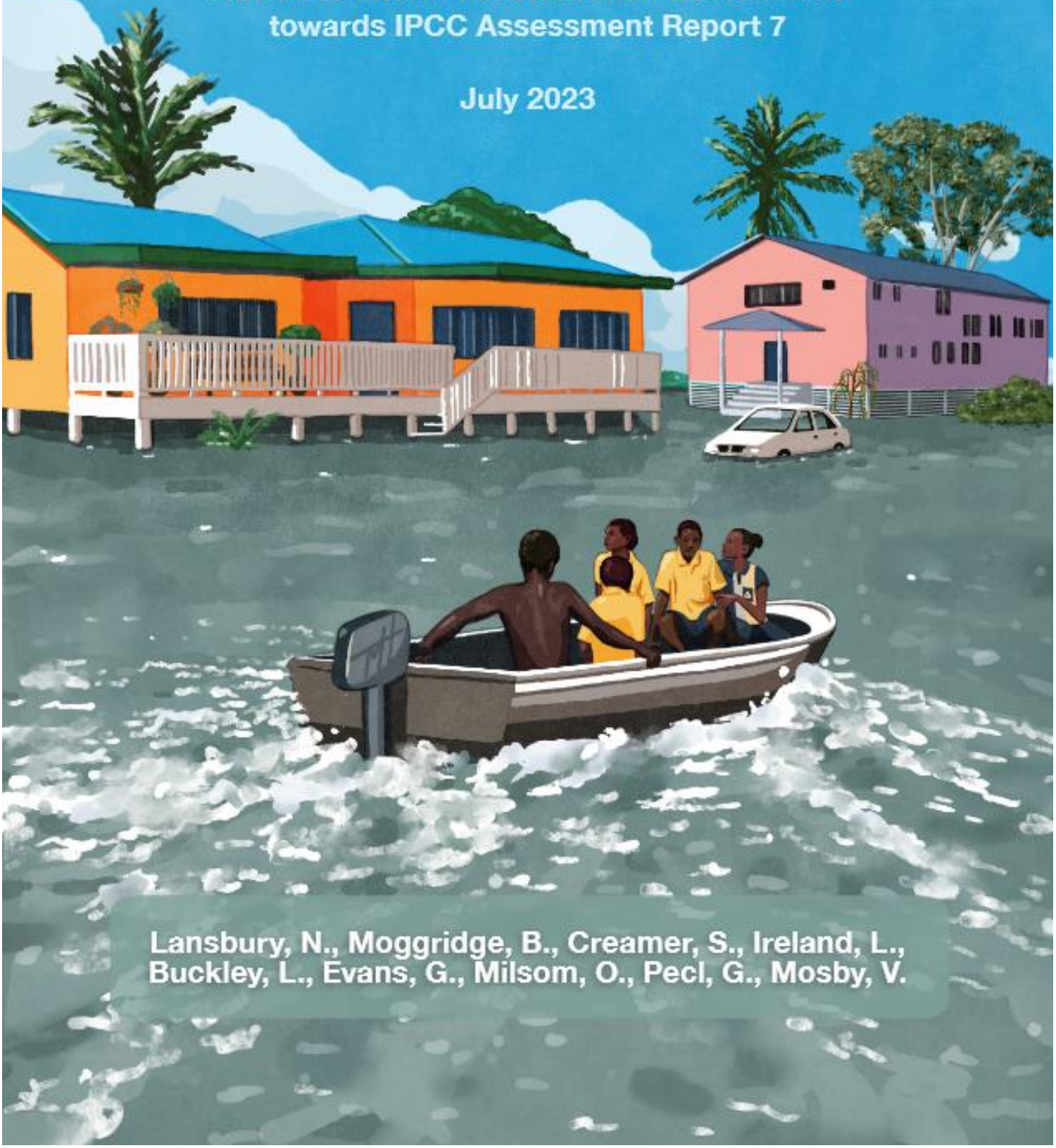
Aboriginal and Torres Strait Islander Peoples' voices and engagement in the Intergovernmental Panel on Climate Change:

Advice to inform the Australian Government towards IPCC Assessment Report 7

July 2023



Lansbury, N., Moggridge, B., Creamer, S., Ireland, L., Buckley, L., Evans, G., Milsom, O., Pecl, G., Mosby, V.

Appendix: Summary for the People: IPCC Assessment Report 6- Australasia

What is the IPCC and how is it relevant to me?

What is the IPCC?

The Intergovernmental Panel on Climate Change, or the IPCC, is the world's highest authority on climate change science. It is made up of many leading climate scientists from around the world who assess the latest climate science, and what that means for our natural and human systems. The IPCC reviews thousands of scientific papers and provides an assessment of a wide range of topics, including water systems, food systems, oceans, cities, health, poverty and inequality. It contains chapters on specific regions, including Australasia, Europe, Small Island Developing States, Africa and Asia.

- The IPCC is an international body whose governing Panel is made up of government members representing 195 countries. It is the leading international body for assessment of climate change and is a key source of scientific information and technical guidance to the United Nations Framework Convention on Climate Change (UNFCCC) and the Paris Agreement.
- The IPCC was established in 1988 and produced its first global report in 1990. The IPCC's Sixth Assessment Report (AR6) came out in 2022/2023 and comprises three Working Group contributions and fourth synthesis component:
  - Working Group I (the physical science basis)
  - Working Group II (impacts, adaptation and vulnerability)
  - Working Group III (mitigation)
  - Synthesis Report, summarising all the key points from the other three components

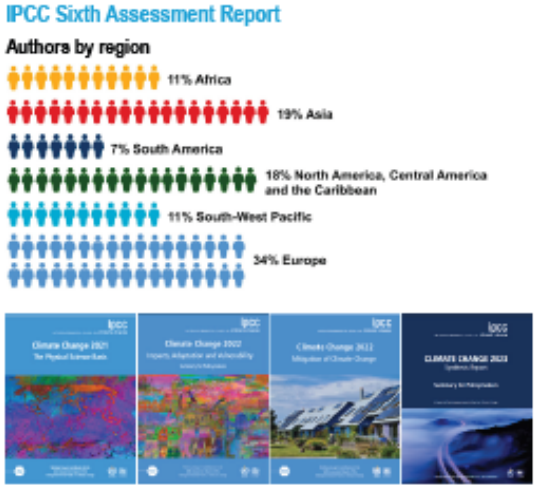


Figure 1. AR6 had over 700 Coordinating Lead Authors, Lead Authors, and Review Editors from 90 countries.

- Each IPCC report is completed by a large, global group of scientists and experts, appointed by the government members, who contribute their time in reviewing the available science on climate change, and drafting and revising the report. These reports bring together and assess all relevant recently published scientific and technical literature. The reports are "policy relevant but not policy prescriptive". This means that they present information on likely future climate change and the risks that climate change poses, and discuss the implications of different response options, but it is the responsibility of Governments to consider the IPCC's findings and to implement actions.

- Together, the four parts of Assessment Report 6 were drafted and reviewed by over 700 experts from 90 countries. Collectively, this group of experts assessed over 66,000 separate published scientific studies written by thousands and thousands of different scientists from all over the world. They then revised and edited the draft reports in several rounds of review, based on over 200,000 reviewer comments from thousands of different people, organisations and governments from many different countries.
- When assessing all the scientific information available on climate change, IPCC authors determine confidence levels for key findings, based on the available evidence (robust, medium and limited) and the degree of scientific agreement (high, medium and low).
- All literature cited in the IPCC report must be peer-reviewed, published and publicly available, or must be lodged with IPCC, so any reviewer of the report can access each literature source independently and directly.
- IPCC has a strict conflict of interest policy. Every IPCC Lead Author or Review Editor needs to inform the IPCC of any real or perceived conflicts of interests, every year.
- Although there is a growing acknowledgement of the importance of Indigenous knowledges and Indigenous voices in IPCC reports and processes, there is still a lack of Indigenous knowledges in IPCC.

What did the latest IPCC report, AR6, find?

Human activity is changing the climate faster than in the past, leading to more frequent and intense extreme events, and causing widespread losses and damages to nature and people in many parts of the world. Some of these impacts are irreversible, like the damage to coral reefs, but there are some things we can do to adapt and to reduce our vulnerability in many cases.

The speed of the current climate change is much faster than most changes in climate in the past, making it more difficult for the natural world and human societies to adapt.

In comparison to the baseline of 1850-1900, the temperature over the years 2011–2020 was 1.1°C warmer, and there is no doubt that this is due to human activity.

Human activities like burning fossil fuels such as coal, oil and natural gas, increase the amount of 'greenhouse gasses' in the atmosphere. These gasses trap the sun's heat and lead to warming on land and in the ocean.

Additionally, a large proportion of these additional gasses are absorbed by the ocean and combines with water to form carbonic acid. This is changing the ocean's pH from alkaline to more acidic.

What does climate change mean for people living in Australia?

Warming and sea-level rise

Hot days and heatwaves

Rainfall in the north

Extreme fire weather days in the south and east

Snow

- Increases in average temperatures, combined with an increase in extreme weather events, have caused major impacts for many of our natural systems - including extensive coral bleaching along the northern coasts of Australia and loss of temperate kelp forests along the southern coasts.
- Climate trends and extreme events have also led to major impacts for some human systems.
  - Extreme heat has led to excess deaths and increasing rates of many illnesses.
  - Government, business and communities have experienced increasing costs associated with extreme weather, droughts and sea-level rise.
- Climate change is expected to increase existing vulnerabilities, and social inequalities and inequities. These include inequalities between:
  - Indigenous and non-Indigenous Peoples
  - Older ad younger generations
  - Rural and urban areas
  - Incomes
  - Health status

The Australasian chapter of the IPCC AR6 report identified 9 key risks for Australia according to what has been observed, projected and documented, and based on 4 criteria:

- magnitude
- likelihood
- timing
- adaptive capacity

1. Loss and degradation of coral reefs, and associated biodiversity due to warming and marine heatwaves.
2. Loss of plants and animals in our high mountains due to less snow.
3. Potential loss or alpine ash, snowgum woodland, pencil pine and northern jarrah forests in southern Australia due to hotter and drier conditions with more fires.
4. Loss of kelp forests in southern Australia due to ocean warming, marine heatwaves and overgrazing by climate-driven range extensions of herbivore fish and urchins (warming waters means critters move further south- about 200 species at least have shifted further south around Australia).
5. Loss of natural and human systems in low-lying coastal areas due to sea level rise.

6 Disruption and decline in our food production and increased stress in rural communities in south-western, southern & eastern mainland Australia due to hotter and drier conditions.

7 Increase in heat-related deaths for both people and wildlife in Australia due to heatwaves.

8 A key system-wide risk is cascading, compounding and aggregate impacts on cities, infrastructure, supply-chains and services due to wildfires, floods, droughts, heatwaves, storms and sea-level rise.

9 Wildfires, floods, droughts, heatwaves, storms and sea-level rise may happen either at the same time, or one event after another, leading to even greater impacts on cities, infrastructure, supply-chains and services as our systems become overwhelmed.

- With many of these risks, people from lower income groups, or with less access to resources, will be affected more greatly, YET they will have contributed less to the cause (ie these groups produce less emissions because they use less energy, travel less, and consume fewer products).
- Further climate change is inevitable, with the rate and magnitude of future changes largely dependent on the quantity of emissions released globally. However, every small fraction of a degree of warming that we can avoid improves the outcome for people and for natural systems.
- Actions that will help us adapt to climate change are taking place, and are increasing in terms of ambition, scope and progress, but progress is uneven, and there are some large gaps, as well as barriers and limits to adaptation.

What about Aboriginal and Torres Strait Islander Peoples specifically?

- One in every five people from the Indigenous Australian population lives in remote areas where climate change raises (additional) risks to health and to their way of life.
- Climate changes may lead to a loss of access to traditional foods on Country. In some cases, communities have been forced to change their diet, which affects nutrition levels, and of course, culture. Challenges to food security and to economic security, through changing access to traditional foods, can impact cultural and social identity.
- Some communities are also experiencing a lack of water, loss of land and cultural resources through land erosion and sea-level rise. Parts of the Torres Strait are seeing their ancestors' burial sites exposed following saltwater intrusion and sea level rise.
- Economic security of households may be impacted by the inability to supplement food sources and household income through fishing, which may be impacted by unpredictable weather, or changes in condition or distribution of coral, seagrass, or sea mammals, among other species.

How can we work together to adapt to climate change, to reduce carbon emissions, or to have our voices heard?

Ultimately, climate change is a complicated issue that needs governments, businesses, industries and communities globally to work together to address.

However, we can all make a difference too through:

- The actions that we take as individuals
- By working together to take collective action
- By calling for larger-scale systemic change, for example, by governments and world leaders.

Aboriginal and Torres Strait Islander Peoples are already leading Australia's response to the climate crisis, through caring for country and many other actions.

Globally, the benefits of reducing emissions, and therefore reducing climate change impacts, far exceed the costs of implementing climate actions. At a local level, many strategies to reduce greenhouse gas emissions, or to strengthen resilience of a community, also have large benefits like cleaner air, soil and water and so they also increase human health and well-being at the same time as reducing climate change.

Indigenous-led initiatives that directly or indirectly fight for climate change, that you can support:

Save our songlines
active in Murujuga to stop new industry on the Burrup from damaging our Songlines, our rock art, our health and our climate.

Seed
began as a semi-autonomous branch of the Australian Youth Climate Coalition (AYCC) back in 2014 and is now a fully autonomous movement led by First Nations youth.

Country Needs People
a growing group of Indigenous and non-Indigenous people campaigning for Indigenous Ranger and Protected Area programs.

Wangan and Jagalingou Family Council
the proud Traditional Owners of a vast area of land in central-western Queensland, including the site of Adani's destructive coal mine.

Olkola Aboriginal Corporation
Olkola Aboriginal Corporation now holds and manages 869,822 hectares of its Traditional Lands, making it one of the largest landholders in the Cape York Peninsula.

Wuthathi Aboriginal Corporation
for whom the struggle to return and protect their ancestral homelands took nearly 100 years.

Mirarr people via Gundjeihmi Aboriginal Corporation
the Traditional Owners of land in the north of the Northern Territory. They are powerful advocates against uranium mining, speaking out in the famous Jabiluka campaign, and for Kakadu.

Barngarla: Help us have a say on Kimba
are fighting an important fight to stop nuclear waste being dumped on Country.

If we work together, we can combine our efforts and influence to achieve change and progress faster. We can:

Find others in your mob and use your voices! Get together with friends and others in your community who care about climate action. You could join a group like SEED, Australia's first Indigenous youth climate network, or the Australian Youth Climate Coalition. Collective events such as the school strikes for climate raise awareness - and they also give climate scientists all around the world hope that the next generation will make changes and vote for the climate policies we urgently need!

Systemic changes are the impactful changes that can happen at bigger scales, such as through state or National government decisions. Support climate change and Indigenous human rights activists in your community who are holding governments and institutions to account, seeking systemic changes. Subscribe, follow, like and share content on social media of groups such as the Torres Strait 8 and other National Indigenous groups.

Ask to talk with your local politicians to see what action they need to take to adapt to climate impacts and reduce greenhouse gas emissions in your local area.

Contact State and Federal politicians to ask them to make more ambitious changes to climate policy for your community and Australia.

Contact product brands you like, and companies or businesses you use services from, to ask what their carbon emissions are and how they plan to make their products carbon neutral.

Remember that all of us have different circumstances and therefore we might have different capacities to take some of these actions - and that is totally OK! For example, if someone was really stressed about having enough money to buy food, or finding somewhere to live, or maybe if they were sick, then they might not be able to think about or take action on climate change right now.

It's important to remember too that people don't have to be 'perfect' to be serious about tackling climate change (that would be exhausting, and people might give up then!). The big thing to remember is to just do what you can, when you can, and encourage others when you see them doing a good job. Importantly, it really doesn't help to make people feel guilt or shame for doing what you might think is not enough - it is much better to try and encourage others by being good examples ourselves.

Lastly, we probably can't ALL do ALL the possible actions against climate change ALL the time. Remember that this is OK because what we really need is lots of people doing lots of things lots of the time to try and help together. Remind yourself and other people to feel good about whatever changes and actions you are taking – every action helps.