

SNAPSHOT

A sinking world

The floods in Queensland, Australia, in late 2010 and early 2011 inspired Andrew Pearce to compose this award-winning piece, titled *A Sinking World*. The artwork was given first prize in the Mott MacDonald's Changing Climates category of the environmental photographer of the year competition held by the Chartered Institute of the Water and Environmental Management, a non-governmental organization based in London.

The work is a construction: the girl, Pearce's friend Brooke Findley, has been posed and the water added digitally to create the effect of floodwaters threatening someone's home. The result captures Pearce's ominous feelings about both floods and "the idea of how human impact is degrading or sinking the natural earth," he told *Nature Climate Change* in an e-mail. Many of Pearce's works, including the recent music video for Duran Duran's new track 'Before the Rain', are inspired by the weather. "Environmental issues seem to subconsciously appear in my work," says the 21-year-old Australian photographer and film-maker.

The 2010-2011 flooding in Queensland turned three quarters of the state into a disaster zone, forced thousands to evacuate, and killed at least 35 people — highly unusual for a flood in a developed nation. It wasn't the only such disaster in 2011. During the same week in mid-January, torrential rains hit Brazil, Sri Lanka, and Australia again — this time in the state of Victoria. South Africa and the Philippines were also hit badly in the same year, and the monsoon season in Thailand (from July to November) caused devastating floods that killed more than 500 people.

This all seems to be part of a trend. In general, concludes Kevin Trenberth, head of the climate analysis section at the National Center for Atmospheric Research in Boulder, Colorado, climate change is spurring changes to wind patterns that make dry places drier and wet areas wetter. Rainfall has decreased in the tropics outside of the monsoon season, and increased over higher latitudes — including North America. Most places are seeing an increase in



© ANDREW PEARCE

heavy rains. Climate models predict more of the same: each degree of temperature rise is expected to come with about 1-2% more global rainfall, and more frequent extreme events (*Clim. Res.* **47**, 123-138; 2011).

It is always difficult to attribute specific weather events to climate change, but researchers are becoming less hesitant about making this link, including for flooding. In February 2011, researchers connected rising greenhouse-gas levels with a doubled risk of the sort of wet weather that causes floods in the United Kingdom (P. Pall, *et al. Nature* **470**, 382-385; 2011).

The Australian floods were blamed in part on La Niña conditions, which brought warm waters to the continent's

northeastern coast, along with a rising trend in Indian Ocean temperatures. Both spur more evaporation, which in turn brings more rain. Climate researcher David Karoly from the University of Melbourne was quoted widely in the Australian press blaming climate change for these trends, and warning of more of the same to come.

This is a message that Pearce has heard loud and clear. "The photo is about the heightening fury of Mother Nature as a result of climate change," he says. "In the end, Mother Nature will take control."

The competition's winning images can be seen via <http://go.nature.com/likP96>.

NICOLA JONES