



## Global carbon dioxide emissions reached 36 billion tonnes in 2013

Global emissions of carbon dioxide from the combustion of fossil fuels reached a new record of 36 billion tonnes last year.

At the same time, the pace of emissions from burning fossil fuels continues to grow at a high rate.

Executive-Director of the Global Carbon Project (GCP) and co-author of the 2014 report CSIRO's Dr Pep Canadell said the carbon dioxide level was "unprecedented in human history".

Dr Canadell said fossil fuel carbon dioxide emissions are projected to increase 2.5 per cent this year, bringing the total carbon dioxide emissions from all sources above 40 billion tonnes.

"Fossil fuel emissions in the past 10 years on average grew at 2.5 per cent per year, lower than the growth rate in the 2000s (which was 3.3 per cent per year) but higher than the growth rate in the 1990s (1 per cent)," Dr Canadell said.

"The declining growth rate in recent years is associated with lower GDP growth compared to the 2000s, particularly in China."

Fossil fuel emissions in the past 10 years on average grew at 2.5 per cent per year, lower than the growth rate in the 2000s, but higher than the growth rate in the 1990s."

DR PEP CANADELL

The report shows that Australian emissions continued to decline in 2013, adding to a downward trend that began in 2009, largely due to the decline in electricity generation from coal power plants.

The largest emitters in 2013 were China, USA, the European Union, and India, together accounting for 58 per cent of global emissions.

Fossil fuel emissions are tracking the high end of emissions scenarios used by climate scientists to project climate change using global circulation models.

The GCP provides an annual report of carbon dioxide emissions, land and ocean sinks and accumulation in the atmosphere, incorporating data from multiple research institutes from around the world.

The full data and methods are published today in the journal *Earth System Science Data Discussions*, with associated papers in the journals *Nature Geoscience* and *Nature Climate Change*.

Data and other graphic materials can be found at [Global Carbon Budget \[external link\]](#).

Read more media releases in our [Media](#) section.

## More information

Friedlingstein *et al.* 2014. [Persistent growth of CO2 emissions and implications for reaching climate targets \[external link\]](#). Nature Geoscience.

Le Quéré *et al.* 2014. [Global Carbon Budget 2014 \[external link\]](#). Earth System Science Data Discussions (manuscript in discussions).

Raupach *et al.* 2014. [Sharing a quota on cumulative carbon emissions \[external link\]](#). Nature Climate Change.

Fuss *et al.* 2014. Betting on Negative Emissions. Nature Climate Change (commentary).

## Access to:

Data and figures: [Global Carbon Budget \[external link\]](#)

Data interface for exploring data: [Global Carbon Atlas \[external link\]](#)

Nature paper/s are free for one month for registered users at **Error! Hyperlink reference not valid.**

## Social media:

[Facebook: Global Carbon Project \[external link\]](#)

Twitter: #carbonbudget, @gcarbonproject

## Media resources

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Eraring coal-fired power station in Newcastle. Credit: Nick Pitsas

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