



Climate change, social vulnerability and resilience

"As the adverse impacts of climate change become more and more self evident around the world, from drought in North America to cyclones in the Pacific to floods in China, countries and researchers around the world are beginning to act and learn about adaptation to climate change which is emerging as a new science."

(Huq, 2012)

Over the years, the scientific research community has developed exemplary conceptualizations of social vulnerability to hazards and disasters encompassing various vulnerability features, which are driven by multiple stressors and differential exposure, and are often rooted in multiple attributes of human actors and social networks. In the context of climate change, vulnerability has been defined more generally as "the degree to which a system is susceptible to and unable to cope with, adverse effects of climate change, including climate variability and extremes" (IPCC, 2007). Resilience, by contrast, is usually portrayed in positive terms as "the capacity of a system to maintain its basic functions and structures in a time of shocks and perturbations" (Oliver-Smith, 2009). In all formulations, vulnerability and resilience research have common elements of interest – the shocks and stresses experienced by the social-ecological system, the response of the system and the capacity for adaptive action.

In order to help communities strengthen their resilience to climate change, they need to be able to estimate what these changes may be and their scope. With the proliferation of geospatial tools and data, vulnerability assessments are increasingly used to better identify which areas and systems are most vulnerable to climate change through a process of data collection and analysis (Preston et al., 2011). Several scientific research projects have underlined the importance of measuring vulnerability and developing indicators to reduce social vulnerability and build resilience.

In this context, this *Bonn Dialogues* event will address the methods and tools available for assessing impacts and climate risks (weather-related risks) at different levels and for a broad range of sectors and social-ecological systems (in relation to a series of approaches to address loss and damage associated with the adverse effects of climate change).



The panel will address the following questions:

- 1. What are current practices to address social vulnerability in the context of climate change? What are experiences, needs and gaps?
- 2. How can affected countries, regions and communities enhance resilience in order to reduce and cope with disaster losses?
- 3. Are changes in severity and frequency of extreme events a major driver of risk or do social vulnerability factors, such as informal settlements, play a more important role in this context?
- 4. What are the lessons learned from running or completed community-based adaptation programmes?
- 5. What should policymakers consider most in the field of vulnerability assessment?

Framework: Keystone Conference

The Bonn Dialogues are organized by the United Nations University (UNU) Bonn and the German Committee for Disaster Reduction (DKKV) in partnership with the Federal City of Bonn. This Bonn Dialogues is an official event of the "Keystone Conference: From Social Vulnerability to Building" taking place from 8 until 10 October 2012 in Bonn, Germany. Organized by the United Nations University Institute for Environment and Human Security (UNU-EHS) and the Munich Re Foundation (MRF), the event concludes the <u>Summer Academy Project</u> on Social Vulnerability and will launch the new MRF/UNU-EHS/ICCCAD Cooperation in Bangladesh.

The Keystone Conference will offer the Summer Academy Alumni an opportunity to exchange ideas and experiences, as well as good practice techniques and achievements on social vulnerability and resilience. In engaging participants coming from different sectors and areas of expertise, the conference will allow for more complex questions to be raised about social vulnerability and resilience within a wider organizational and societal context in which it exists. The conference will highlight the progress made over the seven years of the Summer Academy. Consequently, participants will have a chance to move from theory to practice by linking their knowledge to COP-18's Loss and Damage initiative.





References & Further Reading

GFDRR (2010). Disaster, damage, loss and needs assessment: training guidelines. Global Facility for Disaster Reduction and Recovery. Available from http://www.preventionweb.net/files/13019 530020WP0P110410Box345586B01PUBLIC1.pdf

Huq, S. (2012). Politics of Climate Change. Adaptation to climate change: Some emerging concepts. The Daily Star, 18 August 2012. Available from http://www.thedailystar.net/newDesign/news-details.php?nid=246557.

IPCC (2007): Climate Change 2007: Climate Change Impacts, Adaptation and Vulnerability. Summary for Policy Makers. Contribution of Working Group II to the Fourth Assessment Report of the Intergovern-

mental Panel on Climate Change. IPCC, Brussels.

Oliver-Smith, A. (2009). Nature, Society, and Population Displacement. Toward an Understanding of Environmental Migration and Social Vulnerability. InterSecTions No. 8. Bonn: United Nations University Institute for Environment and Human Security (UNU-EHS).

Preston, B. L., Yuen, E. J., and R. M. Westaway (2011). Putting vulnerability to climate change on the map: A review of approaches, benefits and risks. In *Sustainability Science*. Doi: 10.1007/s11625-011-0129-1.

Surminski, S., Lopez, A., Birkmann, J., and T. Welle (2012). Background paper: Current knowledge on relevant methodologies and data requirements as well as lessons learned and gaps identified at different levels, in assessing the risk of loss and damage associated with the adverse effects of climate change. Available from

http://unfccc.int/files/adaptation/cancun adaptation framework/loss and damage/application/pdf/background paper full.pdf.

UNFCCC (2011). Report of the Subsidiary Body for Implementation on its thirty-fifth session, held in Durban from 28 November to 3 December 2011. VIII: Approaches to address loss and damage associated with climate change impacts in developing countries that are particularly vulnerable to the adverse effects of climate change to enhance adaptive capacity . Available from

http://unfccc.int/documentation/documents/advanced_search/items/3594.php?rec=j&priref=6_00006688#beg.

(2011). Decision 1/CP.16: Report of the Conference of the Parties on its sixteenth
session, held in Cancun from 29 November to 10 December 2010, Addendum Part Two: Action
taken by the Conference of the Parties at its sixteenth session Outcome of the work of the Ad
Hoc Working Group on Long-term Cooperative Action under the Convention. FCCC
/CP/2010/7/Add.1.
(2011). Draft decision -/CP.17: Outcome of the work of the Ad Hoc Working Group on Long-term Cooperative Action under the Convention/ Work programme on loss and damage/CP.17.



About the organizers

The **United Nations University (UNU)** is the academic and research arm of the United Nations. It bridges the academic world and the United Nations system. Its goal is to develop sustainable solutions for current and future problems of humankind in all aspects of life. Through a problem-oriented and interdisciplinary approach it aims at teaching, applied research and education on a global scale. UNU was founded in 1973 as an autonomous organ of the United Nations General Assembly. The University comprises headquarters in Tokyo, Japan, and more than a dozen Institutes and Programmes worldwide.

In **Germany (Bonn)**, UNU is represented by the Vice Rectorate in Europe (UNU-ViE), which is part of the Rector's office, and the Institute for Environment and Human Security (UNU-EHS). UNU-ViE hosts the Secretariat of the International Human Dimensions Programme on Global Environmental Change (UNU-IHDP), the UN-Water Decade Programme on Capacity Development (UNW-DPC) as well as the United Nations University Institute for Sustainability and Peace, Operating Unit SCYCLE (UNU-ISP SCYCLE). www.bonn.unu.edu

The **German Committee for Disaster Reduction (DKKV)** is the national platform for disaster reduction in Germany within the International Strategy for Disaster Reduction of the United Nations (UN/ISDR). It is the focal point to organizations and initiatives involved in disaster reduction. It is also a centre of expertise in all matters relating to national and international disaster reduction. It supports relevant research; development and implementation of instruments for disaster reduction; enhancement of risk awareness; and dissemination, on all educational levels, of findings from the field of disaster reduction. www.dkkv.org