

# Australia: State of the Climate report warns of dangers if global warming continues

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Australia has already warmed by over 1.5° in a little over a century, warns the 2024 edition of the State of the Climate report, issued every two years. With this increased warming has come more extreme heat events, longer fire seasons and more intense heavy rain, which will be exacerbated by every additional increment of temperature.

The report, published on October 31, is the combined effort of the Bureau of Meteorology (BOM) and the Commonwealth Scientific and Industrial Research Organisation (CSIRO). The BOM is Australia's national weather and climate agency, a branch of the federal government's Department of Agriculture, Fisheries and Forestry. The CSIRO is Australia's national science agency, overseen by the Minister for Science and Industry. The State of the Climate reports have been published since 2010.

State of the Climate 2024 focuses on specific climate changes and forecasts for Australia but places them in the global context of rising worldwide carbon emissions. "Global annual mean carbon dioxide (CO<sub>2</sub>) concentrations reached 419.2 parts per million (ppm) in 2023 and the CO<sub>2</sub> equivalent (CO<sub>2</sub>-e) of all greenhouse gases reached 524 ppm," the report states.

"These are the highest levels on Earth in at least 2 million years... Global fossil fuel CO<sub>2</sub> emissions, the principal driver of the growth in CO<sub>2</sub> concentrations, are continuing to increase."

Since national records began in 1910, Australia's average climate has warmed approximately 1.51° due to these emissions. Australia has warmed faster than the global average, which has shown a 1.2° increase since the mid-1800s.

The resulting climate in which people in Australian live today is thus vastly different even from that of the early 2000s, as previous temperature records are repeatedly shattered—2019 was the warmest year on record for

Australia, at 1.52° above the 1961-1990 average. Of the top nine warmest years on record for Australia, eight have occurred since 2013.

Extreme weather events have consequently risen in Australia during the past decades, including heatwaves and more extreme fire weather, contributing to longer fire seasons and an increased risk of severe bushfires, such as those experienced disastrously in 2019-20.

Sea surface temperatures around Australia have increased by 1.08° since 1900. The impact extends beyond merely a warmer body of water. Marine heatwaves have increased in frequency and duration, and can cause a depletion of kelp forests and seagrasses. Both of these ecosystems provide critical ecological services, not the least of which is serving as natural carbon sinks to buffer against increased CO<sub>2</sub> emissions.

Increased ocean heat has also led to five severe coral bleaching events on the Great Barrier Reef over the past decade; the most recent of which was confirmed earlier this year as part of a global coral bleaching event <https://www.wsws.org/en/articles/2024/08/15/ibgh-a15.html>.

Sea level rise is another consequence of warming oceans. Melting ice—mainly that of the ice sheets and ice shelves of Antarctica and Greenland—is the primary cause behind sea level rise, but thermal expansion of the water from the added heat is a significant contributor itself.

"Global mean sea levels have risen by over 22 cm since 1900; half of this has occurred since 1970," the report warns. These rising sea levels increasingly threaten to inundate coastal communities and the people who live there.

Beyond the warming, CO<sub>2</sub> emissions cause ocean acidification, whereby the absorption of CO<sub>2</sub> into the ocean alters its chemistry and reduces its pH. This can cause a number of damaging impacts to various sea organisms, which have specific pH ranges they can

tolerate. The report states: “The current rate of change of pH in open ocean surface waters is about 10 times faster than at any time in the past 65 million years, and the rate of acidification has grown in recent decades.”

Among the future impacts for Australia that the report forecasts are increased heat extremes, longer drought times, a longer fire season for the southeast, continued warming and acidification of the oceans surrounding Australia, more frequent and severe coral bleaching events, and fewer but more intense tropical cyclones. All these impacts have the potential to cause catastrophic damage and loss of life.

The report concludes, in line with the vast body of scientific literature on the subject, that there must be a substantial and urgent reduction of global GHG emissions if temperatures are to be stabilised at 1.5°, and the worst of those future impacts mitigated.

“If current CO2 emissions levels persist, the remaining carbon budget for a 50 percent chance to limit warming to 1.5°C above pre-industrial levels will be exceeded in 7 years. Within 15 years, the remaining budget for 1.7°C would be exceeded.”

The Albanese Labor government’s response to this report has been one of both utter complacency and a falsification of its own treacherous record on climate change. A media statement was released on October 31, on the same day the report was published, signed by Science and Industry Minister Ed Husic (who also oversees the CSIRO), Environment Minister Tanya Plibersek and Climate Change Minister Chris Bowen.

They claimed to “welcome” the report, while insisting that the “Albanese government is taking real action on climate change and implementing real policies right now.” In fact, Labor has done no such thing.

Over the past two years, the Albanese government has approved seven new coal mines and expanded gas extraction through its Future Gas Strategy, released earlier this year. The emissions resulting from these decisions are incompatible with limiting warming to 1.5°.

There is not a single mention in the statement about how Labor plans to reduce fossil fuel emissions, or even intends to do so. Neither is there any mention of Australia’s huge fossil fuel exports, which contribute significantly to the global climate crisis.

The statement is a brazen attempt to whitewash Labor’s record on climate change. Plibersek added: “As environment minister I’m approving renewable energy projects at record rates—I’ve ticked off over 60 renewable energy projects which produce enough energy to power

over 7 million homes.”

Plibersek has green-lighted the construction of at least four new coal mines and a gas fracking project since 2022. She has also allowed existing fossil fuel projects to continue for decades, such as the Gregory Crinum Coal Mine in the Bowen Basin, which she approved to keep running until 2073.

As the World Socialist Web Site previously explained:

Even if Plibersek’s claim was taken at face value, the number of renewable energy projects approved is not, by itself, a relevant indicator of climate action. What really matters is how much those projects allow for fossil fuels to be phased out, and hence reduce GHG emissions. Labor’s continued funding and approval for fossil fuel projects will result in seven times as many greenhouse gas emissions as it is responsible for supposedly avoiding...

Notably, despite their environmental concern pretensions, the Greens have made no statement on the State of the Climate report. They recently dropped their previous demand for a “climate trigger” to be included in the government’s toothless Environmental Protection Agency legislation so that new projects could be halted due to their potential climate impacts. Whatever their occasional criticisms of Labor, they have demonstrated their willingness, as a party devoted to upholding the capitalist system, to collaborate with and prop up this government.

Every capitalist government and party the world over is hostile to genuine action on climate change, because it conflicts with securing profits for big business. Climate change is ultimately an indictment of the capitalist system itself, and its impacts pose the necessity of socialism to secure the planet’s future. This task is one that can only be carried out by the international working class.



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