Report (GAR), which provides an order of magnitude of the losses from natural hazards at global scale, aims to sensitize governments, business and the general public to the extent of the issue. The target of this effort is to strongly promote the development and sharing of information at local level using freely available, transparent models. However, even when data is available, it is often not communicated meaningfully to the public. It is not targeted to the right audience; it is in a format that is difficult for non-experts to understand; or it does not arrive in time for people at risk to take action. Similarly, tools need to be developed from data that do more than merely describe a risk in technical terms: they should offer actionable approaches that will help people at local levels reduce the risk.

But new models are being developed where risk analysis tools, data bases and technical expertise are being made available at local levels, directed at local needs and allow for meaningful comparisons. Open data approaches being used in Nepal and Indonesia allow communities to add in their own knowledge of local hazards. The Global Earthquake Model's 'World Collaborative' is another example of open data sharing. Australia's national guidelines standardise risk assessments to allow meaningful comparisons between different geographical areas and/or hazard classes.

Questions for the workshop

- *What have we learned from our efforts to build open source tools to better understand hazard, exposure and risk information?*
- *What partnerships do we need to build to break down barriers to sharing risk information across the public and private sectors?*

Fourth session -Translating risk information into decision making

Knowledge and understanding of disaster risks is essential to inform good decisions. Decision makers in government, business and the community must have access to risk information that is relevant, understandable and timely. Only when they have accurate information can they be properly held accountable for the decisions they make. But risk analysis can be complex, drawing on data from a range of sources and hazards, social sciences, the built and natural environments, critical infrastructure and continuity of service delivery. Decision-makers often lack access to comprehensive data of this sort, and nor do they have the tools and skills to analyse, understand and apply it. The 34 science and technology platforms and networks established by UNISDR have reached a consensus that more effort is needed to translate scientific results and other data into usable information for decision makers.

Despite the complexity of risk information, there are many examples of evidence-based decisions helping to make people safer. In the Indian Ocean, the tsunami warning and mitigation system can reach millions of people. In New Zealand, most bridges that had been retro-fitted for earthquake risk survived the Christchurch earthquakes intact. In Pacific Island countries, extensive hazard modelling data has allowed for the trial catastrophic insurance scheme.

Questions for the workshop

- *What types of risk information most easily translate into sound decision making? Why?*
- *How can the scientific and technical community make their products more useful to decision makers?*

Fifth session -Collaborating with the private sector

Mitigating risk should not just be the responsibility of governments and communities. Population growth, urbanisation and globalisation have greatly increased the exposure of people, industrial assets and private property to cyclones, floods, earthquakes and tsunamis. When critical, urban infrastructure such as transport networks and power supplies are damaged by disaster events the private sector can be among the biggest losers. Economic losses from disasters now exceed \$100 billion per annum and this is growing: the expected annual average global loss from earthquake and cyclonic wind damage alone amounts to US\$180 billion.

But the private sector can play a key role in risk mitigation. Risk governance is unlikely to be effective without the buy-in of business. For example, when critical infrastructure is owned by the private sector, its owners and operators will usually be best placed to manage risks. But the right incentives for DRR to be integrated into business investment decisions, including by the insurance industry, are not yet widely in place. However, there are examples where governments and private companies are working together to steer investments towards greater resilience.

In the Philippines, the City Marikina shopping mall was designed and built to take account of hazard maps created by local authorities. The structure subsequently withstood typhoon Ondoy in 2009, acting as a refuge for stranded community members and packing centre for relief goods when a huge part of the neighbourhood was flooded.

In Japan, the Tago-Nishi Eco Model Town Project, which has come about after the Great East Japan Earthquake and Tsunami, is an innovative public-private collaboration to build a disaster resilient community that will have a continued energy supply in emergencies.

In Australia the Trusted Information Sharing Network for Critical Infrastructure Resilience is an information sharing system between business and government. The Network is designed to raise the awareness of risks to critical infrastructure, facilitate information exchange, develop strategies and solutions, assess and mitigate risks, and build resilience capacity within organisations.

Questions for the workshop

- *How can governments and the private sector work better together to share risk and risk governance?*
- *What can the public sector do to help strengthen private sector disaster resilience?*
- *What are the common ingredients of successful collaborations between the public and private sectors?*

Sources:

Hyogo Framework for Action 2005-15: Building the Resilience of Nations and Communities to Disasters
Global Assessment Report 2013

Synthesis Report: Consultations on a Post-2015 Framework on Disaster Risk Reduction (HFA2)

Using Science for Disaster Risk Reduction Report of the UNISDR Scientific and Technical Advisory Group
Chair's Summary Fourth Session of the Global Platform for Disaster Risk Reduction Geneva, 21-23 May 2013
Resilient People, Resilient Planet

High Level Panel Report on the post-2015 development agenda, May 2013

National Strategy for Disaster Resilience (Council of Australian Governments, February 2011)