



December 14, 2022

Australia: Climate Change Issues

On a per capita basis Australians have the world's 10th largest carbon dioxide (CO₂) emissions: according to the World Bank, Australians emitted 15.2 metric tons of CO₂ on a per capita basis in 2019. In 2019, Australia was the 16th largest emitter of all CO₂ by country, accounting for approximately 1.3% of the global total. Some experts note, however, that Australia's total CO₂ emissions would be closer to 4% of world emissions if Australia's fossil fuel exports are included. In 2021, Australia was the world's leading exporter of coal, accounting for 35.7% of the world's total coal exports, which was worth \$43.9 billion. Australia also is estimated to have the third largest reserves of coal in the world, and is one of the world's largest exporters of liquefied natural gas (LNG).

Impact of Climate Change

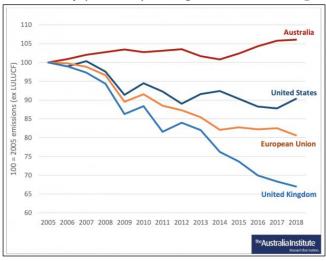
Observers note that some impacts from human-induced climate change, such as an increase in the frequency of extreme heat events, are already occurring in Australia, and they expect current changes to continue and intensify in the future. Average annual temperatures for Australia have warmed 1.4 degrees Celsius since 1910.

The year 2019 was the hottest and driest year on record in Australia. The number of extreme fire risk days has grown over the past four decades. "Black Summer" bushfires during the 2019-2020 bushfire season killed 33 people (with an additional 455 deaths attributed to bushfire smoke), burned more than 65,000 square miles of land, released an estimated 186 million tons of carbon into the atmosphere, and killed or displaced close to an estimated 3 billion animals. One report indicated that the emissions from these fires were more than Australia emits in a typical year by burning fossil fuels. Another study found that the annual area burned across Australia has been increasing over the past three decades.

Eastern Australia experienced four major floods in the 18 months prior to July 2022. When touring flood-damaged communities in New South Wales (NSW) in July 2022, Prime Minister Albanese stated, "The science told us that if we continued to not take action globally on climate change, then these events, extreme weather events, would be more often and more intense. And what we're seeing, unfortunately, is that play out." The New South Wales Climate Change Adaption Strategy states, "Climate change has already altered day-today weather patterns (in NSW) and increased extreme weather events ... with the state warming faster than the global average. Since the preindustrial period, NSW has already warmed by 1.4-1.6°C (CSIRO 2021) which is 1.4 times faster than the global average.... This means that NSW is already experiencing the impacts of climate change." NSW is home to just under

one-third of Australia's population and accounts for around one-third of the country's economic output.

Figure I. Change in Net Emissions of Major Economies [Excluding Land Use, Land Use Change and Forestry (LULUCF) and Agriculture Emissions]



The Great Barrier Reef, an important global carbon sink and key part of Australia's tourism sector, suffered mass coral bleaching in 2016, 2017, and 2020 due to rising ocean temperatures likely caused by climate change. While Australia has long experienced drought, bushfires, and flooding, projections indicate Australia will likely experience increasing temperatures, as well as more severe floods, coral bleaching, ocean acidification, droughts, and bushfires, as a consequence of climate change.

Domestic Climate Politics

Australia has struggled to reconcile its economic reliance on fossil fuels with the need to address climate change. Australia's position on climate change has been transformed as a result of the May 2022 election, which marked a shift to candidates favoring action on climate change. Former Prime Minister Scott Morrison of the rightof-center Liberal-National Coalition famously brought a lump of coal into parliament in 2017 and urged Australia to not be afraid of coal. Morrison's lack of action to address climate change is seen as a key reason for his electoral defeat by Anthony Albanese of the Australian Labor Party (ALP), which won 77 of 151 seats in the House of Representatives. "Teal" independents and the Green Party, who urge more immediate action on climate change, also made significant gains in the election. Labor campaigned on a pledge to reduce carbon emissions by 43% by 2030 with a goal of net zero by 2050. (The United States has set a target of 50%-52% reductions over 2005 levels in 2030.)

The Green Party's standing in the Senate may further influence climate change legislation. The Greens argue that "Australia needs urgently to phase out fossil fuels for export and domestic use" and achieve net zero greenhouse gas (GHG) emissions by 2035. Labor will likely need the support of the Greens to pass climate legislation in the Senate. The Greens and independents may seek to leverage this to get the ALP to set more ambitious emissions reduction targets. Greens leader Adam Bandt has said he wants a commitment for no new coal mines in Australia.

The ALP issued its report *Powering Australia* in the leadup to the May 2022 election. In that report, the ALP sets forth its plan to reduce Australia's GHG emissions while creating jobs and reducing energy costs, and promises to reduce emissions by boosting renewable energy and making electric vehicles cheaper. Labor's plan calls for increasing the share of renewables in the National Electricity Market to 82% by 2030. Labor also pledges to reduce the public service's emission to net zero by 2030 and to invest in a New Energy Apprentices and New Energy Skills Program.

International Climate Politics

Australia's relative inaction in addressing causes and consequences of climate change under the previous Liberal-National Coalition government was not an asset in its relations with Pacific Island Countries (PICs). In the 2018 Boe Declaration on Regional Security, Pacific Islands Forum leaders reaffirmed that "climate change remains the single greatest threat to the livelihoods, security and wellbeing of the peoples of the Pacific and our commitment to progress the implementation of the Paris Agreement."

In an address to Pacific Island leaders, Australia's new Labor Party, Foreign Minister Penny Wong, discussed Australia's new approach to climate change. She stated, "nothing is more central to the security and wellbeing of the Pacific than climate change.... We have heard the Pacific and we will act-standing shoulder to shoulder with the Pacific as we address the climate crisis." Australia's shift on climate change will likely help its relations with PICs at a time of rising geopolitical tensions with China in the region. It should also help facilitate the objectives of the Partners in the Blue Pacific (PBP), an informal mechanism of Australia, Japan, New Zealand, the United Kingdom, and the United States established in June 2022 to foster "more effective and efficient cooperation in support of Pacific Island priorities," including the urgent challenge of addressing climate change. Australia has increased its climate finance commitment to AD\$2 billion (US\$1.37 billion) over the period 2020-2025, with AD\$700 million (US\$481 million) of that figure to be spent on climate adaptation and resilience, disaster preparedness, and renewable energy projects in the Pacific.

Nationally Determined Contribution (NDC)

Nationally Determined Contributions (NDCs) are the primary way in which countries who are parties to the Paris Agreement (PA) communicate their own contribution to meeting the goals of the PA. Under the former Morrison government, Australia's NDC committed to reducing greenhouse gas emissions by 26%-28% below 2005 levels

by 2030. The ALP won the May 2022 election with a platform that included a policy to reduce Australia's emissions by 43% by 2030 and to keep Australia on track to reach net zero by 2050. In June 2022, the new Labor government updated Australia's NDC accordingly. One climate advocacy group, the Climate Action Tracker, has observed that while Labor has committed to significant improvements over the previous government, "Australia will need to adopt more ambitious climate policies and take further action to (be) compatible with limiting warming to 1.5°C.... To achieve this the Albanese Government needs to abandon its support for new fossil fuel projects." Domestic emissions reductions proposed by the Greens and Teal independents align more closely with the 1.5 degree goal.

Approach to COP Negotiations

The previous Morrison government reportedly resisted pressure to set more ambitious targets in the lead-up to the UNFCCC annual Conference of Parties (COP26) in Glasgow, United Kingdom, in 2021. The new Albanese government is reportedly considering joining the global methane pledge, which seeks a 30% reduction in methane emissions by 2030 relative to 2020 levels. By some estimates, 26% of Australia's GHG emissions were from methane in 2021. The ALP has declared its intention to bid to co-host a future COP summit in Australia with Pacific partner countries. The new ALP government's shift to undertake more action to address climate change will move Australia more in line with international efforts at future COP meetings. Further development of the Albanese government's position on climate change may well be influenced by the Green Party and pro-climate action independents, due to the political leverage they now have, particularly in the Senate. Prime Minister Albanese emphasized the importance of acting to address climate change in his remarks to the Organization for Economic Cooperation and Development (OECD) in Paris in July

Cooperation with the United States

The leaders of the United States, Australia, Japan, and India launched a Quad Climate Change Adaptation and Mitigation Package at their Tokyo meeting in May 2022. The Quad Leaders Joint Statement following the meeting recognized "the urgent need to address climate change as emphasized in the latest IPCC reports," adding, "we will steadfastly implement the Paris Agreement and deliver on the outcomes of COP26, accelerating our efforts to raise global ambition, including reaching out to key stakeholders in the Indo-Pacific region and supporting, strengthening, and enhancing climate actions by partners in the region including through mobilizing climate finance, both public and private, and facilitating the research, development, and deployment of innovative technology." The Joint Statement of the December 2022 Australia-U.S. Ministerial Consultations (AUSMIN) emphasized the "need for urgent action on climate change and the importance of a clean energy transition, committing to pursue these as a new pillar of the U.S.-Australia Alliance."

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IF12282

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