

# Climate pledges bound to breach key warming target: scientists

June 11 2009

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A NASA image of the planet Earth. Pledges currently on the table at the UN climate talks will doom Earth to a warming of more than two degrees Celsius (3.6 degrees Fahrenheit), a figure that has been widely endorsed as a safe limit, scientists said on Thursday.

Pledges currently on the table at the UN climate talks will doom Earth to a warming of more than two degrees Celsius (3.6 degrees Fahrenheit), a figure that has been widely endorsed as a safe limit, scientists said on Thursday.

Warming "is virtually certain to exceed 2 C" (3.6 F) compared to pre-industrial times, said their assessment of national positions.

The study was published online by the British science journal Nature as a

new 12-day round of negotiations was in its penultimate day.

There is no scientific consensus on what constitutes a safe level of warming.

However, the 2 C (3.6 F) goal has been described by the UN's Nobel-winning panel of climate experts as the only practical option for inflicting the least damage to Earth's climate system.

The figure lies at the heart of efforts to craft a new pact in Copenhagen in December for tackling climate change in decades to come.

It has been enshrined as an objective by more than 100 countries, including the 27 nations of the European Union (EU).

The new analysis looks at chances of hitting the 2 C (3.6 F) target, based on the calculation that developed countries would cut their emissions of heat-trapping gases by 25-40 percent below 1990 levels by 2020, and to 50-80 percent below 1990 levels by 2050.

Developing countries, for their part, would have to reduce their emissions by between 15 and 30 percent by 2020 compared with a "business-as-usual" trend.

"Business as usual" means a rise in emissions by 2020 that would occur through expected economic growth, but without any measures to mitigate the gas.

On both counts, though, the news is dire.

Promises or discernible actions sketched so far at the talks show the world is on track for smashing the 2 C (3.6 F) ceiling, the study said.

Rich countries' positions amount to cuts "in the range of eight to 14 percent" by 2020 over 1990, rising to 57-63 percent by 2050 over 1990 "if current positions were faithfully implemented," it said.

Developing countries would be on track for a reduction of four percent by 2020 compared with business as usual.

As a result, global industrial emissions would be roughly double 1990 levels by 2050.

This pathway "has virtually no chance of limiting warming to 2 C" (3.6 F), said the study, authored by a team from the Potsdam Institute for Climate Impacts Research in Germany.

In 2007, the Intergovernmental Panel on [Climate Change](#) (IPCC) predicted warming of 1.1-6.4 C (1.98-11.52 F) by 2100 compared to 1980-99 levels.

Heatwaves, rainstorms, tropical cyclones and surges in sea level were among the events expected to become more frequent, more widespread or more intense, depending on the temperature rise.

That report sketched three scenarios for policymakers, although none was a recommendation.

The most ambitious would limit carbon dioxide (CO<sub>2</sub>) concentrations in the atmosphere to 450 parts per million (ppm), equivalent to a roughly 2 C (3.6 F) warming.

Before the Industrial Revolution, CO<sub>2</sub> concentrations were 280 ppm; in 2007, they were nearly 385 ppm.

To reach 450 ppm would require emissions cuts of 25-40 percent by

industrialised countries by 2020 over 1990 and by 80-95 percent by 2050. There would have to be a "substantial" deviation from business-as-usual by developing countries, the IPCC said, without giving a figure.

Reducing emissions has become a fiercely-contested issue because of the cost of easing use of oil, gas and coal, the cheap and abundant "fossil" fuels that meet most of the world's energy needs.

Pressure is rising for an early fix because temperatures have already risen by around 0.8 C (1.4 F), causing worrying glacier melt, snow loss and retreating permafrost.

On top of that, 0.6 C (1.1 F) has to be factored in from past emissions that have yet to have an effect because of the inertia of the [climate](#) system. This leaves very little room for further emissions.

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Citation: Climate pledges bound to breach key warming target: scientists (2009, June 11)  
retrieved 19 April 2024 from  
<https://phys.org/news/2009-06-climate-pledges-bound-breach-key.html>

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