

CLIMATE CHANGE AUTHORITY

## 2023 ANNUAL PROGRESS REPORT October 2023

# 1 Climate change science, impacts and global policy developments

### Key information about Chapter 1



#### Global mean temperature is rising.

Many temperature records have been broken across the globe over the past year, especially during the 2023 Northern Hemisphere summer. The longer-term global mean temperature, including all the Earth's land and ocean areas, for the period 2011 to 2020 was 1.1°C above the 1850 to 1900 pre-industrial average.

#### Australia is warming and rainfall patterns are shifting.



Since the early 1900s, Australia's mean temperature over land has warmed by about 1.5°C and Australia's oceans have warmed by about 1°C. Rainfall patterns are also shifting across the Australian continent, with rainfall decreasing in the south, southwest and east, and increasing in the north.

#### Climate change has made extreme weather events more dangerous and frequent.



Anthropogenic climate change has made extreme events, such as the 2019–20 'Black Summer' bushfires, more intense. Extreme weather events (such as heatwaves, floods and bushfires) are projected to become more frequent and intense as atmospheric greenhouse gas concentrations continue to increase. Climate change research continues to reduce uncertainties and improve Australia's ability to anticipate the characteristics of future extreme events.



#### The carbon clock is ticking fast.

Analysis by the United Nations Framework Convention on Climate Change secretariat suggests that countries will have to quickly move well beyond their current Nationally Determined Contributions for the world to retain even a 50% chance of limiting global warming to 1.5°C.

Carbon trading under the Paris Agreement is emerging, while climate diplomacy and finance are extending beyond the UNFCCC.

Countries are increasingly engaging in bilateral and multilateral arrangements to drive rapid and targeted, often funded, decarbonisation actions. Partnerships are increasingly important in leveraging private finance to support climate action.

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Australia must create and maintain conditions that will attract and support the unprecedented flows of finance needed to fund the transition to a prosperous net zero economy.

Implementation of a climate risk disclosure regime, and the development of a sustainable finance taxonomy and sectoral plans will help investors to invest with confidence.

Internationally, the next industrial revolution has begun.

Industrial policy reforms were significant in 2022–23, with the introduction of the United States' *Inflation Reduction Act 2022* and the European Union's Green Deal Industrial Plan.



#### 1.1 Climate science and global impacts

In March 2023, the Intergovernmental Panel on Climate Change (IPCC) released the Sixth Assessment Synthesis Report (IPCC, 2023b), which represents the most comprehensive and authoritative synthesis of climate change knowledge currently available, covering science, impacts, adaptation and vulnerability, and mitigation.

Other work from the Bureau of Meteorology and CSIRO, such as their State of the Climate 2022 report, and outputs from the World Meteorological Organization, also provide comprehensive information about current and projected future climate change.

#### 1.1.1 Climate changes globally and in Australia

Globally, 2023 has broken many heat records (NASA Climate Change, 2023) and it is almost certain (~98% chance) that the 5-year period from May 2023 will be the hottest 5-year period on record (WMO, 2023a). Human activities that emit greenhouse gases into the atmosphere have 'unequivocally' been the predominant cause of modern climate change (IPCC, 2023b). June to August 2023 has already been identified as the hottest 3-month period on record (Copernicus Climate Change Service, 2023b). According to the IPCC, the global mean surface temperature, including all the Earth's land and ocean areas, was about 1.1°C above the 1850–1900 average for the period 2011 to 2020 (IPCC, 2023b). In 2022, this rose to 1.15°C above the 1850–1900 average (WMO, 2023b). It is more likely than not (~66% chance) that globally, the average temperature in one of the next 5 years will exceed 1.5°C of warming (WMO, 2023a).

Climate trends in Australia broadly parallel global trends in land and ocean warming, sea-level rise, and changes in rainfall patterns (CSIRO & BoM, 2022). Since records began in the early 1900s, Australia's climate over land has warmed by an average of 1.47°C and Australia's oceans have warmed by 1.05°C (CSIRO & BoM, 2022). Rainfall has decreased in the southeast and southwest and increased in the north (CSIRO & BoM, 2022). Australia is experiencing fewer tropical cyclones, consistent with model-based climate projections which also suggest more cyclones will be of high severity in the future (CSIRO & BoM, 2022).

#### 1.1.2 Extreme weather events globally

Records that span the past several centuries have not shown globally-averaged temperature anomalies of the scale seen over the past year (NASA Goddard Institute for Space Studies, 2023). On a regional and local scale, there have also been many extreme weather events, several of which have broken historical records as well (Figure 1.1).

In the United States, extreme temperatures have been pushed to new, record-shattering levels (NOAA, 2023). Meteorological droughts, which have recently occurred in Kenya, Ethiopia and Somalia (WMO, 2023c), and their negative impacts, are exacerbated in warmer conditions (IPCC, 2022c). In Canada, its worst-ever fire season burnt 135,000 km<sup>2</sup> as of August 2023 (NASA Earth Observatory, 2023), and caused high levels of air pollution across North America (NASA Earth Data, 2023). Extreme rainfall events, like the record-breaking summer event experienced in Aotearoa New Zealand (National Institute of Water and Atmospheric Research, 2023), are projected to become more common as global temperatures rise (IPCC, 2021a).

The world's oceans are also experiencing new extremes not seen in the historical record. This year, sea surface temperatures in the north Atlantic Ocean broke previous records by a large margin, with 'beyond extreme' marine heatwaves declared in the northeast Atlantic, west of Ireland, and 'extreme' marine heatwaves in the Baltic Sea (NOAA Satellite and Information Service, 2023). The Arctic Ocean has warmed nearly four times faster than the rest of the globe since 1979, faster than originally reported in the scientific literature (Rantanen, et al., 2022).

#### 1.1.3 Extreme weather events in Australia

In Australia, there has been a trend towards a greater number of high-intensity, short-duration rainfall events, especially across northern Australia (CSIRO & BoM, 2022). Since the 1950s, there has also been an increase in extreme fire weather and a longer fire season across large parts of the country (CSIRO & BoM, 2022).

Globally, sea levels have been rising at an average rate of over 3 cm per decade since 1993, however this varies considerably around Australia's coastline (CSIRO & BoM, 2022).

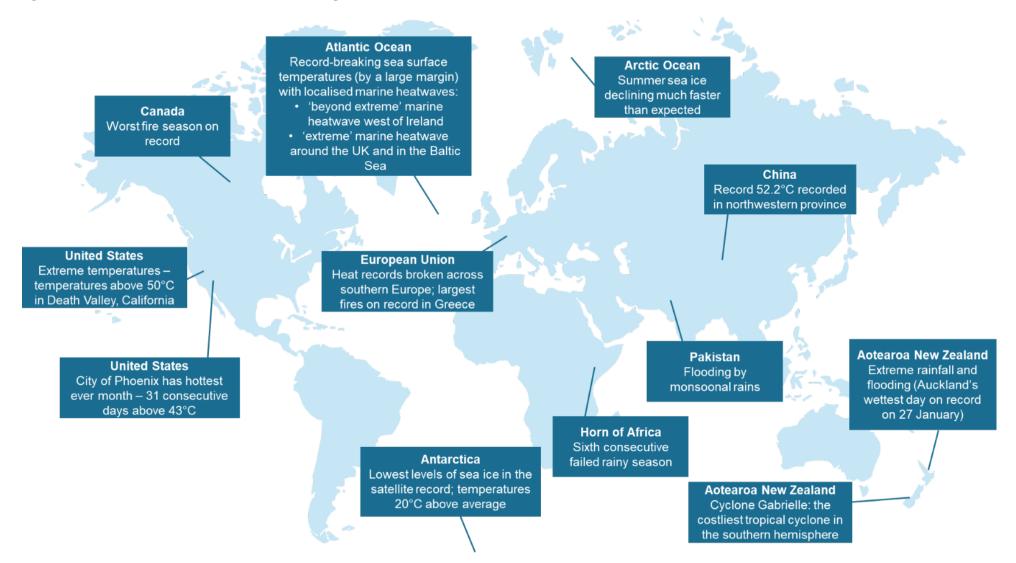
#### BOX 1.1 – Communicating the probability of extreme climate-related events

Hazards such as extreme heat are becoming more frequent due to climate change. Extreme event frequency is often communicated through the concept of 'return periods' (e.g., a '1-in-100-year heat wave'). This concept is often misunderstood. The term '1-in-100-year heat wave' does not mean a heat wave that would be expected to occur every 100 years. Rather it is a heat wave that has a 1% chance of occurring in any given year. This is also known as the annual exceedance probability.

Another way of thinking about this probability is through a relatable time frame. Over 30-years, a common household mortgage length, there is a 26% chance of a 1-in-100-year heat wave occurring (Jolly & Green, 2019). Climate change is causing extreme weather events with historically long estimated return periods to occur more often than expected.



#### Figure 1.1 Recent climate-related hazards around the globe



Source: (ABC News, 2023; Agence France-Presse, 2023; Associated Press, 2023; Copernicus Climate Change Service, 2023; Copernicus Climate Change Service, 2023; McClure, 2023; NASA Climate Change, 2023; NASA Earth Observatory, 2023; NOAA, 2023; Prior, 2023; Ramirez, 2023; Reuters, 2023; Sullivan, 2023; The Copernicus Programme, 2023; World Meteorological Organization, 2023c; World Meteorological Organizatio

#### 1.1.4 Future climate research

Scientific understanding of climate change and the sophistication of climate models and computing capacity has progressed significantly over recent decades. State-of-the-art models now explore a range of scenarios of the future that consider socioeconomic changes over time (shared socioeconomic pathways), rather than just greenhouse gas emissions. This is leading to improved, better integrated and more detailed climate projections (O'Neill, et al., 2016).

In furthering knowledge, it is critical that the scientific community work with First Nations people to incorporate traditional knowledge into the understanding of the climate system and the solutions to climate change. This was reflected in the authority's consultation:

#### 'Western Science is nothing without Indigenous Knowledge.' Northern Territory participant

It is critical this occurs within the Australian and in the international literature and scientific processes, including the IPCC 7th Assessment Cycle. A key factor preventing the incorporation of First Nations knowledge and data in the IPCC reports is its comparatively limited publication in peer reviewed literature (Lansbury, et al., 2023). Actions that could contribute to better incorporating of traditional knowledge in climate research and IPCC processes include (Lansbury, et al., 2023):

- Promoting First Nations-led research on climate change and engagement in climate change information
- Promoting traditional knowledge, for example by lobbying the IPCC for a dedicated First Nations chapter or Australasian sub-chapter
- Recognising Indigenous knowledge as a system and integrating it equivalently with Western knowledge



#### Figure 1.2: Climate Science research areas

	Sea ice and ice-shelf processes such as disintegration, basal melting, and speed of sea ice decline (IPCC, 2021a). Current uncertainties in these processes limit our ability to anticipate sea-level rise over decades to centuries, and over longer timescales (thousands of years) (National Oceanic and Atmospheric Administration, 2022).
Ø	<b>Climate change in the Southern Hemisphere.</b> Less research attention and data in the Southern Hemisphere (PAGES2k Consortium, 2017; Ashcroft, Gergis, & Karoly, 2014) means that understanding of the global climate is impacted, and uncertainties related to Southern Hemisphere climate are larger (Ashcroft, Gergis, & Karoly, 2014).
	<b>Cloud simulation, especially over the Southern Ocean.</b> Cloud feedbacks remain one of the largest uncertainties in climate projections and in estimates of climate sensitivity (Vergara-Temprado, Miltenberger, Furtado, & Carslaw, 2018).
·••	In Australia, tropical climate dynamics and interactions between tropical and mid- latitude meteorological processes (Parker, Berry, & Reeder, 2013; Parker, Berry, & Reeder, 2014). Tropical regions are very active meteorologically (Atkinson, 1971), and further research is needed to better understand tropical processes.
9	Changes this century in Atlantic storm tracks and the Atlantic Meridional Overturning Circulation (IPCC, 2021a). The Atlantic Meridional Overturning Circulation is an important process for simulating global climate (McCarthy, Smeed, Cunningham, & Roberts, 2017).
70,0	<b>Climate model simulation of feedback loops and tipping points</b> (Drijfhout, et al., 2015; Lam & Majszak, 2022). Feedback loops and tipping points are known behaviours of the climate system but are still not well-represented in state-of-the-art climate models.

Climate scientists in Australia and globally are researching the areas described above to add more confidence to findings.

The confidence of results in Australian climate change research is currently limited by the amount of available data in our region – such as atmosphere and ocean observations (Ashcroft, Gergis, & Karoly, 2014). As Australia's network of monitoring stations and ocean buoys grow and expand, confidence in the findings of Australian climate research will also grow.

#### 1. **RECOMMENDATION**

Provide further support for Australian climate change research through a coordinated, expanded national research program on climate science. Under the research program:

- Australia's network of monitoring stations, buoys, and access to satellite data should be maintained and expanded.
- Research focusing on compounding and cascading hazards, climate system tipping points, seasonal forecasting of extreme weather events, Southern Ocean science, Antarctic sea-ice and ice sheets should be given additional attention.
- First Nations people should lead the incorporation of First Nations' knowledge into our understanding of the climate system and the solutions to climate change.

#### BOX 1.2 – Attribution science

Attribution science is a relatively new subfield of climate change research that studies the contributions of human-induced climate change and natural factors to weather events and climate. This area of science is also a key step in understanding and quantifying the drivers of specific extreme events such as heatwaves, floods and droughts (National Academies of Sciences, Engineering, and Medicine, 2016).

Policymakers are particularly interested in attribution science because it can help inform decision making for climate change mitigation and adaptation (Rosenzweig & Neofotis, 2013). These studies can help assess climate-related risks and guide infrastructure planning and disaster management, however 'best-practice' protocols for researchers need to be established so that these studies can be more easily compared.

The latest IPCC report has 'unequivocally' attributed human activities as the predominant cause of warming over recent decades (IPCC, 2023b). One recent Australian attribution study links an increase in the area burnt from fires and an increased frequency of megafires (>1 megahectare burnt) to anthropogenic climate change (Canadell, et al., 2021). However, the scientific meaning of these findings can be lost during public communication.

#### 2. **RECOMMENDATION**

Lead the establishment of best-practice protocols for conducting extreme weather event attribution

studies to ensure different studies are comparable and clearly understandable.

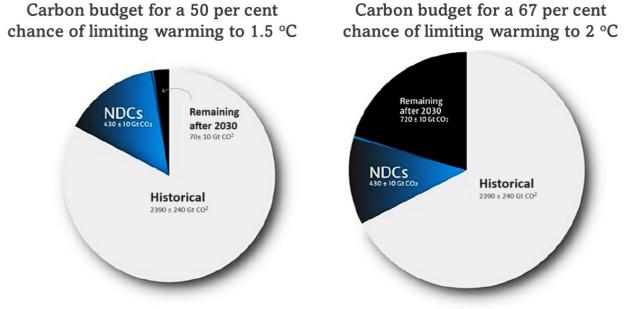
#### 1.2 Targets and policy developments

#### 1.2.1 Ambition of collective action

At COP28 in 2023, the UNFCCC will deliver its first Global Stocktake. The Global Stocktake will assess the progress of all countries towards achieving the goals of the Paris Agreement across mitigation, adaptation and finance. The Global Stocktake is intended to encourage further efforts to raise ambition in new Nationally Determined Contributions (NDCs) due in 2025.

In April 2023, a UNFCCC report that provides input to the Global Stocktake found that total emissions could peak before 2030 if all NDCs<sup>2</sup> were implemented in full (UNFCCC, 2023b). However, this would only leave the equivalent of approximately two years of emissions ( $70 \pm 10$  gigatonnes CO<sub>2</sub>) to achieve net zero (see Figure 1.3) (UNFCCC, 2023b).

Figure 1.3: Estimates of historical carbon dioxide emissions and remaining carbon budgets from beginning of 2020 assuming implementation of Nationally Determined Contributions (NDCs) as at 23 September 2022.



Source: Extracted from (UNFCCC, 2023b).

Current policies collectively in place put the world on track to warming of about 2.8°C by the end of this century (UNEP, 2022a). If all countries committed to and achieved net zero targets, the world is closer to limiting temperature rise to 1.8°C.

Not only do existing NDCs need to be delivered in full, ambition needs to be enhanced consistent with the requirements of the Paris Agreement. The actions taken in the next 18 months are crucial to staying within the temperature goals of the Paris Agreement. New NDCs will either set the world up to stay under the Paris Agreement temperature goals or to push beyond them. The authority will consider the Global Stocktake in its 2024 advice to government on Australia's next emissions reduction target.

<sup>&</sup>lt;sup>2</sup> Including conditional elements such as those that require finance from other countries.

Almost half (44%) of countries have submitted long-term mitigation visions, strategies or targets (UNFCCC, 2023b). Of these, few have specified the policies and pathways to achieving their long-term targets (UNEP, 2022a). This includes Australia, which has a legislated target of net zero by 2050 but has limited policy mechanisms in place to achieve that goal (see Chapter 3).

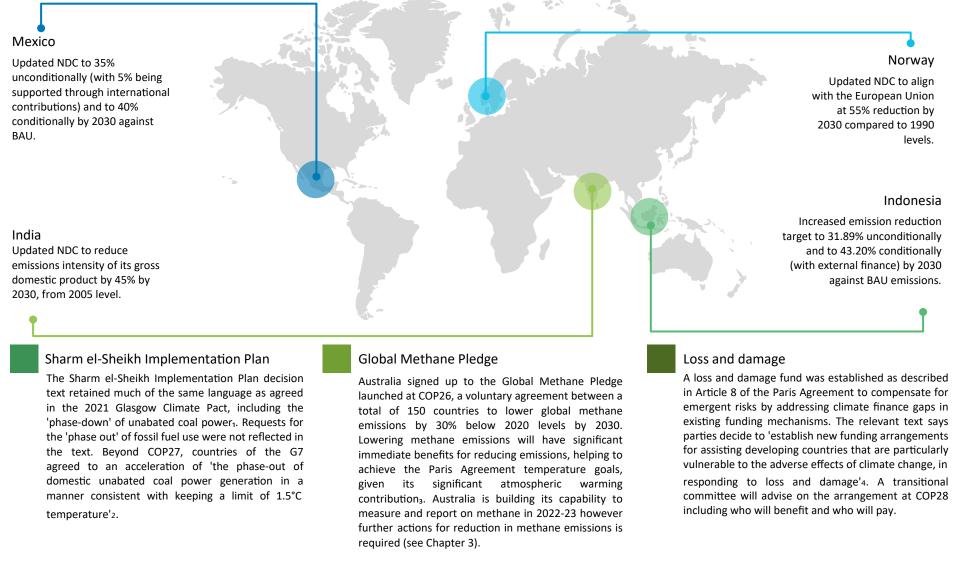
Last year the authority recommended to the government that it develop a long-term strategy for achieving net zero (CCA, 2022a). The government accepted this recommendation and has announced plans to develop sectoral plans which will form part of a Net Zero plan (Minister for Climate Change and Energy, 2023). The authority will be providing advice on sectoral pathways and Australia's 2035 target in 2024 (Appendix A).

For Australia to be a global leader on climate change action, the authority considers that the NDC must be Paris-aligned, emissions reductions policies that support the NDC must be in place, and Australia should be partnering with other countries to achieve global emissions reductions. These will be key considerations for the authority in developing its advice on Australia's 2035 target.



#### 1.2.2 UNFCCC developments

Figure 1.4: Snapshot of UNFCCC updates including from COP27 and NDCs across 2022–2023. In 2022–2023, 27 countries have strengthened their NDCs, mostly in the lead up to COP27. For a full list beyond the four captured here, see (UNFCCC, 2023).



NDC Updates

COP27 Updates

#### 1.3 International developments and geopolitics

Consistent with the authority's 2022 Annual Progress Report, significant concerns remain about potential risks in global clean energy technology supply chains for importers of technologies crucial for the net zero transition. Reflecting this challenge, the authority has focused on the international industrial policy developments in the United States and European Union in this Annual Progress Report, given the impact these policies will have on Australia in the immediate and longer term.

As reported by the authority in last year's Annual Progress Report, the war in Ukraine has affected shortterm energy security. While global supply times have generally reduced (Federal Reserve Bank of New York, 2023), dependencies on key suppliers for inputs or stages of a supply chain remain. China currently dominates global manufacturing and production of most clean energy technologies (IEA, 2023b). While China's investment in clean energy supply chains has been fundamental to lowering the costs of many technologies required for decarbonisation, diversification of origin for these materials and manufacturing reduces supply chains risks for national economies (IEA, 2023a). Countries, led by the United States and the European Union, are increasingly responding by encouraging domestic manufacturing and setting up agreements with partners to secure their supply chains.

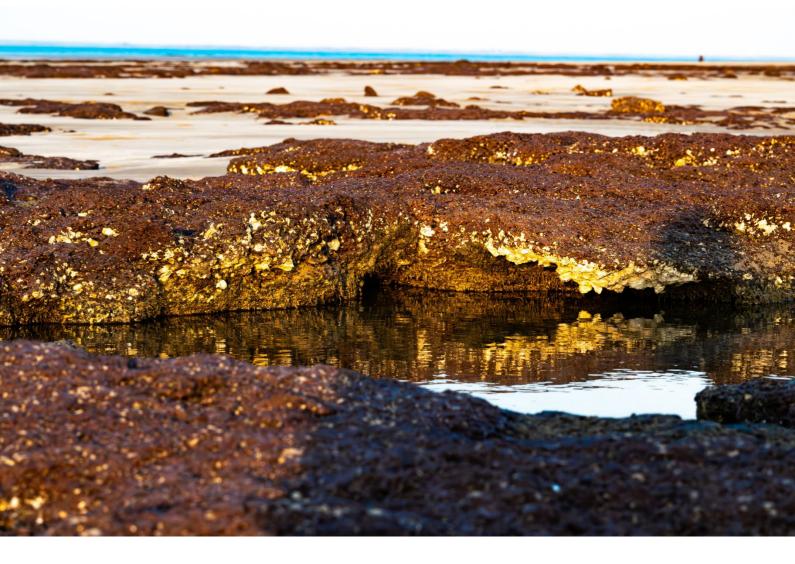
One of the most significant global policy shifts in the past year was the introduction by the United States of the *Inflation Reduction Act 2022* (IRA), which became law in August 2022. This was followed by the *CHIPS and Science Act 2022* in September 2022. The United States Government is estimated to have committed USD370 billion towards clean technologies, although the commitment is difficult to pinpoint as it is mostly in the form of tax credits that are uncapped and extend over a 10-year period (The White House, 2023a). Through various financial instruments (e.g. tax credits, loans, grants), the IRA aims to channel investment into clean energy industries, science research and cutting air pollution within the United States (The White House, 2023a). The legislation has already had a catalysing effect: at least USD110 billion in clean energy manufacturing investments have been announced since August 2022 (The White House, 2023c). The *CHIPS and Science Act 2022* will primarily support research and development leading to commercialisation with a focus on sovereign manufacturing of semiconductors and developing skilled STEM labour (The White House, 2022) – critical inputs to the clean energy technology chain.

The effects of the IRA can already be seen beyond the nation's borders. Canada has secured its qualification as a battery metals supplier for electric vehicles eligible for consumer tax credits under IRA metal content rules (The White House, 2023d) while Japan and the US signed a Memorandum of Understanding in March 2023 to strengthen critical minerals supply chains (Office of the United States Trade Representative, 2023).

On 20 May 2023, Australia and the United States announced a Climate, Critical Minerals and Clean Energy Transformation Compact to accelerate the expansion and diversification of clean energy supply chains; promote stable supply of critical minerals; drive the development of emerging battery technologies; and support the development of emerging markets for clean energy hydrogen (Prime Minister of Australia, 2023a). To achieve these objectives, the two countries intend to engage their key industries to identify and address financial and non-financial barriers to accelerate development and deployment; collaborate on projects and standards for clean energy supply chains; and promote emissions accounting methodologies for key sectors such as hydrogen and green metals (Prime Minister of Australia, 2023a).

In the last 12 months, the European Union has introduced several key policy measures under the European Green Deal to support achievement of the bloc's target of 55% below 1990 levels by 2030 (European Commission, 2023a). The European Union's Green Deal Industrial Plan includes four focus areas: improving regulation to fast track strategic projects and facilitate access to critical minerals; facilitating investment in domestic manufacturing; developing a skilled workforce; and ensuring resilient supply chains by developing Free Trade Agreements and other partnerships. The European Union's Carbon Border Adjustment Mechanism (CBAM)<sup>3</sup> regulation entered into force on 16 May 2023 (European Commission, 2023a), imposing reporting obligations on importers from 1 October 2023. The CBAM aims to ensure local products are not out-competed by carbon-intensive imports and that European Union businesses are not encouraged to move carbon-intensive production overseas to avoid local carbon pricing. Certain imports will face a similar carbon price as domestic products. The CBAM will initially apply to cement, iron and steel, aluminium, fertilisers, electricity and hydrogen but will eventually cover more than 50% of the emissions in the European Union's Emissions Trading System (European Commission, 2023b).

Separately, from 29 June 2023 new regulations oblige entities to ensure certain products sold in, or exported from, the European Union are not linked to deforestation and have been obtained legally in the source country (European Commission, 2023c). A key objective of the new regulation is to 'reduce carbon emissions caused by EU consumption and production of the relevant commodities by at least 32 million metric tonnes a year' (European Commission, 2023c).



<sup>&</sup>lt;sup>3</sup> A Carbon Border Adjustment Mechanism seeks to limit carbon leakage through trade, by imposing import tariffs and export rebates depending on the climate policy of trading partners.

#### 1.3.1 Implications for Australia

The ramp up in activity on industrial and trade policy is creating global competition for investment and skills. Australia cannot compete with the scale of subsidies being introduced by major economies in the northern hemisphere, but the government can pursue targeted measures to incentivise local investment in the net zero transition. This includes leveraging Australia's advantages of renewable energy and critical minerals as well as building on the activities catalysed by the investment of other governments. The authority will provide more detailed advice in its sectoral pathways work due to the government in 2024.

The government has taken some initial steps. The government's National Reconstruction Fund has \$15 billion in committed funding to finance projects, particularly those which contribute to net zero, and \$2 billion was recently allocated to hydrogen (Australian Government, 2023a). The government announced \$57.1 million in the 2023–24 Budget to develop a Critical Minerals International Partnerships program. The program aims to secure critical mineral supply chains and develop strategic and commercial partnerships (Australian Government, 2023a). This builds on the partnership on critical minerals between Australia and Japan in October 2022 (Minister for Resources and Northern Australia, 2022). The Australian Government also announced in the Budget funding for a \$2 billion Critical Minerals Facility and an allocation of \$1 billion from the National Reconstruction Fund to fund investments in value-adding in resources (Australian Government, 2023a).

Australia needs to ensure its industries are not negatively impacted by international developments or disadvantaged relative to imports by the introduction of the Safeguard Mechanism. This means considering an Australian CBAM and exploring the possibility of entering into more international partnerships and carbon clubs.

- The government has announced it will deliver a review by 30 September 2024 assessing carbon leakage risks, policy options to address any identified risks and an assessment of the feasibility of an Australian CBAM focused on the steel and cement sectors (DCCEEW, 2023n).
- In 2023, Australia joined the newly formed Climate Club (Group of Seven, 2022). The Climate Club, to be launched formally at COP28, includes three principles: keeping 1.5°C within reach; transforming industries; and boosting cooperation. However, there are limited details on implementation of the terms of reference.



#### 1.3.2 International climate finance

A substantial finance gap remains to achieve global decarbonisation (UNEP, 2022a). Climate finance refers to local, national or transnational financing drawn from public, private and alternative sources of financing to support mitigation and adaptation actions addressing climate change (UNFCCC, n.d.). Australia has a role to continue to provide and accelerate climate finance available to support the global effort of decarbonisation.

Spending on climate-related development goals will need to increase four-fold to USD2.4 trillion per year by 2030 for emerging markets and developing countries (Bhattacharya, Songwe, & Stern, 2023). However, even in 2020<sup>4</sup> the committed USD100 billion goal of developed countries mobilising this level of finance was not achieved (UNFCCC, 2023a).

Over 2022–23, there has been a push for more innovative finance measures including those that seek to leverage private finance or free up sovereign capital tied up in interest repayments on loans (Government of Barbados, 2022), (Asian Development Bank, 2023), (World Bank, 2023), (IMF, 2023).

Three new Just Energy Transition Partnerships were entered into with Indonesia (USD20 billion), Vietnam (USD15.5 billion) and Senegal (EUR5 billion). These partnerships differ for each country but are aimed at supporting countries in their clean energy transition and backed by public and private finance (European Commission, 2022), (UK Government, 2022), (European Commission, 2023e).

The innovative financing measures being delivered at an international level are in line with the government's Development Finance Review delivered in August 2023 (DFAT, 2023). The review recommended that climate finance is scaled up, including through blended finance to allow the mobilisation of private sector finance. The government has also indicated its intention to rejoin the Green Climate Fund in October 2023, following withdrawal from the Fund in 2019. The authority will consider the role of climate finance in responding to climate change in its national emission reduction targets advice due to government in 2024.

#### 1.3.3 International carbon markets

To help countries meet their targets, Article 6 under the Paris Agreement provides for cooperative approaches, including the use of market-based mechanisms. Under Article 6, abatement can be traded between countries in the form of an Internationally Transferred Mitigation Outcome (ITMO).

Australia's current NDC leaves open the possibility of using ITMOs under the Paris Agreement, but there is currently no clear policy direction from the government on how it intends to use international units. Domestically, Australian Carbon Credit Units (ACCUs) have the potential to be used in the international market but the Australian carbon market is not yet ready to participate in the Paris Agreement trading framework either through importing or exporting of units. This is due to a lack of regulatory architecture necessary to track and trade international units under the Paris Agreement (CCA, 2022b).

The government has expressed its intention to consult on establishing the legislative framework that would enable high integrity and target-contributing international units to be used in Australia towards compliance (DCCEEW, 2023I). In 2022–23, several other countries began to operationalise bilateral agreements under Article 6.2, through developing pilot projects and entering into memoranda of understandings (Figure 1.5). The United Nation's centralised trading mechanism under Article 6.4 was still under development in 2022–23 (UNFCCC, 2022).

<sup>&</sup>lt;sup>4</sup> Most recent reporting year was 2020.

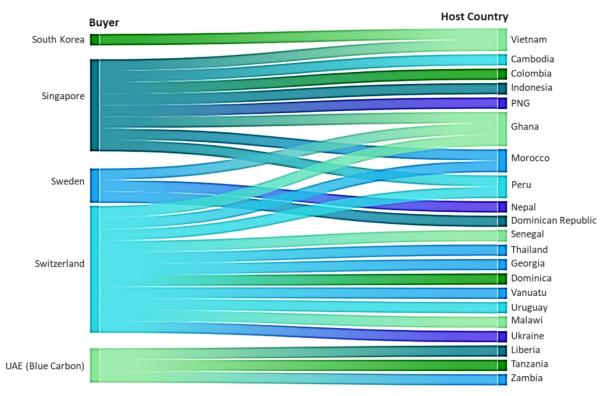


Figure 1.5: International cooperative approaches under Article 6.2 as at July 2023

Source: (IETA, 2023). Reproduced with author approval. NB: Buyers of units are listed on the left-hand side while host countries are listed on the right-hand side.

The voluntary market has responded to the development of the Article 6 Rulebook over 2022–23. The Integrity Council for the Voluntary Carbon Market released their Core Carbon Principles and supporting assessment framework (ICVCM, 2023). The Voluntary Carbon Markets Integrity initiative, which aims to standardise emissions reduction claims made in relation to the use of offsets from the voluntary carbon market, released its Access Strategy Toolkit in May 2023 followed by their Claims Code of Practice in June (VCMI, 2023). Both tools aim to support the carbon market actors make transparent and informed claims about voluntary credits.



For more information about the work of the Climate Change Authority, visit our

website at https://www.climatechangeauthority.gov.au/.

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