Presentation of the IPCC Special Report on Managing the Risks of Extreme Events and Disasters to Advance Climate Change Adaptation (SREX)
28 November 2012

Talking Points
Focus: the value of the SREX for negotiators at COP 18

Purpose of the SREX – filling the gaps

- The IPCC Fourth Assessment Report (AR4) concluded that climate change has begun to affect the frequency, intensity, and length of many extreme events, such as floods, droughts, storms, and extreme temperatures, thus increasing the need for additional timely and effective adaptation. At the same time, gradual and non-linear change to ecosystems and natural resources and increasing vulnerability further increase the consequences of extreme weather events. The AR4 recognized that reducing vulnerability to current climatic variability can effectively reduce vulnerability to increased hazard risk associated with climate change.
- **Gaps**: the AR4 reviews programs and activities on adaptation to climate change, but not the wide range of efforts undertaken worldwide by governments and communities to promote and implement disaster risk reduction, sustainable development, and environmental risk management. **Governments, through the Nairobi Work Programme, have indicated that the increasing risks of extreme climate events are an immediate and urgent problem.**
- Before publication of the SREX, there was no existent comprehensive assessment of the guides, frameworks, and tools used by various institutions, organizations, and communities to build the capacity for reducing vulnerability and risk; to develop early warning systems; to strengthen community capacity and social resilience, particularly among the most vulnerable; to improve construction practices; and to establish preparedness to respond to inevitable climate impacts.

Content of the SREX

- The SREX addresses, **for the first tim**e, how integrating expertise in climate science, disaster risk management, and adaptation can inform discussions on how to reduce and manage the risks of extreme events and disasters in a changing climate. The report evaluates the role of climate change in altering characteristics of extreme events.
- The SREX assesses experience with a wide range of options used by institutions, organizations, and communities to reduce exposure and

vulnerability, and improve resilience, to climate extremes. Among these are early-warning systems, innovations in insurance coverage, improvements in infrastructure, and the expansion of social safety nets, **before completion of the AR5**

Key finding for the SREX

Changes in extreme events

- It is likely that the frequency of heavy precipitation will increase in the 21st century over many regions.
- It is virtually certain that increases in the frequency of warm daily temperature extremes and decreases in cold extremes will occur throughout the 21st century on a global scale. It is very likely—90 per cent to 100 per cent probability—that heat waves will increase in length, frequency, and/or intensity over most land areas
- Under some emissions scenarios, a 1-in-20 year hottest day is *likely* to become a 1-in-2 year event by the end of the 21st century in most regions, except in the high latitudes of the Northern Hemisphere, where it is *likely* to become a 1-in-5 year event
- It is very likely that average sea level rise will contribute to upward trends in extreme sea levels in extreme coastal high water levels.

Trends in disaster losses

- Economic losses from weather- and climate-related disasters vary from year to year and place to place, but overall have increased (high confidence).
- Total economic losses from natural disasters are higher in developed countries (high confidence).
- Economic losses expressed as a proportion of Gross Domestic Product (GDP) are higher in developing countries (high confidence).
- Middle income countries have borne the highest burden. During the period from 2001-2006, losses amounted to about 1% of GDP for middle income countries, while this ratio has been about 0.3% of GDP for low income countries and less than 0.1% of GDP for high income countries, based on *limited evidence*. In small exposed countries, particularly Small Island Developing States, losses expressed as a percentage of GDP have been particularly high, exceeding 1% in many cases and 8% in the most extreme cases, averaged over both disaster and non-disaster years for the period from 1970 to 2010.
- Deaths from natural disasters occur much more in developing countries (high confidence). From 1970 to 2008 for example, more than 95% of deaths from natural disasters were in developing countries.

Managing the risk

- Many measures for managing current and future risks have additional benefits, such as improving peoples' livelihoods, conserving biodiversity, and improving human well-being (medium evidence, high agreement)
- Risk management works best when tailored to local circumstances. Combining local knowledge with additional scientific and technical expertise helps communities reduce their risk and adapt to climate change (robust evidence, high agreement).

Use for negotiators and policy makers

- Hope that this report can be a **scientific foundation** for sound decisions on infrastructure, urban development, public health, and insurance, as well as for planning—from community organizations to international disaster risk management.
- Hope that the assessment of experience with disaster risk management and climate change adaptation **provides a knowledge base for informing effective approaches** to prepare for and respond to extreme events and disasters.
- Hope that the SREX can be a **scientific foundation for actions** ranging from incremental improvements in governance and technology to more transformational changes that are essential for reducing risk from climate extremes.

General info and thanks

- 220 scientists and experts who served as authors, from 62 countries.
- Thanks to the Norwegian Government