

Joint Media Release by the Authors of The Copenhagen Diagnosis, 2009

Embargoed: **Tuesday, 15th December 2009, 1130 hours (Central European Time)**
Tuesday, 15th December 2009, 1030 hours (UTC/GMT)
Tuesday, 15th December 2009, 2130 hours (Australian Eastern Summer time)
Tuesday, 15th December 2009, 0530 hours (US Eastern Standard Time [EST])

Press Conference:

Tuesday 15 December, 2009 11:30am (Local Copenhagen time)
"Asger Jorn" Room, Hall H, Bella Centre, COP15 meeting, Copenhagen

EMISSIONS CUT OF 40% BELOW 1990 LEVELS BY 2020 NEEDED FOR INDUSTRIAL COUNTRIES FOR 2°C LIMIT

Authors of the landmark 2009 climate report "The Copenhagen Diagnosis" estimate that by 2020 industrial nations must reduce their greenhouse gas emissions by around 40% below 1990 levels to secure a decent chance of avoiding dangerous human interference with the climate system.

The Copenhagen Diagnosis authors used IPCC Fourth Assessment Report (AR4) projections as well as post-AR4 analysis to estimate that emissions reductions of around 40% from industrial nations are needed to make it likely to keep global warming below 2°C.

In their report released 25 November of this year, the authors noted that many nations had publically recognized the importance of this 2°C limit. Yet the authors said today that this 2°C warming threshold could be crossed as early as 2040 unless significant mitigation measures were taken urgently.

Since the landmark 1992 United Nations Framework Convention on Climate Change, adopted and ratified by virtually all nations including the US, emissions of carbon dioxide from fossil fuels have risen by more than 40%, said the authors.

"The UN Framework Convention on Climate Change pledged to avoid dangerous human interference with the climate system. Yet recent emissions growth sets us on a pathway toward significant climate change, unless deep emission cuts are secured urgently", said Professor Matthew England, an author of the report.

The Copenhagen Diagnosis, a year in the making, was released worldwide last month. The report concluded that several important aspects of climate change are already occurring at the high end, or even beyond, the expectations of just a few years ago.

The report found that global ice sheets are melting at an increased rate; Arctic sea ice is thinning and melting much faster than recently projected, and future sea-level rise is now expected to be much higher than previously forecast.

The report also noted that global warming continues to track early IPCC projections based on greenhouse gas increases. Without significant mitigation, the report concluded that global mean warming could reach as high as 7 degrees Celsius by 2100.

The report found that:

- Both the Greenland and Antarctic ice sheets are losing mass and contributing to sea-level rise at an increasing rate.
- The area of summer sea ice remaining during 2007-2009 was about 40% less than the average projection from the 2007 IPCC Fourth Assessment Report.
- Global sea-level rise may exceed 1 meter by 2100. Without significant mitigation, sea-level rise of several meters is to be expected over the next few centuries.
- If long-term global warming is to be limited to a maximum of 2°Celsius above pre-industrial values, average annual per-capita emissions in industrialized nations will have to be reduced by around 80-95% below 1990 levels by 2050.

The report concludes that global emissions must peak then decline rapidly within the next five to ten years for the world to have a reasonable chance of avoiding the very worst impacts of climate change.

The full report is available at www.copenhagendiagnosis.org

Other statements by Authors

"Science knew already in the 19th Century that greenhouse gases cause global warming – it is standard physics. The warming was predicted and has been unfolding as predicted for the past decades. It is hard to grasp that we're still talking, instead of cutting our emissions."

*Professor **Stefan Rahmstorf**, Professor of Physics of the Oceans and a Department Head at the Potsdam Institute for Climate Impact Research in Germany.*

"Carbon dioxide emissions cannot be allowed to continue to rise if humanity intends to limit the risk of unacceptable climate change. The task is urgent and the turning point must come soon. If we are to avoid more than 2 degrees Celsius warming, which many countries have already accepted as a goal, then emissions need to peak before 2020 and then decline rapidly."

*Professor **Richard Somerville**, Scripps Institution of Oceanography, University of California, San Diego, USA.*

"There are known feedbacks in the carbon cycle that are not yet quantified, but that could add extra warming. We need some leverage for surprises, 50% probability to stay under 2°C is not enough for a decent chance of success."

*Professor **Corinne Le Quéré**, Professor of Environmental Science at the University of East Anglia, and researcher at the British Antarctic Survey, UK.*

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