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DISASTERS WAITING TO HAPPEN

AS WIDELY PREDICTED (E.G., OUR EDITORIAL IN THE JUL/AUG 2011 ISSUE), THE 17TH UN FRAMEWORK CONVENTION ON CLIMATE CHANGE IN DURBAN CAME AND WENT AT THE END OF THE YEAR WITHOUT ANY UNIVERSAL LEGAL AGREEMENT ON CARBON EMISSIONS

And while there was acknowledgment that the current sum of pledges to cut emissions both from developed and developing countries is insufficient to keep the global average temperature rise below 2oC, we must wait until the next round of talks in Qatar in 2015 for further movement.

Yet the evidence mounts that delay is not an option. The draft of a report released by the IPCC[1] demonstrates that inaction could lead to more frequent extremes of weather in some of the world's most vulnerable areas and impact some of its poorest communities.

Just as the evidence mounts, so too does the cost. A sequence of devastating earthquakes and weather-related catastrophes made 2011 the costliest year ever, according to reinsurance giant Munich Re[2]. At about €300bn, it put global economic losses due to such events at nearly two-thirds higher than in 2005, the previous record year. The human cost was also high, some 27,000 people falling victim to extreme events, not counting victims of the drought-induced famine on the Horn of Africa – the greatest humanitarian catastrophe of the year.

Hans Joachim Schellnhuber, Director of the Potsdam Institute for Climate Impact Research, sums-up the situation: "Staying below 2°C global warming is not just an environmental goal, but a crucial development goal. Beyond that line, the world could move into climate chaos, crossing many tipping points, like the meltdown of the big ice sheets and the disruption of the Asian and African monsoon systems."

Yet there is hope on what many might perceive as this distinctly bleak horizon, not least in international efforts to monitor and mitigate natural disasters.

Brazil and South Korea have signed-up to the International Charter 'Space and Major Disasters' – an initiative that provides emergency response satellite data free of charge to those affected by disasters anywhere in the world (www.disasterscharter.org) – while the August launch of the NigeriaSat-X Earth Observation satellite added significantly to the rapid response imaging service provided by the Disaster Monitoring Constellation (www.dmcii.com). Improved weather forecasts and environmental intelligence for communities across the Western United States and Pacific region are now being delivered by NOAA's GOES-15 satellite, while an agreement between Eurogeographics and the European Space Agency will improve access to data from national mapping and cadastral agencies and help to provide a common operational picture for those involved in crisis management in the aftermath of disasters. These and many other initiatives may not solve the underlying issues, but will provide practical help when and where it is most needed.

Nor should we overlook the tireless efforts of individuals such as Esri's Jack Dangermond to influence the debate, most recently with a Spatial Roundtable on the subject of GeoDesign for Climate Change Adaptation.[3] Again, such debates may not have definitive answers, but do help us focus on how we might adapt to a rapidly-changing world… not just as spectators, but as active participants.

[1] Managing the Risks of Extreme Events and Disasters to Advance Climate Change Adaptation. A draft Special Report of Working Groups I and II of the Intergovernmental Panel on Climate Change. (www.ipcc-wg2.gov/SREX)
[2] Review of natural catastrophes in 2011: Earthquakes result in record loss. Munich Re press release, 4 January 2012
[3] www.spatialroundtable.com/post.cfm?entry=geodesign-for-climate-change-adapation

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