



Ten Key Messages of the IPCC Special Report on Extreme Events

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On November 18th 2011, the Intergovernmental Panel on Climate Change (IPCC) launched its 'Special Report on Managing the Risks of Extreme Events and Disasters to Advance Climate Change Adaptation' (SREX). The findings were approved by 194 governments following a four-day meeting in Kampala, Uganda in which the Report's Summary for Policy Makers was agreed line-by-line. Written over two and a half years by over 200 hundred authors, reviewed by many hundreds more and involving academics, practitioners and policy makers from Fiji to Senegal and from Russia to Chile, the report presents a dramatic and precise set of findings.

Launched against a backdrop of famine in Somalia, unseasonably heavy snowfall in the US, floods in Thailand and a national drought emergency in Tuvalu; the report includes clear but typically subtle and conservative assessments that foresee a world of ever more frequent disasters in a warming world. It also gives a sense of hope, however, in its inclusion of a catalogue of measures at local, national and international level that successfully reduce disaster risk. It suggests that such measures will need to be significantly scaled up, alongside deep cuts in greenhouse gas emissions, if countries and communities are to avoid the worst disasters in a changing climate. The report is also clear that in some cases upgrading existing approaches will not be enough and more systemic transformations will be required.

Key messages of SREX are as follows:

1. Even without taking climate change into account, disaster risk will continue to increase in many countries as more vulnerable people and assets are exposed to weather extremes.
2. Evidence suggests that climate change has changed the magnitude and frequency of some extreme weather and climate events ('climate extremes') in some regions already.
3. Climate change will have significant impacts on the severity and magnitude of climate extremes in the future. For the coming two or three decades, the expected increase in climate extremes will probably be relatively small compared to the normal year-to-year variations in such extremes. However, as climate change becomes more dramatic, its effect on a range of climate extremes will become increasingly important and will play a more significant role in disaster impacts.
4. There is better information on what is expected in terms of changes in extremes in various regions and sub-regions, rather than just globally; though for some regions and some extremes uncertainty remains high. Climate extremes are essentially becoming more unpredictable.
5. High levels of vulnerability, combined with more severe and frequent weather and climate extremes, may result in some places, such as atolls, being increasingly difficult places in which to live and work.
6. A new balance needs to be struck between measures to reduce risk, transfer risk (e.g. through insurance) and effectively prepare for and manage disaster impact in a changing climate. This balance will require a stronger emphasis on anticipation and risk reduction.

7. In this context, existing risk management measures need to be improved as many countries are poorly adapted to current extremes and risks, let alone those projected for the future. This would include a wide range of measures such as early warning systems, land use planning, development and enforcement of building codes, improvements to health surveillance, or ecosystem management and restoration.
8. Countries' capacity to meet the challenges of observed and projected trends in disaster risk is determined by the effectiveness of their national risk management system. Such systems include national and sub-national governments, the private sector, research bodies, and civil society including community-based organisations.
9. Where vulnerability and exposure are high, capacity is low and weather and climate extremes are changing, more fundamental adjustments may be required to avoid the worst disaster losses and avoid tipping points.
10. Any delay in greenhouse gas mitigation is likely to lead to more severe and frequent climate extremes in the future.

Implications of the Report

SREX represents a significant step forward for the integration and harmonisation of the climate change adaptation, disaster risk management and climate science communities. Definitional divisions have largely been closed, with the report producing a joint definition of vulnerability and exposure for example, which represents a departure from the definition used in the IPCC fourth assessment report.

Politically, while the report does not include enough specific information on which one would wish to base wise policy at national or sub-national scale, it does offer a solid basis and a set of findings that can serve to pique the interest of influential policy makers hitherto unfamiliar with the seriousness of this issue. Internationally, the report may help to (i) strengthen the integration of financial mechanisms to support adaptation and disaster risk management, (ii) reveal the importance of changing climate extremes and disaster risk to policy makers working in other policy domains, (iii) add clarity and energy to the development of the UNFCCC Loss and Damage mechanism (intended to help support developing countries impacted by disasters associated with climate extremes), (iv) focus minds on the importance of mitigating greenhouse gases for avoiding the worst climate extremes.

Certainly the report signals a need for countries to reassess their investments in measures to manage disaster risk. New disaster risk assessments that take climate change into account may require countries and people to refresh their thinking on what levels of risk they are willing and able to accept. This comes into sharper focus when considering that today's climate extremes will be tomorrow's 'normal' weather and tomorrow's climate extremes will stretch our imagination and capacity to cope as never before. Smart development and economic policies will need to consider changing disaster risk as a core component unless ever more money, assets and people are to be washed away with the coming flood.

Disclaimer: While both the authors of this blog are Co-ordinating Lead Authors of the IPCC Special Report on Managing the Risks of Extreme Events and Disasters to Advance Climate Change Adaptation, and members of the Core Writing Team of the Report's Summary for Policy Makers, the article does not represent the views of the IPCC or necessarily of either of the author's host organisations.