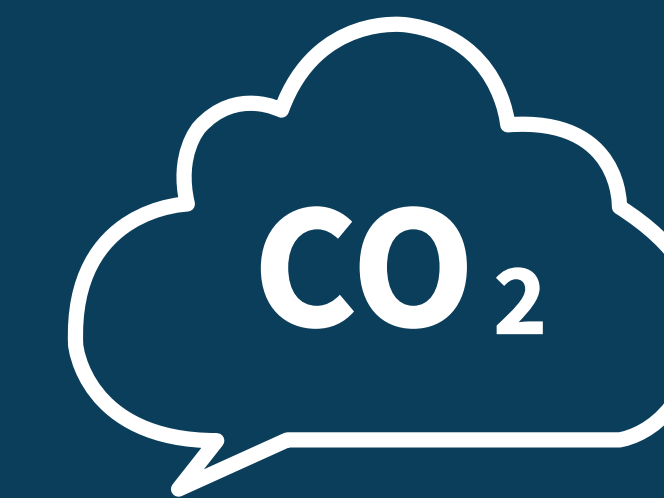


# New Zealand's atmosphere and climate at a glance

## Our atmosphere and climate 2017



**401 ppm – levels of CO<sub>2</sub> in the atmosphere in late 2016**

This is a 23% increase since 1972 and the highest levels in at least 800,000 years\*. Atmospheric CO<sub>2</sub> is the biggest driver of global warming.



**2016 – New Zealand's hottest year on record**

New Zealand has experienced a 1°C temperature increase since 1909. This is a rapid change for the climate that is already affecting our natural systems that are slow to adapt.



**51% – rise in global gross greenhouse gas emissions since 1990**

This increase is largely driven by people burning fossil fuels for electricity, heat, transport, manufacturing and construction.



**24% – rise in New Zealand's gross greenhouse gas emissions since 1990**

While agriculture makes up nearly half of New Zealand's emissions, road transport has had one of the largest increases in emissions, with a 78% increase since 1990.



**27 – average number of summer days with extreme UV intensity in 2016**

Extreme UV levels can damage fair skin in minutes. New Zealand's high UV levels in summer are partly due to our high air clarity and Earth's orbit bringing us closer to the sun.



**98% – drop in production of ozone depleting substances in the last 30 years**

The ozone hole is shrinking and is expected to stop forming around the middle of this century.



**169,000 – hectares of deforested land since 2000**

In 2015 New Zealand's native and exotic forests removed 67% of our CO<sub>2</sub> emissions. If deforestation continues to outpace the area of new forest planted, it will reduce the amount of CO<sub>2</sub> absorbed from the atmosphere by our forests.



**25% – volume of ice glacier lost since 1977**

Our glaciers have lost enough ice to fill 133,000 Olympic-sized swimming pools each year over the past 40 years.



**14-22cm – sea-level rise at four main ports since 1916**

Warming oceans and melting glaciers are driving global sea-level rise. Higher sea levels threaten marine habitats and coastal roads and housing and will require many coastal communities to adapt.



**0.03 – pH decrease of New Zealand's oceans in the last 19 years**

Oceans absorb additional CO<sub>2</sub> in the atmosphere, changing the ocean's pH. A small decrease in pH is a substantial increase in acidity. Increased acidity can make it harder for shellfish to form shells and harm plankton, vital for a healthy food chain.

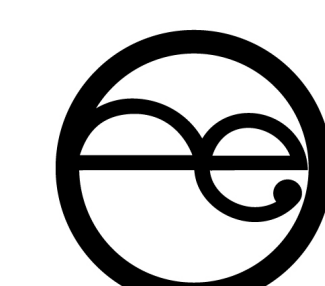


More information at [www.mfe.govt.nz](http://www.mfe.govt.nz) or [www.stats.govt.nz](http://www.stats.govt.nz)

Data to 2016 except global gross greenhouse gas emissions (to 2013); NZ gross greenhouse gas emissions, coastal sea-level rise, carbon stocks in forests, and global production of ozone-depleting substances (to 2015)

\*Lüthi et al., 2008

**Stats NZ**  
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