

guardian.co.uk

Global warming 'will be worse than expected' warns Stern

Economist says his 2006 groundbreaking report underestimated risk and accuses governments of not being ready for consequences of 6C temperature rise

David Adam in Copenhagen
guardian.co.uk, Thursday 12 March 2009

[A larger](#) | [smaller](#)

Politicians have failed to take on board the severe consequences of failing to cut world carbon emissions, Nicholas Stern, the economist who warned the government of the high cost of [climate change](#), said today.

Stern told a meeting of climate change scientists in Copenhagen that the effects of global warming would be worse than he predicted in his seminal 2006 report on the economics of the problem. He said policy-makers needed to think more about the likely impact of severe temperature rises of 6C or more.

Speaking after a keynote speech at the conference, Stern said: "Do the politicians understand just how difficult it could be? Just how devastating 4, 5, 6 degrees centigrade would be? I think not yet. Looking back, the Stern review underestimated the risks and underestimated the damage from inaction."

His remarks echo concerns by other scientists at the meeting. Privately, many climate experts and officials say that the European target of limiting world temperature rise to 2C above pre-industrial levels is no longer realistic.

Steven Sherwood, a climate researcher at Yale university, will tell the conference later today that warming of 4C or more this century looks "increasingly likely".

Bob Watson, a former head of the Intergovernmental Panel on Climate Change (IPCC) and chief scientist at the environment department, has already warned that [governments need to prepare for a 4C rise](#).

The 2007 report of the IPCC said that average temperatures could rise by up to 6C this century if no action were taken to curb greenhouse gas emissions. Many scientists say this could be an underestimate, because world emissions have grown faster than expected.

According to the 2006 Stern report, a rise of 4C would put between seven million and 300 million more people at risk of coastal flooding each year, there would be a 30-50% reduction in water availability in southern Africa and the Mediterranean, agricultural yields would decline by 15%-35% in Africa, and 20%-50% of animal and plant species would face extinction. [Yesterday, scientists announced at the conference that a 4C rise would lead to the loss of 85% of the Amazon rainforest.](#)

A 5C rise would mean that major cities such as New York, London and Tokyo would be threatened by a rise in sea levels and increases in ocean acidity would severely disrupt marine ecosystems and fisheries. An increase of more than 5C — equivalent to the amount of warming that occurred between the last ice age and today — is, according to the Stern report, "likely to lead to major disruption and large-scale movement of

population". It said the effects would be "catastrophic" and "far outside human experience".

guardian.co.uk © Guardian News and Media Limited 2009