



---

## **Expectations for a special report Lessons learned on risk management and data availability**

**Maarten van Aalst**  
Red Cross/Red Crescent Climate Centre  
[mvanaalst@redcross.nl](mailto:mvanaalst@redcross.nl)

Better management of extremes is a key component adaptation to climate change. The proposed IPCC Special Report can play an important role informing the UNFCCC and its global mechanisms to support adaptation, as highlighted, among others, in recent discussions on climate risk management at UNFCCC COP14 and in the Nairobi Work Programme.

However, a possibly even more important audience is a wide range of other actors whose primary responsibility is not so much to deal with climate change, but who would be key implementers of effective adaptation to climate change. For some of them, including many in the Red Cross/Red Crescent, management of extremes is a core component of their regular work. For most of them however, even the notion of management of extremes is only a small aspect of their overall scope of work. None of them publish in climate change oriented academic journals. Organizing the knowledge base, building on climate-change oriented scientific sources but also incorporating a wide variety of other perspectives, and presenting it so that it can be used for effective risk reduction by a large range of user communities, can contribute greatly to better management of changing risks.

One element of the report is bringing together all the knowledge on how hazards have been changing and are projected to change in the future. A second element is to take stock on existing approaches to manage the risk of extremes, and highlight lessons learned that can be applied to reduce the impacts of global climate change. Several key lessons learned can be readily integrated into adaptation approaches, to avoid reinventing the wheel, duplicating existing efforts, or even setting up competing activities and institutions.

A third element the report should address is how approaches to manage extremes should be modified in response to the available information on changing risks. In some cases, such as updates in infrastructure standards, relatively precise data on changes in risks may be required, particularly when the additional investment cost is high relative to the returns in case risks don't materialize as expected. Approaches such as probabilistic cost/benefit analyses under conditions of uncertainty may sometimes be of use. In many other cases, rather general knowledge on trends in risks and uncertainties is good enough, particularly for no-regrets strategies such as scaling up risk reduction efforts that already pays off in the current climate. Nevertheless, making use of available information on trends in risks can often make such risk reduction more effective. The Special Report should make an effort to present and organize the evidence on how to assess and address implications of changing risks for various types of day-to-day decisions, particularly beyond strict engineering approaches.

In considering these changes, data are an important constraint, especially in developing countries. One challenge is the extent to which trends in extremes can be characterized (based on observations and/or model data), particularly at a small geographic scale. Another challenge relates to other data that feed into such risk assessments, such as changes in vulnerability due to demographic change, local environmental degradation, market impacts, etc. Unfortunately, the evidence base on the disaster risk management side also leaves a lot to be desired, with a lack of baselines and cost effectiveness analyses of approaches to reduce risk, with the particular challenge that at times of disasters, gathering data is usually not the first priority. But let me be clear: better data, while desirable, are not the only or even the main impediment. There are clear, and well-documented, barriers to better risk reduction that the Special Report should examine.

That leads to two crosscutting issues that merit special attention. The first is stakeholder engagement, and particularly communication of risk information to the right stakeholders. This includes, for instance, sectoral development planners, the private sector, as well as local communities. This is already challenging for “regular” probabilistic information on low-frequency high-impacts events; climate change presents an additional challenge. There is a growing body of evidence on how to structure such communication and engagement.

The second is how to interpret and apply information on changes in extremes due to global climate change as part of a continuum of climate information across timescales, also including “regular” weather and seasonal forecasts, which helps overcome some of the information deficits regarding future trends in risks.