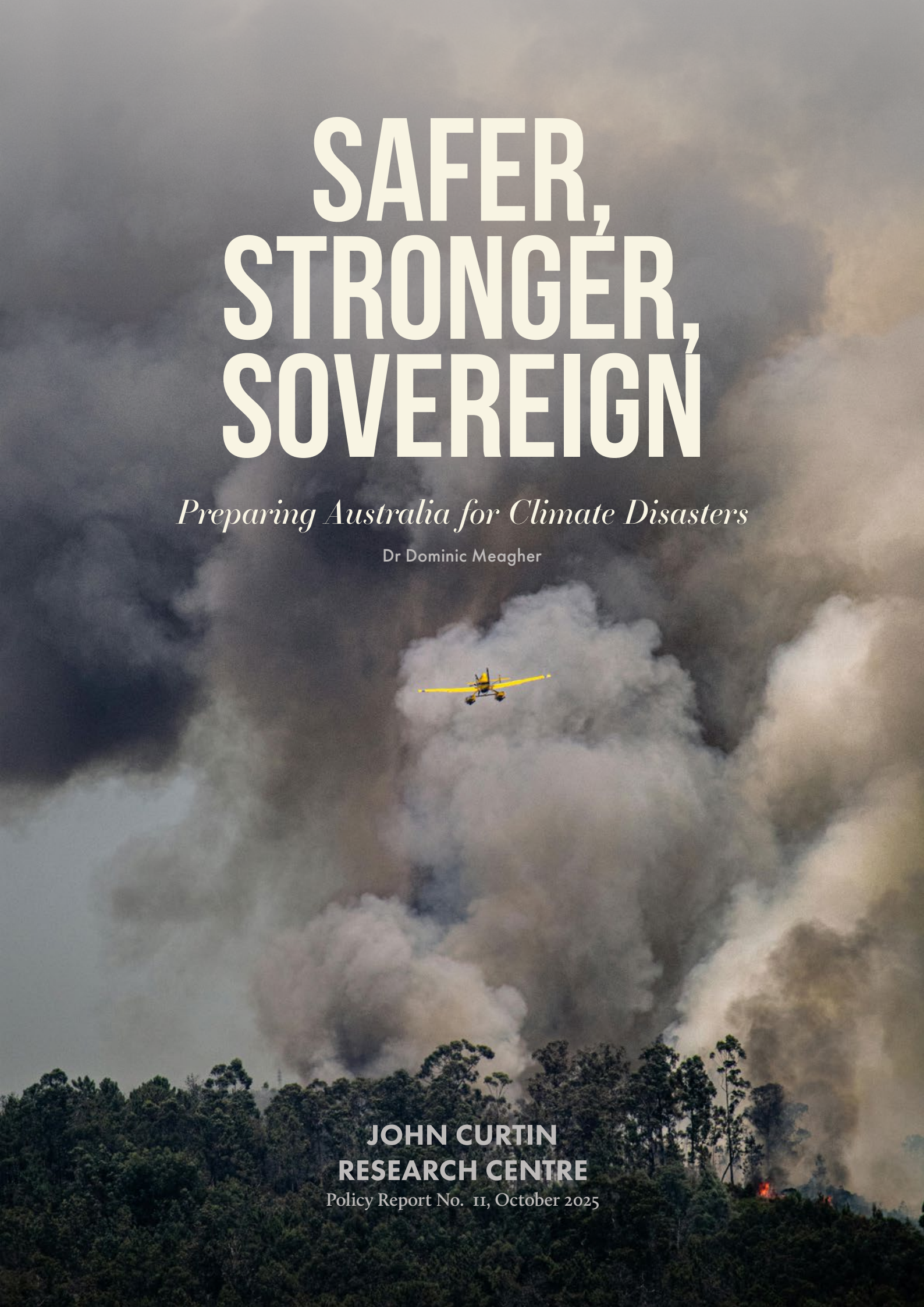

SAFER, STRONGER, SOVEREIGN

Preparing Australia for Climate Disasters

Dr Dominic Meagher

JOHN CURTIN RESEARCH CENTRE

Policy Report No. 11, October 2025

About the author

Dr Dominic Meagher is the John Curtin Research Centre's Deputy Director and Chief Economist. Dominic was previously a visiting fellow at the ANU and holds a PhD in economics from the Australian National University where he was a Rio Tinto China Scholar. He has worked in and on China and sustainable economic transitions for over two decades, including at think tanks and research centres in Beijing, Hong Kong, Sydney, and Canberra. Dominic co-authored the JCRC reports *Innovation Nation: Boosting Productivity and the Fair Go in the Age of Artificial Intelligence* (2025), *Powerstate: Building Victoria's Hydrogen Industry* (2020) and *Clean and Mean: New Directions for Australia's Steel Industry* (2022), and *Super Solutions: Tackling Australia's Housing Affordability and Supply Crisis* (each with Nick Dyrenfurth) and wrote its submission to the 2022 House Standing Committee on Health, Aged Care and Sport Inquiry into Long COVID and Repeated COVID Infections.
Dominic wishes to thank the following who contributed to researching this report or read drafts: Nick Dyrenfurth, Mike Kelly, Kim Carr, Shirley Jackson, Lachlan Kerwood-McCall, Sean Whitworth, and Jonte Verwey. We are grateful to Emma Dawson and the Chifley Research Centre for providing partial funding of this project.

Safer, Stronger, Sovereign: Preparing Australia for Climate Disasters, John Curtin Research Centre Policy Report no. 11, October 2025.

ISBN: 978-1-7635462-1-9

www.curtinrc.org

www.facebook.com/curtinrc/

www.twitter.com/curtin_rc

Contents

Executive Summary

Australia is entering an era of worsening global warming and climate disasters, geopolitical tensions, and accelerating economic transformation. National resilience must be redefined, not only as a matter of defence and infrastructure, but as an integrated strategy linking security, full employment, sovereign capability, and regional partnerships. This report presents a policy agenda designed to position Australia as a global leader in disaster response capability while revitalising regional manufacturing and employment. It proposes two complementary initiatives:

- **Establish an Australian Disaster Reserves (ADR)**, a civilian auxiliary force modelled on the Army Reserves. The ADR would provide surge capacity to assist emergency services prepare for, respond to, and recover from disasters. It would offer paid, accredited training, recognised qualifications, and inclusive pathways into secure employment. It would relieve pressure on the Australian Defence Forces (ADF), which must remain mission-focused on external defence, while ensuring Australia can respond rapidly to domestic and regional disasters.
- **Build a sovereign disaster response manufacturing sector**, focused on producing the vehicles and equipment needed to prepare, respond, and recover from disasters: water-bombers, amphibious evacuation vessels, PPE, mobile clinics, drones, and modular or emergency infrastructure (such as rapid bridge or fencing reconstruction). Production should be anchored in new regional Disaster Resilience Manufacturing Precincts, reviving industrial heartlands such as Geelong, Wollongong, Newcastle, and Elizabeth (Adelaide). Public investment through the National Reconstruction Fund, supported by procurement frameworks that properly value sovereign capability, will drive secure, unionised employment and industrial capability while cutting disaster costs, strengthening export potential, and improving the economics of our expanding defence industry.

Together, these initiatives would:

- Create large-scale civilian capability and reduce reliance on the ADF for non-defence tasks;
- Enhance sovereign supply chains for critical equipment and infrastructure;
- Strengthen diplomatic ties across the Pacific and Southeast Asia through timely, non-military aid when it matters most;
- Create thousands of secure, future-focused jobs in regional areas, including opportunities to enter employment despite entrenched socio-economic disadvantage;
- Improve national disaster preparedness and recovery outcomes;
- Position Australia as the supplier of first choice of quality equipment, training, and expertise to climate-vulnerable nations in the Asia-Pacific region.

The report outlines a phased implementation strategy spanning 2026 to 2035, including pilot programs, national rollout, export market development, and continuous evaluation. Governance models under consideration include an independent statutory authority, a new branch within the National Emergency Management Agency, or a public corporation governed by a multi-stakeholder board of business, workers and communities.

At a time when Australians face overlapping economic, climate, and geopolitical challenges, these reforms present a realistic, nation-building plan for long-term security and prosperity. It

offers a vision that unites climate adaptation, economic justice, and strategic foresight, anchored in the belief that every community deserves to be protected, prepared, and empowered.

During extreme weather events we need a reliable sovereign response capability that does not divert the critical resources of the ADF. Given the increasing nature of these events, this capability must be invested in a sufficiently large-scale institution that can mobilise rapidly and be deployed nation-wide. It must be adequately funded to ensure it is equipped and fit for purpose. Finally, it must be a civilian body so that it is trusted by, and accountable to, the community.

Cognisant of budgetary constraints, but equally of the belief that the opportunity of cost of not creating the ADR and investing in sovereign disaster response manufacturing is incomparably higher, we call on the federal government to legislate, fund, and implement this agenda as a cornerstone of the nation's resilience strategy, and the Australian public – after all they are on the climate frontlines and must have a role in protecting our families and communities – as well as industry to contribute to the shared task of building a safer, stronger and sovereign Australia.

Introduction: Manufacturing Resilience for a Changing Nation

INTRODUCTION: MANUFACTURING RESILIENCE FOR A CHANGING NATION

In 2022, then Opposition Leader Anthony Albanese addressed the Lowy Institute on "how a Labor government would deliver national security in a complex world".[1] Albanese said that "a Labor government would build a more secure, resilient Australia". While his plan for national security included traditional commitments to defence capability and law-enforcement, he broke with orthodoxy by linking increased security and resilience with taking action on climate change. While national security and sustainability would previously have been considered an unconventional pairing, out of necessity they are becoming increasingly intertwined. Climate change is no longer a theoretical debate looming in our nation's future, it is already here. When once-in-a-generation floods, droughts, and bushfires have become a yearly threat, our response to climate changed needs to go beyond efforts to reduce emissions and recycle materials.

Consensus has grown since that 2022 speech and when, in 2024, parliament established the *Select Committee on the Impact of Climate Risk on Insurance Premiums and Availability,* it reported that throughout their inquiry overwhelming evidence was presented that confirmed "climate change is contributing to the increasing severity and frequency of natural disasters in Australia."[2]

A rapidly changing climate has increased the severity and frequency of extreme weather events, which has had significant social and political consequences. Across the country, Australians are left with serious physical and mental injuries in the wake of natural disasters. Houses and business have been lost, increasing insurance claims and costs and impacting supply for numerous products and produce. Crucially, the impacts of localised disasters aren't geographically contained – these disruptions contributed to rising living costs and inflation.

These compounding factors likely influenced a key submission of the Productivity Commission, which highlighted how disaster prevention is more cost effective than recovery. Professor Rosyln Prinsley from the ANU *Institute for Climate, Energy and Disaster Solutions,* explained that the overall impact of natural disasters is dependent on the extent of the disaster, but also our exposure and vulnerability to them. She emphasised the need to address all aspects of that vulnerability chain.

In response, sections 5.14 through to 5.25 of the committee's report "emphasised the importance of mitigation and resilience measures to reduce the impact of future disasters",[3] leading to a discussion of building flood levees, raising homes, building with resilient materials, and relocating properties. In setting out their recommendations, the committee wrote:

> The committee acknowledges that Australia will face climate related disasters into the future. However, as climate change is exacerbating these disasters, they will continue to grow in frequency and severity. Therefore, the country must be prepared.[4]

In this report, I build on the committee's call to arms and offer a number of reforms that will increase national resilience in the face of climate change happening now and help Australia prepare for future disasters. We lay out a practical way of implementing national preparedness that takes account of other national economic, diplomatic and security priorities, by keeping the ADF focused on its mission and underwriting the economies of

scale required to expand our defence industry. We believe that two interconnected proposals can help realise that vision.

First, we propose the establishment of the Australian Disaster Reserves (ADR): a civilian sovereign capability modelled on the Army Reserves to provide surge capacity to assist existing emergency services during major disasters, reducing dependence on the ADF for non-defence tasks. Through localised training, clear operational boundaries, and integration with state emergency bodies, the ADR would ensure the Australian population has the skills and logistical capability to deploy in the face of emergencies.

Crucially, the ADR offers career pathways, skills training, and community service opportunities. This will be welcome news for young people, rural and regional Australians, recently arrived migrants, and other unemployed workers. Aside from the benefits of being more resilient and prepared, communities will benefit from paid training and service opportunities during an emergency that provides economic stimulus alongside community value.

Additionally, we believe that Australia should invite participation from friends and neighbours in our region, including the Pacific Islands and ASEAN nations, as well as our northern hemisphere friends with whom we routinely share disaster response capabilities. This will strengthen our shared commitment to defence of the region from all threats, military and otherwise, and maximize the economies of scale for the ADR.

Second, we argue that our disaster resilience framework should be included in the development of sovereign manufacturing capability in Australia. Under the 'Future Made in Australia' economic program, the Albanese government has committed to restoring Australia's sovereign manufacturing capabilities and providing stable, well-paid jobs through targeted public investment. The provides an unprecedented opportunity to align disaster resilience with a productivity agenda and industrial revitalisation.

We believe that by basing 'resilience precincts' in Australia's traditional industrial regions, such as Geelong, Wollongong, Newcastle, and Elizabeth, we can simultaneously engage in disaster preparedness and re-industrialisation. Utilising the National Reconstruction Fund (NRF) to invest in the manufacture of water-bombers, amphibious evacuation vehicles, emergency shelters, personal protective equipment (PPE), and surveillance drones, Australia can become a global leader in disaster resilience technology. These investments will create highly skilled, secure jobs while also safeguarding the nation from supply disruptions during times of crisis.

Importantly, much of the industrial capability required for ensuring our climate disaster resilience would also make the industrial sustainability of national defence more economical, enhancing Australia's ability to deter conflict in our region. By serving this dual use, our national resilience in the face of both climate and human threats can be made more economical.

Together, these proposals offer a path toward a more resilient, safer, stronger and ultimately sovereign Australia. They respond to the immediate challenge of climate risk while delivering long-term economic and social dividends. They create opportunities for public and private cooperation, strengthen unionised employment, and offer a compelling model of progressive nation-building that would enhance our place in a more peaceful and secure region.

We believe our approach serves many dimensions of the national interest, combining political aspiration with realistic implementation. For too long we have treated natural disasters as unpredictable and unfortunate. However, a rapidly changing climate means that incidences of extreme weather will be frequent and ferocious, and we need to act accordingly.

Aside from the obvious primary aim of increasing disaster preparedness and climate resilience across the country, we believe that the ADR offers a

number of secondary economic opportunities that align with the current priorities of the government. While disaster preparedness is typically seen as a cost to be borne by the Australian government, we need to acknowledge the substantive cost in its absence. A recent study estimated that cost of responding to the increasing incidence of extreme weather events will by a staggering $73bn by 2060.[5] As we argued in our recent discussion paper, *Innovation Nation: Powering Australian Productivity in the 2020s and Beyond*, investing in prevention and mitigation reduces that cost, making it an investment in productivity.[6] We believe that this is not a cost, or a simple resilience agenda; but a nation-building project that will generating jobs, strengthening communities, and enhancing Australia's strategic standing in the Indo-Pacific.

Part One: Creating the Australian Disaster Reserves (ADR)

1.1. The Case for a Civilian Corps

The most fundamental challenge in responding to disasters is the temporary need for large numbers of people with sufficient skills and equipment, who are effectively coordinated and readily mobilised at short notice. The traditional answer to that problem has been volunteers. Australians have a proud history of coming together to support each other in moments of need. Unfortunately, a rapidly changing climate means that such events are increasing in frequency and intensity, which puts volunteers at greater risk. In short, a voluntary response is no longer fit for purpose, and Australia needs a dedicated institution to deal with extreme weather events.

To begin with however we must understand why disaster response has this particular type of labour demand. By their nature, disasters first require a huge number of people with adequate training and equipment, who must be well coordinated and quick to respond, followed by a smaller number of people with higher levels of expertise and experience engaged for a longer period of time. For example, floods produce a substantive demand for a relatively simple group of tasks: sandbagging; surveillance, rescue, repair, and relocation for people and property; cleaning and documenting damage or debris; and ensuring communication lines are readily available. Most tasks are labour intensive, and require logistics and leadership, but are not prohibitive in terms of the training required to do them successfully. No one needs a degree in filling sandbags, but it does take a lot of helping hands and good coordination. That's why we traditionally have volunteers, and entire communities, step up in such emergencies.

It's a similar situation with bushfires. There is a huge amount of preparatory work to be done in terms of bush management. But most work is able to be handled by volunteers if they're well managed and equipped. For evidence of that reality, we can look to California's "Conservation (Fire) Camps Program", that allows prison inmates to volunteer to perform certain firefighting tasks.[7] Firefighting certainly requires training, but it's work that can be done better if teams have more people, even if some of those people only have fairly basic training (so long as they *do* have the basic training, are led by people with more experience, and are properly equipped and coordinated). There is of course plenty of firefighting work that requires *considerable* skill, but during major bush fire events, even the most skilled and experienced firefighters will always benefit from more hands-on deck so long as those hands are properly equipped and coordinated.

Volunteer bodies like the SES, CFA, and RFS are indispensable pillars of our emergency response architecture, but they are already overextended and cannot be expected to carry the full weight of future disasters,[8] particularly those that cover multiple regions or states or involve prolonged recovery efforts. Thus far, we have been fixing this problem with a stop-gap measure: the first question media and locals ask whenever there is a national emergency is no longer "where are the volunteers" or "where is the SES"? but instinctively, "where is the ADF?"

As disasters grow in frequency and severity, Australia has increased its reliance on the ADF for disaster response, which has also become increasingly unsustainable.[9] At a time when geopolitical tensions are rising, the resources of the ADF are best utilised in the defence of Australia from external human threats, not internal environmental ones. While the ADF is rightfully proud and respected for the vital assistance it has

provided in times of crisis, from Black Summer to Cyclone Alfred, its use in disaster response ties up significant human and financial resources, creating greater budgetary pressures in the defence portfolio. We have been warned many times, including by Defence Minister Richard Marles that, "Australia faces the most complex and challenging strategic environment since the Second World War", and "it demands a coordinated, whole-of-government and whole-of-nation approach to Australia's defence."[10] Repeated diversion of defence assets for non-military purposes creates strategic resource strain and undermines defence readiness. We cannot keep diverting the ADF from its mission.

Part of a whole-of-nation approach to defence must mean ensuring we have the sovereign capability to resolve our non-defence challenges without calling on the ADF. Therefore, we need a dedicated disaster response corps to reduce pressure on the ADF, hence the ADR.

A paid, trained, reserve-style civilian force that can support existing emergency services offers many benefits, as well as some challenges we explore later. Crucially, the ADR reflects a broader democratic ethos and building mechanism by which any and all Australians can contribute to the project of national resilience. It offers people a way to give back to their communities and show their civic pride, while providing upskilling and personal development opportunities. Additionally, by offering income and training to any Australian willing to put themselves forward, it encourages full employment by creating opportunities for long-term unemployed, or others facing entrenched disadvantage. A paid, opt-in form of civil national service focused on disaster response would have a wide range of benefits beyond reducing the cost of disasters.

Box 1. CFA Experience and Insights for ADR Development (personal testimony)

As a volunteer firefighter with the Country Fire Authority (CFA), I have seen firsthand the importance of well-trained, well-equipped emergency personnel and the gaps that can emerge during extended or large-scale disaster events. Volunteers like me bring an array of operational knowledge, from bushfire suppression and structural response to hazardous materials, vehicle accident response, and community engagement. This broad skillset, established through thousands of hours of service, makes long-term CFA members ideal candidates to serve as trainers or mentors within the proposed Australian Disaster Reserves (ADR).

In my experience, many senior CFA volunteers would welcome the opportunity to contribute to a national resilience effort by assisting in training the next generation. While some could initially be sceptical of formalised or paid roles within a traditionally volunteer-led environment, most understand the increasing pressures placed on emergency services.

Volunteerism in the CFA has been steadily declining year-on-year, with membership figures falling from over 57,000 a decade ago to 51,000 in recent reports.[11] This decline has been particularly intense among operational volunteers, whose availability and capacity are vital during large-scale emergencies. This trend mirrors broader national challenges in volunteer retention across emergency services, driven by increasing demands, time pressures, and a lack of structural support.[12] Offering structured, paid training roles through the ADR, especially during the off-season, would not only provide financial recognition for their expertise but also preserve and pass down hard-earned skills that are otherwise at risk of attrition.

Payment would be an important incentive, particularly for semi-retired members, those in insecure work, or members living in disaster-prone rural regions. It could help transform casual volunteering into a stable service pathway while enhancing national readiness. Importantly, any such roles should be clearly framed as complementary to the CFA's mission, not as replacements. By maintaining

collaboration and transparency, the ADR can strengthen, rather than undermine, the volunteer philosophy of Australia's emergency sector.

Skills and Training Relevance

CFA volunteers are required to be proficient across a diverse range of tasks:

- Bushfire suppression (pump operation, hose handling, backburning)
- Structural firefighting (breathing apparatus, thermal imaging)
- First aid and casualty response
- Debris management (chainsaw, axe, Halligan tool, rake hoes, and shovel use)
- Communications and logistics
- Emergency vehicle operation
- Community education and preparedness

ADR training should build on these foundations while incorporating specialised modules in:

- Logistics and deployment planning
- Emergency accommodation and field shelter setup
- Drone usage, satellite surveillance (particularly low earth orbit, LEO), and aerial surveillance
- Portable equipment operation (generators, pumps)
- Cross-cultural training for regional deployment

Equipment Used and Local Manufacturing Opportunities

In day-to-day CFA operations, we rely on a variety of equipment, much of which is imported or manufactured offshore:

- Hose bandages and fittings: Often sourced from the US, China, or Europe; could be produced by Australian metal fabricators.
- Personal Protective Equipment (PPE): Including fire-retardant gloves, boots, and helmets are often imported. Companies like Elliotts (Queensland) could be scaled up for local manufacture.
- Field-deployable generators: Typically made by brands like Honda or Yamaha (manufactured offshore); opportunities exist to create sovereign manufacturing with partners such as Blue Diamond Machinery and Genworks Australia.
- Portable lighting systems and radios: A mix of imported and domestic supply, but innovation in durable, off-grid communication gear could be a niche Australian export.
- Vehicle components and retrofits: CFA trucks are often locally modified and assembled, but many components are overseas imports, particularly the chassis of the truck. Local advanced manufacturers, especially in Geelong and Elizabeth, could be tasked with producing pump modules, control panels, and fire-tolerant vehicle parts.

Establishing local production capacity for this equipment, especially via disaster manufacturing precincts, would provide security of supply, reduce deployment delays, and support economic activity in post-industrial regions.

In short, CFA volunteers offer a practical and underused knowledge base that can guide both ADR training frameworks and national procurement priorities. With structured inclusion, appropriate compensation, and respect for the volunteer tradition, this group could be foundational to Australia's disaster resilience future.

1.2. Organisational Model and Operational Framework

An effective ADR would need at least three pillars: training, active service, and logistics. Industry is also a requirement, but we are treating that separately. These three aspects all need to integrate with existing services in a way that is welcomed by those services. That will no doubt require a degree of political effort and collaboration between state and federal agencies. Much like the Australian Army Reserves, the AR should offer on-going training, clear deployment conditions, and tax-free income during active service.[13] Trainees and reservists would be drawn from across the country, paid to train in their choice of the wide range of disaster-specific response skills, incorporating logistics, community support, evacuation assistance, and emergency engineering, paid to be on stand-by, and paid to deploy (we discuss the fiscal impacts in section 4.5).

International models prove the viability of a dual-sector approach. For example, the Technisches Hilfswerk (THW) in Germany is a federal civil protection organisation made up largely of volunteers, which works in tandem with manufacturing and logistics industries to ensure disaster readiness.[14] In the US, FEMA leverages a vast network of contractors, regional warehouses, and civil service personnel to deliver large-scale emergency response.[15] All this demonstrates the importance of pre-positioned resources, trained civilians, and regional industrial support.

There are a few key principles about the training that are central to our proposal.

First, training should be paid and available to anyone who wants to do it. This is critical to the program benefits centred around pathways to return to work and would ensure the ADR has features similar to a limited jobs guarantee. Making the ADR available to all Australians would also have particular benefits to the long-term unemployed, which we discuss in Box 2 in section 3.2. Similar to firefighters or defence reservists, the work of ADR members would be both valuable and meaningful almost regardless of the number of people who were willing to step up. If Australia had five million people who had all completed training in disaster response skills, it would still be valuable to provide training to more people. The economic law of diminishing returns sets in very late because of the nature of labour-demand during an emergency.

Second, it should establish a more highly paid role for those who have been volunteers for many years and are able to provide training to the next generation but may themselves be reaching (or past) an age where they can continue active service. Many of our most experienced volunteers are approaching an age where things such as working a fire line are increasingly arduous. We need generational renewal, and we need to appropriately acknowledge the people who protected our communities for free for so long. Those experienced volunteers should be paid to train the next generation. But the next generation should not be volunteers – they should be paid to train, to be ready to deploy, and to deploy. Thanks to climate change, the scale of the challenge is simply too overwhelming for a volunteer force to contain. This method of generational renewal would also provide a degree of well-earned financial support and meaningful work for a cohort of increasingly elderly Australians who typically do not have huge net worth, while coincidentally mitigating some of the adverse job market impacts of AI on younger workers.[16] We also judge such remuneration to be politically necessary for the proposal to be accepted in the community.

In terms of implementation, ADR training can leverage existing institutions. It should partner with TAFEs, unions, universities, veteran groups, and emergency services agencies to ensure ADR members are certified and operationally equipped. Training can be modular, with ongoing refresher sessions, and aligned with national standards. It can focus on a range of different disaster types

and response roles. Basic first aid and elementary nursing skills might make a specific module, for instance, so that we have greater capacity to deliver large scale immunisation drives during future epidemics/pandemics. Similarly, training in the effective use of PPE+ for a range of disasters including floods, fires, and epidemics, would reduce much of the disinformation and confusion around valuable interventions such as N95 respirator masks (which are effective against airborne threats such as viruses and bushfire smoke).

It would be significantly advantageous to establish nationally consistent standards for training and operations. Ideally, this would be developed in conjunction with both the full range of emergency services institutions across the country as well as with Defence, so as to maximise the potential for interoperability or dual use skills if they should become required.

- **Stand-by Service:** A successful ADR would have a large number of people participating in a mostly inactive way. In non-deployment periods, members could potentially engage in community resilience programs, disaster drills, and school education initiatives. They may also be involved in preventative hazard reduction and basic forms of infrastructure risk assessments, creating a proactive rather than reactive national posture. A nominal retainment wage should be paid to all participants who maintain their basic skills and their commitment to responding when called, even if they are not called. This would have an effect similar to a modest jobs guarantee (see Box 2 in Section 3.2), or a limited type of universal basic income (but one requiring a commitment to the community).

- **Active Service:** Central coordination could be managed by the National Emergency Management Agency (NEMA) (or state-based equivalents) with regional units embedded throughout disaster-prone areas for faster mobilisation in times of need. This structure provides national consistency while leveraging practical local knowledge.

- **Logistics:** Existing government agencies would need to take charge of logistics, by which we mean all the tasks associated with coordinating the human resources (i.e. reservists). That includes determining which training modules should be provided in which locations, when to call reservists into active duty, where to deploy them, and how to group them into teams with appropriate mixes of skills and experience. Operational tasking work that requires high-level trust and coordination would be the role of agencies such as Emergency Management Australia, or the National Incident Centre.

- **Clear Operational Roles**: The ADR would not duplicate the work of existing services but would offer logistical, technical, and labour support. This may include post-disaster clean-up, evacuation assistance, first-response logistics, and temporary infrastructure setup. Pre-disaster, it can empower much of the population to report hazards or log reviewable maintenance requests through proper channels. It can also provide the basic work of hazard reduction and other disaster prevention tasks that often get neglected.

- **Training and Skills Development**: The Army Reserves sets basic training of 20 days per year for participants.[17] This offers a reasonable upper benchmark for the ADR that conveniently also establishes a reliable bound for considering budget implications.

- **Year-Round Engagement**: Skills need to be maintained. Disaster prevention, preparation, and recovery is virtually limitless. Climate disaster season occupies ever more of the year. While most reservists would only expect to be engaged for a few weeks each year at most, the framework would create the opportunity for much more extensive engagement if appropriate. The Army Reserves allows up to 100 days of work each year,

depending on the individual's willingness – that could serve as a ready template.[18]

Drawing on the Army Reserves' model, the ADR would include part-time members who can be rapidly mobilised during declared emergencies, and a smaller full-time administrative and training workforce. Recruitment, coordination, and readiness would be managed through a purpose-built digital platform, allowing real-time tasking and communication during emergencies.

1.3. Infrastructure, Recruitment and Incentives

To ensure operational readiness, the ADR will require **proper infrastructure** for training and storage facilities located within major population hubs and regional centres. These would include but not be limited to equipment depots for rapid mobilisation and restocking of emergency gear; training centres for simulation-based learning and practical scenario exercises; and community resilience hubs for public education, practice drills, and volunteer integration programs.

Preferably, these facilities would be developed in partnership with existing infrastructure, such as TAFE and university campuses, schools, SES depots, and local government councils, minimising duplication and supporting the work of local economies and community hubs. Locating facilities alongside new disaster response manufacturing precincts would create direct pathways from training into employment, supporting integrated workforce and capability development.

While the ADR should accept any and every Australian willing to step up, **targeted recruitment** can also lay the foundations for the right type of cultural ethos. The ultimate success would be if the ADR came to be seen as a pillar of Australian national identity and civic society on par with institutions like Medicare and compulsory preferential voting, whereby basic disaster training became a rite of passage to adulthood and *voluntarily contributing* to national sovereignty became as *culturally central* in Australia as, for instance, national military service is in Finland. Where Finland has a 'total defence' doctrine against military threats from Russia, Australia could ultimately establish a 'total defence' doctrine against environmental threats and climate disasters.[19]

Such as lofty target will need a deliberate approach to **incentivised recruitment**. Initially, recruitment should prioritise young people seeking vocational and community service pathways. This should aim to create the foundations for a culture of voluntary national service upon high school graduation (conveniently, high school final exams are usually completed by early November, just as bushfire season is getting under way – a perfect opportunity for young Australians looking for a productive use of their summer).[20] In addition to young people, early priority cohorts should include local residents of high-risk regions who would be familiar with local hazard profiles and conditions; workers displaced from declining industries (e.g. coal, gas, automotive) who are likely comfortable with hands-on work and may be seeking new sources of meaningful work or supplementary income; new Australians who may be seeking opportunities to demonstrate their commitment to their new home (invitations to participate could even be made part of the citizenship ceremonies); culturally diverse communities who can struggle to find open doors for community integration; Indigenous Australians who have traditional knowledge and who also face barriers to job markets. Recruitment efforts should be culturally appropriate and careful to properly communicate that participation is an opportunity, not an obligation; and finally, long-term unemployed and other job seekers who may be seeking ways to distinguish themselves, develop new skills, open new doors, or make new connections. An inclusive recruitment strategy emphasising service, skills, resilience, and community as clear institutional values will attract people motivated by purpose as well as employment.

A range of **incentives** should be considered, both for participating as a reservist and for employers. For reservists, training itself should be paid. Such payments do not need to be excessive. We can consider some relevant benchmarks. In NSW, compulsory jury service includes a daily stipend of $106.30 for unemployed jurors and $247.40 for employed jurors.[21] Alternatively, the most junior enlisted ranks of ADF reservists (Seaman, Private, and Aircraftsman/woman) receive a daily remuneration of $209.58 at the basic increment (ie: for entry-level reservists who have completed basic training).[22] These provide reasonable benchmarks of an established government pay scale for part-time emergency response personnel with similar training requirements and a similar deployment model based on short-notice deployments for limited periods. (I discuss the fiscal implications in section 4.5).

Beyond direct payments, reservists would benefit from portable credentials in skills such as logistics, first aid, disaster management, public safety, heavy vehicle driving, machinery operations and maintenance, basic construction, and wide range of other skills related to disaster response. Additional incentives such as reduced HECS obligations, or emergency services levy rebates or discounts (negotiated with states and territories) could also be considered.

Finally, employer recognition programs for participating businesses, and job placement services post-ADR membership should be considered. In particular, employers that encourage employees to act as reservists could be eligible for modest payroll tax deductions and be entitled to access to associated recognition and recruitment programs. Ensuring a strong link between ADR participation and long-term job readiness is key to its role as part of a full employment strategy. Encouraging employers to see the ADR as a recruitment vehicle would help maximise the economic and social value of the proposal. Employers should also be encouraged to see value in employees with a wide range of basic competencies and a culture of tackling problems head-on.

1.4. Complementing, Not Replacing, Emergency Services

Australia's existing disaster response institutions include a wide range of state and federal government agencies, as well as volunteer organisations, private enterprises, civil society groups and others. The ADR should be designed to service clients that already fill disaster coordination and management roles – the purpose is not to replace those agencies but to ensure they have sovereign capabilities to call upon when needed. That will require some internal government survey work to determine which disaster response agencies are most in need of surge capabilities. First, it is worth briefly reviewing which agencies exist:

The National Emergency Management Agency (NEMA) is the federal government agency whose role is to "develop, lead and coordinate Australia's connected and collaborative approach to emergency management".[23] It manages the Disaster Ready Fund; leads the National Coordination Mechanism that "unites all levels of Australian government, industry and non-government organisations for crisis management"; manages the National Emergency Management Stockpile including ensuring the maintenance and distribution of reserves of critical goods and services; and maintains the Australian Disaster Resilience Knowledge Hub.[24] The National Emergency Management Agency sits within the Department of Home Affairs.[25]

The National Incident Centre (NIC) "coordinates national responses to health emergencies, significant events and emerging threats, where there is an impact on human health or health systems".[26] Sitting within the Department of Health, Disability and Ageing, the NIC is led by the Chief Medical Officer. It responds to emergencies such as communicable disease epidemics and pandemics, chemical, biological or radiological incidents, earthquakes or floods

where there are mass casualties, and emergencies that require deploying medical personnel. It hosts emergency meetings of the Australian Health Protection Committee (AHPC) and other expert groups, provides technical advice, gathers health data and information, maintains and distributes the National Medical Stockpile, communicates with the public about health messages, coordinates medical response teams, monitors laboratory capacity for testing for communicable diseases, conducts risk assessments, and a range of other planning, coordination and preparation work. Between 2003 and 2022, it was activated 20 times, including for epidemics, tsunamis, terrorist bombings, plane crashes, bushfires, floods, earthquakes, cyclones, and even a volcanic eruption.

There are other key agencies, such as the AFP, the New South Wales RFS, the Victorian SES, Emergency Management Victoria, ACT Emergency Services Agency, Queensland Fire and Emergency Servies (QFES), South Australian SES, Tasmania Fire Service, WA's Department of Fire and Emergency Services (DFES), and NT Fire and Rescue Service (NTFRS).

Other agencies also play particular roles. Geoscience Australia develops models and tools for hazard risk analysis, while the Commonwealth's Department of Agriculture, Water and the Environment (DAWE) oversees environmental protection and conservation.

Determining which organisation requires a surge capacity and matching skills should be the task of the commonwealth, determining what skills they need, and how much they estimate it would reduce the cost of disasters to have those skills ready for deployment across the country should help structure the training modules offered through the ADR. Understanding which reservists were available to be called upon by which agency will also take some internal coordination. Once determined, the ADR will need to coordinate with those agencies. Key steps may include:

- Memoranda of Understandings with key emergency services in each state and territory, detailing defined support functions, activation protocols, and chains of command.
- Joint training exercises with state-based SES, fire services, ambulance services, and police to build localised trust, coordination, and operational compatibility.
- Advisory roles for emergency service leaders and community volunteers (including employees and employers) in shaping ADR policy, recruitment, and deployment.

By addressing the operational gap between volunteer services and the ADF as the current fall-back option, the ADR will enhance disaster response capabilities without undermining the legitimacy or community standing of existing agencies. It will also offer welcome relief during ongoing multi-region crises, allowing professional responders and volunteers to rest and regroup.

Long-term, ADR involvement in community engagement could reinforce volunteer channels, establishing a virtuous cycle where service fosters local participation and vice versa.

1.5. Conclusion

The ADR provides a practical and forward-thinking solution to one of the greatest contemporary governance challenges: how to respond effectively to more regular, more intense, and more complicated disasters. Modelled on the success of the Army Reserves and informed by emergency sector expertise, the ADR could create thousands of secure jobs, train up a population with a wide range of competencies and skills, increase community preparedness, and restore national capacity for care during crisis. It offers much more than a short-term emergency solution. It represents an enduring national asset, one that links together public service, workforce development, and climate security in a single institution. With

appropriate governance, investment, and public communication, the ADR could become a cornerstone of Australia's modern social contract, linking economic inclusion with shared national purpose.

Critically, the ADR complements the disaster response manufacturing sector described in Part Two, with Australia manufacturing resilience tools and ADR ensuring we have the trained personnel to deploy them, maintain them, and serve communities they are designed to protect. Together, they can form the institutional foundation for a sovereign, future-ready Australia.

Part Two: Building a Disaster Response Manufacturing Sector

2.1. Disaster Resilience Made in Australia

The case for a sovereign industrial base to make the machinery, equipment, and infrastructure for effective disaster response and national resilience is quite different from the case for establishing an Australian Disaster Reserves. The ADR is based on the need for urgently and temporarily mobilising many skilled, equipped, and coordinated people on short notice. That's because of the increasing frequency and severity of disasters, as well as the fact that disasters are (by their nature) temporary emergencies requiring sudden and significant attention. The fact that responders need to be equipped explains why industry, manufacturing and infrastructure have a role in disaster response and preparedness, but it does not explain why such a capability should have any national sovereign component. For that, we need to discuss risk and opportunity.

Australia has a need to respond to the costs imposed by climate change. Separately, we have also determined a need for sovereign industrial capabilities. That second need resulted in the Future Made in Australia plan.[27] Third, there is increasing recognition of a need to increase our defence industrial capacity, as Russia's illegal invasion of Ukraine has revealed how deterrence can depend on the demonstration of industrial sustainment capabilities.[28] These needs are synergistic. Through targeted investment, regional development, and procurement reform, we can create a world-leading disaster response manufacturing sector that enhances resilience, generates secure employment, supports our neighbours, lowers defence costs, reduces the likelihood of conflict in our region, and positions Australia as a global leader in climate change-era industrial capability.

The increased frequency and intensity of climate-related disasters, both domestically and across the Indo-Pacific, is generating sustained demand for specialised equipment here in Australia as well as amongst our close friends and neighbours. This includes water-bombing aircraft, amphibious evacuation vessels, fire trucks, other emergency vehicles, modular emergency shelters, field-deployable first aid and recovery stations, field-deployable mobile communications and power systems, surveillance drones, and personal protective equipment (PPE). Almost all of this is presently imported, often with substantial delays or cost increases during global crises or disaster peaks, and often from countries that are either not reliable during a crisis or potentially even hostile. COVID-19,[29] bushfire emergencies in 2019–2020,[30] recent floods in Queensland and New South Wales[31], and annual disruptions caused by ever-strengthening cyclones in Northern Australia,[32] have all exposed the vulnerabilities of our disaster supply chains.

The Covid pandemic may be most vivid demonstration of why we need our own domestic sovereign industrial capabilities. Across the world, there was a sudden realisation that no one outside of China seemed to have the capability to produce surgical masks. Procuring sufficient respirator machines, N95 respirator masks, gowns, gloves, sanitiser, vaccines and syringes, became suddenly critical items that were needed by everyone, everywhere, and all at once. And only China had the capacity to make most of them, at least at first. The result was that our options to respond to the pandemic were severely limited. The lowest cost responses were not available for months. Instead, we were forced into the second highest-cost responses of shutting down major parts of society and the economy to avoid the most expensive response: doing nothing. At the height of the pandemic emergency, Australia was first able

to obtain surgical masks only thanks to aid from Taiwan. Letting the disease spread throughout a fully unvaccinated population would have entailed an indescribable cost, so preventing that was worth almost any effort, but it would have been far better if we had the capacity to give ourselves options other than simply shutting everything down. Sovereign capacity matters in a crisis.

Disaster preparedness is a form of insurance: we make planned and steady investments to prevent unexpected sudden costs that we cannot afford in the moment. But it can also underwrite the economics of other necessary capabilities. In particular, it can support national security, regional economic development, and innovation. The combination of public procurement, targeted investment through mechanisms such as the National Reconstruction Fund,[33] and an industrial policy agenda based in regional equity could make disaster response capability a flagship sector of Australian manufacturing and regional diplomacy. There is also an opportunity to rebuild public trust in government by delivering tangible outcomes to communities that have experienced economic neglect. By embedding resilience into industrial strategy, Australia can strengthen its very democracy, foster inclusive economic growth, and ensure that communities are better prepared before the next disaster strikes.

2.2. Prioritising Manufacturing for Resilience

A key pillar of making this strategy economical is identifying and investing in high-need, dual-use areas of production. Prioritising dual-use assets would maximise the value of such investments as both the assets themselves and the industry to produce them can support Australia's response to both climate disasters and defence emergencies. Several priority capabilities stand out:

- Trucks and similar vehicles: The most iconic firefighting equipment is without question, the fire truck. Similarly, Australia's most celebrated contribution to Ukraine's defence against Russia's illegal and despicable invasion are the Bushmaster Protected Mobility Vehicle. Different types of trucks fill other less celebrated roles in both climate disaster response and national defence. For instance, water trucks and refuelling trucks that can enable Forward Arming and Refuelling Points (FARPS) are part of the critical logistics of defence. The US Airforce even touted its acquisition of refuelling trucks (not the most iconic Airforce vehicle) for the 101st Sustainment Brigade at the Bagram Airbase when they were first used by the 455th Expeditionary Logistics Readiness Squadron.34 If that sentence reads like a lot of defence jargon, the key point might be summarised by the aphorism, "amateurs talk tactics, professionals talk logistics" (often attributed to General Omar Bradley): logistics vehicles are essential to defence, meaning logistics is a critical sovereign capability. They are also essential to disaster response. Fire trucks, ambulances, busses, refuelling vehicles, protected personnel transport... these all need to be designed to handle difficult terrain and conditions including flooding, fire, heat, and smoke while keeping passengers safe, comfortable, and informed. These are a sovereign capability with dual-use that Australia should ensure we can either produce and maintain ourselves or at least manage to refit and maintain vehicles for specialised applications ourselves. We are unlikely to ever face a shortage of vehicles in an emergency, but we are quite likely to face a shortage of suitable vehicles. We need to be able to retrofit vehicles for emergency logistics, which means we should sustain the capability by focusing on disaster response.
- Heavy Equipment Vehicles: these include earth moving equipment such as bulldozers, tractors, or other forms of land-clearing equipment,

- Aerial Firefighting Fleets: Australia is one of the most fire-prone countries internationally but relies heavily on foreign-leased aircraft during bushfire seasons.35 Developing sovereign fleets of water-bombers, particularly in partnership with local aerospace firms and universities, would reduce reliance on international leasing markets and develop domestic capabilities in aeronautical engineering and maintenance. For instance, rigging Lockheed's C-130 Hercules for water bombing in a configuration that can be changed to defence-use when needed, can involve local industry focused on the re-fitting and maintenance aspects. Such capabilities would also create export potential to similarly fire-prone nations in Southern Europe, the Americas, and Southeast Asia. There is significant overlap between the types of aircraft needed for fighting fires and some of the aircraft used by defence. For instance, the ADF uses Chinook for heavy-lift operations, Black Hawks for medium-lift utility helicopters, Apache Guardian attack helicopters, and AgustaWestland AW139 medium-lift utility helicopters. Excluding the Airforce since their jets have more specialised industrial requirements, the ADF currently has 74 helicopters in active service and a further 72 on order as of 2025 (29 Apache Guardians and 30 Blackhawks for Army, and 13 Blackhawks for Navy).36
- It is estimated that Australia has over 100 "air ambulance aircraft" (both fixed-wing and rotary). According to CareFlight, "Air Ambulance jets are configured to carry CareFlight critical care nurses and a doctor, one stretchered patient and one seated patient. Patients requiring life support and ventilation are routinely and safely transported."37 An ADR aerial fleet should include a reserve squadron of Chinooks specifically modified for the needs of disaster response (but modified by local firms that would have the capability and rights to respecify for defence use if required). There is a substantial dual-use industrial capability involved in producing such aircraft. The economic calculus of investing in such industry is far easier if we consider the demand for both military and civilian emergencies together: the number of aircraft ordered is nearly doubled. If we include support for Pacific Island countries that would not be looking for F-35 jets but certainly would benefit from a fleet of air ambulances, then we can expand the order book again, further improving the economies of scale.
- Amphibious and Logistics Vessels: Increased flooding and storm surges demand a fleet of flexible evacuation and supply vessels. These vessels are much smaller than the landing helicopter dock (LHD)'s such as HMAS Canberra. During World War II, Australia built around 30,000 landing crafts of various sizes, including for personnel, vehicles, and landing craft mechanised. These can be used to evacuate people (including with their cars full of possessions) from beaches during bushfires or floods when they are cut off from evacuation by road. Developing an industry for producing civilian landing craft would significantly help Defence, which identified a landing craft shortfall at the 2025 Talisman Sabre exercises. Existing Army landing craft are from the Vietnam War era and are incapable of carrying tanks.38 Production of modern dual-use landing craft would substantially benefit defence while also supporting critical disaster response capabilities. There is also considerable marketing potential for such purpose-built disaster vessels in our region. And they are a very basic entry-point for industry returning to ship building. They could be produced in existing or revived shipbuilding precincts, such as Osborne in Adelaide,39 with modular designs adaptable to Pacific or remote Australian conditions. Regional production of these vessels would also support naval-adja-

cent industries, expanding further Australia's maritime manufacturing base. Vital industries such as steel making would benefit from reliable customers with regular build schedules. Manufacturing our own light ships could also provide opportunities to experiment with decarbonised steel, which will likely displace traditional steel making processes right around the time that Australia begins constructing the SSN Aukus boats. It would be ideal to have lower-stakes opportunities to test the properties of what will in effect be a brand new type of material.

- Portable Shelters and Mobile Clinics: Modular, rapidly deployable shelter units and field clinics could be stored in regional hubs and deployed within hours. Their production would benefit from existing capabilities in modular construction and prefabrication in both metropolitan and regional industrial zones. These shelters would be vital in quick responses not only to natural disasters but also to public health crises, reinforcing social infrastructure. Ukraine has also revealed that during conflict, fallout shelters are essential for the normal operations of society – many schools cannot admit students on campus due to a shortfall. As a result, the ability to manufacture such units can contribute to deterrence by demonstrating sustainment capabilities.
- Advanced PPE and Emergency Kits: During the early stages of Covid, PPE shortages exposed gaps in domestic production.40 Establishing sovereign capacity for medical and emergency textiles, including masks, gowns, and high-durability kits, could support both national stockpiles and regional export capacity. Encouraging public-private partnerships here would strengthen supply chains and allow for rapid scale-up during emergencies.
- Surveillance and Communication Technologies: Drones, sensor networks, low-earth orbit (LEO) satellite surveillance, and mobile communication systems are increasingly critical in modern disaster response. These are especially essential for rapidly detecting very low thermal and smoke signatures of fires, to vector resources quickly to ignitions (particularly in difficult terrain). They can also help determine in real time affected or at-risk zones to coordinate evacuations, deploy resources, or even inform insurance claims. Supporting advanced electronics and drone manufacturing can also link this sector with Australia's broader pursuits in defence and aerospace. These technologies enhance situational awareness, coordination, and safety for emergency responders.
- Disaster Resilient Infrastructure Components: As rebuilding becomes a principal part of disaster recovery, Australia can lead in developing climate-adapted infrastructure products, including flood-resilient materials, fireproof cladding, and off-grid energy solutions, and high-quality food that can be delivered as food aid to cut-off areas, evacuation centres, or short-term displaced populations while also properly supporting responders in the field. Creating standards and certifications for these disaster resilience-centre materials would support domestic use and boost export competitiveness.
- Emergency housing: During the emergency phase of the Covid-19 pandemic, one of the biggest failures was the hotel quarantine system, while one of the biggest successes was the Howard Springs Quarantine facility that replaced it. Howard Springs has since been used to accommodate visiting defence personnel during Operation Talisman Sabre, with some participants reporting the Howard Springs accommodation as an outstanding experience of their military service. For emergencies such as pandemics, rapidly expandable national quarantine centres is critical. A stockpile of fitted shipping containers able to be deployed for refugee scenar-

ios or in the wake of climate disasters where housing has been destroyed.

- Artificial Intelligence: AI can be used extensively in predicting disasters and managing demand for response capabilities. For instance, Project Maven is a US Defence Department initiative using AI to rapidly process sensor input and geospatial intelligence. It is able to provide fire and flood-line modelling and prediction that would improve prevention and allow pre-positioning of response assets that could help us respond to emergencies faster and more efficiently, minimising both loss and cost. Ensuring Australia has its own sovereign capacities in this transformational technology will form an essential part of our national resilience.

These priorities represent not only an industrial opportunity but a chance to embed climate resilience throughout Australia's response systems. They also provide a pathway for long-term regional revitalisation, linking national resilience to local renewal and innovation ecosystems.

2.3. Rebuilding Regional Manufacturing Hubs

This vision aligns with a long-standing need to revitalise former industrial communities. Centres such as Geelong, Wollongong, Newcastle, Gladstone, Townsville and Elizabeth once served as the backbone of Australian manufacturing, especially in automotive, steel, shipbuilding, and textiles.[41] However, the decline of these industries left these regions disproportionately impacted by blue-collar unemployment and economic displacement.[42] These communities possess both the physical infrastructure and the industrial heritage necessary to anchor new manufacturing initiatives but have long been excluded from national economic priorities.

Establishing dedicated Disaster Resilience Manufacturing Precincts would support:

- Re-skilling and secure work for displaced industrial and trades workers;
- Pathways for young people into apprenticeships and advanced manufacturing careers;
- Public infrastructure investment, including energy, transport and digital upgrades; and,
- TAFE, university and where appropriate union-led training initiatives focused on emergency equipment production, logistics, and climate-responsive engineering.

These precincts should be tailored to local strengths. For example:

- **Geelong**: Home to Deakin University and advanced materials research, Geelong is well-positioned to lead in firefighting equipment and emergency textiles;[43]
- **Newcastle**: With a strong port and heavy engineering history, Newcastle could specialise in amphibious and logistics vessel production; [44]
- **Wollongong**: Its legacy in steel and fabrication positions it well for modular infrastructure and climate-resilient materials;[45]
- **Elizabeth (Adelaide North)**: Following the closure of Holden, Elizabeth has the industrial footprint and workforce potential for PPE, electronics, and shelter kit assembly;[46] and,
- **Regional Queensland (Townsville, Mackay or Gladstone)**: Utilising existing agricultural inputs (such as sugarcane) and expertise, develop a biofuels sector that allows Australia to build a strategic supply of products such as sustainable aviation fuel and biogas.[47]

In addition to job creation and industrial growth, these hubs would encourage innovation by grouping small and medium-sized enterprises (SMEs) alongside research institutions and supply chain partners. Placing emergency services agencies, logistics operators, and vocational training providers within these precincts would

create integrated networks capable of rapidly scaling and adjusting in times of crisis.

Investment in these hubs would stimulate broader local economies, support supply chain grouping, and rebuild public confidence in regional industrial renewal. It would also ensure that the benefits of Australia's climate resilience strategy are distributed fairly, strengthening social cohesion and long-term economic security.

2.4. Strategic Investment and Export Potential

A successful disaster response manufacturing sector will involve a combination of public procurement, federal and state partnerships, and export-oriented strategy. The NRF, together with Defence procurement and the NEMA, could underwrite production to guarantee initial demand.[48] This initial support will not only provide certainty to manufacturers but also establish quality standards and long-term supply relationships.

In the short term, government purchasing should target Australian-made disaster response goods through updated procurement guidelines that prioritise sovereign capacity, regional development, and union-supported workforces. This may include bulk purchasing for the National Emergency Management Stockpile, state emergency services, and the proposed ADR (see Part One).[49]

Procurement targets and strategies can be tiered to ensure both established manufacturers and SMEs are integrated into the national supply chain. Where government seeks to procure essential items for disaster preparedness, they should use existing successful blueprints of procurement policy that incentivises the use of locally-manufactured and -sourced products. For example, the Queensland Procurement Policy, *Buy Queensland*, was initially launched in 2017 to promote Government procurement with weighting criteria that favours businesses located in Queensland or with a significant presence in the State[50]. Alongside this weighting criteria, tangible targets for investment in local SMEs are also a key component of this program. Expanding these principles to a national scale, as well as to incentivise the 're-shoring' of critical manufacturing industries into Australia are worthwhile methods for government to explore.

Existing policies and funding programs, such as the abovementioned NRF, should be refined, in alignment with a targeted procurement framework to attract industry and accelerate investment in manufacturing projects in Australia. Marc Ablong, in his 2024 paper for the Australian Strategic Policy Institute, rightly asserts:

> Investments through the National Reconstruction Fund, aimed at diversifying and transforming Australia's industry and economy, could be assessed for their ability to reduce supply-chain risk, improve civil defence and protection systems and enhance defence capabilities.[51]

The NRF is just one example. However, as a program with a relatively wide remit, there is no reason why the Defence priority in its investment guidelines cannot be broadened. Currently, the NRF states:

> The National Reconstruction Fund Corporation may invest to support the manufacture of products that are wholly or primarily for use in or in connection with defence. This may include the development, manufacturing and sustainment of products that are inputs to defence capability.[52]

Expanding this guideline to include national resilience would go some way in helping to achieve the policy objectives outlined in this section and would not be detrimental to the intent of the NRF.

Over time, a more ambitious objective should

be to position Australia as a net exporter of disaster response capabilities. Australia is well-regarded in the Pacific and Southeast Asia for its disaster management expertise and humanitarian assistance record.[53] Delivering high-quality, context-adapted equipment to these regions will support not only economic, resilience, and security goals but also our diplomatic engagement priorities. Export-ready production can also act as surge capacity in domestic emergencies, ensuring scalability during peak crisis periods.

This export potential aligns with broader regional strategic goals:

- Assisting Pacific Island nations with disaster resilience tools can build goodwill and deepen ties;
- Supporting Southeast Asian partners with resilient infrastructure kits and early warning systems can enhance Australia's regional standing; and,
- Joint training and co-development of equipment with partner nations can support knowledge transfer and innovation.

Export strategies should be supported by Austrade, DFAT, and development financing institutions, with a focus on mutual benefit, affordability, and technical excellence. Trade delegations and multilateral disaster preparedness forums can serve as platforms to showcase Australia's capabilities and strengthen long-term relationships.

2.5. Disaster Resilient Infrastructure and Design

Complementary to the need for an industrial and manufacturing base that underpins national disaster responsiveness, disaster-prone areas of Australia will benefit from increased investment in disaster-resilient critical infrastructure, urban planning and building design.

The disaster wrought on the people of Darwin by Cyclone Tracy in 1974 ensured that building codes, especially in Northern Australia, were brought up to speed to ensure the mass destruction of dwellings would not repeat. As more Australians become exposed to natural disasters, ensuring that the design of buildings is such that they can withstand natural disasters such as flooding, bushfires or cyclones becomes imperative. This is not only important for residents resuming their lives post-disaster, but also to decrease risk for insurers and to put downward pressure on insurance premiums which are becoming increasingly expensive. A report by the Climate Council after Cyclone Alfred stated that "Australians are collectively paying an inflation-adjusted $30 billion more today on insurance than they were only 10 years ago".[54] Undertaking research into construction techniques and products that improve building resilience (and thereby reducing insurance costs) has been occurring at James Cook University's Cyclone Testing Station since 1977.[55] Government and regulators would be well counselled to pay closer attention to the work, findings and innovation done by centres of research like this that specialise in disaster resilience.

Similarly, public infrastructure in disaster-prone parts of Australia suffers from chronic underinvestment. As such, damage or disruption to roads and railways affected by flood, fire or cyclones hinders supply chains, making it harder for disaster-affected communities to rebound after disaster. For example, in 2024, the Bruce Highway experienced closures totalling 31 days, while in the first quarter of 2025 alone it was closed for 20 days. 70% of Queenslanders surveyed by the National Roads and Motorists' Association (NRMA) believe the road is not "resilient to extreme weather".[56] These closures impede the delivery of food and other essential supplies to cities and towns across Northern Australia and increase costs for residents. The Bruce Highway is just one example.

In fact, Australia's food security depends almost entirely on a few critical roads between farming

areas and cities, as well as on the petrol to run refrigerated trucks. While Australia has a strategic petroleum reserve, it is located in the US, meaning in almost any scenario where it would be needed, it would be impossible to access. An entirely fake emergency plan. Resilience infrastructure is not something that can be outsourced – we have to build our own.

While disaster-proofing investments for road projects are being rolled out[57], greater emphasis needs to be placed on disaster-resilient infrastructure by Infrastructure Australia (IA). Coordination with the NEMA, as well as state, territory and local government, by IA in maintaining and updating its Infrastructure Priority List. This includes ensuring that the *Infrastructure Australia Act 2008* (Cth) is fit for this purpose[58].

2.6. Summary

Disaster response manufacturing offers a nation-building opportunity at the intersection of industrial policy, regional development, and climate adaptation. By identifying strategic equipment needs, Australia can invest in regional manufacturing precincts and build sovereign supply chains. As a result, we will create secure jobs, enhance national readiness, and support climate-affected neighbours with practical tools, not just promises.

This sector would be a flagship of *A Future Made in Australia*, turning climate vulnerability into an opportunity for resilience, employment, and leadership on the global stage. It draws together multiple national priorities by revitalising post-industrial regions through tailored precincts and skills pipelines. It creates opportunities to strengthen diplomatic ties across the Indo-Pacific by exporting high-quality, context-adapted equipment. Crucially, it reducing our dependence on overseas suppliers through the development of sovereign capabilities in critical areas across aerial firefighting, PPE, modular shelters, and surveillance technologies. Furthermore, it creates the institutional conditions for long-term economic transformation, linking government procurement, public investment, and workforce development under a cohesive national strategy. In doing so, Australia can become both a model and a supplier of resilience in the climate era.

Part Three: Expected Benefits and Economic Impact

The dual approach of establishing the Australian Disaster Reserves (ADR) and developing a disaster response manufacturing sector presents a high-impact, multidimensional chance for national transformation. It unites economic policy, national security, regional development, and diplomacy into a cohesive strategy that addresses both immediate vulnerabilities and long-term strategic positioning.

3.1. Cost of Living

Australia has recently experienced the cost of climate disasters. The severe inflation endured between 2020 and 2023 was significantly driven by Covid and Russia's illegal invasion of Ukraine, but food and insurance inflation in particular was also driven by floods here in Australia. Covid itself (or infectious disease events like it) are expected to be far more frequent as climate change spreads disease-prone tropical conditions to more of the world.

The Australian Climate Service released Australia's first *National Climate Risk Assessment* in September 2025.[59] In discussing the economic risks to Australia, the report details climate hazards including bushfires, tropical cyclones, drought, and floods. It anticipates this will cost Australians who will have to draw down their savings, devalue investments, suffer health and social costs, face higher insurance premiums (if insurance is available at all), and cope with reduced wealth and rising costs of living amongst others. It also forecasts increasingly fraught supply chain challenges, as well as physical risk to infrastructure and critical assets. It anticipates an increase in government funding under existing disaster recovery funding arrangement of 400-500% (depending on whether we meet the Paris targets or only slightly miss them).

There are also significant "resilience dividends" via long-term savings and social benefits from enhanced disaster preparedness and quicker recovery times. These include:

- Reduced economic disruption due to faster disaster response;
- Lower infrastructure repair costs due to pro-active equipment and personnel readiness;
- Greater community cohesion and trust in institutions;
- Reduced mortality and morbidity rates in high-risk events; and,
- Downward pressure on insurance premiums, and incentivisation for insurance companies to offer products to residents and businesses in under-insured parts of the nation.

We are already too late to eliminate the cost of climate change, but we are not too late to contain it. Investing in preparedness now decreases the long-term human and financial costs of inaction. These dividends compound over time and build the national capacity to handle systemic shocks=

3.2. Jobs and Economic Diversification – a Partial Jobs Guarantee

Investing in resilience precincts in regional cities and metropolitan suburbs with industrial histories, such as Geelong, Wollongong, Newcastle, and Elizabeth, could create thousands of secure, high-skill, unionised jobs.[60] These precincts provide employment pathways in fields such as advanced manufacturing, engineering, emergency logistics, and public safety.

The ADR complements this by providing accessible entry points into the workforce, particularly for

young people, displaced workers, and regional residents. Through nationally recognised qualifications and paid training that takes on all comers, the corps becomes akin to a modest regional jobs guarantee and a mechanism of inclusive employment, contributing to full-employment policy objectives and regional economic diversification.

Both initiatives are fundamentally localised in their implementation, ensuring that national economic benefits are broadly distributed and aligned with regional development objectives.

Box 2: Unemployment and a Partial Jobs Guarantee

Unemployment is enormously costly, both to families and wider society. Job loss permanently scars workers' wages by 10% ($5,000) for those workers who do not find new jobs within 12 months of being laid off.[61] The health impacts of unemployment are similarly harrowing, with a 2023 psychiatric study finding that unemployment and underemployment were responsible for one in five suicide deaths in Australia from 2004 to 2016 (19.9% of 32,000 suicide mortalities, including 3,295 from unemployment and 3,131 from underemployment)[62]. These costs are overwhelmingly borne by working-class families and disadvantaged Australians—those who are, in the words of US economist Pavlina Tcherneva, the "last hired and first fired".[63]

By contrast, good union jobs deliver substantial long-term benefits beyond a paycheque. An evaluation of the Victorian Government's pandemic-era *Working for Victoria* (WfV) jobs program by Deloitte Access Economics in May 2021 found the program delivered $109.8 million in broader socioeconomic benefits associated with lower unemployment, such as better health and lower crime (or $9,296.4 per job and $0.246 per dollar invested). The program similarly delivered a $355.5 million net increase in income for participants from being employed (or $30,099 per job and $0.795 per dollar invested), and Deloitte estimated the Victorian economy was $911 million bigger over five years as a result of the program (or a fiscal multiplier of 2.04 on a program cost of $446.9 million as at May 2021).[64]

Long-term Unemployment

For most of the decade pre-Covid, while the unemployment rate was around 5%, the long-term unemployment rate was around 1.5%. According to RBA research, "the long-term unemployed are more likely to be male, much less likely to have completed year 12 or tertiary education and have significantly less household net wealth and disposable income."[65] Nearly half have not completed high school, over a quarter are from a non-English speaking background, and more than a third were born overseas. Concerningly, more than 1 in 10 report having gone without meals and asking for help from welfare or community organisations, and a further 9% report they are unable to heat their home.

The number of long-term unemployed Australians rose steadily 88,000 in April 2023 (including 46,200 who were without work for more than 2 years) through to August 2025 when there were 143,800 long term unemployed (including 67,400 unemployed for more than 2 years). That's nearly 150,000 Australians who have been trying to find work for over a year but unable to succeed. For much of the decade leading up to Covid, the number of very long-term unemployed, meaning those trying to find work without success for more than two years, was consistently around 100,000 Australians. To anyone who has experienced unemployment, that figure is devastating.[66]

By making the ADR available to anyone who stepped up, someone who has been long-term unemployed would be able to receive their first paycheque perhaps in years, while also completing basic skills development, building networks amongst in-work people, and demonstrating an ability to perform that they otherwise might never get the chance to prove. According to RBA research, "the probability of exiting unemployment declines the longer someone is unemployed, and that this is driven by a lower probability of finding work." They call it a "specific kind of scarring".[67] That means there is a significant economic and social benefit every time someone who has been long-term unemployed finds a path back to employment. Of course, the personal impact can be beyond measure.

The urgent need to involve younger Australians coincidentally has the possibility of mitigating some of the risk from AI adoption. Recent research has indicated, for instance, that AI may be adversely impacting job availability for younger people more than senior workers.[68] A disaster reserves, operating somewhat like a jobs guarantee with a focus on skills and community would be perfectly timed to support younger job seekers especially.

3.3 National Security

By building the ADR, Australia can relieve the ADF of regular disaster response duties, allowing it to focus on its primary role: strategic defence. Climate disasters are predicted to increase in frequency and intensity, and the burden placed on the ADF during national emergencies diverts attention and resources from training, strategic readiness, and international commitments.

The ADR offers a sustainable and specialised alternative, capable of deploying rapidly during bushfires, floods, or cyclones, and better suited to the non-combat nature of domestic emergencies. This clear division of labour enhances the overall resilience and efficiency of Australia's national security architecture.

Additionally, by establishing a sovereign manufacturing capability focused on the machinery, equipment, and infrastructure needed across the region for effectively responding to the increasingly frequent and intense climate disasters, we can ensure Australia has the sovereign industrial capability necessary to deter conflict by demonstrating a robust sustainment capacity. But by focusing on industrial production that will definitely be required even in the absence of conflict (but is at least partially dual use at the level of industrial capability), we can significantly reduce the cost of sustaining a sovereign defence industry.

3.4 Regional Diplomacy

Australia's Pacific neighbours have recognised climate change as their most pressing security concern. Climate change is existential for them, but even if sea levels can be held back, climate disasters (meaning more frequent and more severe cyclones, drought, and food insecurity) pose a threat that our friends will find insurmountable left to themselves.[69]

By establishing a national-scale training and logistics infrastructure focused on disaster management, we can support our friends and neighbours develop their own skills and improve their own resilience. This aligns with Australian priorities, including the *Pacific Step-up* program, our renewed focus on regional development,[70] Australia's humanitarian assistance and disaster relief commitments[71], and our broader diplomatic efforts to counter strategic competition in the region by demonstrating practical commonality.[72] Maximum success might envision it becoming routine for the majority of Pacific Islanders upon school graduation to spend 2-3 weeks in Australia or at an Australian-supported regional training hub in Fiji or Solomon Islands (for example) on basic resilience training. That would be a significant boost both to the region and to our standing in it.

In addition, by investing in the industries associated with machines, equipment, and infrastructure of disaster preparedness, response, and recovery, we can collaborate with the Pacific to ensure their people are not just well trained and organised, but also well-equipped and working with the most appropriate infrastructure for their circumstances. The total population of the Pacific Islands (excluding Australia) is almost precisely equal to that of Australia's. That means that we can achieve substantial economies of scale by considering their needs as we build the sovereign industrial capabilities required to sustain our own climate disaster resilience. And by operating at a larger scale, the national security benefits flowing from a sovereign industrial capacity (discussed elsewhere in this chapter) are also enhanced.

Finally, by ensuring Australia has its own well-resources ADR and sovereign industrial capability, Australia could ensure we have the capability to spare so that we are in a position to provide additional support during crises that exceed even the bolstered local capacities. This will improve Australia's reputation as a climate-resilient, responsive partner, helping to reinforce its influence in the Pacific at a time of growing geopolitical competition.

Supporting our Indo-Pacific partners with civilian responders rather than military units could be viewed more favourably by some nations, particularly where sensitivities exist around sovereignty and security.[73] The ADR could therefore become a key tool of soft power, complementing Australia's defence partnerships with a human-focused diplomacy of care and solidarity.

Collaboration on reliable supply chains for the machinery, equipment, and infrastructure required to sustain national resilience, and with joint training and timely deployments of equipment and personnel through the ADR would provide the type of mission driven focus to our partnership with the region that is usually only possible during war time. Importantly, this model relies on cooperation and capacity-building, rather than dependency, making it more welcome than conventional aid or security-heavy arrangements.

Part Four: Implementation Pathway

A phased implementation will ensure that both the Australian Disaster Reserves and its associated resources are developed in a cohesive, adaptive, affordable, and democratically sustainable manner. This approach supports initial momentum and continuous improvement, while establishing the frameworks necessary for sustained institutional growth. Implementation should be pursued across three phases, these being short-term foundational work, medium-term scaling, and long-term institutionalisation, each with distinct deliverables and policy levers.

4.1. Short-Term (first two years)

- Feasibility studies to identify vital equipment requirements, potential manufacturing locations, existing industrial capacity, regional workforce strengths, and gaps in emergency response readiness.
- Pilot manufacturing precinct to be launched in one or more regions, with investment drawn from the National Reconstruction Fund and aligned with existing industry groupings. This pilot would test sovereign procurement frameworks, supply chain integration, and workforce transition pathways.
- Stakeholder consultations held across jurisdictions, involving trade unions, emergency services, industry associations, regional development agencies, TAFEs and universities, and Indigenous Australian communities and others. These consultations should further inform program design, governance models, and recruitment strategies.
- Trial ADR unit to be co-developed with an existing emergency services provider or local government authority. This unit would focus on recruitment, basic training, community outreach, and deployment drills to assess operational readiness.
- Establishment of an intergovernmental steering group to manage early implementation, coordinate cross-agency efforts, and track key performance indicators.

This phase should be accompanied by targeted communications to build public support, establish political consensus, and highlight early success stories. Media partnerships, pilot precinct case studies, and frontline ADR member profiles can help generate national momentum and bipartisan endorsement.

4.2. Medium-Term (next five years)

- National rollout of the ADR, with regional units established in all states and territories, backed by a national coordination platform and digital deployment infrastructure. Regional hubs should align with population centres and disaster risk profiles.
- Expansion of disaster manufacturing precincts using lessons from the pilot. These precincts should be integrated with local TAFEs and universities, supply chain partners, and emergency response logistics networks. Public-private partnerships and union-employer training models can support ongoing workforce development.
- Creation of regional investment funds to stimulate SME participation, enable innovation, and build out related infrastructure (e.g. ports, storage depots, communications systems).
- Memoranda of Understandings and legislative arrangements with state governments and emergency service agencies to formalise operational integration, funding responsibilities, and cross-jurisdictional de-

ployments.

- Launch of a national recruitment campaign to attract ADR members across diverse demographics and skill levels, including secondary school leavers, career-changers, and returning workers.
- Review Infrastructure Australia's prioritisation methodology to encourage public investment in projects that promote disaster-resilience in infrastructure and supply chains.
- Strengthening Australia's research and development (R&D) sector is essential to building a coherent national disaster resilience capability. At present, the landscape is fragmented — with world-class work being done across CSIRO, Natural Hazards Research Australia (formerly the Bushfire and Natural Hazards Cooperative Research Centre), and numerous university research centres, yet often in isolation. The ADR offers one practical mechanism to integrate and scale this expertise by creating a unified national platform for applied research, training, and innovation. Embedding R&D partnerships within the ADR's regional hubs would help bridge the gap between scientific discovery and field application, improving national preparedness, and positioning Australia as a serious global competitor in resilience technology.

The ADR should also begin participating in Pacific joint training missions, multinational disaster preparedness exercises, and community engagement campaigns to build regional familiarity and operational credibility.

4.3. Long-Term

- Position Australia as a global supplier of disaster response equipment, services, and expertise, particularly to Pacific and South-east Asian nations facing shared climate challenges.
- Institutionalise the ADR as a permanent and recognised part of Australia's civil protection infrastructure, with dedicated legislation, guaranteed funding streams, and parliamentary oversight.
- Continue refining industrial policy, drawing on lessons from the precincts to support broader sovereign capability agendas in other strategic sectors, such as health, clean energy, and digital infrastructure.
- Develop a regional training and technical assistance arm to support capacity-building in partner countries. This could include exportable training modules, mobile support teams, and collaborative innovation projects with regional agencies and research institutions.

4.4. Governance and Coordination

The Federal Government should lead on overall strategy, fiscal policy, regulatory frameworks, and international coordination. It should be responsible for national coordination of the ADR and oversight of NRF-supported manufacturing activities.

State and territory governments should lead on local deployment, integration with existing emergency services, training delivery through TAFE systems, and infrastructure co-investment. Local governments will also play a key role in community engagement and site-specific planning.

Several governance models could be considered:

- An independent statutory authority, such as a National Disaster Resilience Commission, with a mandate to deliver and oversee the ADR and disaster manufacturing capability. This model ensures political neutrality and a long-term focus;
- A dedicated branch within the National Emergency Management Agency, ensuring tight integration with existing national coordination systems and emergency response

protocols; or,

- A public corporation model, governed by a representative board including state and territory governments, emergency services leaders, First Nations representatives, industry associations, relevant trade unions and local government.

To ensure accountability and responsiveness, regular evaluations should be conducted, supported by public reporting, parliamentary committees, and participatory feedback mechanisms involving communities, stakeholders, and ADR members themselves.

Ultimately, governance must support a unified national system with clear objectives and clear accountability, while respecting local diversity and expertise. It should build trust, facilitate rapid decision-making, and ensure long-term institutional memory and policy continuity.

4.5. Cost

The ADF Reserves provide a useful benchmark for anchoring expectations of cost. According to the Department of Defence Annual Report 2023-24, the total ADF Reserves workforce includes 32,560 personnel. Of these, 1,371 are reserves on continuous full-time service (4.2%). In the course of the year, 21,907 reserves performed 1,229,990 days of paid service.[74] This equates to an average of around 56 days of paid service per active personnel or around 38 days of active service per reservist using the total number of registered reservists.

We propose ultimately achieving a much larger contingent of disaster reserves. After the initial phase successfully demonstrates a trial unit, we propose a medium-term target of 200,000 Australians to be trained in basic disaster response skills over the five-years of the medium-term phase. This implies 40,000 people per year, which for benchmarking purposes is approximately 20% of an average high school graduation cohort each year.

Costing the ADR based on the ADF Reserves is difficult for the same reason that costing the latter is difficult, as the Department of Defence acknowledges: "The number of days each ADF Reserve member (Service categories 3, 4 and 5) works in a year can vary substantially depending on personal circumstances and organisational need."[75]

However, an indicative benchmark can be estimated by taking the $209-per-day salary of entry-level Army Reservists—an Infantry Soldier (Rifleman), and a Warehouse Coordinator (Distribution Operator, in logistics)—and multiplying this by the targeted number of ADR trainees each year (40,000 to meet the 200,000-in-five-years target), the average number of initial training days of a new ADF Reservist (21), and the latter's minimum annual number of days of service (20)—assuming that in the first year of each intake, trainees will also need to complete a minimum 20 days' service *in addition* to their 21 days of initial training. (NB: these numbers are only for the purpose of anchoring cost expectations and can certainly be adjusted based on need).

Indicative five-year costing is below, noting this reflects *wage* costs of each recruit/trainee intake, and excludes the cost of *trainers*, equipment, and other operational and capital costs.

Table 1: Indicative five-yearly costing of Australian Disaster Reserves, $ millions

Cohort	Year 1 costs	Year 2 costs	Year 3 costs	Year 4 costs	Year 5 costs
1st Intake (40,000)	$342.76	$167.20	$167.20	$167.20	$167.20
2nd Intake (40,000)		$342.76	$167.2	$167.20	$167.20
3rd Intake (40,000)			$342.76	$167.20	$167.20
4th Intake (40,000)				$342.76	$167.20
5th Intake (40,000)					$342.76
Total ($m)	**$342.76**	**$509.96**	**$677.16**	**$844.36**	**$1,011.56**

Assuming 4.2% of ADR Reservists are Reserves on continuous full-time service at an entry-level salary of $79,615 p.a. (consistent with the benchmark set by the ADF Army Reserves), we would expect the following full-time ADR Reserve workforce and costs (see Table 2).

Table 2: Indicative five-yearly estimates of full-time ADR reservist workforce and associated labour costs ($ millions)

	Year 1	Year 2	Year 3	Year 4	Year 5
No. of FT reserves	1,680	3,360	5,040	6,720	8,400
Cost ($m)	$133.75	$267.51	$401.26	$535.01	$668.77

Of course, the costs in the tables above would have to be adjusted to subtract the cost of the minimum 20 hours of annual service for each full-time ADR reserve, as their full-time ADR service would *include* (or be in *lieu*) of the minimum 20 days' paid service they would otherwise do if they were not full-time. Moreover, the annual salaries of full-time ADR reserves—much like ADF reserves—would likely not be tax-free, so the net costs of the small full-time ADR workforce would be smaller in practice than those indicated in Table 2.

Such initial indicative costing also does not include any second or third-round effects, such as company and other tax revenue upgrades produced by the uplift in economic activity as a result of reduced unemployment and underemployment. Nor does it include costs associated with recruitment, other incentives, overheads, or a range of other factors. But we believe the above costings provide suitable detail for the proposal at its current stage of development.

Part 5: Conclusion: Sovereignty, Security, and Solidarity

Australia stands at a crossroads. Climate change, economic inequality, and strategic instability demand more than fragmented policy responses. They call for a national effort — one rooted in courage, cooperation, and a renewed sense of common purpose. The proposals in this report — the creation of Disaster Response Manufacturing Precincts and the establishment of an Australian Disaster Reserves — form a practical and patriotic blueprint for that effort. Together, they would constitute the civic and industrial infrastructure of a safer, more self-reliant nation. They would revive regional economies, expand sovereign capabilities, and rekindle faith in the capacity of government and citizens to act collectively in the national interest.

This is not a nostalgic appeal to a vanished era of state-building, but a forward-looking call to action. As in the 1940s, when John Curtin and his government transformed a vulnerable nation into a confident, self-reliant democracy capable of both waging war and planning for peace, today's challenges require the same dual vision: to defend our communities while preparing for the world to come. Curtin's government did not see reconstruction as separate from defence but innately understood that national security depended on decent work, education, housing, and social cohesion. The same principle applies in the age of climate crisis. A sovereign nation must have both the tools and the people to protect its communities. The time has come to invest in both. By building a skilled civilian reserve and a homegrown manufacturing base for resilience, we can once again align patriotism with progress, making solidarity our enduring advantage.

We call on the Commonwealth to commit funding, legislative backing, and institutional leadership to these reforms. Public engagement, partnership with workers, industry and communities, and bipartisan support will be essential. Done well, this plan will stand as a lasting national institution — one that reflects Curtin's conviction, expressed before he became prime minister in 1940: "We have to plan with the entire resources of this nation to win the war and we also have to plan with the entire resources of this nation to win the peace."[76] In that same spirit, *Safer, Sovereign, Stronger* is more than a policy program. It is an invitation to nation-building — a framework for the next generation of Australians to serve, to innovate, and to protect one another in an era that will test both our national resilience and our national imagination.

References

1 Anthony Albanese, 'Address by Opposition Leader Anthony Albanese', Lowy Institute, Sydney, 4 March 2022, https://www.lowyinstitute.org/publications/address-opposition-leader-anthony-albanese

2 Australian Senate, 'Select Committee on the Impact of Climate Risk on Insurance Premiums and Availability: Impact of Climate Risk on Insurance Premiums and Availability', Parliament of Australia, November 2024, https://www.aph.gov.au/Parliamentary_Business/Committees/Senate/Impact_of_Climate_Risk_on_Insurance/ClimateRiskonInsurance

3 Ibid.

4 Ibid.

5 Australian Business Roundtable for Disaster Resilience and Safer Communities, 'Special report: Update to the economic costs of natural disasters in Australia', 2021, http://australianbusinessroundtable.com.au/assets/documents/Special%20report%3A%20Update%20to%20the%20economic%20costs%20of%20natural%20disasters%20in%20Australia/Special%20report%20_Update%20to%20the%20economic%20costs%20of%20natural%20disasters%20in%20Australia.pdf

6 Dominic Meagher and Nick Dyrenfurth, 'Innovation Nation: Powering Australian Productivity in the 20202s and Beyond', John Curtin Research Centre, Discussion Paper no.7, July 2025, https://curtinrc.org/wp-content/uploads/2025/07/Productivity-Discussion-Paper-DIGITAL.pdf

7 California Department of Corrections and Rehabilitation, 2025, "Conservation (Fire) Camps Program", California State Government, https://www.cdcr.ca.gov/facility-locator/conservation-camps/

8 M. Haghani, 'We can't keep relying on the ADF to respond to natural disasters – how to rebuild our emergency volunteer workforce', The University of Melbourne, Melbourne, 2024, https://findanexpert.unimelb.edu.au/news/100918-we-can%E2%80%99t-keep-relying-on-the-adf-to-respond-to-natural-disasters-%E2%80%93-how-to-rebuild-our-emergency-volunteer-workforce

9 'Senate Select Committee on Australia's Disaster Resilience, Boots on the Ground: Raising Resilience – Chapter 4: Consideration of Alternative Models', Parliament of Australia, Canberra, 2024, https://www.aph.gov.au/Parliamentary_Business/Committees/Senate/Disaster_Resilience/DisasterResilience/Report/Chapter_4_-_Consideration_of_alternative_models

10 The Hon. Richard Marles, '2024 National Defence Strategy', Media Release, 17 April 2024, https://www.minister.defence.gov.au/media-releases/2024-04-17/2024-national-defence-strategy

11 Country Fire Authority, 'Annual Report 2015–16', Country Fire Authority, Melbourne, 2016, https://www.cfa.vic.gov.au/ArticleDocuments/520/CFA-Annual-Report-2015-16.pdf; Country Fire Authority, 'Annual Report 2023–24', Country Fire Authority, Melbourne, 2024, https://www.cfa.vic.gov.au/ArticleDocuments/520/CFA_AR_2023-24-Final.pdf

12 J. McLennan, 'Issues Facing Australian Volunteer-Based Emergency Service Organisations: 2008–2010', Bushfire Cooperative Research Centre, Melbourne, 2008, https://doi.org/10.13140/RG.2.2.30891.23848

13 Australian Defence Force, 2025, Army Reserve, ADF Careers, Canberra, https://www.adfcareers.gov.au/careers/reserves/army-reserve

14 German Federal Agency for Technical Relief (Technisches Hilfswerk), Federal Agency for Technical Relief, Bonn, 2025, https://www.thw.de/EN/homepage/homepage_node.html

15 Federal Emergency Management Agency, Federal Emergency Management Agency, Washington, D.C., US, 2025, https://www.fema.gov/

16 Lichtinger, G. and Maasoum, S., 'Generative AI as Seniority-Biased Technological Change: Evidence from U.S. Résumé and Job Posting Data', Wharton Research Data Services Research Paper Series, 31 August 2025, https://papers.ssrn.com/sol3/papers.cfm?abstract_id=5425555

17 ADF Careers, 'Army Reserve', Australian Defence Force, 2025, https://www.adfcareers.gov.au/careers/reserves/army-reserve

18 Ibid.

19 Grant Wyeth, 'Does Finland's "total defence" doctrine hold lessons for Australia?', *The Interpreter*, Lowy Institute, 8 October 2024, https://www.lowyinstitute.org/the-interpreter/

does-finland-s-total-defence-doctrine-hold-lessons-australia
20 NSW Government, 'HSC Key Dates 2025', NSW Government, 2025, https://www.nsw.gov.au/education-and-training/nesa/key-dates/hsc
21 NSW Sheriff, 'Payment for Jury Service, NSW Sheriff's Office, 2025, https://sheriff.nsw.gov.au/jury-service/payment-for-jury-service.html
22 ADF, 'ADF Military Salary – Permanent Rates – 07 November 2024', Australian Defence Force, 7 November 2024, https://pay-conditions.defence.gov.au/sites/default/files/2024-10/ADF-pay-rates-current.pdf
23 National Emergency Management Agency, Australian Government, https://www.nema.gov.au
24 National Emergency Management Agency, "Australian Disaster Resilience Knowledge Hub", Australian Government, https://knowledge.aidr.org.au
25 Home Affairs, "About us: Our functions: Emergency Management", Australian Government, 2025, https://www.homeaffairs.gov.au/about-us/our-portfolios/emergency-management
26 Department of Health, Disability and Ageing, 'National Incident Centre', 2025, https://www.health.gov.au/our-work/national-incident-centre?utm_source=openai
27 Australian Government, 'A Future Made in Australia', Department of the Treasury, Canberra, 2024, https://treasury.gov.au/policy-topics/future-made-australia
28 Daniel Yeadon, 'Sustainment is key to deterrence on NATO's Eastern Flank', US Army, 16 July 2025, https://www.army.mil/article/287097/sustainment_is_key_to_deterrence_on_natos_eastern_flank
29 M. Woodley, 'Concerns grow over global PPE supply chains', Royal Australian College of General Practitioners, 28 February 2020, https://www1.racgp.org.au/newsgp/clinical/concerns-grow-over-global-ppe-supply-chains
30 Trace Consultants, 'Emergency Services Supply Chains: Preparedness in Australia and New Zealand', Trace Consultants, 16 May 2025, https://www.traceconsultants.com.au/thinking/emergency-services-supply-chains-preparedness-in-australia-and-new-zealand
31 Australian Bureau of Statistics, 'Impacts of flooding in December quarter 2022', ABS, 1 March 2023, https://www.abs.gov.au/articles/impacts-flooding-december-quarter-2022
32 Bureau of Meteorology, 'Severe Tropical Cyclone Jasper', Bureau of Meteorology, 2023, https://www.bom.gov.au/cyclone/history/jasper23.shtml.
33 Department of Industry, Science and Resources, 'National Reconstruction Fund: Diversifying and Transforming Australia's Industry and Economy', Department of Industry, Science and Resources, 27 October 2022, https://www.industry.gov.au/news/national-reconstruction-fund-diversifying-and-transforming-australias-industry-and-economy
34 Sheila deVera, 27 Dec 2010, "New fuel system enhances Bagram's refuelling capabilities", Airforce News, US Department of Defence, https://www.af.mil/News/Article-Display/Article/114566/new-fuel-system-enhances-bagrams-refueling-capabilities/
35
36
37
38 Gordon Arthur, 22 Jul 2025, "Australia's landing craft shortfall is apparent in Talisman Sabre drills", Naval News, https://www.navalnews.com/naval-news/2025/07/australias-landing-craft-shortfall-is-apparent-in-talisman-sabre-drills/
39
40
41 G. Frost, K. Malam and L. Williams, 'The Evolution of Australian Towns', Bureau of Infrastructure and Transport Research Economics, Department of Infrastructure and Regional Development, Canberra, 2014, https://www.bitre.gov.au/sites/default/files/report_136.pdf
42 C. Georgeson and AW Harrison, 'Regional Impacts of the Accelerated Decline of the Manufacturing Sector in Australia', Department of Industry and Science, Canberra, April 2015, https://www.industry.gov.au/sites/default/files/June%202018/document/pdf/regional_impacts_of_the_accelerated_decline_of_the_manufacturing_sector_in_australia.pdf
43 Deakin University, 'Geelong Future Economy Precinct', Deakin University, Geelong, 2024, https://www.deakin.edu.au/research/research-partnerships/geelong-future-economy-precinct
44 Engineering Heritage Newcastle, 'Inner Newcastle Engineering Heritage Walk Guide',

Engineers Australia, September 2024, Newcastle, https://newcastlemuseum.com.au/getmedia/580cab6c-2731-4254-ab0f-b727fe5c0f51/Inner-Newcastle-Engineering-Heritage-Walk-Guide.pdf

45 M. Stevens, 'Whyalla and Wollongong: A Tale of Two Steelmaking Cities', *Australian Financial Review*, 22 February 2016, https://www.afr.com/companies/manufacturing/whyalla-and-wollongong-a-tale-of-two-steelmaking-cities-20160222-gn0htx

46 K. Browne-Yung A. Ziersch, F. Baum, S. Friel, and J. Spoehr, 'General Motor Holden's closure in Playford, South Australia: Analysis of the policy response and its implications for health', *Australian Journal of Public Administration*, vol. 79, no. 1, pp. 76–92, March 2020, https://doi.org/10.1111/1467-8500.12390

47 Department of State Development, Infrastructure and Planning, 'Strategic Industries: Biofuels', Queensland Government, 2025, https://www.statedevelopment.qld.gov.au/strategic-industries/key-industries/biofuels.

48 National Emergency Management Agency, 'National Emergency Management Stockpile', National Emergency Management Agency, Canberra, https://www.nema.gov.au/our-work/key-programs/national-emergency-management-stockpile

49 Ibid.

50 Department of Energy and Public Works, 'Queensland Government Procurement Statement 2021', Queensland Government, 2021, https://www.hpw.qld.gov.au/__data/assets/pdf_file/0021/18642/qg-procurement-statement-2021.pdf.

51 M. Ablong, 'National resilience: Lessons for Australian policy from international experience', Australian Strategic Policy Institute, 15 February 2024, p. 57, https://www.aspi.org.au/report/national-resilience-lessons-australian-policy-international-experience/

52 National Reconstruction Fund Corporation, 'Defence capability', Department of Industry, Science and Resources, 2023, https://www.nrf.gov.au/what-we-do/our-priority-areas/defence-capability.

53 Department of Foreign Affairs and Trade, 'Australia's Humanitarian Assistance', Department of Foreign Affairs and Trade, Canberra, 2025, https://www.dfat.gov.au/development/topics/development-issues/building-resilience/australias-humanitarian-assistance

54 Climate Council of Australia, 'Eye of the Storm: how climate pollution fuels more intense and destructive cyclones', Climate Council of Australia, 2025, https://www.climatecouncil.org.au/wp-content/uploads/2025/03/Eye-of-the-Storm_Climate-Council-Report.pdf.

55 James Cook University, 'Cyclone Testing Station: About Us', James Cook University, 2025, https://www.jcu.edu.au/cyclone-testing-station/about-us.

56 NRMA, 'The Bruce Highway', NRMA, 2025, https://articles.nrma.com.au/bruce-highway/.

57 C. King, 'Construction begins on flood immunity upgrade for Proserpine Shute Harbour Road', Department of Infrastructure, Transport, Regional Development, Communications, Sport and the Arts, 2025, https://minister.infrastructure.gov.au/c-king/media-release/construction-begins-flood-immunity-upgrade-proserpine-shute-harbour-road.

58 Infrastructure Australia, 'Infrastructure Priority List', Infrastructure Australia, 2025, https://www.infrastructureaustralia.gov.au/infrastructure-priority-list.

59 Australian Climate Service, 'National Climate Risk Assessment', Australian Government, 15 September 2025, https://www.acs.gov.au/pages/national-climate-risk-assessment

60 Joint Standing Committee on Foreign Affairs, Defence and Trade, 'Pursuing the Priorities of the Pacific – Chapter 3: Climate change: An existential threat', Parliament of Australia, Canberra, 2024, https://www.aph.gov.au/Parliamentary_Business/Committees/Joint/Foreign_Affairs_Defence_and_Trade/PacificPriorities/Report/Chapter_3_-_Climate_change_An_existential_threat

61 I. Hoefer Mart, S. Yang, G. La Cava and M. Nolan, 'The Wage Impacts of Mass Layoffs: Evidence from the Global Financial Crisis',, e61 Institute, 2023 https://e61.in/wage-scarring-the-wage-impact-of-mass-layoffs-evidence-from-the-global-financial-crisis/

62 A. Skinner, ND Osgood, J. Occhipinti, YJC Song and IB Hickie, 'Unemployment and underemployment are causes of suicide', *Sciences Advances*, Vol. 9, No. 28, 2023, https://www.science.org/doi/10.1126/sciadv.adg3758

63 P. Tcherneva, 'Full Employment: The Road Not Taken', Levy Economics Institute of Bard College, Working Paper No. 789, 2014, https://www.levyinstitute.org/wp-content/uploads/2024/02/wp_789.pdf

64 Deloitte Access Economics, 'Working for Victoria Final Program Evaluation', 2021, p. 54. Accessed under FOI by the Community and Public Sector Union PSU.

65 Natasha Cassidy, Iris Chan, Amelia Gao and Gabrielle Penrose, 'Long-term Unemployment in Australia', Bulletin, Reserve Bank of Australia, December 2020, https://www.rba.gov.au/publications/bulletin/2020/dec/pdf/long-term-unemployment-in-australia.pdf

66 DEWR, 'Data Dashboard', Department of Employment and Workplace Relations, 2025, https://www.dewr.gov.au/newsroom/data-dashboard#toc-long-term-unemployment
ABS, 'Labor Force, Australia', Australian Bureau of Statistics, August 2025, https://www.abs.gov.au/statistics/labour/employment-and-unemployment/labour-force-australia/latest-release#data-downloads

67 Cassidy et al, 'Long-term Unemployment in Australia'.

68 Lichtinger et al, 'Generative AI as Seniority-Biased Technological Change'.

69 Joint Standing Committee on Foreign Affairs, Defence and Trade, 'Pursuing the Priorities of the Pacific – Chapter 3: Climate change: An existential threat', Parliament of Australia, Canberra, 2024, https://www.aph.gov.au/Parliamentary_Business/Committees/Joint/Foreign_Affairs_Defence_and_Trade/PacificPriorities/Report/Chapter_3_-_Climate_change_An_existential_threat
The Australia Institute, 'Our Pacific Neighbours', The Australia Institute, Canberra, 2025, https://australiainstitute.org.au/initiative/the-national-climate-disaster-fund/our-pacific-neighbours/

70 Department of Foreign Affairs and Trade, 'Stepping Up Australia's Engagement with Our Pacific Family', Department of Foreign Affairs and Trade, Canberra, September 2019, https://www.dfat.gov.au/sites/default/files/stepping-up-australias-engagement-with-our-pacific-family.pdf

71 Ibid.

72 Department of Foreign Affairs and Trade, 'Foreign Policy White Paper', Department of Foreign Affairs and Trade, Canberra, November 2017, https://www.dfat.gov.au/sites/default/files/2017-foreign-policy-white-paper.pdf

73 R. Medcalf, 'Indo-Pacific Visions: Giving Solidarity a Chance', *Asia Policy*, vol. 14, no. 3, July 2019, pp. 79–95, https://doi.org/10.1353/asp.2019.0043

74 Department of Defence 2024, "Annual Report 2023-24". Number of ADF Reserves paid and days served can be found at https://www.transparency.gov.au/publications/defence/department-of-defence/department-of-defence-annual-report-2023-24/chapter-6---workforce%2C-personnel-and-families/australian-defence-force-enlistments-and-separations. Total ADF Reserve workforce can be found at https://www.transparency.gov.au/publications/defence/department-of-defence/department-of-defence-annual-report-2023-24/chapter-6---workforce%2C-personnel-and-families/workforce-summary. Total Reserves on continuous full-time service can be found at https://www.transparency.gov.au/publications/defence/department-of-defence/department-of-defence-annual-report-2023-24/chapter-6---workforce%2C-personnel-and-families/australian-defence-force-staffing.

75 Department of Defence, 'Annual Report 2023-24', 2024, https://www.transparency.gov.au/publications/defence/department-of-defence/department-of-defence-annual-report-2023-24/chapter-6---workforce%2C-personnel-and-families/australian-defence-force-enlistments-and-separations

76 John Curtin, '1940 Election Speech', Perth, Western Australia, 28 August 1940, https://electionspeeches.moadoph.gov.au/speeches/1940-john-curtin

John Curtin Research Centre Governance

BOARD

Sam Almaliki (Chair)
Priya Brown
Gerard Dwyer
Lewis Hamilton
Jenny Hill
Dr Shireen Morris
Kosmos Samaras
Stacey Schinnerl
Sebastian Zwalf
Dr Henry Pinskier (immediate past chair)

ADVISORY COUNCIL

Professor the Hon Geoff Gallop AC | Former Western Australian Premier (Co-Chair)
Hon Morris Iemma | Former NSW Labor Premier
Hon Kim Carr | Former Labor Senator
Hon Stephen Conroy| Former Labor Senator
Dr Mike Kelly AM | Former Labor MP
Senator Deborah O'Neill
Hon Peter Khalil MP
Hon Daniel Mulino MP
Michael Easson AM | Former Secretary NSW Labor Council
Geoff Fary | Former Assistant Secretary, Australian Council of Trade Unions
Josh Peak | Secretary, SDA South Australia & Northern Territory
Helen Cooney | Shop, Distributive and Allied Employees' Association
Ari Suss | Linfox Advisory
Lord Maurice Glasman | UK Labour Party
Jon Cruddas MP | UK Labour Party