

When will temperatures reach policy relevant thresholds?

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We revisit the implications of the CMIP3 climate projections for anthropogenic climate change by examining the key question of when temperatures will cross policy-relevant temperature thresholds. Presenting the projections in this manner is a far more effective way of explicitly communicating the impact of climate change and the effects of following different emissions scenarios, compared to the more usual method of what will happen for particular arbitrary time horizons. The A1B and A2 scenarios cross the global mean 2°C threshold by 2040-2060, and the 3°C threshold by 2070-2090. However, the lower emission B2 scenario only crosses the 2°C threshold somewhere in the latter half of the 21st century, and does not cross the 3°C threshold until well after 2100. The warming does display significant geographical variation: we note that the 2°C threshold is projected to be breached within 30 years over large regions of the northern hemisphere, which is within the lifetimes of many people living at present.