

Heat, floods and special reports

Hurricanes and droughts, heatwaves and floods: the litany of natural hazards that could be affected by climate change reads like a script for the next big disaster movie. To climate researchers, though, such weather extremes represent an all-too-real possibility in a warming world.

Now, the Intergovernmental Panel on Climate Change (IPCC) has weighed in to help nations respond to this looming challenge. Best known for its mammoth assessment reports rounding up the current state of climate science in general, the IPCC also issues special reports on topics of particular interest. The idea is to not just summarize the science, but also provide specific topical guidance to policymakers and society at large — in this case, on how to reduce vulnerabilities and risk from future weather disasters (IPCC Special Report *Managing the Risks of Extreme Events and Disasters to Advance Climate Change Adaptation*; Cambridge Univ. Press, 2012).



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Heatwave-induced ground fires in Russia in 2010 destroyed the upper soil level.

The report, released in March, argues that some weather extremes have indeed changed in response to anthropogenic climate change. Individual events, such as a hurricane or windstorm, cannot directly be attributed to climate change. But as one popular analogy goes, the climate dice have

been 'loaded' in such a way as to make some kinds of extreme events more likely.

Heatwaves and flooding are the strongest candidates. If global temperatures are going up, then it stands to reason that more heat records will be broken. Warmer air also holds more water vapour, making heavy precipitation more likely. But the debate regarding the role of climate change in the heatwaves in Australia in 2009 and Russia in 2010, or the disastrous Pakistan flooding of 2010, has not yet reached consensus.

Developing countries will bear the greatest burden of such disasters, the IPCC report concludes, and so nations must nurture early warning systems and improve their ability to respond quickly. Indeed, one good way to improve resilience to future disasters is to rebuild properly after catastrophe has struck, as post-Katrina New Orleans is learning. Elsewhere, governments may want to be more proactive. In 2002, for instance, South Africa adopted benchmark legislation that legally requires development plans to integrate disaster risk reduction, though many of its provisions have yet to be adopted at the local level.

As the IPCC report underscores, the key to risk reduction lies locally. Successful initiatives can be as modest as ground pumps that funnel heat out of thawing permafrost in northern Canada, or stream gauges in Mozambique that forecast river flooding to communities downstream.

In the end, vulnerabilities to future disasters may be reduced significantly simply by getting the right information to the right people at the right time. □

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The journalist's take

Technical reports that take more than five years to compile — and contain no actual news — aren't obvious candidates for front-page headlines. But the IPCC process has generated a unique form of climate reporting: journalists use the release of these dry reports full of cumbersome wording to highlight the state of climate change science and politics. Many reporters are already gearing up to cover the next full report releases in 2013 and 2014.

Similarly, the IPCC's special report on managing the risks of extreme weather contained little reporters hadn't heard before. Its release, however, played into a larger narrative in which journalists had been trying to make sense of a string of unusual weather events, such as an unprecedented warm March across much of the United States. When the mercury starts soaring outside the newsroom, editors request stories on whether the warm temperatures are linked to climate change.

Thus, reporters were primed to pounce on a new report cataloguing such disasters and framing discussions of how society should best cope with these hazards. Despite several recent challenges to the IPCC's perceived authority, many in the

media still regard the organization as a 'rubber stamp' of consensus approval by scientists.

Yet the IPCC failed the public in the way it dribbled out the special report. The 19-page summary for policymakers was approved and released in November 2011, but the full 582-page report was not published until March of this year. Reporters, along with everyone else, were left to wonder for four months what further details the complete report might contain.

The special reports are meant to provide more timely assessments of topics of societal concern, in between the larger assessment reports. But, to be useful, the full reports need to be released in concert with the policymakers' summary. A May 2011 special report on renewable energy did only a slightly better job: the summary was also released before the full report, but at least in the same month.

Despite such unhelpful public relations strategies, reporters have welcomed the existence of the special reports. They provide both useful background and a fresh news peg — a reason to revisit topics of societal interest. With weird weather more than likely to keep coming, such stories are likely to keep coming too.