## Climate Security Risks (JSCFADT)Clearance Process

#### **Need Clearance From:**

- International FAS (Craig Chittick, EA is \$\frac{s}{22(1)(a)(ii)}\$
   Climate FAS (Narelle Luchetti, EA is \$\frac{s}{22(1)(a)(ii)}\$
- o NSD FAS (Lachlan Colquhoun, EA s 22(1)(a)(ii) already scheduled)
- o ISG DepSec (Lynette Wood, EA is <sup>s 22(1)(a)(ii)</sup>
- o Economy, Industry and Resilience Group DepSec (Nadine Williams Secretary, the EA is s 22(1)(a)(ii)

Clearances will need to be conducted at the same time across areas.

#### Timeline:

Thursday	D&I AS: Clearance: 10am Thursday		
Thursday deadline	NSD FAS Clearance: 2pm Thursday	International FAS Clearance:	Climate FAS Clearance:
Friday	ISG DepSec Clearance:		Secretary Nadine Williams:
Friday Deadline	PM&C Secretary: Glyn Davis		

OFFICIAL: SENSITIVE

# Strategies to Combat Climate Security Risks JSCFADT Brief

## **DISS Talking Points**

#### Task and Rational

- Defence Industry, Strategy and Space has written a brief to the Joint Standing Committee of Foreign Affairs, Defence and Trade.
- This brief was written in response to a request from JSCFADT to the Secretary PM&C and DG ONI on "climate security risks and the potential impacts on the stability and prosperity in our region".
- The Secretary agreed to provide a written briefing to the Committee by Wednesday, 15 November 2023
- The brief:
  - Outlines the potential impacts of climate security risks on the stability and prosperity in our region,
  - o Related strategies to combat climate security risks
  - Draw from across the commonwealth to ensure it capture the full spectrum of climate security risks and strategies to combat them

#### The Brief

- The brief focusses on climate security risks including:
  - o Imperative need for climate action
  - Strategic and geopolitical implications
  - Regional impacts
  - o Natural disaster and Defence implication
  - Clean energy technology
  - Supply chain implications
  - o Australia's climate resilience

#### Consultation:

- The brief has been consulted with:
  - Treasury

Document 2

#### OFFICIAL: SENSITIVE

- o Office of National Intelligence
- o Department of Defence
- Home Affairs
- o Department of Foreign Affairs and Trade
- o Department of Industry, Science and resources
- o Department of Agriculture, Fisheries and Forestry
- o Department of Climate Change, Energy, the Environment and Water
- Bureau of Meteorology
- And across PM&C:
  - National Security Division
  - o International Division
  - o Industry, Infrastructure and Environment
  - Office for Women

#### **Clearance Process**

- By the time you receive the brief, it will have been cleared or reviewed by:
  - o FAS international, NSD, II&E and Economic
  - o It will also be progressed to DepSec Williams for simultaneous clearance on Friday
  - o It will progress to PM&C Secretary on Monday, 13 November
  - o It will progress to JSCFADT on Wednesday, 15 November

OFFICIAL Document 3

## **AUSTRALIAN GOVERNMENT**

## STRATEGIES TO COMBAT CLIMATE SECURITY RISKS

Department of the Prime Minister and Cabinet

Brief to the Joint Standing Committee on Foreign Affairs, Defence and Trade

17 November 2023





### **Australian Government**

## Department of the Prime Minister and Cabinet

SECRETARY

Ref: EC23-000519

Hon Shayne Neumann MP Chair of the Joint Standing Committee on Foreign Affairs, Defence and Trade Parliament of Australia Email: jscfadt@aph.gov.au

Dear Mr Neumann,

Thank you for your letter dated 19 September 2023. As outlined in my response on 11 October 2023, I am pleased to submit a briefing on climate security risks, the potential impacts on the stability and prosperity in our region, and the Australian Government's strategies to combat these risks.

This briefing has been prepared by my Department drawing on contributions from across the Commonwealth to ensure it considers the spectrum of issues.

The Government recognises that climate change has serious ramifications for global security. I note the important role of parliamentary oversight and the work of the Joint Standing Committee on Foreign Affairs, Defence and Trade.

I commend this briefing to the Committee to assist with its ongoing work and inquiries.

Regards,

s 22(1)(a)(ii)

Professor Glyn Davis AC November 2023



## **Contents**

1. Introduction	5
2. Strategic Implications	7
Government response and initiatives	8
3. National Defence and Disaster Relief	.1
• Government response and initiatives	2
4. Climate Adaptation and Resilience	5
• Government response and initiatives	6
5. Human Security and Climate Migration	9
• Government response and initiatives	Ю
6. The Pacific	Ю
• Government response and initiatives	Ю
7. Southeast Asia	2
• Government response and initiatives	3
8. North Asia	3
• Government response and initiatives	4
9. Clean Energy Technology and Supply Chains	5
• Government response and initiatives	6
10 Conclusion	7



## Snapshot

### Climate Security Risks

Climate change acts as a risk multiplier, interacting with other social and economic factors to exacerbate existing security risks, induced crises or shocks, and shape human mobility and security. Failure at the global level to urgently reduce emissions will see increasingly severe implications on most facets of Australia's national security.

Damage to food systems, shortages of water, displacement of populations and more frequent natural disasters will contribute to political instability, violence, and mass movements of people, especially within fragile and vulnerable countries in the region.

These issues will be integral to Australia's security outlook for decades to come, as climate security risks will significantly impact Australia's national well-being, along with the stability and prosperity of the Indo-Pacific region.

## Government Response and Initiatives

The emerging strategic implications of climate change are well understood and publically discussed. Australia has a robust architecture for identifying, analysing and managing security risks, and is incorporating climate change analysis into this existing framework to inform how the Government responds to these risks.

The Australian Government has started the work of integrating climate security in analyses, policies and relationships, and cooperating with others to drive effective responses. This work seeks to address climate security risks brought about by the impacts of climate change on peace and security.

Climate policy is becoming a core theme of Australia's international engagement. Australia's work with partners is instrumental in driving strong climate outcomes in multilateral forums. Understanding climate security risks will increasingly shape Australia's relations with allies and security partners. Continued engagement on, and the sharing of, national climate change assessments supports multilateral efforts.

## **Key Figures**

\$3bn

\$40bn

\$1bn

\$4bn

Climate commitment over 2020-25, with \$1.3 billion in the Pacific Investment into energy transformation and climate priorities

Disaster Ready Fund (DRF) Committed in the 23/24 budget to power Australia's energy transformation



## **CLIMATE SECURITY RISKS**

Potential impacts on the stability and prosperity in Australia and our region, and the Australian Government's strategies to combat these risks.

This Brief provides a current assessment of Australia's climate security risks and an overview of Australian Government policy initiatives to mitigate negative outcomes, and increase the preparedness and resilience of Australia and the region.

This Brief has been prepared in consultation with Government agencies and focuses on climate security risks. It does not detail the full suite of efforts by Government to mitigate climate change and reduce emissions.

This Brief is provided ahead of the 2023 Annual Climate Change Statement, which is expected in the last week of November 2023. The Statement should be referred to as the key summary of Australia's climate change policy and broader risks to Australia from climate change impacts.

## 1. Introduction

- 1.1. Climate change acts as a risk multiplier, interacting with other social and economic factors to exacerbate existing security risks, induced crises or shocks, and shape human mobility and security. The warming climate, and human responses to it, has direct and significant implications for Australia's security with global, complex and interdependent effects. Climate change impacts are already being felt, and in some cases, occurring ahead of scientific predictions. The findings of the *Intergovernmental Panel on Climate Change 6th Assessment Report* confirms the world is not on track to meet our goals under the Paris Agreement, and that we must significantly step up our collective actions to keep 1.5 degrees within reach.<sup>1</sup>
- 1.2. The World Meteorological Organization (WMO) reports that the window to keep warming below 1.5°C is rapidly closing.<sup>2</sup> The report forecasts that there is a 98% likelihood that at least one of the next five years, and the

<sup>&</sup>lt;sup>1</sup> Intergovernmental Panel on Climate Change, Working Group 2. (2022). Sixth Assessment Report: Technical Summary.

https://www.ipcc.ch/report/ar6/wg3/downloads/report/IPCC AR6 WGIII TechnicalSummary.pdf. <sup>2</sup> World Meteorological Organisation. (2023) *Global Annual to Decadal Climate Update*, 2. https://library.wmo.int/records/item/66224-wmo-global-annual-to-decadal-climate-update.



five-year period as a whole, will be the warmest on record.<sup>3</sup> The *Intergovernmental Panel on Climate Change 6th Assessment Report* projects this average will be exceeded over 2025 to 2035, depending on the emissions scenario.<sup>4</sup> Failure at the global level to urgently reduce emissions will see increasingly severe implications on most facets of Australia's national security.

- 1.3. Breaching scientifically-determined targets to limit warming threatens to generate self-reinforcing environmental degradation. As an example, thawing Arctic permafrost could release twice as much carbon as there is in the atmosphere today, creating runaway heating and cascading hazards that are yet to be fully understood.<sup>5</sup>
- 1.4. Current scientific consensus identifies the effects of the current global emissions trajectory, including substantial sea level rises, reductions in biodiversity, and an increased frequency and intensity of natural disasters. States will increasingly be unable to recover from one disaster before the next arrives, while droughts and rising temperatures reduce the viability of arable land and water security.
- 1.5. Climate change is likely to exacerbate existing tensions and economic factors across the multilateral system. Damage to food systems, shortages of water, displacement of populations and more frequent natural disasters will contribute to political instability, violence, and mass movements of people, especially within fragile and vulnerable countries in the region.
- 1.6. This will create economic and social tension as competition increases for constrained water and food resources lead to mass migration and displacement driving further demands for peacekeeping and disaster-relief assistance. The threat to human security will disproportionately impact developing countries and vulnerable people including women and girls who are less to be able to adapt to emerging threats.

<sup>4</sup>Intergovernmental Panel on Climate Change, Working Group 2. (2022). Sixth Assessment Report: Technical Summary, 41-43.

 $\frac{https://www.ipcc.ch/report/ar6/wg3/downloads/report/IPCC\ AR6\ WGIII\ TechnicalSummary.pdf.}{^5\ Ibid,\ 56,\ 69.}$ 

<sup>&</sup>lt;sup>3</sup> Ibid.

<sup>&</sup>lt;sup>6</sup> Intergovernmental Panel on Climate Change. (2019). Food Security. Climate Change and Land: an IPCC special report on climate change, desertification, land degradation, sustainable land management, food security, and greenhouse gas fluxes in terrestrial ecosystem, 439. https://www.ipcc.ch/srccl/chapter/chapter-5/.



## 2. Strategic Implications

- 2.1. These issues will be integral to Australia's security outlook for decades to come, as climate security risks will significantly impact Australia's national well-being, along with the stability and prosperity of the Indo-Pacific region. This is coinciding with geopolitical shifts and the intensification of major power competition. Geopolitical dynamics will likely be influenced by the impacts of climate change and, in turn, geopolitics will affect the global response to climate change. Competition for economic and political advantage in the race to decarbonise is intensifying as we are currently seeing in the energy and critical mineral sectors.
- 2.2. Some countries are attempting to reshape the rules, norms, and standards underpinning the multilateral system in their interest and contrary to Australia's national interests. As the multilateral system responds to the impacts of climate change, this behaviour risks undermining the efficacy and cohesiveness of an international response. The clean energy transition will also fundamentally change our global energy markets, impacting how Australia should think about energy security and creating a new frontier for geostrategic competition.
- 2.3. Long-term impacts on food and water security will be a particular focus for the Indo-Pacific, with the depletion of fishing stocks having potentially major impacts for the economies of Australia's Pacific neighbours<sup>8</sup> as well as Australia's fishing and aquaculture industries.<sup>9</sup> These impacts are likely to increase the demands placed on Australia's region to protect states' respective Exclusive Economic Zones from illegal, unregulated and unreported fishing.
- 2.4. Current multilateral discussions under the United Nations Framework Convention on Climate Change (UNFCCC) are focused on the implementation of the Paris Agreement, including to accelerate action in key areas. This includes the first Global Stocktake, a collective review of progress due at Conference of Parties Session 28 (COP28) in December 2023, as well as discussions on global progress on adaptation and

<sup>9</sup> Mobsby, D, & Curtotti, R. (2021). Snapshot of Australia's commercial fisheries and aquaculture. Department of Agriculture, Fisheries and Forestry.

 $\frac{https://www.agriculture.gov.au/abares/products/insights/snapshot-of-australias-commercial-fisheries-and-aquaculture.}{}$ 

<sup>&</sup>lt;sup>7</sup> Page, M. & Glasser, R. (2022). *The geopolitics of climate and security in the Indo-Pacific*, 3, 9-10. Australian Strategic Policy Institute. <a href="https://www.aspi.org.au/report/geopolitics-climate-and-security-indo-pacific">https://www.aspi.org.au/report/geopolitics-climate-and-security-indo-pacific</a>.

<sup>&</sup>lt;sup>8</sup> Ibid.



negotiation on the *New Collective Quantified Goal on Climate Finance* due in 2024. As a standing obligation under the Paris Agreement, Parties are also required to put forward new emissions reduction commitments (so called *Nationally Determined Contributions*) by 2025. There will be significant interest in these milestones in coming years.<sup>10</sup>

### Government response and initiatives

- 2.5. The emerging strategic implications of climate change are well understood and publically discussed. Australia has a robust architecture for identifying, analysing and managing security risks, and is incorporating climate change analysis into this existing framework to inform how the Government responds to these risks.
- 2.6. The Australian Government has started the work of integrating climate security in analyses, policies and relationships, and cooperating with others to drive effective responses. This work seeks to address climate security risks brought about by the impacts of climate change on peace and security. Key examples include:
  - tasking the Office of National Intelligence (ONI) to undertake a National Climate Risk Assessment to inform the National Security Committee of Cabinet;
  - using the National Climate Risk Assessment to inform government approaches to important strategic documents, such as the Defence Strategic Review (DSR);
  - developing the National Resilience Framework to bolster Australia's ability to anticipate, prevent, absorb, adapt and evolve from extreme and concurrent natural and human-induced crises or shocks;
  - reviewing the Australian Government Crisis Management Framework to ensure it remains contemporary and able to support coordinated responses to future global risks and threats in a more complex environment;
  - leveraging Australia's diplomatic and aid networks to support adaptation and resilience in the region, therefore reducing climate security risks;

<u>commitments#:~:text=Nationally%20Determined%20Contributions&text=Australia%20submitted</u> d%20its%20first%20NDC,NDC%20on%20the%20UNFCCC%20registry.

OFFICIAL

<sup>&</sup>lt;sup>10</sup> Department of Climate Change, Energy, the Environment and Water. (2023). *International Climate Action*. Australian Government. <a href="https://www.dcceew.gov.au/climate-change/international-">https://www.dcceew.gov.au/climate-change/international-</a>



- delivering programs and funding to promote climate adaption and resilience in the region through the *International Development Policy* and Australia's Official Development Assistance program;
- endorsing the *Pacific Regional Climate Mobility Framework* to assist in mitigating human security issues due to forced climate migration;
- building climate security into Australia's core alliances and supporting countries in our region to consider climate security risks and implications; and
- coordinating broader efforts to address climate change, reduce Australia's own emissions and support adaptation and resilience efforts, which also contribute by mitigating climate security risks as much as possible.
- 2.7. Climate is a growing focus within Australia's alliance with the United States and other major security partnerships, including Japan, the Republic of Korea (ROK) and the United Kingdom. Australia's major security partnerships are considering and responding to the changes posed by climate change. Australia-United States Ministerial Consultations (AUSMIN) and the Australia-United Kingdom (AUKMIN) Joint Statements have recently featured discussions on climate and security.
- 2.8. At AUSMIN in 2022, new collaboration was agreed on national security aspects of climate change including information sharing between relevant departments and establishment of a new *Senior Officials' Working Group on Climate Security Risk*. The Working Group has begun to assess how Australia and partners can collaborate on climate impacts and risks, defence-related climate hazards, and climate-related technology issues.
- 2.9. At AUKMIN in February 2023, ministers recognised the profound security implications of climate change and committed to reducing and mitigating the climate impacts of defence activities. Senior Defence officials in Australia and the UK have committed to exploring a joint action plan to identify meaningful action.
- 2.10. The Australian Government is committed to active, strategic, global leadership on climate change through joining international initiatives and alliances which aim to strategically build climate-smart, sustainable agricultural capabilities globally and in the Indo-Pacific region.
- 2.11. Australia's new international development policy, launched in August 2023, elevates climate and sets new objectives for climate-related programming. It also requires the preparation of country-level analyses of climate risk, as part and parcel of determining official development



assistance (ODA) programming with Australian partners. Through this, the Australian Government will begin to assess climate risk systematically, including those issues that bear on security, with development partners from the Pacific to Southeast Asia.

- 2.12. Australia actively supports and strengthens Disaster Risk Financing and response in the Pacific. Australia invested AUD 363 million in disaster risk reduction (DRR) in FY2021-22 this comprises 8 percent of Australia's ODA and is supporting early warning systems across the region.
- 2.13. Australia is party to the Paris Agreement, the UNFCCC and Kyoto protocol and submits Nationally Determined Contributions. Australia is actively engaging in a wide range of multilateral forums on climate change, including through the Association of Southeast Asian Nations (ASEAN), the Pacific Islands Forum (PIF), the Asia Pacific Economic Cooperation (APEC) and the Group of 20 (G20), to play its part as an international leader in the global challenge to address the climate crisis.<sup>11</sup>
- 2.14. The Australian Government is accelerating efforts to decarbonise, position Australia to harness the opportunities of the net zero transformation, and support energy security, adaptation and resilience domestically and in the region. These combined actions will create opportunities to increase regional security.
- 2.15. Across whole-of-Government, agencies are taking action to reduce emissions and enhance the response to climate security risks. The Government has committed to net zero emissions for the Australian Public Service by 2030, excluding defence and security agencies. Defence and security agencies will seek to reduce emissions in line with Australian Government targets where this does not compromise accelerated preparedness, operations or capability requirements.
- 2.16. Australia has set an ambitious national target of 82% renewable electricity by 2030 to support decarbonisation of the electricity sector in line with emission reduction targets. Since 1 July 2023, the Government has also

 $\frac{commitments\#:\sim:text=Nationally\%20Determined\%20Contributions\&text=Australia\%20submitted}{d\%20its\%20first\%20NDC,NDC\%20on\%20the\%20UNFCCC\%20registry}.$ 

<sup>&</sup>lt;sup>11</sup> Department of Climate Change, Energy, the Environment and Water. (2023). *International Climate Action*. Australian Government. <a href="https://www.dcceew.gov.au/climate-change/international-">https://www.dcceew.gov.au/climate-change/international-</a>

<sup>&</sup>lt;sup>12</sup> Department of Climate Change, Energy, the Environment and Water. (2022). *Annual Climate Change Statement 2022*, 32. Australian Government. <a href="https://www.dcceew.gov.au/climate-change/strategies/annual-climate-change-statement">https://www.dcceew.gov.au/climate-change-statement</a>.



- reformed the safeguard mechanism to reduce industrial emissions baselines over time.
- 2.17. Australia has also strengthened our previous \$2 billion climate finance commitment to \$3 billion to the global goal over 2020-25, largely through existing ODA commitments, with \$1.3 billion in the Pacific.
- 2.18. Australia is working to ensure that key development partners prioritise climate change financing for the Indo-Pacific region. Australia joined with other countries in initiating reform of multilateral development banks (MDB) so that they better address global challenges like climate change.<sup>13</sup>

## 3. National Defence and Disaster Relief

- 3.1. Australia is facing increasingly complex and compounding crises with greater impacts on Australian communities and interests. Concurrently, a shifting threat environment is presenting complex challenges for crisis management.
- 3.2. The independent DSR made clear that climate change holds a number of significant implications for Australia's national security, Defence and emergency management capacities. The acceleration of major climate events risks overwhelming the Government's capacity to respond effectively, and detracts from Australian Defence Force's (ADF) primary objective of defending Australia.
- 3.3. Extreme weather events resulting from climate change have already proven to have significant impacts on energy security and critical infrastructure in both Australia and abroad. Floods have caused shutdowns of power plants due to risks to personnel and fuels, bushfires continue to threaten transmission and distribution infrastructure, and droughts impact both hydroelectric generation and coal-fired generation (where water is used for cooling). These events are not limited to impacting Australian infrastructure, but can also place increased strain on energy networks in both Australia and abroad.
- 3.4. This fragility could be used as a climate change based force-multiplier for hostile actors; the threshold for damage to energy networks from sabotage may be significantly lower during high demand/low supply periods, such as extreme weather seasons.

<sup>&</sup>lt;sup>13</sup> United States-Australia Joint Leaders' Statement - Building an innovation alliance | Prime Minister of Australia. (2022). Www.pm.gov.au. <a href="https://www.pm.gov.au/media/united-states-australia-joint-leaders-statement-building-innovation-alliance">https://www.pm.gov.au/media/united-states-australia-joint-leaders-statement-building-innovation-alliance</a>



- 3.5. Climate events place concurrency pressures on the ADF. The DSR noted that this has negatively affected force preparedness, readiness, and combat effectiveness. It also noted that Defence is frequently required to make large contributions to domestic and regional disaster relief efforts following major climate events. However, Defence is not structured or appropriately equipped to act as a domestic disaster recovery agency concurrently with its core function, in any sustainable way.
- 3.6. In response to a rapidly changing strategic environment, the DSR called for adoption of a new strategic conceptual approach to Australia's defence planning and strategy, 'National Defence'. National Defence requires the nation and its leaders to take a much more whole-of-Government and whole-of-nation approach to security, including:
  - an integrated ADF capable of responding to increased challenges and support to the Indo-Pacific region;
  - stronger defence capabilities including in assets, workforce, partnerships, information, and force posture;
  - a renewed focus on Defence preparedness;
  - more focussed, coordinated and deeper statecraft and diplomacy in the Indo-Pacific region;
  - a new approach to the management of risk across government; and
  - a whole-of-nation effort to develop strategic resilience.

## Government response and initiatives

3.7. National Defence is a response to our deteriorating strategic environment. <sup>14</sup> It acknowledges the contemporary environment is made of at least five global, complex, non-linear, interdependent disruptions - strategic, economic, diplomatic, climatic and informatic - that do not occur in isolation and are now deeply enmeshed within, and as backdrop to, great power competition. <sup>15</sup> National Defence also recognises that climate change is a national security issue, and that the region is faced with

<sup>&</sup>lt;sup>14</sup> ACT, R. (2022). Department of Defence. Defence.gov.au.

https://www.defence.gov.au/about/reviews-inquiries/defence-strategic-review

<sup>&</sup>lt;sup>15</sup> CDF address to the 2023 ASPI Conference. (2023, September 14) *Disruption and Deterrence* <a href="https://www.aspistrategist.org.au/wp-content/uploads/2023/09/Address-by-General-Angus-J-Campbell-AO-DSC-to-the-2023-ASPI-Disruption-and-Deterrence-Conference-14-Sep-2023.pdf">https://www.aspistrategist.org.au/wp-content/uploads/2023/09/Address-by-General-Angus-J-Campbell-AO-DSC-to-the-2023-ASPI-Disruption-and-Deterrence-Conference-14-Sep-2023.pdf</a>



- immediate disaster mitigation and response challenges, alongside longterm human migration impacts.
- 3.8. The Government provided funding for disaster resilience and recovery in Budget 2023-24, including an uplift to the National Emergency Management Agency. The Government held the first National Disaster Preparedness Summit 25 26 September 2023 in Canberra which brought together 250 crisis management, response and recovery specialists from across governments, industry and the not-for-profit sector. 17
- 3.9. The Department of the Prime Minister and Cabinet (PM&C) is working with Australian Government departments and agencies to ensure a whole-of-Government and whole-of-nation approach which builds resilience across the crisis continuum (prevention, preparedness, response, relief, recovery, reconstruction and risk reduction).
- 3.10. PM&C is currently undertaking a comprehensive review of the Australian Government Crisis Management Framework (AGCMF) to ensure it remains contemporary and able to support coordinated responses to future global risks and threats in a more complex environment. The review will cover the role of different governance mechanisms. The review is due for completion by December 2023.
- 3.11. The Government's response to the DSR agreed that the ADF needs to be prepared to respond, as a last resort, for domestic aid to the critical civil risks Australia faces. The Government will work in partnership with states and territories to further develop national resilience and response mechanisms to alleviate pressures on the ADF.
- 3.12. To reduce reliance on the ADF for domestic aid to the civil community, in the 2023-24 Budget the Government announced it is exploring alternative Commonwealth capabilities for crisis response to support state and territory-led crisis response efforts. The Minister for Emergency Management sought public submissions on a discussion paper on this in August and September 2023.
- 3.13. To examine Australia's increasing exposure and vulnerability to nationally significant crises, and ensure the Commonwealth has the necessary capability to manage such crises, in December 2022 the Minister for Home Affairs created a National Resilience Taskforce in the Department of Home

<sup>&</sup>lt;sup>16</sup> Budget 2023-24. (2023). *Budget Measurers: Budget Paper No. 2*, 157. https://budget.gov.au/content/bp2/download/bp2 2023-24.pdf.

<sup>&</sup>lt;sup>17</sup> National disaster preparedness summit launches in Canberra | National Emergency Management Agency. (2023, September 25). Nema.gov.au. <a href="https://nema.gov.au/about-us/mediacentre/Preparedness-Summit-250923">https://nema.gov.au/about-us/mediacentre/Preparedness-Summit-250923</a>



Affairs. The Taskforce is exploring and delivering a range of priority lines of effort including:

- considering the domestic implications of the security environment and making recommendations to Government about the actions required to ensure Australia's security, prosperity and unity in the face of Australia's increasing exposure and vulnerability to nationally significant crises;
- developing a National Resilience Framework to bolster Australia's ability to anticipate, prevent, absorb, adapt and evolve from extreme and concurrent natural and human-induced crises or shocks, regardless of how these challenges come about;
- ensuring Australia has the right authorities, legislation and policy settings to manage national level crises and concurrent emergencies, including at the border;
- exploring options to ensure Australia is resilient against malicious state-based activity, including exploring Australia's resilience capabilities and planning;
- boosting efforts to strengthen supply chain resilience, including examining the vulnerabilities of limited trade during COVID, by developing greater awareness of Australia's vulnerabilities to supply chain shock from a national security perspective and reducing Australia's exposure to critical risks; and
- identifying and assessing national security climate impacts and risks and developing policies to address critical national security vulnerabilities resulting from or exacerbated by climate change.
- 3.14. The Taskforce is considering the lessons from COVID-19 and other recent crises as part of this work, and is working closely with the Strengthening Democratic Resilience Taskforce, noting Australia's democratic resilience underpins its national resilience.
- 3.15. In line with the Government's response to the DSR, Defence is developing a plan to accelerate its transition to clean energy to increase national resilience. Defence has various initiatives underway to address climate change risks with an initial plan to be presented to the Government by 2025.
- 3.16. These efforts build on existing Defence action including the announcement of \$64 million for the Defence Renewable Energy and Energy Security



Program in February 2023.<sup>18</sup> This additional Government investment will deliver solar energy generation and battery storage systems at Defence sites throughout Australia. The Program has been effective in piloting renewable energy on the defence estate and developing the policies and processes to enable greater investment in renewable energy. Clean energy contributes to Defence capability by improving energy security and reducing energy costs, whilst having a positive impact on the environment through greenhouse gas reductions.

- 3.17. The Disaster Recovery Funding Arrangements (DRFA) is a cooperative arrangement between the Commonwealth and all states and territories to co-fund response and recovery activities to support communities and businesses impacted by certain natural disasters. It is designed to alleviate the financial burden on states and to facilitate the early provision of assistance to disaster-affected communities.
- 3.18. The Commonwealth is also able to activate the Australian Government Disaster Recovery Payment (AGDRP) and the Disaster Recovery Allowance (DRA) for major disasters. The AGDRP is a one-off payment of \$1000 per eligible adult and \$400 per eligible child, while the DRA provides up to 13 weeks of federal income support to assist eligible employees or sole traders who experience a loss of income as a direct result of a major disaster. The Commonwealth is spending close to \$20 billion to assist communities and governments with the costs of responding to and recovering from the disasters of recent years.

## 4. Climate Adaptation and Resilience

- 4.1. Adjusting to climate change impacts, or adaptation, is a critical component of the long-term response to climate change and to protecting people, livelihoods and ecosystems. Even with strong global action, climate change impacts will continue to increase over the coming decades. Practical action is needed to strengthen local and regional adaptation efforts, including to ensure support can be provided to people and communities in situations bolster our national security and which are most vulnerable to risk.
- 4.2. Ultimately, climate security risks are best managed through limiting the effects of climate change as much as possible. Accelerated climate action is needed in this critical decade to mitigate the worst effects of climate

<sup>&</sup>lt;sup>18</sup> Department of Defence. (2023). Defence lighting the way on renewable energy [Press release]. <a href="https://www.minister.defence.gov.au/media-releases/2023-02-21/defence-lighting-way-renewable-energy">https://www.minister.defence.gov.au/media-releases/2023-02-21/defence-lighting-way-renewable-energy</a>.

<sup>&</sup>lt;sup>19</sup> Department of Home Affairs. (2020). *Disaster Recovery Payment* [Press release]. Australian Government. <a href="https://www.disasterassist.gov.au/disaster-arrangements/disaster-recovery-payment">https://www.disasterassist.gov.au/disaster-arrangements/disaster-recovery-payment</a>.



- change, and to harness the significant opportunities that transitioning to a low emission, climate-resilient economy offers Australia.
- 4.3. The first Global Stocktake due at COP28 in December 2023, will be an important milestone to understand Australia's climate security risks within the global context. Unless particularly vulnerable countries and communities are supported to adapt, Australia risk the exacerbation of security risks, including unsafe migration, exploitation, and regional instability.
- 4.4. COP28 will have a strong focus on adaptation, with parties expected to agree a framework for assessing collective adaptation progress against the Global Goal on Adaptation (GGA). Investing in adaptation recognises that climate change impacts are already being felt. In recent decades, Australia has seen a shift towards higher temperatures and lower winter rainfall, which has had significant effects on many farmers. Despite these trends, there remains much uncertainty over the long-run on effects of climate change on farm businesses. Australia's agricultural industry is at the forefront of impacts from climate change which is already impacting yield.20
- 4.5.Climate change is also beginning to challenge conventional definitions of drought, which rely on comparisons against long-run historical reference periods. Already, there is evidence that Australian farmers have revised their own perception of drought in line with the changes in climate observed in recent decades.21

## Government response and initiatives

- 4.6. Ongoing projects under the Future Drought Fund (FDF) including Climate Services for Agriculture (CSA) and Drought Resilience Self-Assessment Tool (DRSAT) could play an important role, as could the recently established Australian Climate Service. How farm businesses manage any increase in drought risk, by improving their physical and/or financial resilience, will be central to future outcomes in the agricultural sector. Promoting this drought resilience is the central aim of the FDF.<sup>22</sup>
- 4.7.Australia is working, through the UNFCCC, to ensure global decisions are responsive to regional needs and priorities, including to support the design

<sup>&</sup>lt;sup>20</sup> Hughes, N, & Gooday, P. (2023). Climate change impacts and adaptation on Australian farms. Department of Agriculture, Fisheries and Forestry.

https://www.agriculture.gov.au/abares/products/insights/climate-change-impacts-and-adaptation. <sup>21</sup> Ibid.

<sup>&</sup>lt;sup>22</sup> Ibid.



- of a new fund for addressing loss and damage which is fit for purpose for the Pacific.
- 4.8. Australia is supporting Pacific partners through an expanding profile of support for climate adaptation and resilience related financing and capacity building in the region, including in response to a growing regional focus on economic and non-economic loss and damage as a result of both long and short-term adverse climate impacts.
- 4.9. Australia partners with MDB to provide assistance at scale in the neighbouring region and beyond. In 2022, climate finance provided by MDB reached a record high, with \$60.7 billion of MDB climate finance allocated for low-income and middle-income economies of which 63% was for climate change mitigation and 37% for climate change adaptation finance. MDB partnerships address climate security risk and support continued peace and prosperity. Climate finance investments allow communities to adapt to impacts and reduces climate migration.
- 4.10. Australia is investing AUD \$27.4 million over 2 years to deliver its first *National Climate Risk Assessment and Adaptation Plan* in late 2024, to provide the analysis necessary to guide decisions and investment to manage and adapt to significant national climate risks.
- 4.11. On 25 August 2023, Emergency Management Ministers from the Australian, state and territory governments endorsed the Second National Action Plan to implement the National Disaster Risk Reduction Framework, and committed to work with all stakeholders on its implementation. The Second National Action Plan aims to coordinate and align natural hazard risk reduction activities across governments and sectors of society, and empower all Australians to take locally-led, targeted and coordinated action. It prioritises actions to understand natural hazard risk; deliver more informed and accountable decision-making; enhance investment; and create more inclusive, aligned and shared governance, ownership and responsibility.
- 4.12. The Government is investing in natural hazard risk reduction and preparedness through its flagship \$1 billion Disaster Ready Fund (DRF). Up to \$200 million is available per year from 1 July 2023, matched by

 $<sup>^{23}</sup>$  European Investment Bank. (2023). Multilateral development banks (MDBs) provide record climate finance of close to \$61 billion for low and middle-income economies in 2022 [Press release].  $\frac{\text{https://www.eib.org/en/press/all/2023-376-multilateral-development-banks-provide-record-climate-finance-of-close-to-usd61-billion-for-low-and-middle-income-economies-in-2022#:~:text=In%202022%2C%20%2460.7%20billion%20of,finance%20stood%20at%20%2416.9%20billion.} \\$ 



states and territories and other project proponents where possible. <sup>24</sup> The DRF supports governments, community service organisations and local communities to: better understand natural hazard risks and impacts; increase resilience, adaptive capacity and/or preparedness; and reduce risk through infrastructure projects such as flood levees and new firebreaks. On 7 June 2023 the Minister for Emergency Management announced the outcomes of Round 1 of the DRF- that up to \$200 million in Commonwealth funding would be provided for 187 projects. <sup>25</sup> Round two of the DRF is expected to open for application in the first half of 2024.

- 4.13. Recognising the damage that climate change and extreme weather can cause, the *Security of Critical Infrastructure Act 2018* requires operators of Australian critical infrastructure to develop all-hazard risk management programs to identify and appropriately manage these climate security risks as far as is reasonably practicable. The Department of Home Affairs is assessing how Australia can protect its critical infrastructure assets from climate hazards.
- 4.14. At the 9 December 2022 meeting of National Cabinet, First Ministers agreed that the days of developing on floodplains needs to end, and committed to developing a nationally consistent approach to considering disaster and climate risk as part of land use planning and building reform processes.<sup>26</sup>
- 4.15. To address global trends in climate change impacting on insurance affordability and availability, the Government is working closely with the insurance industry to develop a shared understanding of disaster insurance issues, and how to address these. Through the Hazard Insurance Partnership, strategic insurance projects currently being delivered include:
  - creating an enduring data asset of insurance affordability and underinsurance to inform policy, programs, and targeted investments;
  - developing a national private mitigation measure knowledge base;
  - exploring options for co-investment and public-private partnerships;
     and
  - reviewing the standard cover regime and various standard definitions.

<sup>&</sup>lt;sup>24</sup> National Emergency Management Agency. (2023) Disaster Ready Fund [Press release]. Australian Government. <a href="https://nema.gov.au/disaster-ready-fund">https://nema.gov.au/disaster-ready-fund</a>.
<sup>25</sup> Ibid.

<sup>&</sup>lt;sup>26</sup> Meeting of National Cabinet (2022). Prime Minister of Australia. https://www.pm.gov.au/media/national-cabinet-2022-12-09.



4.16. The Government committed \$25.3 million over five years from 2022-23 to support these activities. In December 2022, First Ministers also tasked Treasurers (through the Council on Federal Financial Relations) to develop options to improve insurance affordability.

## 5. Human Security and Climate Migration

- 5.1. Rising sea levels, food and water insecurity, more frequent and severe natural disasters and political instability may stimulate involuntary migration by people in the Indo-Pacific. Experts predict that more than 216 million people will be displaced by climate change globally by 2050, with approximately 89 million across the Indo-Pacific.<sup>27</sup> The immediate challenge of absorbing significant numbers of displaced people will strain regional state capacities, creating risk of a feedback loop that engenders further migration.
- 5.2. The social and political consequences of such widespread displacement are complex and unpredictable. Large scale population transfers may undermine social cohesion and national security as different ethnic, religious and political affiliations collide amid increased demand for scarce resources and public services. Civil conflicts may erupt as tensions sharpen, creating demand for Australian peacekeeping or policing assistance. It could also lead to increased pressure on Australian border management capabilities.
- 5.3. The international dialogue on climate migration will continue to be contested, and could put pressure on states to have policies in place, including humanitarian pathways, to deal with large scale climate migration and mobility. A lack of specific migration pathways which account for people displaced by climate change or disasters, could result in an increase in the probability that displaced persons will seek out irregular migration pathways. As a large country in the Indo-Pacific, Australia will be under pressure to play a leading role in coordinating climate resettlement and accepting migrants where possible.
- 5.4. Australia maintains its position that humanitarian resettlement pathways are not an option for individuals displaced by natural disasters or climate change. This aligns with UNHCR's position that humanitarian resettlement is not necessary to appropriately and effectively support persons displaced by natural disasters and climate change. Australia will work with international partners in continuing to advocate for a proactive

<sup>&</sup>lt;sup>27</sup> Clement, V, et al. (2021). Groundswell Part 2: Acting on Internal Climate Migration. World Bank, Washington D.C. <a href="https://openknowledge.worldbank.org/handle/10986/36248">https://openknowledge.worldbank.org/handle/10986/36248</a>.



and planned approach to climate mobility that supports safe and secure migration patterns.

## Government response and initiatives

5.5. The Government is engaged in the informal Working Group on Statehood and Protection of Persons Affected by Sea-Level Rise. In August 2021, the Government endorsed the ground-breaking Leaders' Declaration on Preserving Maritime Zones in the face of Climate Change-related Sea-Level Rise. In concert, Home Affairs is assessing the domestic security implications of climate change, including potential impacts to Australia's migration settings.

## 6. The Pacific

- 6.1. With its particular vulnerabilities to climate change, the Pacific is at the forefront of Australia's attention. The Government has been clear that it considers climate change the single greatest threat to the livelihoods, security and wellbeing of the peoples of the Pacific, consistent with the 2018 Boe Declaration on Regional Security. The changing nature of the region's climate will challenge human security and economic viability, create new tensions, and leave the region more vulnerable to coercion.
- 6.2. The PIF's Pacific Climate Security Assessment Guide<sup>28</sup> details the drastic effect climate change challenges will have on Pacific livelihoods as it threatens land useability, food, and water and health security. It highlights the urgency that climate change creates to secure maritime boundaries, sovereignty and regional stability. The Guide details the interaction between land, water and water insecurity leading to security implications that could facilitate petty criminality, increased competition and disputes over scarce resources, the erosion of social norms and dissatisfaction with political stability.<sup>29</sup>

## Government response and initiatives

6.3. Throughout work with the Pacific – in regional organisations and across bilateral partnerships – Australia is integrating climate risk and response, encompassing many issues relevant for security. In 2022, Australia joined the Pacific leaders in declaring that the Pacific is facing a climate emergency. The declared climate emergency underscores the urgency of

<sup>29</sup> Ibid.



- measures to scale-up domestic and international ambition and implementation of adaptation and mitigation initiatives.
- 6.4. Australia is supporting the region's transition to renewable energy, helping countries build climate resilience, increasing our climate finance contributions, and sharing our innovations in climate adaption. Australia supports climate mitigation, adaptation and resilience in the Pacific including through the ODA program.
- 6.5. With the increased focus on climate change in its International Development Policy, Australia expects to deliver \$1.3bn in climate financing in the Pacific over 2020-25. Contributing to this commitment is at least \$350 million in financing through the Pacific Climate Infrastructure Financing Partnership (PCIFP). Australia will make a contribution for the Pacific Resilience Facility, once established, to support the region's calls for innovative financing to build climate resilience. The government is also funding climate finance experts in eight Pacific island countries, to help mobilise support.
- 6.6. In collaboration with Pacific Island countries, Australia established the Pacific Fusion Centre in December 2021 in Port Vila. It provides assessments and advice to Pacific decision-makers on security issues articulated in the Boe Declaration. The Australia Pacific Security College, supported by Australian development assistance funding, provides training to security officials and technical assistance to support national security strategy development.
- 6.7. The Government has incorporated climate and security issues in bilateral partnerships with PNG, Fiji, the Cook Islands and Samoa. Australia's bilateral security agreements with Vanuatu and Solomon Islands also contain provisions for cooperation to manage climate effects, including in Disaster Risk Reduction and Humanitarian Assistance and Disaster Relief.
- 6.8. The Government supported development of the Pacific Climate Security Assessment Guide, prepared by the UN Office of Migration. In August 2021, the Government endorsed the ground-breaking Leaders' Declaration on Preserving Maritime Zones in the face of Climate Change-related Sea-Level Rise. At the 52nd PIF, the Prime Minister endorsed both the Pacific Regional Climate Mobility Framework and the Declaration on the Continuity of Statehood and the Protection of Persons in the Face of Climate Change-related Sea-Level Rise, sending a strong signal of solidarity with the Pacific as the region addresses the challenges posed by climate change.



- 6.9. On 9 November 2023, Australia signed a bilateral treaty with Tuvalu, known as the Australia-Tuvalu Falepili Union. The Treaty covers three main areas of cooperation: climate change, human mobility and security. With a population of just over 11,000 people, Tuvalu is extremely vulnerable to the impact of climate change, especially rising sea levels, and is trying to preserve its culture, traditions and land. Under the Treaty, Australia will provide assistance to Tuvalu in response to natural disasters, and establish a dedicated intake known as a special mobility pathway to allow Tuvaluans to come to Australia to live, work and study. There will be an initial cap of 280 Tuvaluans eligible per year.
- 6.10. Australian Defence contributions to DFAT-led responses to natural disasters, including Operations Tonga Assist and Vanuatu Assist, have supported Pacific Island Countries (PICs) in their response to natural disasters. Moreover, Australia's humanitarian supplies are held in warehouses in Brisbane and Papua New Guinea and can support at least 11,500 families or 57,500 people. The Humanitarian Logistics Capability warehouse maintains the largest stockpile of prepositioned humanitarian emergency relief supplies within the Southern Hemisphere, with the capacity to respond to three simultaneous crises in the region.<sup>30</sup>

## 7. Southeast Asia

- 7.1. Southeast Asia is also at the forefront of the Government's attention. According to the ASEAN Studies Centre at the ISEAS-Yusof Ishak Institute, climate change is one of the top three security concerns facing the region.<sup>31</sup> Moreover, the Australian Strategic Policy Institute (ASPI) has published work identifying the security risks which are likely to arise in Southeast Asia as the effects of climate change increase.<sup>32</sup>
- 7.2. The region is forecast to experience an increase in rainfall, higher flood levels, prolonged inundation in the Mekong Delta, extreme cyclones as well

 $\frac{\text{https://www.dfat.gov.au/development/topics/development-issues/building-resilience/humanitarian-preparedness-and-response/humanitarian-emergency-relief-supplies#:~:text=Humanitarian%20warehousing%20and%20relief%20supplies&text=The%20Humanitarian%20Logistics%20Capability%20warehouse,respond%20to%20three%20simultaneous%20crises.$ 

https://www.iseas.edu.sg/category/articles-commentaries/southeast-asia-climate-outlook/
<sup>32</sup> Australian Strategic Policy Institute (ASPI). (2022). Resetting Southeast Asia's climate agenda
https://www.aspistrategist.org.au/resetting-southeast-asias-climate-agenda/

 $<sup>^{30}</sup>$  Department of Foreign Affairs and Trade. (2023). Australia's humanitarian logistics capability and relief supplies. Australian Government.

<sup>31</sup> Southeast Asia Climate Outlook: 2023 Survey Report



- as droughts.<sup>33</sup> Competition over water resources along the Mekong River and in the Mekong Delta, noting China's control of upstream dams, is expected to sharpen tensions with lower basin states.<sup>34</sup> Rising sea levels will also lead to more frequent inundation of the fertile delta areas, displacing populations and reducing the productivity of arable land.<sup>35</sup>
- 7.3. Southeast Asia is essential to Australian national security, as many of Australia's sea lines of communication pass through the region's waters. Conflicts arising from territorial disputes, exacerbated by competition for resources, could impact on the movement of Australia's goods and exports in the region. Moreover, Australia relies on trade and travel between Southeast Asia for goods, services and tourism.

## Government response and initiatives

- 7.4. Australia is working with partners in the region to build a resilient, clean energy sector and unlock green trade and investment. For example, the landmark *Singapore-Australia Green Economy Agreement* supports Australia's economic, trade, investment, and climate change objectives while building on our substantial bilateral relationship with Singapore.<sup>36</sup>
- 7.5. Australia is supporting enhanced climate action in Southeast Asia.

  Australia is helping accelerate the region's energy transition and realise economic opportunities for countries in the region to transition to net-zero. Our commitments include \$200 million towards a new Climate and Infrastructure Partnership with Indonesia, and \$105 million to support Vietnam's clean energy uptake and clean energy infrastructure.

## 8. North Asia

8.1. Energy security is a key issue in Australia's relationship with key partners in North Asia, including Japan and the ROK. These partners share similar climate objectives to us – both have committed to net zero by 2050, however with limited resources for energy self-sufficiency, energy security is an existential concern. Maintaining energy security in the context of climate change will be challenging, with greater market volatility brought

<sup>&</sup>lt;sup>33</sup> Climate Diplomacy. (2015). Dam projects and disputes in the Mekong River Basin. https://climate-diplomacy.org/case-studies/dam-projects-and-disputes-mekong-river-basin. <sup>34</sup> Ibid.

 $<sup>^{35}</sup>$  Asian Development Bank. (2011). Climate Change Impact and Adaptation Study in The Mekong Delta – Part A. <a href="https://www.adb.org/sites/default/files/project-documents/43295-012-tacr-03b-0.pdf">https://www.adb.org/sites/default/files/project-documents/43295-012-tacr-03b-0.pdf</a>.

<sup>&</sup>lt;sup>36</sup> Singapore-Australia Green Economy Agreement. (2021). Australian Government Department of Foreign Affairs and Trade. <a href="https://www.dfat.gov.au/geo/singapore/singapore-australia-green-economy-agreement">https://www.dfat.gov.au/geo/singapore/singapore-australia-green-economy-agreement</a>



- about by the transition away from fossil fuels and increasing impacts on energy infrastructure from climate events.
- 8.2. Japan and the ROK rely on Australian gas exports for their energy security and establishing a reliable trading partnership throughout the energy transition will be key to addressing their own security concerns. Regional energy supply is also in Australia's national interests, reducing gas supply to partners in North Asia could frustrate regional decarbonisation and have potentially negative impacts in Australia's broader bilateral relationships with key Indo-Pacific partners.
- 8.3. Australia will need to balance its objective of remaining reliable gas exporter and maintain the energy security of key partners with its climate commitments to other international partners, particularly the Pacific.

### Government response and initiatives

- 8.4. Australia is progressing elevated energy partnerships with key partners in North Asia, including Japan and the ROK. These partnerships will help cement habits of consultation, including on Australia's energy policies that may have impacts on the energy security of Australia's key partners.
- 8.5. Elevated partnerships will build on existing cooperation mechanisms. Australia and Japan are working together to achieve a net zero emissions future through the Australia-Japan Partnership on Decarbonisation through Technology. The Partnership is advancing cooperation in a range of areas, including clean hydrogen and ammonia, and low emissions steel and iron ore. We also cooperate through the Japan-Australia Energy and Resources Dialogue (JAERD), and the Australia-Japan Joint Statement of Cooperation on Hydrogen and Fuel Cells.<sup>37</sup>
- 8.6. Australia and the ROK also have an enduring energy relationship through the Australia-ROK Low and Zero Emissions Technology Partnership, which advanced cooperation on low emissions iron ore and Steel, Carbon Capture Use and Storage (CCUS) and clean hydrogen. We hold annual Trade Ministers' meetings and senior official-level talks through the Joint Committee on Energy and Mineral Resources Consultation and Cooperation (JCEM).

 $<sup>^{37}</sup>$  Australia's international clean energy partnerships - DCCEEW. (2022). Dcceew.gov.au.  $\frac{\text{https://www.dcceew.gov.au/climate-change/international-commitments/international-partnerships}$ 



## 9. Clean Energy Technology and Supply Chains

- 9.1. Energy security is fundamental to economic prosperity and social cohesion. The global response to climate change will see an exponential increase in demand for clean energy products as economies seek to achieve their net zero targets. As a result, the concentration of supply chains will create new energy security risks. Energy security will also be increasingly impacted by extreme weather events.
- 9.2. Scaling up renewable energy is not only accelerating the net zero transition, it is key to strengthening energy security. By reducing dependence on imported energy, Australia and the region are better placed to withstand the economic shocks that have been seen in the context of the Ukraine War.
- 9.3. The International Energy Agency (IEA) has identified supply chain concentration for key clean energy technology imports as a challenge for many countries. Diversifying and expanding clean energy supply chains is a key part of supporting their reliability and resilience, which will be necessary to achieve net zero and guarantee energy security, reliability and affordability through energy transition while creating new economic opportunities. Australia's *Future Gas Strategy* will also consider how to balance its energy commitments to key partners with its climate change ambitions.<sup>38</sup>
- 9.4. With some of the world's largest recoverable stockpiles of raw critical minerals, Australia is in a position to become a leading supplier by 2032.<sup>39</sup> However, as Australia does not currently have the infrastructure to process the minerals it extracts, the sector is highly reliant on processed mineral imports, increasing Australia's vulnerability to supply chains disruptions.
- 9.5. Russia's illegal and immoral invasion of Ukraine highlighted the importance of energy security, not just for governments, but also for citizens. It has put clean energy supply chain diversification at the forefront of the transition.

https://consult.industry.gov.au/future-gas-strategy

<sup>&</sup>lt;sup>38</sup> Converlens - Engagement data insight platform for surveys, consultations and text. (n.d.). Consult.industry.gov.au. Retrieved November 8, 2023, from

<sup>&</sup>lt;sup>39</sup> International Energy Agency. (2022). *Critical Minerals Policy Tracker*. <a href="https://www.iea.org/reports/critical-minerals-policy-tracker">https://www.iea.org/reports/critical-minerals-policy-tracker</a>.



### Government response and initiatives

- 9.6. Australia has an interest in ensuring key clean energy supply chains are diversified while maintaining efficiency. As major economies de-risk, it is critical to ensure the principles of cooperation and mutual benefit "working against zero sum competition" that G7 leaders agreed in their Clean Energy Economy Action Plan, flow through to our region. G7 partners are exploring opportunities to collaborate to build secure, resilient, affordable, and sustainable clean energy supply chains, as agreed in the G7 Clean Energy Economy Action Plan.
- 9.7. Building on an existing \$40 billion investment into energy transformation and climate priorities, <sup>40</sup> Australia has committed an additional \$4 billion in the 23/24 budget to power Australia's transformation into a renewable energy superpower. <sup>41</sup> Australia's AUD \$2 billion Hydrogen Headstart program will provide revenue support for large scale renewable hydrogen projects (including potential export projects) through competitive hydrogen production contracts. <sup>42</sup>
- 9.8. In May 2023, Australia and the United States launched the *Climate*, *Critical Minerals*, and *Clean Energy Transformation Compact*, which affirmed the shared ambition to establish climate and clean energy cooperation as the third pillar of the Alliance. The Compact recognises the interrelationship between critical minerals and the clean energy transformation in creating sustainable markets that will provide the inputs necessary to reduce emissions.
- 9.9. Australia and India are working together to accelerate the production and deployment of renewable energy technologies through the work of the *Australia-India Green Hydrogen Taskforce* and *India-Australia Solar Taskforce*. Additionally, Australia worked with Quad partners to develop and issue a Quad Statement of *Principles on Clean Energy Supply Chains*

https://www.dcceew.gov.au/energy/hydrogen/hydrogen-headstart-program.

<sup>&</sup>lt;sup>40</sup> Department of Climate Change, Energy, the Environment and Water. (2023). *Speech on Australia as a Renewable Energy Superpower, Australian Embassy, Japan*. Australian Government. <a href="https://minister.dcceew.gov.au/bowen/speeches/speech-australia-renewable-energy-superpower-australian-embassy-japan">https://minister.dcceew.gov.au/bowen/speeches/speech-australia-renewable-energy-superpower-australian-embassy-japan</a>.

<sup>&</sup>lt;sup>41</sup> Budget 2023-24. (2023). *Growing the economy*. Australian Government. https://budget.gov.au/content/03-economy.htm#:~:text=Investing%20in%20infrastructure-,Becoming%20a%20renewable%20energy%20superpower,program%20to%20support%20hydrogen%20production.

<sup>&</sup>lt;sup>42</sup> Department of Climate Change, Energy, the Environment and Water. (2023). *Hydrogen Headstart program*. Australian Government



in the Indo-Pacific<sup>43</sup> at the 2023 Quad Leaders' Summit. The Principles are designed to promote diverse, secure, transparent, and resilient clean energy supply chains and support a just, sustainable, and inclusive clean energy transition.

9.10. To support implementation of the Principles, Australia is investing \$50 million in a Quad Clean Energy Supply Chain Diversification Program. The Program will deliver grants for R&D and Feasibility studies to develop and diversify clean energy supply chains in the Indo-Pacific, focusing on solar photovoltaics, hydrogen electrolysers and batteries. The program will prioritise projects that meaningfully drive supply chain diversification and resilience. The Program will be developed in close consultation with Indo-Pacific countries and Quad partners and will align with broader government initiatives. 44

## 10. Conclusion

- 10.1. Climate change acts as a risk multiplier, interacting with other social and economic factors to exacerbate existing security risks, induced crises or shocks, and shape human mobility and security. The emerging strategic implications of climate change are well understood and publically discussed. Australia has a robust architecture for identifying, analysing and managing security risks, and is incorporating climate change analysis into this existing framework to inform how the Government responds to these risks.
- 10.2. The Australian Government has started the work of integrating climate security in analyses, policies and relationships, and cooperating with others to drive effective responses. This work seeks to address climate security risks brought about by the impacts of climate change on peace and security.
- 10.3. Ultimately, climate security risks are best managed through limiting the effects of climate change as much as possible. Accelerated climate action is needed in this critical decade to mitigate the worst effects of climate change, and to harness the significant opportunities that transitioning to a low emission, climate-resilient economy offers Australia.

https://www.pmc.gov.au/resources/quad-statement-principles-clean-energy-supply-chains-indo-pacific.

 $<sup>^{\</sup>rm 43}$  Department of the Prime Minister and Cabinet. (2023). Quad Statement of Principles on Clean Energy Supply Chains in the Indo-Pacific. Australian Government.

<sup>&</sup>lt;sup>44</sup> Prime Minister of Australia. (2023). *Quad Leaders' Joint Statement*. Australian Government. <a href="https://www.pm.gov.au/media/quad-leaders-joint-statement">https://www.pm.gov.au/media/quad-leaders-joint-statement</a>.



- 10.4. Climate policy is becoming a core theme of Australia's international engagement. Australia's work with partners is instrumental in driving strong climate outcomes in multilateral forums. Understanding climate security risks will increasingly shape Australia's relations with allies and security partners. Continued engagement on, and the sharing of, national climate change assessments will supports multilateral efforts.
- 10.5. Australia is focused on addressing climate security risks domestically and in the Indo-Pacific. It is paramount that Government initiatives take a multi-pronged approach to address the wide variety of environmental, social, economic and human security risks that will face the world in the coming decades. Cooperation within Australia, the region and globally is required to these mitigate climate security risks.