

Proving attribution in the courtroom

Establishing causality in *Luciano Lliuya v. RWE*

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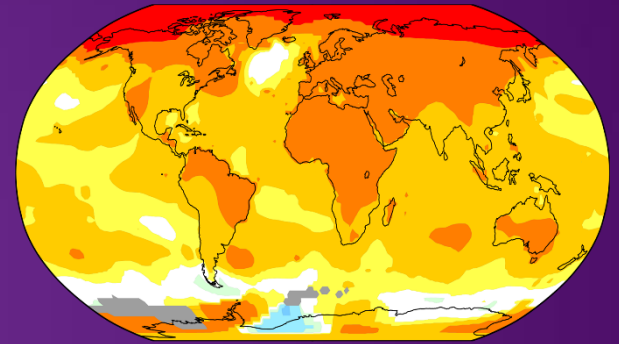
Causality in science and law

- Climate science: probability and uncertainty
- *Conditio sine qua non* – ‘but-for’ causation
- Multiple contributors – cumulative causality – partial liability
- ▶ *Without defendant’s contribution the risk would be lower*





Emissions from coal-fired power generation contribute to global warming



Evidence

Carbon Majors study: 0.47% of industrial GHG emissions 1751-2010 (Heede 2014)

Temperature response?

Global warming leads to glacial retreat in Peru

Evidence

Attribution science: IPCC AR5 and new research



Glacial retreat leads to increased risk of glacial lake outburst flood



Evidence

Flood modelling for Lake Palcacocha (Somos-Valenzuela et al 2016)

Nuisance – property interference
'serious threat of impairment'

