

International response to climate change



Climate change is a global issue that requires an urgent international response. Governments, industries, communities and organisations across the globe are working together to develop and implement measures to reduce greenhouse gas (GHG) emissions and avoid dangerous climate change.

What is the Intergovernmental Panel on Climate Change (IPCC)?

The IPCC is an international panel of scientists and researchers that provides advice on climate change to the international community.

The role of the IPCC is to assess the scientific, technical and socio-economic information to determine the risks of human-induced climate change. The IPCC also provides technical and policy relevant advice to inform the international negotiations on climate change issues.

The IPCC provides periodic assessment reports on climate change and has completed four to date (1990, 1995, 2001 and 2007). The most recent, the Fourth Assessment Report, is a consensus document produced by 450 lead authors, 800 contributing authors, and 2500 scientific expert reviewers representing 130 countries.

Key findings of IPCC's Fourth Assessment Report

- Warming of the climate system is unequivocal.
- Most of the warming in the past 50 years is 'very likely' (more than 90 per cent probability) caused by GHG emissions from human activities, such as burning fossil fuels for energy and transport.

- It is 'very likely' that changes in the global climate system will continue well into the future from emissions already in the atmosphere. These climate shifts will be larger than those seen in the recent past.
- Recent climate change has had an observed influence on many physical and biological systems.
- Some large-scale climate events have the potential to cause very large impacts (e.g. more severe cyclones).
- Some adaptation is occurring now and will need to continue into the future to address impacts from the changing climate.

The report concludes that if global emissions peak by 2015 and decline sharply thereafter, warming can be kept to 2.5 degrees Celsius above pre-industrial levels, potentially avoiding some of the worst impacts.

The report states that many options exist for reducing global GHG emissions through international cooperation and existing technology.

Research since the Fourth Assessment Report indicates that GHG emissions and climate change impacts, such as sea-level rise, are occurring faster than the climate models have so far indicated. The Queensland Climate Change Centre of Excellence is currently working with partner agencies on inputs to the Fifth Assessment Report.

The United Nations Framework Convention on Climate Change (UNFCCC)

The UNFCCC is the primary mechanism for coordinating a global response to climate change.

Australia adopted the UNFCCC in 1992. However, as GHG emission levels continued to rise around the world, it became increasingly evident that only a firm and binding commitment by developed countries to reduce emissions could send a signal strong enough to convince businesses, communities and individuals to act on climate change. Member countries of the UNFCCC therefore began negotiations on a protocol – an international agreement linked to the existing treaty, but standing on its own.



Kyoto Protocol

The Kyoto Protocol, adopted in December 1997, is an international agreement which builds on the UNFCCC and sets legally binding targets for cutting GHG emissions of industrialised countries.

Like the UNFCCC, the Kyoto Protocol aims to stabilise GHG emissions in the atmosphere. The major distinction between the two documents is that while the convention encouraged developed countries to stabilise GHG emissions, the protocol commits them to do so.

The protocol sets out emission reduction targets for developed countries because they have been responsible for the vast majority of the world's human-induced GHG emissions.

Some developed countries are required to reduce emissions, some to keep their emissions constant and some to limit emission increases to a defined amount.

Australia ratified the Kyoto Protocol in December 2007, and has a target of keeping emissions to 108 per cent of 1990 levels. In late 2010, Australia will report on its performance under the Kyoto Protocol for 2008.

The Copenhagen Accord

The Copenhagen Accord was forged at the 15th Conference of the Parties (COP15), held in Copenhagen in December 2009, towards a new agreement beyond the Kyoto Protocol.

The accord is significant because it is the first global agreement on climate change, involving the major developed and developing countries. The United States and major developing economies, such as China, Brazil and India, played a key role for the first time.

Key features of the accord

- The goal of limiting global temperature increase to below 2 degrees Celsius, with a review of targets in 2015 to consider a strengthened goal of 1.5 degrees Celsius.
- Developed countries to register emissions reduction targets for 2020.
- Developing countries to register lists of mitigation actions.
- Agreement that developed country performance against targets be subject to full international measurement, reporting and verification.

- Agreement that implementation of developing country mitigation actions will be reported every two years, with provisions for international consultation and analysis under guidelines to be developed.
- Agreement that developing country mitigation actions which are supported by UNFCCC funding be subject to full international measurement, reporting and verification.
- A collective commitment by developed countries for \$30 billion in 'new and additional' resources in 2010-2012 to help developing countries reduce emissions, preserve forests, and adapt to climate change.
- A goal of mobilising \$100 billion a year in public and private finance by 2020 to address developing country needs.



Progress since Copenhagen

As at 1 February 2010, the United Nations had received pledges from more than 55 countries under the accord, representing approximately 80 per cent of global emissions.

Australia has made an unconditional commitment under the accord to reduce its emissions by 5 per cent below 2000 levels by 2050, but may increase its commitment to 15 or 25 per cent, provided certain conditions are met under a comprehensive international agreement.

While a gap still exists between the pledges and the two degree Celsius pathway, many other countries have also submitted target ranges. This means the collective ambition of targets would likely increase under a global agreement. The COP16 meeting will be held in Mexico in December 2010.