AUSTRALIAN SECURITY LEADERS CLIMATE GROUP

SUBMISSION TO THE SENATE ENVIRONMENT AND COMMUNICATIONS REFERENCES COMMITTEE

INQUIRY INTO THE CLIMATE RISK ASSESSMENT



Australian Security Leaders Climate Group

Submission to the Senate Environment and Communications References Committee Inquiry into the Climate Risk Assessment

The Committee has requested submissions on:

- a. the Government's secrecy and withholding of the Climate Risk Assessment (the assessment) from the Australian public since December 2024;
- b. the research, consultation and preparation of the assessment by the Department of Climate Change, Energy, the Environment and Water;
- c. the expected ongoing impacts upon the Australian community that are contained within the assessment;
- d. the budgetary costs of both climate driven natural disasters and any government adaptation plans;
- e. the Government's ongoing approach to transparency related to reducing emissions and adaptation to a world currently on track for 2.6 to 3.1 degrees of warming; and
- f. any other related matters.

These issues are addressed in this submission as follows:

Introduction

- 1. Delay, relating to (a).
- 2. DCCEEW performance, relating to (b).
- 3. Impacts assessment, relating to (c).
- 4. Transparency, relating to (a) and (e),
- 5. Duty of care, relating to (e) and (f). Appendix

Australian Security Leaders Climate Group

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INTRODUCTION: ASLCG INITIATED THE CLIMATE RISK ASSESSMENT PROCESS

The Australian Security Leaders Climate Group (ASLCG) was formed in 2021 by a group of senior former military and intelligence leaders concerned that the security implications of climate change were not understood or addressed by successive governments. The ASLCG focus is on human security in the broadest sense: the safety of people and communities and the systems they rely upon, not national security in the narrow sense.

That concern is based upon the science developed over decades which demonstrates climate change is accelerating, is already dangerous, and has become an existential threat to human civilisation as we know it. Together with nuclear war, it is the greatest threat to humanity. Australia, as the hottest and driest continent on Earth, is particularly exposed to that threat.¹

The first step in formulating security policy to address any threat is to soundly assess the risks and opportunities it presents, both current and as they are likely to evolve. This requires scientific and analytical expertise, and appropriate intelligence capacity to make such assessments.

The fundamental duty of any government is "to protect the people" and thus fully assessing climate risk in order to avoid or mitigate it must be a priority. But leaders — in business and politics and public administration — have not acknowledged the full measure of the risk, so mitigation is inadequate.

Australia has never had a comprehensive climate risk assessment. It has been a glaring omission because such assessments are essential for efficacious climate mitigation and adaptation policymaking.

In 2021, ASLCG proposed to all political parties that they adopt a policy for a comprehensive climate risk assessment as a priority action after the 2022 election. The Labor opposition adopted this proposal and it was incorporated into the 2022 Labor election platform.

ASLCG was encouraged that after the 2022 election, the ALP acted on our suggestion that such an assessment should be carried out as a matter of urgency.

The ASLCG's *Risk Assessment Implementation Proposal* to the new government in June 2022 had proposed the following framework:²

The risk assessment should be initiated urgently, and completed as soon as possible, certainly within Labor's first year in office, so that its findings can inform a whole-of-government response to climate change threats.

The approach to climate-related security risks must be holistic, avoiding siloed, discipline-based analysis. Risk analysis must account for system complexity and deep uncertainty, cognisant of three inter-related aspects:

- Climate impacts will intensify with further warming, and climatic tipping points are creating large uncertainties over future impacts and their social effects. They may be a source of sudden, unanticipated large risks.
- There has been an underestimation of the scale and scope of climate-related security risks, many of which remain under-researched due to the complexity of cascading consequences.

¹ swissre.com/institute/research/topics-and-risk-dialogues/climate-and-natural-catastrophe-risk/changing-climates-heat-is-still-on.html

² aslcg.org/wp-content/uploads/2022/08/ASLCG RiskAssessment Implementation-Proposal.pdf

• The capacity to assess and manage climate-related security risks lags behind the changing risk landscape.

Chatham House's *Climate Change Risk Assessment 2021* provides an appropriate methodology and framework, a plausible scenario and high-quality appraisal on which to build a regional and Australian assessment, thus reducing the analytical workload.

The Australian assessment should be a transparent process led by a well-resourced, independent Expert Panel, drawn from relevant fields within and external to the government.

The Panel's work should comprise two work streams: a climate science and impacts update, which then informs the security analysis.

Unfortunately, those proposals were somewhat ignored and implementation of the government's commitment has faltered in part. Despite ASLCG representations that risks must be addressed holistically and should not be analysed in "silos", the government decided to split the process in two:

- A regionally-focussed climate and security risk assessment (not looking specifically at domestic risks) to be done by the Office of National Intelligence on a short time-frame so as to also be an input into the Defence Strategic Review. (Hereafter called the "ONI report". This was delivered in December 2022).
- 2. A domestically-focussed National Climate Risk Assessment (NCRA) on a longer time frame, to be supervised by DCCEEW and completed by the end of 2024. ASLCG was a formal stakeholder in the NCRA process.

1. DELAY

We note that the ONI report, a complex piece of analysis, was completed competently within six months. This is as it should be, because the physical climate is changing quickly, impacts are occurring faster than forecast, and analysis can be quickly superseded as new scientific observations and understandings arise, and the threat landscape evolves.

As noted above, ASLCG had urged the government as follows:

The risk assessment should be initiated urgently, and completed as soon as possible, certainly within Labor's first year in office, so that its findings can inform a whole-of-government response to climate change threats.³

But with the NCRA, there appeared to be little sense of urgency in this assessment work, which took almost three years and was not delivered within the first term of government. The approach is in stark contrast to the EU Environment Agency's first climate risk assessment released in March 2024⁴ which, along with the 2021 Chatham House assessment, is quite explicit on the escalating climate risks and the need for accelerated action.⁵

And whilst the NCRA itself was nominally finished by the end of 2024, there has been a further delay of nine months. Whilst we are not privy to the reasons why, there have been repeated suggestions that the report's findings were sufficiently (and unexpectedly?) strong that it was difficult for the government to formulate an appropriate adaptation policy response, and to come to terms with the budgetary commitment that would be required over the next decade.

³ https://www.aslcg.org/wp-content/uploads/2022/08/ASLCG_RiskAssessment_Implementation-Proposal.pdf

⁴ eea.europa.eu/publications/european-climate-risk-assessment

⁵ chathamhouse.org/2021/09/climate-change-risk-assessment-2021/summary

As a participant and stakeholder in the NCRA stage one process, ASLCG expressed concern along the way about the pace of proceedings. As NCRA stage two proceeded, consultations with stakeholders withered and as a stakeholder ASLCG perceived that we were being "left in the dark" about the nature and pace of the NCRA work.

The combination of a glacial project pace, and a delay in release, suggest little sense of the urgency that should be applied to climate risks that are escalating rapidly, where warming has already reached the 1.5°C Paris guiderail, and where numerous large-system tipping points in the climate systems have already been reached.

ASLCG has noted that during the latest delay period in releasing the NCRA, the government as its first major decision following the 2025 federal election chose to approve the extension of the Woodside NW Shelf gas project from 2030 to 2070, despite failing to inform the community of the major risks which the emissions from this extension imply.

2. DCCEEW PERFORMANCE

The NCRA, initiated by the government in late 2022 and managed by the Department of Climate Change, Energy, Environment and Water (DCCEEW), was a two-step process focused on domestic climate risks:

- Stage one: Consultation with stakeholders to qualitatively identify a list of nationally significant climate risks, with a subset of these deemed priority risks, with a report issued in March 2024; and
- Stage two: An in-depth qualitative and quantitative assessment of the priority risks, to be completed by the end of 2024. At the time of writing (10 September 2025), the report had not been released.

ASLCG, whilst appreciating being a stakeholder in the NCRA process, has expressed major reservations to the NCRA team about the methodology being used:

- There is the danger of dividing a risk assessment into "global" and "domestic" silos. The NCRA team was not privy to the ONI work. The separation of the NCRA domestic assessment from the ONI external assessment will likely fail to identify vital systemic risks. Many climate risks that manifest in Australia will have their origins far away. For example, in a globalised market a persistent international food crisis would hit Australia hard through escalating prices and supply shortages in a manner that would make today's cost-of-living crisis look like a warm-up act. It is only by first understanding and integrating the systemic risks as a whole that the global and domestic impacts can be properly understood.
- Stage one was based upon participants' historic experience, and there was no effort to project the future evolution of climate risk, for example by using scenario methods;
- The NCRA uses a "bottom-up" process that separately identifies the list of nationally significant risks, rather than starting with the holistic system risks and then devolving down to their many cascading and inter-related impacts. The NCRA list, whilst comprehensive, is general and gives no sense of urgency or ranking which would have been provided by the global top-down perspective developed by ONI; and
- The NCRA stage one report mentions that decision-makers should be considering "the most severe possible outcomes plausible worst case scenarios", but there was no indication

this was actually being done. At Senate estimates, DCCEEW confirmed that it was using a 1.5-2°C scenario for 2050, which in the view of ASLCG was out of date given the recent acceleration in the rate of warming. Subsequently, the method was changed, but the incident revealed that those managing the process were not au fait with the current state and dynamics of the climate system.

- Agencies such as the Climate Change Authority, CSIRO, Bureau of Meteorology and the Australian Climate Service — and the NCRA often use Intergovernmental Panel on Climate Change projections of future warming and impacts as the bedrock of their work on future climate evolution. These have been shown to be too conservative. In these circumstances, there is a risk that NCRA advice on future impacts will be out of date and underestimate the threats and their timelines — a worry that can only be resolved once the NCRA is released.
- Of great concern was the decision to exclude from the NCRA any consideration of climate mitigation to reduce climate risk; the focus is purely on adaptation, even though some risks being considered by the NCRA are beyond adaptation and further mitigation is fundamental to their amelioration. The assumption in the NCRA work is that the government's current mitigation policies are adequate, even though this is patently not the case, not least with the government continuing to oversee the expansion of the gas export industry and approving new coal mines.
- ASLCG believes that a climate risk assessment must include and seek community views: without such views the work is incomplete. People in their communities have views about vulnerabilities in local areas and the adequacy of protection measures, and community involvement will bring people along in creating improved resilience. It also helps build support for governments at all levels to take measures that will be costly and potentially inconvenient.

There are also the questions of administrative capacity. Budget estimates for the NCRA were \$28 million. Initially, DCCEEW contracted out the main body of work for the NCRA to a Big 4 management consultancy firm in a multi-million dollar contract. As a stakeholder, ASLCG was underwhelmed and deeply concerned about the approach the contractors were proposing to take, and made vigorous representations on the matter. It is our understanding that the contract may have been terminated and the work brought more back "in house", but that remains unclear.

This vexed question of using management consultants for sensitive work about Australians' future security and system vulnerabilities is important. Historically this would have been done internally, prior to the Australian Public Service and agencies being denuded of expertise by successive conservative governments.

Much has been made recently of the corruption implicit in PWCs and Deloittes misuse of confidential information in their consulting role to the government.⁶ But the far bigger danger to sound national governance is the consultants' role in facilitating poor government policy and in undermining public service capability, which is a global problem.⁷

When the Morrison government launched *The Australia Way* emissions-reduction climate plan in 2021, with vague targets and lack of urgency, one of the world's top consulting companies, McKinsey & Co, lent credibility to the charade.8 The price was a taxpayer-funded \$6 million

⁶ theguardian.com/business/2023/jul/14/deloitte-misuse-of-government-information-senate-inquiry-pwc-scandal

⁷ marianamazzucato.com/books/the-big-con

⁸ johnmenadue.com/post/2022/02/climate-catastrophe-now-inevitable-without-emergency-action/

consulting fee. McKinsey was already under internal criticism for the disconnect between its supposed values around climate change and its actual consulting advice to clients.⁹

Deloitte was retained to advise on the NCRA. Deloitte promotes its expertise in analysing the economic consequences of climate impacts with an in-house model. The danger here is putting the cart before the horse, in that complex economic analysis based on dubious cost-benefit assumptions may be given precedence over a scientifically rigorous assessment of the physical threats, as has long been the practice in private sector approaches to climate risks.

The climate-economy-financial system models used by bankers, regulators and big corporations are badly flawed and lead to chronic underestimation of the risks. Such models are poor at incorporating abrupt, non-linear and cascading change, so their projections about future climate impacts and economic costs are likely to be of little use.

The contract problems likely occurred because there was not sufficient capacity or experience with DCCEEW to undertake the NCRA work. ASLCG had anticipated this problem, and this was why our *Implementation Proposal* had argued for:

a transparent process led by a well-resourced, independent Expert Panel, drawn from relevant fields within and external to the government.

The Australian Government had never before managed a comprehensive climate risk assessment, so a lack of expertise within departments was not unexpected. It is also why ONI — whose bread-and-butter work is risk analysis — were in a good position to carry out the regional assessment, which they did well and quickly. This should have led the government to allocate the NCRA work to ONI in the first place, and extend the ONI mandate in this case to encompass domestic risks, so that the whole of the risk assessment process had coherence built on a consistent analytical base, but it did not.

Instead it was left in DCCEEW, which in our observations struggled with a poorly-conceived external contract, and then struggled to manage the process over the last three years.

It is not clear to ASLCG that the principles of effective risk assessment of climate impacts, as detailed in the Appendix to this submission, were fully appreciated by DCCEEW, despite our representations.

We repeat our view that future risk assessments should be a transparent process led by a well-resourced, independent expert panel, drawn from relevant fields within and external to the government; or by the intelligence agencies which are the only arm of government that currently possess the capacity required.

3. LIKELY IMPACTS & UNDERSTATEMENT

Media reports on the NCRA, including in the *Australian Financial Review*, say it is "dire" on future impacts, ¹⁰ but that is not unexpected since these things have never been said to any Australian Government before in this manner, except the ONI report which few have seen and cannot be discussed.

⁹ afr.com/companies/professional-services/mckinsey-advising-on-net-zero-modelling-to-limits-transparency-labor-20211115 -p5994b; https://www.nytimes.com/2021/10/27/business/mckinsey-climate-change.html

¹⁰ afr.com/policy/energy-and-climate/labor-keeps-dire-climate-report-under-wraps-20250808-p5mliz

In fact, the NCRA may underestimate the risks if it fails to recognise that impacts are occurring faster than forecast, that 1.5°C has arrived 15 years earlier than forecast by the IPCC,¹¹ and that large-system tipping points have already been reached.

Until the NCRA is released, it is of little value to speculate what it may or may not contain. However it is reasonable to identify issues which may affect the capacity to fully estimate the impacts and costs, especially in plausible high-end scenarios.

Communities around the world — and scientists — keep on being shocked, over and again, by faster-than-forecast events:

- Extreme floods and rain events are often oddly described as a "one-in-a-hundred-year" or a
 "one-in-five hundred-year" event, suggesting they are unlikely to recur. But then they
 happen again, within a few years. This shows the assessments of future climate risks are
 often too conservative, and so vulnerable communities and governments are
 under-prepared.
- Victoria's Black Saturday bushfires were of an intensity not projected to occur till towards the end of the century.
- Parts of inland Australia are experiencing heat extremes several decades ahead of expectations. On 18 December 2019, Australia's hottest day on record with an average maximum of 41.9°C, the heat in some areas aligned with worst-case 2040-2060 projections.
- And Prof. Michael Mann says there is plenty of research showing that climate models fail to resolve some of the processes that are involved in summer season extremes, including floods, heat waves and droughts: "We argue that the models are underestimating the impact that climate change is already having on these extreme events."

A recent report, *Planetary solvency: Finding our balance with nature. Global risk management for human prosperity* from the UK Institute and Faculty of Actuaries and the University of Exeter, identifies some critical issues in estimating future climate impacts:¹³

Unmitigated climate change and nature-driven risks have been hugely underestimated

Climate change impacts are materialising at lower temperatures than estimated. The severity and frequency of extreme events are unprecedented and beyond model projections.

This is now a matter for human security with populations impacted by fires, floods, food system shocks, water insecurity, heat stress and infectious diseases.

If unchecked, then mass mortality, involuntary mass migration, severe economic contraction and conflict become more likely.

Severe societal upheaval could spread from vulnerable regions through our globalised socioeconomic systems, driving responses such as food or water hoarding, acting as feedback loops to worsen social, economic, and political challenges.

Paris Agreement goals were not informed by realistic risk assessment, they implicitly accept high risk of crossing tipping points

The Earth may be more sensitive to greenhouse gases than we thought, which means net zero carbon budgets may now be negative for the 1.5°C goal.

¹¹ breakthroughonline.org.au/_files/ugd/148cb0_fb8d67e54f914f429dc989ac968327b9.pdf

¹² insideclimatenews.org/news/18092024/major-climate-reports-may-be-underestimating-drought-flood-risks

¹³ actuaries.org.uk/planetary-solvency

Global risk management practices for policymakers are inadequate, we have accepted much higher levels of risk than is broadly understood

Policymakers often prioritise the economy, with their information flows focused on this. But our dominant economic model doesn't recognise a dependence on the Earth system, viewing climate and nature risks as externalities.

Climate change risk assessment methodologies understate economic impact, as they often exclude many of the most severe risks that are expected and do not recognise there is a risk of ruin. They are precisely wrong, rather than being roughly right.

The degradation of natural assets such as forests and soils, or the acidification and pollution of the ocean, act as a risk multiplier on the impacts of climate change and vice versa. Traditional risk management techniques typically focus on single risks in isolation, missing network effects and interconnections, underestimating cascading, compounding risks.

Policymaker risk information is likely to significantly understate the potential impact of climate and nature risks, weakening the argument for urgent action.

These limitations mean that policymakers are likely to have accepted much higher levels of risk than is commonly realised.

ASLCG urges the government to consider this framework, and the guidelines on risk management outlined in the Appendix to this submission, to ensure that impacts and risks are adequately assessed in future work.

4. TRANSPARENCY

You can't get to the solution to a problem if you don't first elaborate the question. That is why risk assessments have become such a big thing in business, and at all levels of government.

Climate risks are widely understood as existential, that is, there are potential events so destructive that they are termed catastrophic because of their capacity for human death or suffering on a massive scale, such that societies may never fully recover. This may also be called in actuarial terms the "risk of ruin", which colloquially in financial and gambling circles is the risk of "losing everything".

In these circumstances it is fundamentally important that both policymakers in Canberra and the Australian public are fully cognizant of the risks, so that all possible actions are taken in an informed manner to mitigate them. Neither of the major parties has adopted this approach in government, and as a consequence we have a parliament whose members are expected to oversee policy, legislate actions and review progress without having the basic information on climate risks with which to do so. This is a serious breakdown in efficacious climate governance.

The government should be upfront with the electorate on the full range of climate risks. The rhetoric by commentators and politicians on potential war with China has been justified as the need for the Australian people to be fully informed of threats to the nation. With other security threats, Australian governments have been transparent, making a point of sharing with the community their knowledge to gain support for action; for example cyber security, Covid, North Korea and more. But the same rationale has not been applied to the security threat of climate change, which is a far greater risk.

It is extraordinary that with climate change, the greatest threat of all, we see no such transparency. There is no reason to make climate disruption an exception.

With existential climate risks, the community can fully participate in actions to overcome the threat only if the government is transparent about the magnitude of that threat and builds community support for action. Australian governments have learned from bitter experience that making sure that vulnerable communities are fully informed in advance, with practical actions and options, is the key to being prepared for natural emergency threats which are now exacerbated by climate warming.

Experiences with pandemics, bushfires and floods show that underestimating or downplaying the size and risks of future events leads to bad outcomes, and government responses being overwhelmed.

Transparency and the ONI report

The ALP government is to be commended for commissioning a climate-and-security risk assessment, authored by ONI. In doing so, it did what every previous government had failed to do, and which the Liberal and National Parties still refuse to acknowledge as a necessary task.

Unfortunately, ONI's report has been securitised, with no declassified version released, unlike the practice of our major allies, or the practice with the Defence Security Review.

The report's key risk conclusions have been buried, such that members of parliament including those who oversee relevant committees have not seen the ONI report. It is inconceivable that MPs and Senators could do their job of formulating and reviewing policy and performance on this greatest-of-all threats when the National Security Committee of Cabinet will not share with them intelligence analysis on the form and severity of that risk. They have been left in the dark, as has almost the entire public service and the Australian people.

The ONI report was unlike previous climate impact advice received by any Australian government. It is likely that it drew some of its methodology and data from the Chatham House *Climate Risk Assessment 2021*, which warned that by 2050 global food demand will be 50 per cent higher than 2020, while crop yields may be 30 per cent lower. That report concluded that cascading climate impacts will "drive political instability and greater national insecurity, and fuel regional and international conflict".¹⁴

US intelligence agency reports identify South and Central Asia, the Pacific small island states and Indonesia as "highly vulnerable countries" of concern for climate disruption. ¹⁵ South Asia, China and Indonesia are identified by the World Resources Institute as countries where water stress will be "extremely high" by 2040. ¹⁶

Retired Admiral Chris Barrie, former Chief of the Australian Defence Force, has said repeatedly that brutal climate impacts will produce state instability and failure in both Asia and the Pacific, including in some of the most populous nations. This is especially true of those with semi-democratic governments and existing insurgencies, either domestically or in neighbouring states.

There will likely be a further retreat to authoritarian and hyper-nationalist politics, the diminution of instruments of regional cooperation, and increased risks of regional conflict, including over shared

¹⁴ chathamhouse.org/2021/09/climate-change-risk-assessment-2021

¹⁵ dni.gov/files/ODNI/documents/assessments/NIE Climate Change and National Security.pdf

¹⁶ wri.org/insights/ranking-worlds-most-water-stressed-countries-2040

water resources from the Himalayas and the Tibetan Plateau. This would encompass India, Pakistan, China and southeast Asian nations.

Not only does the parliament not know what ONI said, but the government has made no statement about the report, or in fact said anything substantial about climate—security risk. It has made no effort to help build public understanding about the profound risks, but the opposite. That knowledge is under lock and key.

Concealing the ONI analysis is the opposite of good security policy governance. It means we face a threat that we cannot even talk about.

Risks experts say if one were to ask government officials anywhere for their view of the risk of global climate catastrophe, "the response would be thunderous silence" because the worst-case scenarios are "out of the realms of imagination and the time frames of politics". ¹⁷ Further, "to properly prevent and prepare for the risk, governments must admit there's a problem. Such an admission can only come with proper effort to assess and monitor global catastrophic risk, develop potential future scenarios, build and analyse intelligence, and invest in scientific and technical expertise."

Selective briefing on ONI report raises big questions

On 9 December 2024, the government — in particular Defence Minister Marles and ONI head Shearer — selectively briefed a number of Teal and independent members of parliament on the contents of the ONI report.¹⁸

Senator David Pocock was at the secret briefing, which was in effect the selective leaking by a government of an intelligence report it had classified. The briefing occurred after Pocock, the Greens and the Teals had consistently pressed the government on the securitisation of the ONI assessment, saying as parliamentarians it was not possible for them to do their job and oversee the government's security and climate agenda if the key information on the nature of those risks was deliberately being withheld from them.

Senator Pocock said that: "After hustling the government for the last few years, they gave crossbenchers a private briefing on it and it's frankly terrifying, what our national security agencies are telling us is coming, and the government is not acting... I think it is actually negligence from both of them... We're woefully underprepared for what's coming... It's no surprise that the government has been sitting on this report from the Office of National Intelligence." 19

Three questions deserve answers:

Why was a declassified version of the ONI report not released, as happened with the
Defence Security Review? The clearest answer is that the risks ONI described — "terrifying"
according to Senator Pocock and others — would make the government's policies of
leisurely emissions reduction and expansion of coal and gas production look absurd.

¹⁷ thebulletin.org/2024/03/to-prevent-global-catastrophe-governments-must-first-admit-theres-a-problem

¹⁸ thesaturdaypaper.com.au/news/environment/2025/03/15/exclusive-secret-briefings-climate-national-security-risk

¹⁹ thesaturdaypaper.com.au/news/environment/2025/03/15/exclusive-secret-briefings-climate-national-security-risk

- 2. Why were only some parliamentarians given a secret briefing? Some participants in the meeting were under the impression that they could not even acknowledge the briefing had occurred. Why not outer cabinet ministers who are still in the dark, or members of the foreign affairs, defence and security committees of Parliament?
- 3. What does this selective leaking mean for the ONI report's classified status? It is now badly compromised. It would be reasonable for the rest of the parliament to request that they also be briefed.

Transparency and the NCRA

As expressed above, ASLCG is deeply concerned about the delay in finalising and releasing the NCRA. We assume that it will be released in full. The delay and lack of transparency are not acceptable.

ASLCG from the beginning urged a transparent process, but that has not happened.

The Senate deserves a full explanation as to the bungling of the initial contract and what lessons have been learned from that process; what lessons DCCEEW has learned from the project, and whether DCCEEW has made any recommendations to the government about the handling of future risk assessments.

As part of a review process, the government should focus on a major problem identified in the 2024 Australian Academy of Science report, *A decadal plan for Australian Earth system science* 2024–2033, which recommended the urgent establishment of an Australian Institute for Earth System Science, tasked with developing, co-ordinating and implementing the national science required to deliver answers to nationally significant questions. The report noted that "an unintended vacuum has emerged where no unifying agency or long-term funding initiative is addressing the fundamental understanding of climate to provide the foundations for climate intelligence needs in 10, 20 or 30 years' time. We are, in effect, building climate action and climate policy on foundations developed 10 to 20 years ago". ²⁰

5. DUTY OF CARE AND TRANSPARENCY

UN Secretary General António Guterres has noted that "We face a direct existential threat" from climate change as "we career towards the edge of the abyss". This is a stark warning to all governments, about their responsibility to understand, act and communicate,

At the heart of the liberal-democratic project is the concept of responsibility: responsibility for oneself, for the community, and for protection of those who need care. In other words, the first duty of a government is to "protect the people", their safety and well-being. A government derives its legitimacy and hence its authority from the people, and so has a fiduciary duty: a responsibility to take reasonable care and act in accordance with the interests of all the people of the nation with integrity, fairness and accountability.

²⁰

science.org.au/supporting-science/science-advice-and-policy/decadal-plans-for-science/a-decadal-plan-for-australian-eart h-system-science-2024-2033

²¹ https://www.un.org/sg/en/content/sg/statement/2018-09-10/secretary-generals-remarks-climate-change-delivered

Internationally, private-sector company directors are facing legal action and personal liability for having refused to understand, assess and act upon climate risk, or for misrepresenting that risk. Compensation is being sought from carbon polluters for damage incurred from climate impacts. Legal opinion suggests similar action in Australia would be firmly based, and this duty has been recognised in several quarters, including by some public sector financial system regulators.

Section 25 of the Public Governance Performance and Accountability Act 2013 is the public sector equivalent of corporate directors' duty of care and diligence under section 180(1) Corporations Act 2001. It says an official of a Commonwealth entity must exercise his or her powers, perform his or her functions and discharge his or her duties with a high standard of care and diligence. An explanatory memorandum says as a general principle, officials in the public sector should not be held to a lower standard of account than employees of publicly listed companies. If anything, they should be held to a higher standard. This duty of care includes not only ministers and senior public servants, but regulators and board members of statutory authorities. That duty in the public sector has already been successfully tested in the courts in The Netherlands.

The eminent jurist and former Chief Justice of the High Court, the late Sir Gerard Brennan AC, KBE, QC argued this duty to protect cannot be subordinated to political interests: "Power is reposed in members of Parliament by the public for exercise in the interests of the public and not primarily for the interests of members or the parties to which they belong. The cry 'whatever it takes' is not consistent with the performance of fiduciary duty". Thus "all decisions and exercises of power should be taken in the interests of the public", and that duty cannot be subordinated to, or qualified by, the interests of the cabinet minister or parliamentarian.²³

This duty has a particular sharpness in the new era of climate disruption and existential risks that will manifest as a consequence of the global failure to act. It is a pressing question as to whether the Australian Public Service is properly exercising those fiduciary responsibilities given the existential threat, and the damage caused by a decade of denial-and-delay governments from 2013 to 2022.

The government has a clear responsibility, and that includes a duty of care to be transparent with the electorate on the risks facing the nation.

This is important because climate change impacts are escalating dramatically around the world and on every continent, not least in Australia. The social and economic cost is already a major burden not just on lower-income countries who have done little to deserve it, but on the higher-income countries, such as Australia and the US, who have been primary contributors to the causes of these climate impacts.

Yet the Australian community remains blissfully unaware of these implications due to the lack of official transparency. It is critically important, in both the public and the government's interests, that this deficiency be rectified urgently.

This should be done constructively, without panic, to build support for the difficult decisions which lie ahead. Without transparency and well-formed public understanding of these threats, implementing serious climate policy will continue to be slow and a political nightmare, with disastrous outcomes for the Australian people.

²² https://www.finance.gov.au/government/managing-commonwealth-resources/pgpa-legislation-associated-instruments-and-policies

²³ https://www.aspg.org.au/wp-content/uploads/2018/07/2018-David-Solomon.pdf

The government and the media both have a duty of care to provide a balanced focus on security risks, not the privileging of some, whilst others are minimised or hidden away.

APPENDIX: HOW TO UNDERSTAND CLIMATE RISK

Realistic climate policy can only be developed when the problem it is designed to address and its risks are understood to the greatest extent possible.

The nature of the risks

- Climate risks are existential in threatening the basis of our society and economy and the sovereign existence of communities and states alike, posing large, irreversible harm if not rapidly addressed.
- In the mapping of potential threats, the greatest risk lies at the high-end (or "fat tail") of the range of outcomes, which should be given particular attention. A fat-tail risk is the probability of events with higher impacts occurring that might be expected under a normal probability distribution. Focusing on the most likely outcomes creates a false sense of security.
- In the physical climate, many systems exhibit fast, non-linear change which is difficult to model or project, and which is often associated with a tipping point.
- Many climate systems exhibit tipping points or thresholds at which a small change causes a
 larger, more critical change to be initiated, taking that system from one state to a discretely
 different state far less conducive to human survival and prosperity. The change may be
 abrupt and irreversible on relevant time frames, possibly leading to cascading events.
- An unforeseen chain or cascade of events may occur when one event in a system has a
 negative effect on other related components. For example, the mutual interaction of
 individual climate tipping points and/or abrupt, non-linear changes, may lead to more
 profound changes to the system as a whole.
- Systemic climate risks are multiplying and intensifying, interconnected and cascading across natural and human systems, and require a systems approach to understand them.

Assessing the risks

- A full climate change risk assessment should be carried out in line with risk management best practices, taking into account the full range of outcomes, including tipping points and the risk of ruin. This must not be based only on historic experience, which may well be irrelevant to the future state, and must incorporate methods to understand unprecedented climate impacts.
- Hence a fundamental rule of risk assessment is to focus on the "fat-tail" risks and the
 plausible worst case scenarios, especially when the damages are so great and the risks are
 existential, such that there is no "second chance" to learn from one's mistakes.
- Benchmarks established for assessing risks and solution efficacy should have a low probability of failure. Policies requiring low risks of failure applied to the banking and insurance sector, and in safety management, should also be applied to the far greater risks from climate change.

- These requirements and the systemic nature of the risks means governments must fundamentally rethink the approach to climate risk assessment and response, embracing complex risk analysis. Physical and economic climate models have fundamental limitations so expert elicitation and scenario planning are crucial components in risk analysis.
- A systems approach requires an integrated method of analysis of the complex relationships within and between human and physical climate systems in creating cascading and compounding risks — one that avoids silos, cherry-picking potential risks and partial "bottom up" approaches.
- The urgency of required action should explicitly be considered and articulated, with policy and project systems structured to respond at the speed required.
- The lack of certainty in risk assessment should not be taken as an excuse for inaction if risks are potentially catastrophic or existential in nature. The recent acceleration of climate change indicates that precautionary action is essential.