



24 September 2025

Dear Member of Parliament,

Our university research programs are pleased to present you with important briefing information about Antarctica:

- why Antarctica matters to Australia
- · abrupt climate-related changes currently happening in the Antarctic environment, and
- the implications of Antarctic ice loss for global sea-level rise.

Historically, Antarctica has been viewed as frozen in time, slow to adjust to the climate around it. In recent years, we've come to realise that assumption was profoundly wrong.

Often regarded as the 'bottom of the world', Antarctica and the Southern Ocean are in fact central to the Earth's climate system while acutely vulnerable to global heating.

Now we're seeing rapid changes emerge in the ocean, ice and ecosystems. Alarm bells from the frozen south are sounding the need for urgent responses. These changes will affect Australia and our regional neighbours.

Runaway ice loss causing rapid and catastrophic sea-level rise is possible within our lifetimes. Implications for our coastal cities and infrastructure are immense.

The science shows that emission cuts of at least 50% by 2030 and 75% by 2035, in line with the 1.5°C limit of the Paris Agreement, minimise the risk of these irreversible tipping points in Antarctica.

As a founding nation of the Antarctic Treaty, Australia has a special responsibility to set and meet interim targets that 'bend the carbon curve' and reduce emissions to reach 'net zero' as quickly as possible, well before 2050.

The reform of our federal environment laws offers the opportunity for Australian Antarctic Territory – the 42% of Antarctica where much of the uncertainty in sea-level rise projections lies – to be recognised as a matter of national environmental significance.

In this critical decade for climate action, our researchers are working hard to provide information that can underpin effective policies to reduce climate-related impacts in Antarctica and the Southern Ocean.

We would be very happy to meet with you personally to discuss these matters further.

Yours sincerely,

Prof Delphine Lannuzel

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