GAP/IIER-A
National Resilience Project

Australia – A Complacent Nation

Our reactions are too little, too late, and too short-sighted

October 2021
In early 2020, the the Institute for Integrated Economic Research - Australia (IIER-A), in partnership with Global Access Partners (GAP), embarked on an 18-month long project to consider Australia’s resilience in the face of a changing world. Over 250 people participated in 40 activities which included Taskforce meetings, workshops focused on specific issues, and the GAP Summit on National Resilience.

This politically independent effort involved participants from all sectors, including retired Federal and State politicians and the heads of major peak bodies.

This report presents an integrated view of the National Resilience Project’s nine component studies which can be read on the following websites: www.globalaccesspartners.org and at https://www.jbcs.co/iieraustralia-projects.

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DISCLAIMER: This paper integrates the findings of the National Resilience Project over the course of 18 months of conversations both in person and electronically in 2020 and 2021. Conversations and email exchanges were held under the Chatham House rule of non-attribution to inspire a frank and constructive exchange of ideas. Accordingly, there was a diverse range of views expressed by the individuals involved and not every participant agrees with every statement in full. They are personal opinions that do not necessarily reflect those of the organisers and sponsors of the GAP/IIER-A National Resilience Project.
Australia – A Complacent Nation

*Our reactions are too little, too late, and too short-sighted*

**Executive Summary**

We can’t fully predict what happens next, let alone control what happens next. We can however prepare for whatever happens next.

The COVID-19 pandemic was a dual shock to our health and economic systems. The ongoing widespread lockdowns, the troubled vaccination rollout, interstate rivalries and social dislocation exposed vulnerabilities in many systems that underpin our society.

In 2021 Australians are faced with concurrent, and in some cases existential, challenges. These include climate change and the urgent need to reduce emissions, growing global and regional security risks, a global pandemic which will have persistent societal and economic impacts, a global energy transformation where we are lagging the developed world, and a global market model that has resulted in reduced resilience, as evidenced in the face of recent crises.

Our National Resilience Project posed three fundamental questions to our workshop participants: What is a resilient society? Are we resilient enough? Can we make ourselves more resilient? We postulated three key attributes of a resilient society: shared awareness and shared goals; teamwork and collaboration; and the ability to prepare and mobilise in the face of a crisis.

The Project has highlighted our lack of resilience in all three areas. Faced with a crisis that it had not prepared for; the Federal Government closed the nation down and then applauded its’ brilliance in preventing outbreaks of the scale seen overseas. However, 18 months later we remain closed to the outside world, reactive, and crisis managing the present whilst failing to prepare for the significant health and economic challenges we will face in the next few years. We are not unique; the COVID-19 pandemic has exposed a global lack of resilience because of a collective failure of preparedness and mobilisation.

We observe that there is a lack of shared awareness and shared goals in Australia and limited honesty and directness from some Australian politicians about our future challenges. This situation is exacerbated by our Federation’s political systems which has not been able to address our risks and vulnerabilities in a coherent, systemic manner. Political reactions are often too little, too late, and too short-sighted. A complicating factor is that our Federation structure may have been fit for purpose a century ago, but it cannot deal with the constellation of challenges we face today.

Unfortunately, the prevalence of political spin in lieu of substance over the past decade has also dulled our senses to the point of complacency. Neither side of politics is blameless in this respect. Social cohesion enables and derives from social activity, especially collaborative and supportive activity built on a foundation of trust. Strong, trusting social bonds that survive
and thrive in the face of differences of opinions, beliefs, life circumstances and living conditions are crucial for a society or community to be ‘resilient’, especially when confronted by sudden change or catastrophic threats or events. Federal, state and territory governments need to cooperate on a comprehensive, evidence-based national resilience framework to assess current capabilities and future threats and set national, state, territory, and local policy objectives as part of an overall resilience strategy.

Whilst the formation of the National Cabinet in the early months of the COVID-19 pandemic was met with hope and optimism, that soon faded when the behaviour of Federal and some State leaders regressed into self-interest and power plays, compounded by the partisan elements in the media.

As Australia attempts to move on from the COVID-19 pandemic our immediate national challenges are ones of response and recovery. However, we must also prepare for future challenges. A sovereign nation must buttress, rather than outsource, its self-reliance, and while State, Territory and Federal Governments have taken measures to protect and restore the economy in the wake of COVID-19, a broader long-term vision for domestic manufacturing and trusted supply chains would prepare the ground for a more sustainable recovery, and better prepare the nation for the future.

We are likely to see more compounding disasters on a national scale with far-reaching consequences. We need to be better prepared for these disasters. A nationally coordinated and, where appropriate, standardised, and interoperable disaster preparedness and mobilisation system needs to be developed. Business-as-usual, or more correctly business-as-was, is not an option.

Whilst this is a grim assessment there is some cause for cautious optimism. The actions we need to take are not beyond our ability to design and implement. We have considerable expertise and resources in this country. To address some of our resilience deficiencies, we are recommending the creation of an independent National Resilience Institute. The Institute could contribute to a deeper, apolitical, examination of the issues raised in this report. The aim is to help inform the public policy debate, to improved shared awareness, and to offer ideas on how to improve our national preparedness.

We are living in a time of shared tragedy; we need to refocus our efforts to build societal consensus and trust to enable the collective action necessary to prepare and to adapt to the reality of our changing world. We need leadership from all aspects of Australian society but particularly our most powerful leaders in business, government, and politics.

The cost of inaction is much greater. We have seen courageous political and business leadership in the past; we need to find that again to deal with the future.

We, the Australian people, need to act and to demand more of our socio-political system, and of ourselves.
1. Introduction

1.1. This report marks the completion of the first phase of our National Resilience Project. It incorporates, and integrates, the findings of the Project’s nine component reports. The components were chosen to explore key aspects of our society and to identify common factors which impact our national resilience. We found that the components are like pieces of a jigsaw puzzle strewn across the ground. The problem is that there is no integrated design of how these components are linked or how they should function together in our nation; it appears to have been left to the “market.”

1.2. To present a more integrated view, we utilized an expanded National Disaster Risk Reduction Framework (NDRRF); we added “unnatural” disasters to the existing natural disaster focus. This allowed a broader range of risks and vulnerabilities to be addressed in the project. The expanded NDRRF is the lens through which we explored the common resilience issues in the project components, as illustrated in Figure 1.

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**Figure 1 – National Resilience Project Lens**

The component reports are available at the following websites:

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1. [https://www.jbcs.co/iieraustralia-projects](https://www.jbcs.co/iieraustralia-projects)
1.3. Given the significance of climate change for Australia’s resilience, this report also references the work of the Australian Security Leaders Climate Group and their ‘Missing in Action’ report.\(^3\)

1.4. Our report is structured in thirteen sections that summarise the component reports and then identify common symptoms, causes and conclusions:

- Introduction
- Resilience in Australia and the need for a National Resilience Framework
- Australia’s Economic Resilience
- The Australian Healthcare System
- Australia’s Sovereign Industry Capability
- Australia’s Poor Energy Systems Resilience
- Climate Change Impacts
- Protecting Australia’s Sovereign Research Capability in a Covid World
- Trust, Social Cohesion, and Resilience
- Enhancing Public Sector Policy Capability for a COVID World
- First Responders and Defence in Australia
- Symptoms, Causes and Conclusions
- A Recommendation

2. Resilience in Australia \(^4\)

2.1. Resilience is a term easily hijacked to fit many narratives, and risks becoming a marketing cliché and manipulated for partisan purposes during crises. The rebranding of the Northern Territory Quarantine facility as the ‘Centre for National Resilience …’ is perhaps the most farcical example of language manipulation.\(^5\) This report uses the following UNDRR definition for resilience:

“Resilience is the ability of a system, community or society exposed to hazards to resist, absorb, accommodate, adapt to, transform and recover from the effects of a hazard in a timely and efficient manner, including through the preservation and restoration of its essential basic structures and function”.\(^6\)

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\(^3\) IIER-A Directors, Fellows, and several resilience workshop participants are also members of the ASLCG - https://www.aslcg.org

\(^4\) This section is based on the Resilience Framework report -https://www.jbcs.co/iieraustralia-projects


\(^6\) United Nations Disaster Risk Reduction Online glossary accessed on 5 May 21, available at: https://www.undrr.org/terminology
2.2. The COVID-19 pandemic has exposed a global lack of resilience because of a collective failure of preparedness and mobilisation.\(^7\) Sadly, Australia is no different. We conclude that there are three key characteristics or attributes that need to be strengthened in our society to improve our resilience. These are:

- **Shared Awareness / Goals.** With shared awareness we can act rationally and prepare accordingly because we can then define a shared goal - a common aimpoint; without it, we just react to each crisis as it occurs.

- **Teaming / Collaboration.** We cannot solve our complex challenges by looking for incremental, stove-piped, quick wins; we need a team approach within our nation and, as importantly, with our neighbours and allies.

- **Preparedness / Mobilisation.** There is no verb for ‘resilience’; the verb ‘prepare’ is the most relevant in this case. There is an opportunity to learn from Defence preparedness concepts and systems and to adapt and implement them across our wider society. As a nation we need to prepare for future disasters / crises and not just wait to react. “Crossing our fingers” and hoping is not a method we can afford to employ. In addition to preparing, we must be able to mobilise the nation to address an emerging threat.

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### Defence Preparedness Concepts

Defence may offer some lessons on future thinking and resilience, as the primary role of the Australian Defence Force is preparedness. Preparedness refers to a set of actions that are taken as precautionary measures in the face of potential disasters, which can include both physical preparations and training for emergency action. Preparedness is an important quality in achieving resilience by avoiding and mitigating negative outcomes.

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2.3. Our assumptions frame our resilience. Australia has built a society that aims to control all aspects of nature to make humans safe, but this creates vulnerability. To confront these assumptions a powerful narrative must be developed which is underpinned by understanding the nature of change. Short-termism or 'quick win' thinking is deeply embedded in the Australian society; we tend to focus on today, not on future interacting and cascading risks.

2.4. There are also relationship gaps between governments, political, private sector and community decision-makers, and citizens. Improved resilience outcomes require information sharing, which is honest, sensitive, respectful, engaging, meaningful and actionable, emphasising a sense of urgency where needed. People need to be motivated into action rather than misled into complacency. The following section summarises the National Resilience Framework for Australia component report.

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\(^7\) Preparedness and mobilisation are terms used largely by the military; however, it is a model that we need to adopt across our society. It is not enough to just react to a crisis; we need to improve our resilience as a nation by preparing for a range of potential crises.
2.5. The 2011 National Resilience Strategy is now outdated, and largely overtaken by subsequent, separate, plans. Designing a resilient Australia and preparing for potential disasters, both natural and unnatural, does not need another Royal Commission or Taskforce or a review by the Chief Scientist. The framework already exists: The National Disaster Risk Reduction Framework (NDRRF), supported by the Profiling Australia’s Vulnerability Report, provide the foundational documents to build a wide-reaching resilience strategy for the nation.

2.6. The NDRRF states that, ‘Australians depend on reliable and affordable food, water, energy, telecommunications, transport networks (including road, rail, aviation and maritime), and financial services. These functions also depend on each other. The networks that ensure the sustained delivery of food, water and energy involve complex interactions between infrastructure, people, the environment, money, and technology. A failure in any of these elements could have wide-ranging consequences across communities, businesses, governments and economies.’ While the existence of the NDRRF, and the endorsement of the First National Action Plan by emergency management ministers in March 2020, appear to be active steps to address resilience, and preparedness, requirements, it must be stressed that these documents are only focused on natural disasters, and not unnatural or man-made disasters.

2.7. There is a requirement to consider the term disasters and to avoid the term of natural disaster as there may be natural hazards, but it is the human that often creates vulnerability. For example, there are growing concerns regarding disasters in Australia because of the COVID-19 pandemic and associated supply chain failures. We have therefore chosen to expand the application of the NDRRF to include “unnatural” disasters as well, for the purposes of this report. The framework provided by the NDRRF is equally valuable to this analysis and assessment of this broader group of risks and vulnerabilities.

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8 Resilience Framework report is available here - https://www.jbcs.co/iieraaustralia-projects
11 National Disaster Risk Framework, ibid, p. 5
2.8. COVID-19 has exposed fragility in Australia’s societal systems, e.g., the federation structure, our health sector, our lack of manufacturing capability and our extensive global supply chain dependence. Historically, Australians have demonstrated agility in the response to crisis but assume that organisations and governance arrangements will resume “normal” adversarial and competitive behaviour once the crisis is “over.” Resistance to change is a significant impediment in adopting a resilient approach. Barriers to the formulation, adoption and implementation of new policy include inertia, preference for the status quo, and vested interests both in politics and business.

2.9. A requirement in advancing resilience behaviours is to get the policy settings and the environment right for cohesive, aligned, and collective action by communities and individuals, rather than just governments. Across governments and institutions of all levels, the funding and investment required to prepare for future challenges does not appear to be a priority. Billions of dollars were spent to support the economy through the COVID-19 pandemic, yet only a few million was tied to the implementation of the NDRRF. Funding for resilience can also be corrupted by vested interest and reinforce singular goals rather than holistic and coordinated action. With disasters forecast to cost the Australian economy $39 billion by 2050, the slow and inadequate allocations of resource and methods of allocating funds needs to change.

2.10. There is a lack of honesty and directness from some Australian leaders about our future challenges. To develop a more resilient society, the Australian public need the right information to think, assess, decide and act. Unfortunately, messaging is frequently masked by political and commercial self-interest which then erodes confidence leading to further social fragmentation. However, a framework exists to step away from using communication as partisan spin. The NDRRF, Priority 1 ‘Understand disaster risk’, is precisely about honest engagement with the public. It clearly states a need to ‘improve public awareness of, and engagement on, disaster risks and impacts’ and to ‘identify and address data, information and resource gaps.’ Again, this highlights the need to have honest and open discussions to build shared awareness if we are to act rationally and prepare for emerging challenges.

2.11. Australians cannot respond to the many global factors in play today, and prepare for the future, until we better understand our own vulnerabilities and the threats that we may have to face. The Resilience Framework report recommendations include the establishment of a National Resilience Team comprising Federal, State/Territory, Business, and community representatives to advise and guide an integrated approach to improving our national resilience. This would not be an executive/delivery entity but rather an advisory body with the authority to range across Federal and State/Territory Government agencies, and to engage with the business and public communities to identify, assess and propose actions that would help integrate across the multitude of resilience related activities underway in the nation.

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13 National Disaster Risk Framework, ibid, p. 9
3. Australia’s Economic Resilience

We can’t predict what happens next, let alone control what happens next. We can however prepare for whatever happens next.

3.1. The COVID-19 pandemic was an unprecedented dual shock to our health and economic systems. Good luck and geography enabled Australians and the Australian economy to get through 2020 relatively unscathed, albeit with a rapidly growing national debt.

3.2. However, the widespread lockdowns, troubled vaccination rollout, interstate rivalries and social dislocation of 2021 revealed vulnerabilities in the systems and processes that underpin our society. The economic warning signs are growing stronger; we must acknowledge that the issue is not just the growing debt; it is the unfunded obligations that will become future debt that could grow faster than inflation.

3.3. The economic dimension of national power and influence is central to the hard choices to be made on strategic policy. Currently, Australia’s strategic decision making is not configured to integrate security and economic considerations in a way that delivers these twin objectives. Australia needs a strategic, forward-looking, and outcome-based plan for its economic security that is integrated with the other elements of national security under a National Security and Resilience Strategy (which we do not currently have.)

3.4. Without a coherent ‘National Security and Resilience Strategy,’ within which we understand the interconnections and interdependencies within our society, we may be doomed to repeat the failures of the past. Separate bureaucratic silos exist for managing the economy, the environment, health, cyber security, terrorist or defence risks, to name but a few. Each silo tends to want to reduce their risk as low as possible, but the cost of achieving zero in each domain would be unacceptable and getting to zero across all domains would be impossible.

3.5. A resilient system is one that can identify and assess these risks and prepare for their impact without catastrophic failure. But resilience is not absolute. Regardless of how resilient each of the constituent elements of the system may be, there will always be give and take between individual freedom and collective responsibility, between business in different markets, between competing political parties and between nations.

3.6. For Australia’s national resilience, we need to consider our longer-term economic growth and debt sustainability. However, our political system is not good at delivering this growth nor even measuring it. The fragmentation of political responsibility, not just between Federal Government departments, but between multiple levels of local, state, national governments as well as international organisations, makes it all but impossible to manage conflicting priorities in a single centralised approach.

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14 This section is a summary of discussions in the National Resilience Project Economy workshops.
3.7. Given the difficulty governments have with coordinating or managing risks, this suggests that the Federal Government should focus on the smallest number of the most serious risks that cannot be adequately managed by the other players in the system. For example, while multinational businesses have grown adept at managing low levels of just-in-time inventories of complex webs of suppliers, Governments have lost visibility over the supply chains which deliver goods to Australia. To the extent that this delivered consumer goods faster and at lower cost to Australians, there was no cause for alarm. But when opaque supply chains also deliver vital inputs to critical health services during a pandemic, or to critical infrastructure in a potential time of international crisis, the responsibility for the consequences will inevitably be apportioned to the government of the day.

3.8. In such circumstances, government could take actions in the form of direct budget expenditure, capital investment, or sometimes implicit taxing and spending from regulation; however, all these measures impose costs. The key policy question is whether these costs allow greater social benefits to be accrued – from additional redundancy, risk diversification or from greater ‘sovereign capability’.

3.9. Sometimes risks can be hedged at very low cost by continuing to leverage market competition. For example, procuring from a diversity of suppliers, based in different geographic areas, from domestic and international sources can ensure supply even if different suppliers or different regions are impacted by different geographically focused disruptions. Other interventions such as stockpiling for non-perishable items helps hedge against risks of supply shocks for short periods of time, or for sudden surges in demand. These kinds of interventions can be more costly, requiring the cost of physically holding and managing goods.

3.10. In a benign security environment and a predictable world, governments can maximise the value for money for taxpayer dollars by procuring the goods and services they need to provide critical national capabilities at the cheapest price. But natural disasters, disruptive non-state actors and inter-state conflict add additional risks to factor into the value for money assessment. The question is not just whether suppliers can deliver on time as promised, but whether there is sufficient supply in times of crisis, war, terrorist attack, pandemic, or environmental catastrophe. Part of choosing value for money today requires considering the ability to ensure adequate supply at moments when risks crystallise.

3.11. Government is currently not well practiced at assessing or making interventions in the market in the face of these new challenges. The scope of direct government ownership at both state and federal levels contracted significantly over the 1980s and 1990s, as government monopolies were privatised across energy, transport and telecommunications sectors and regulated at arms-length from government. These reforms in Australia, and similar public sector reforms around the world, were based in a market order that had evolved quite independently from the security environment.

The geopolitical environment in which Australia has prospered over the last 70 years is coming to end and Australia now faces a challenge to maintain our high standard of living and security within an increasingly inhospitable global political environment and economy.
3.12. Political decision-makers in a democratic system are much better at acting in response to immediate threats that can be more readily evaluated by the electorate. Headline measures by which the electorate might measure a government’s economic success, for example GDP, the unemployment rate or public debt levels, but do not provide indicators of economic resilience. In addition, Australia’s prolonged period of economic growth (prior to the pandemic) engendered complacency, and luck was often mischaracterised as ‘resilience’. The temptation for ‘no loser’ reforms is politically attractive in the current environment. However, the structural reforms required for growth will have distributional impacts and therefore become very quickly politicised.

3.13. It is worth remembering that a large part of Australia’s prosperity has come from our openness to international trade. While Australia is a rich democracy and medium power, the fact that it is only one per cent of the global economy means that in almost all markets we are price-takers, and therefore subject to pressure from much larger trading partners. In the post-war period, the liberal rules embedded in the General Agreement in Tariffs and Trade and the World Trade Organization (WTO) provided some insulation between trade and great power politics. But neither the WTO nor the system of rules has kept up with the shift in power or the new types of economic transactions that support the global services trade and enable the digital economy. That said, the multilateral trading system is a key input for economic resilience and while the trade rules need expansion, they are not fundamentally broken.

3.14. So, what should Government do? As a start, we need to analyse a range of scenarios based upon credible threats for both today and the future, and to determine what actions can be taken to limit the risks for our economy. We need to face reality and understand the resource constraints that we have and are going to have over time. There needs to be a public debate leading to a bi-partisan approach to address critical areas such as climate change, economic and security risks, and the complexity of our energy systems transformation.

3.15. What this bi-partisan exercise will almost certainly show is that there is a major information gap in our knowledge of risks. In many cases we will not have the evidence to systematically quantify them, nor to comparatively assess risks. Increasing our knowledge of the world is a no-regrets option. Sharing methodology and information with those facing similar risks and threats is a way to help pool our knowledge resources. Thus, the recommendation to develop improved situational awareness within our society.

3.16. We must ensure that we have adequate resources to protect Australia and to ensure our national resilience. If governments and central banks continue their current trajectory, we may see a period of protracted economic stagnation. A world struggling to emerge from the COVID-19 pandemic and ‘return to normal’ is itself a major economic risk. Growing inequality, and a growing disenfranchisement of large segments of the voting population in advanced economies, risks further undermining of the fragile institutional defence mechanisms against the next crisis.
4. THE AUSTRALIAN HEALTHCARE SYSTEM

‘just in time’ or ‘just in case’?

“Unprecedented is not a reason to be unprepared ... We need to be prepared for the future.”

Australian Royal Commission into National Natural Disasters Arrangements Report - 2020

4.1. Australia has a world-leading universal healthcare system, the foundations of which came from the 1953 National Health Act that was based on the principles of equity of access to healthcare for all Australians. However, missing from this Act, as well as from other core aspects of legislation, systems, and governance in Australia, is the concept of resilience and sustainability across the entire healthcare sector.

4.2. The professionalism of our health practitioners has been extraordinary; however, the problem does not lie with them. Rather it is the ‘health system’ that has been found wanting. We lack resilience because we do not adequately prepare for predictable events. For example, we have experienced medicine shortages, supply chain disruptions, loss of domestic manufacturing capability, tribalism and cultural impediments to teamwork and Federal versus State governance disconnects. These systemic failings are discussed in the Healthcare component report. Examples are listed below.

4.3. We faced significant healthcare resilience issues related to demand and supply. These included:

- **Demand.** A surge in demand from events such as pandemics should also be a planning priority; this was not factored into the design of our healthcare system prior to the pandemic. The Victorian government was warned by its own Health Department at the onset of the COVID-19 crisis that its front-line defence against a pandemic was in disrepair and putting the entire community at unacceptable risk.

- **Supply.** Supply constraints due to economic factors, combined with a drive for cost efficiency, have produced a health system in Australia that at the start of the pandemic had 25% less total hospital beds than the OECD average, and only 9.4 intensive care beds per 100,000 population. In contrast, Germany had 33.9.

- **Systemic Factors.** Australia’s Federal structure results in separate health systems in each State and Territory that are largely bespoke, often placing healthcare as a political football between State and Federal governments. These structures also often result in a lack of standardisation and common systems between jurisdictions.

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15 This section is based on the project Healthcare report available at - https://www.jbcs.co/iieraustralia-projects

16 Healthcare report available at - https://www.jbcs.co/iieraustralia-projects


and produce inconsistent, reactive control measures by local healthcare authorities that can often be detrimental to health care services, with broader societal knock-on effects.

4.4. The principle of “equity of access to healthcare for all Australians” has slowly unraveled as inequity more generally has increased across Australian society over recent decades. This decline was not the result of one single policy failure or event, rather a gradual disintegration of Australia’s social contract as the influence of free-market ideology seeped into every aspect of our lives. Our healthcare system was not immune to the impact of this ideology.

4.5. The “just in time” free market business model may have resulted in cost efficiencies, but it has also resulted in significant erosion of our healthcare systems and their resilience as our nation gradually lost manufacturing capacity to the point where we now import more than 90% of our medicines and virtually all our Personal Protective Equipment (PPE). This occurred without ensuring sufficient buffers in a crisis through stockholding mandates. Lower prices in normal times can come at a very high cost in a crisis.

4.6. The contraction of the global economy that has followed the COVID-19 pandemic, combined with other emerging global crises such as climate change, will require us to reshape Australia’s healthcare system to ensure it can withstand a range of future shocks. There needs to be a renewed focus on resilience in healthcare that recognises its central role in the security and wellbeing of all Australians. A resilient health system cannot be based on a “just in time” central scenario; we must plan and be willing to pay for ‘just in case’ contingency to deliver a balanced and resilient system.

4.7. Most people working in the healthcare arena are overloaded in dealing with daily issues and reacting to each crisis as it occurs, without assessing the broader horizon of opportunities and threats. Most do not have the time available to plan to prevent adverse health threats. The more complex issues regarding Australia’s healthcare system are related to the structure, governance, culture, economics, and workforce which are managed in stovepipes in a disaggregated system with little capacity to address future resilience and preparedness issues.

4.8. Given the propensity of the Federal political level to market success stories and dismiss discussion of risks and vulnerabilities for short term political gains, the leadership will need to come from those in our nation who are delivering healthcare to our people. That is at the State/Territory Government and at Hospital / Industry levels. A willingness to act together for the common good to achieve shared goals can only be built through practice and demonstration. We need leaders at these levels to demonstrate this willingness to work together and then to act.

Most people, given the tools, knowledge and support, would prefer to circumvent negative health outcomes in a cost-effective, compassionate and practical way. But they cannot do it alone; governments, communities, healthcare professionals and the medical-industrial complex must work together. In the aftermath of the pandemic, there will be the opportunity to review the Australian healthcare system and to identify means of improving healthcare resilience through increased preparedness. Now is the time to begin the process of analysing our non-negotiable needs as a nation.
5. Australia’s Sovereign Industry Capability ¹⁹

The report calls for a broad investigation of Australia’s manufacturing base to highlight areas of sovereign importance which could be strengthened and expanded through a range of government measures.

5.1. Until the COVID-19 crisis laid it bare, 30 years of growth driven by global free trade agreements, domestic deregulation, the mining boom and expansions in foreign tourism and education had masked the steady erosion of Australia’s domestic manufacturing capacity by cheaper competition from China and other lower-cost suppliers.

5.2. The sudden and unprecedented end to foreign tourism and international students, increasing trade and geopolitical tensions and the demonstrable fragility of international supply chains in troubled times, suggest the need to identify targeted areas where subsidies to maintain baseline domestic production may be worth the cost.

5.3. The COVID-19 pandemic exposed long-term deficiencies in Australia’s domestic productive capacity and brought into mainstream discourse the fact that a reliance on overseas supply chains had left the nation vulnerable to a range of political, economic, health and environmental contingencies. The drive by companies to cut costs, staff, and inventory in pursuit of ever leaner process, erodes some of our ability to absorb shocks to the system.

5.4. Did we squander those 30 years of growth by failing to prepare for when it would inevitably end? Norway invested their resource bounty in a sovereign fund to ensure the future of all Norwegians; Australian governments, industry and society assumed the good times would last forever. If Australia is to learn the lessons of COVID-19, concern over international supply chains and domestic manufacturing capacity should form part of a broader re-evaluation of national sovereignty.

5.5. What would be the characteristics of a more ‘sovereign’ Australia? A sovereign nation must buttress, rather than outsource, its self-reliance, and while state and federal governments have taken measures to protect and restore the economy in the wake of COVID-19, a broader long-term vision for domestic manufacturing, targeted stockpiles, and trusted supply chains would prepare the ground for a more sustainable recovery and better prepare the nation for future challenges.

5.6. Of course, this is not to suggest that Australia could or should manufacture all the goods it needs. Many products are not vital to national functioning, while others could not be produced at reasonable cost. Even an expanded manufacturing sector would rely on a plethora of raw materials or components from abroad. Regional and global supply chains have undeniably helped fuel an unprecedented rise in prosperity, but the concentration of lowest-

¹⁹ This section is based on the project Sovereign Industry report available at - https://www.jbcs.co/iieraustralia-projects
cost products from dubious sources have quietly increased the risks faced by consumers, businesses, workers, and the nation, and taking action to rebalance the ledger is clearly both possible and desirable, given current and likely future circumstances.

5.7. There needs to be a broad investigation of Australia’s manufacturing base to highlight areas of sovereign importance which could be strengthened and expanded through a range of government measures. This approach could also generate a range of employment and environmental benefits, as well as support resilience efforts in human resources, social cohesion, disaster planning, health and education and other key sectors.

5.8. There is no doubt that the development of high-technology sectors, as outlined by the government in the 2020-21 Federal Budget, is important, it must be a part of a broader strategy to strengthen Australia’s manufacturing base, to develop low-tech manufacturing industries, support small and medium-sized enterprises (SMEs) and create or protect strategically important manufacturing capacities. As mentioned previously, when discussing the retention or improvement of sovereign capabilities in core industries, defence industry offers a blueprint which could be applied to non-military, but still essential, capabilities.

5.9. Federal and state governments should cooperate on a comprehensive, evidence-based national resilience framework to assess current capabilities and future threats and set national, state, and local objectives covering industry policy as part of an overall resilience strategy.

5.10. This resilience strategy should assess economic policy in terms of holistic risks, notably the vulnerability of international supply chains to shocks and disruption and the growing threat of climate change. It should support domestic manufacturing supply chains in a range of strategic sectors to ensure Australia’s political and economic independence as well as social and environmental resilience. Domestic measures to increase resilience can build on Australia’s existing domestic strengths and enhance its’ trade. Cooperation with regional and global allies would not only strengthen long-standing ties but collectively improve comparative advantage.

5.11. In the light of past failures, present problems and future threats, Australia’s national priorities should refocus on a suite of measures to boost targeted domestic manufacturing to enhance resilience, boost employment, increase exports and cement our position as a valued partner.

5.12. The pursuit of an integrated resilience policy, in which economic policy plays a significant part, would help safeguard Australia from future threats. Viewing economic policy in isolation from international political issues, environmental threats and social consequences is no longer tenable, given a deteriorating international situation and the experience of COVID-19.

5.13. The creation of an independent National Resilience Institute could facilitate a thorough and ongoing examination of these issues, helping to inform the policy debate and ensure it remains on the political agenda beyond the COVID-19 pandemic.
6. Australia’s Poor Energy Systems Resilience

The Lack of a Coherent Energy Policy/Strategy and our Diminishing Fuel Security

The topic of energy has become so politicised in Australia, both between the major parties and within the Liberal / National Coalition Government, that our national interest and security has been subsumed by both party and personal interests. This report explores the need for an energy strategy and plan for Australia; one that should be coordinated / correlated with strategies for national security and resilience, economy, environment, industry, and research.

6.1. A critical aspect of the discussion of energy is that of energy security. Energy security is fundamental to our modern way of life. Without reliable and secure energy supplies and without resilient supply chains, our society will falter. We only must reflect on how a short-term interruption to electricity or fuel supplies impacted our lives in the recent past events in order to imagine what a longer-term interruption could do, possibly as a result of extreme weather events, conflict, financial crisis or another pandemic.

6.2. Australia does not have coherent, integrated, energy policies; Governments largely react to impending crises rather than prepare for foreseeable system failures. Government has not conducted a comprehensive risk analysis of our energy dependencies nor updated the 2011 National Energy Security Assessment, despite being in power for the past eight years.

6.3. A key driver of our energy strategy must be the need to reduce global emissions to address the threat of climate change. The transition towards a low emission energy system requires transforming our electricity generation with renewables and electrifying other energy consuming systems such our transport and logistics networks.

6.4. Australian Governments have readily accepted responsibility for national security. Unfortunately, that sentiment is lacking for non-military systems that are also critical to our way of life, such as our energy supplies. Governments have stated that energy security is a “shared responsibility between governments, market institutions and energy businesses.” It has been largely left to the market to manage.

Energy system resilience / security is a prerequisite for protecting our way of life and therefore markets cannot be held responsible for energy resilience and security which is a component of national security; Governments must take that responsibility.

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20 This section is based on the Energy Systems report - https://www.jbcs.co/iieraaustralia-projects

21 Even significant energy infrastructure failures, such as the 2016 South Australian electricity system blackouts, have faded from the news cycle around much of the country.
6.5. The Energy report addresses two linked components of our energy system, liquid fuels, and electricity power systems.

**Liquid Fuels Security**

6.6. Over the past decade, our fuel supply chains have changed, and our energy security and resilience have diminished. By 2018 we were importing over 90% of our liquid fuels as either oil for our remaining refineries to process, or as refined fuels produced by Asian refineries. All of the imported fuel and oil that comes to Australia is on foreign owned/controlled ships. In September 2020, faced with the impending closure of the last four oil refineries in Australia, the Government finally responded to our fuel insecurity. In response to the growing likelihood of refinery closures, Minister for Energy and Emissions Reduction Taylor announced that Australian refineries would be subsidised to stay open and that new storage facilities would be constructed to strengthen the nations fuel security and prevent crippling shortages.22

6.7. Sadly, the Minister’s announcement was too little, too late, and too short-sighted as only two of the four refineries agreed to accept the Government’s support plan and to be contracted to remain open until 2027. It may have moved the issue off the agenda for the next Federal election; however, there is no public plan for what will happen with respect to our fuel security after 2027.

6.8. Our fuel insecurity needs to be addressed as one component of the larger energy system transition underway in Australia and globally. An obvious option to address our fuel security problem is to accelerate that transition where it can address the overwhelming dependence on imported fuels. The challenge that we have here is how we make the trade-offs between the competing commercial interest of the existing fossil fuel industry and our national security and resilience imperatives.

6.9. Electric vehicles (both battery and hydrogen fuel cell based) will have to be a major component of our transport energy mix in the future if we wish to have a degree of sovereign transport energy control, and to address the significant emissions reduction goals which will either be accepted by a future Government or, more likely, imposed upon us by “tariffs” such as the European Union’s Carbon Border Adjustment Mechanism.

6.10. Large scale adoption of electric vehicles will present both significant opportunities and significant challenges for our electricity networks. Without clear targets for adoption of these technologies, as has been done by many other developed countries in the world, the design of our future networks will be fragile. Analysts project a 2-to-3-fold increase in electricity demand to support the potential growth in electric vehicle energy demand. The redesign of our electricity system needs to be initiated now, and not in 10 years’ time.

**Australia’s Electricity System Design**

6.11. The historical expectation in the design of an electricity power system was that people would not experience blackouts. In the 1970s, energy architects in the US predicted that blackouts would not exist in the year 2000 as governments will have provided supplemental

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energy sources for critical functions. Given the Texas power system blackouts in 2021 this prediction was clearly too optimistic.

6.12. Energy systems were developed since the 1980s by distributing business functions (generation, network, and retail) into marketplaces. The power system and the marketplace remain two separate entities. One part is a ‘mechanical’ system maintained and improved by a workforce. The other is a virtual auction room where electricity retailers buy power.

6.13. Australian politicians and officials established the marketplace based on planning that did not fully contemplate the technological changes that would occur to future power systems. Repeated reviews of the electricity system as recent as 2015 were also based on an assumption that the Australian energy market governance was fundamentally sound and amongst best practice internationally, and thus recommended no major reforms.

6.14. Australia eventually became aware of power system fragility when on the afternoon of 28 September 2016, South Australia experienced a state-wide blackout. It was triggered by severe weather that damaged transmission and distribution assets, resulting in all remaining electricity generation in the State shutting down. The Australian Energy Regulator report into the blackout identified, amongst other technical and governance recommendations, that communication and transparency are particularly critical given the introduction of new types of energy generation.

6.15. The 2016 Finkel Review of the South Australian grid failure was comprehensive, gaining the support of 49 out of 50 recommendations from the incumbent government. However, the review continued the existing marketplace model. That decision was revisited in 2018 when the ACCC Chair, Rod Sims, stated that “The National Electricity Market (NEM) is largely broken and needs to be reset” 23

6.16. An open question is whether the NEM failure is beyond the ability of the current marketplace to address? The National Resilience Project Energy report24 addresses this question and concludes the following:

- Energy resilience underpins both Australia’s economic and social fabrics, but the discovery of practicable means to advance energy resilience can only happen through goodwill owing to a missing piece in the energy governance framework.

- Energy advice is about two distinct energy features, consumer access and power system critical functions. Governments have responded to their need to be more informed about the risks to the power system identified after the South Australian system black event in 2016. However, decision-makers lack a coherent framework for advice to provide energy access together with energy resilience.

- Delineation is required between energy access as an economic imperative and providing resilience as a social imperative.

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24 https://www.jbcs.co/iieraaustralia-projects
• There are no effective alternatives for introducing different thinking to the design of the electricity system, leading to the potential for incumbent ‘group think’ and the continuation of a fragile electricity generation system.

Are our electricity networks resilient enough both today and in the face of massive increases in electricity demand as we undergo a significant energy transformation in Australia? The answer is no, not as currently designed, governed, and operated. This must be addressed if we are to manage our energy transition over the next decade without preventable, recurring, system failures.

**Energy Transition**

6.17. The political, economic, social, infrastructure and broader structural framework of societies and individual nations present inherent challenges to quick transition. Each nation evolves their energy systems to meet individual resource, climatic, economic, and social imperatives so transition planning needs to factor in these unique drivers.

6.18. Australia will also need to understand the risks of swapping one supply chain problem (liquid fuels) for another (EV batteries and components.) Given our lack of manufacturing capability in Australia we need to understand the risk of yet another, near total, import dependence for renewable transport energy systems for our nation’s resilience. The Government therefore needs to design this transition rather than continuing to be a passenger on a nebulous technology roadmap-journey. The bottom line, however, is that the world could take many decades to wean itself from its’ primary dependence on fossil fuels.

6.19. Despite the systems shocks evident in the ongoing pandemic, it would be safe to assume that in Australia’s case, the lack of any coherent energy system targets, strategy or plan mean that our energy transition journey will be lengthy, uncoordinated and not resilient.

**The discussion we largely avoid ...**

We now find ourselves in a position where the Government has committed to the purchase of nuclear submarines for which we will have no industry base to provide support. It is an opportunity to have a rational discussion about the role of a peaceful nuclear energy industry in Australia. As custodians of over 30% of the world’s uranium resources, it is an essential discussion to be had. However, we choose to export it unprocessed, without adding value to our economy, our energy security, nor to our sovereign capability.

In a similar manner to the debate on climate change in Australia, any discussion of the potential role for nuclear energy generation to provide some baseload power capability, leads to both political point scoring and public vitriol.

The COVID-19 pandemic will hopefully shock the nation out of a state of complacency. We must be prepared to consider all options, including the value of having some level of sovereign nuclear energy capability, if we are to address our significant national resilience issues.
7. Climate Change Impacts

Australia has repeatedly ignored the risks and is ill-prepared for the security implications of devastating climate impacts at home and in the asia-pacific, the highest-risk region in the world.

7.1. Climate is an urgent strategic priority for Australia, yet it is still languishing in a policy vacuum. The magnitude of the challenges, and the divisiveness in the public discourse, not to mention the speed with which climate change impacts are being experienced, necessitated a different approach to that used for the other ‘resilience’ topics. Accordingly, the work undertaken by the Australian Security Leaders Climate Group (ASLCG), in particular the report ‘Missing in Action’, has been leveraged to address this aspect of the National Resilience Project.

7.2. The August 2021 Intergovernmental Panel on Climate Change report forecast an increase in the intensity, frequency, and duration of fire weather throughout Australia, an increase in heavy rainfall and river floods, more sandstorms and more dust storms. Unlike the COVID-19 pandemic, Australia cannot close the borders and quarantine from the growing impacts of climate change.

7.3. Australia is ill-prepared to deal with the consequences of global climate change because we lack decisive policy action, both in terms of mitigating the threat, and an understanding of, and preparedness to respond to, climate–security risks. Sadly, successive Australian governments have been, and continue to be, ‘Missing in Action’ regarding their obligation to the citizens of Australia – especially their obligation to prevent, protect and prepare for the ever-increasing impacts of the climate crisis. Policymakers, bureaucrats, and security analysts have by-and-large focused on traditional but narrow security concepts and downplayed or ignored the issue of climate disruption and human security.

7.4. Australian Governments have had plenty of warnings, not just from climate scientists, researchers, allies, trading partners, activists and first responders, but from within their own ranks. A 2018 Australian Federal Parliamentary Senate Inquiry identified climate change as “a current and existential national security risk”. It recognised that Australia and its neighbours are in the region most exposed to climate impacts, and that climate change is: “threatening the health of Australians, their communities, businesses and the economy; heightening the severity of natural hazards; increasing the spread of infectious diseases; and creating growing water insecurity threats to agriculture.” It also noted the failure so far to adopt a fully-integrated, whole-of-government approach to climate–security risks. There has been no substantial policy response from the Government since the report was released.

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25 IIER-A Directors, Fellows, and several resilience workshop participants are also members of the ASLCG - https://www.aslcg.org

26 Australian Security Leaders Climate Group, Missing in Action: Responding to Australia’s Climate and Security Failure, Canberra ACT, September 2021 - https://www.aslcg.org
Politicians simply lauding the ‘resilience’ of Australians doesn’t actually make us a resilient nation.

7.5. The ASLCG report calls for a comprehensive climate and security risk assessment as a matter of urgency if the country is to have a sound national and regional security policy. However, Australia lacks a national security policy or a national resilience policy to frame such an assessment. A nation that reacts, rather than prepares, seems to be the default position. The failure to address the root causes of climate change will result in greater pressure on First Responders and the ADF to manage accelerating climate impacts. Higher levels of climate change will stretch them beyond their capacity to respond. Climate change and extreme climate events will impact human security in many other ways, including resource competition leading to increased rivalry between nation states (e.g., over diminishing water supplies), unmanageable habitation and health impacts, rising sea-levels inundating infrastructure and fertile farming land, and economic and trade impacts resulting from supply chain disruptions.

7.6. To be ready and able, Australia needs integrated action across all levels of government, i.e., a whole of-government approach at the national, state, and local levels. Climate change impacts cannot be addressed by a single Minister; almost every federal government department will need to be involved. A coordinated national strategy that integrates actions across defence, emergency responders, foreign affairs and trade, health and social services, industry and transport, research, and education sectors is needed. Given this need, the lack of a National Security and Resilience Strategy is unfathomable.

7.7. The ASLCG report concludes that to prepare and mobilise for the increasing impacts of climate change, we need integration across all levels of government, and a whole of-government approach at the national, state/territory and local levels. It recommends several actions that could be taken to prevent, prepare for, and protect against, climate change. The most relevant to the National Resilience Project include:

- The appointment of a well-resourced, independently chaired, expert panel to conduct a comprehensive Climate and Security Risk Assessment.
- Coordinate a holistic, whole-of-government approach, building capacity across the public service and government agencies, and at all levels of government.
- The need to cooperate with Asia-Pacific Governments to build alliances for climate action, understanding that cooperation rather than conflict is key to responding to the climate crisis.
- The need to build an Australian National Prevention and Resilience Framework with coherent processes across areas including energy and water, logistics, health, industry and agriculture, research, and nature.
8. Protecting Australia’s Sovereign Research Capability in a Covid World

The COVID-19 pandemic has exposed the extent to which Australia’s sovereign research capability is vulnerable to a significant downturn in demand for higher education from international students, putting at risk Australia’s hard-won international reputation for high-quality research and the substantial benefits that it produces.

8.1. The total operating revenues for all Australian universities in 2018 were $33.7 billion. Of this the non-government component was $15.4 billion (46%) of which international student fee revenue amounts to $8.84 billion or 26%. It is this component of revenue that has largely been lost as a result of the COVID-19 pandemic.

8.2. The impact of a pandemic on our research sovereignty is a “black elephant”, a cross between “a black swan” — an unlikely, unexpected event with enormous ramifications — and the “elephant in the room” — a looming disaster that is visible to everyone, yet no one wants to address because the costs of doing so are perceived as too high; it is not as if the impact of a pandemic on this risk could not have been anticipated. The question is why have governments and university councils not addressed this risk adequately? The continuation of the international revenue stream to underpin our university-based research effort, has now been revealed as wishful thinking at best.

8.3. The future of Australia’s world-class university research sector is now precarious and will take many years to recover. Our response to this needs to take account of this new reality. Whatever level of public funding is available into the future, it must not only be allocated but also managed far more effectively, efficiently, transparently, with a long-term strategic outlook and on the basis of independent expertise, than is currently the case. We need a system that is much more tightly coordinated and curated, that incentivises industry and university partnerships and specialisation to address a relatively small number of specific missions and is not constantly subject to change due to short-term political and sectional interest.

8.4. Proposals announced by the Government so far, in its Job-Ready reform package, will not address the problem. Indeed, the package may exacerbate problems in the research sector unless a new approach to supporting university research is devised and implemented that involves a new approach to identifying which research should be done, by whom, and to what extent.

8.5. Unless decisive action is taken, it is estimated that more than $7 billion in university research funding and up to 4,600 researcher jobs will be lost over the next five years. At a time when increased national resilience, capability and self-sufficiency have become

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27 Based on the Sovereign Research Capability report - [https://www.jbcs.co/iieraustralia-projects](https://www.jbcs.co/iieraustralia-projects)
paramount national priorities, such a loss would be tragic, and hamper our long-term prospects for economic recovery and reduction in public debt.

8.6. The financial fallout of COVID-19 is likely to see increased pressure for consolidation within the tertiary education sector. The government had urged the universities on in the pursuit of international students as one of our largest export markets. The pre-COVID “rivers of gold” may have encouraged some universities – now vulnerable - to take their eye off the need to manage risk and keep costs under control planning instead for major expenditure on the assumption that the money would keep flowing.

8.7. The government now faces a choice as to whether and how it provides any encouragement to moves to merge institutions, or “prop up” and “patch up” an already balkanised and inefficient system for funding research or use its leverage to introduce broader reform to the research function of universities. Australians produce, per capita, nearly twice as many scientific research papers as the OECD average. However, we fail to take our scientists’ knowledge and turn it into innovative ventures.

We need to address issues with the relationship between university research and industry, involve industry much earlier and more than is currently the case, and include measures to deepen our expertise in areas beyond our traditional areas of strength in the physical, chemical, earth sciences and biological and medical. This will be challenging as there is an apparent lack of policy coordination between the education, research and industry sectors.

8.8. Solutions must be based on an accurate understanding of the problem to be solved. The problem can be broken down in several distinct but interrelated issues for the purpose of analysis: funding; incentives for universities and researchers; the research workforce; and engagement with industry. Whatever quantum of funding is available – and it must be recognised that the recovery of Australia’s national resilience and sovereignty in respect of our research capability will be taking place within a vastly more constrained fiscal environment - the solutions to be adopted will need to deliver bigger bang for the buck. This means that we will need a much more tightly curated system for allocating research funding.

8.9. What applies to the country, applies to the university sector itself: what is Australia’s, and indeed each university’s, comparative advantage? How can policy settings incentivise a laser-like focus on this question?

8.10. To be successful, the system must be at the service of an overarching and long-term national research and innovation strategy, something which the country lacks and has done for some time because priorities and funding mechanisms change whenever there is a machinery of government change or a new set of ministers.

8.11. Just as Australia once lived “off the sheep’s back”, our university research sector has been living off international students. They are gone now, and they won’t be back anytime soon. The need to address these structural issues is now urgent.

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28 https://ourworldindata.org/grapher/scientific-publications-per-million?tab=chart&time=earliest..2013&country=OECD+members%7EAUS%7EUSA%7EGBR%7EFRA%7EDEU%7ECHE
9. Trust, Social Cohesion, and Resilience

A Conversation-Starter for Australia

This component report focusses on trust and social cohesion as vital foundations for resilience, how these are in danger of being eroded, and how they can be protected and enhanced. Australia is at critical point of change, a potential ‘tipping point’. Covid-19 has highlighted vulnerabilities and inequities as well as raising questions about what sustains or damages resilience. Trust has been falling, social cohesion is under threat, the basis for resilience may erode rapidly unless we act purposefully.

9.1. Trust and social cohesion are vital foundations for resilience. We define cohesion as the quality of shared relationships, and trust as the perception of the reliability of the other. This is an important feedback loop: social cohesion promotes trust; trust promotes social cohesion. The two together underpin resilience.

9.2. Social cohesion enables and derives from social activity, especially collaborative and supportive activity built on a foundation of trust. Strong, trusting social bonds that survive and thrive in the face of differences – of opinions, beliefs, life circumstances and living conditions – are crucial for a society or community to be ‘resilient’, especially when confronted by sudden change or catastrophic threats or events. Without trust and social cohesion, societies risk internal fragmentation, conflict, and decreased wellbeing. The ability to adapt and chart new ways forward is compromised.

9.3. Social cohesion and trust underpin collaborative action. A society in which people feel they have a stake in the wider well-being will be one where cohesion and trust are higher. Individuals become citizens rather than subjects and, consequently, are likely to develop shared norms, values and rules. The most important aspect of having a stake is inequality. Where this is high (e.g., the USA) cohesion is lower, where it is low (e.g., Scandinavia) it is higher. Citizens who ‘have a stake’ contribute to cooperation and hence resilience at three levels:

- at the community level, individuals and groups are likely to self-organise to produce resilience. This requires nothing of government itself, so long as the settings created by the government have allowed for citizens to be citizens not subjects.
- at the level of civil society, businesses and numerous other groups and organisations, operating for their own varied purposes, require trust to function well and, through their own way of operating, can reinforce trust and create ties that add to broader cohesion.
- at the level of the wider society, governments can build trust and offer opportunities, directly and indirectly, that assist collaboration and cooperation to emerge, and which

create and sustain resilience. Tax and transfer systems that ameliorate inequality are a critical aspect of such an effort.

9.4. In contrast, where individuals feel they have little stake in society and lack resources, trust declines. The conditions favourable to collaboration can wither. So far as local action is concerned, any collaboration/cooperation that does exist will take the form of resistance to wider goals. Political disagreements are likely to be strong and entrenched, conflict an ever-present possibility.

9.5. A dynamic approach to resilience is necessary. It is important that resilience is not seen simply as a rebound to a previous state. For example, regarding the COVID-19 pandemic, ‘normal’ clearly did not prepare us well for the onset of the disease. And throughout the prolonged period of the pandemic, (after the initial successes had faded from memory) and the vaccination phase and re-opening were mismanaged, Australia’s lack of preparation, lack of preparedness, became more evident as the months rolled by.

9.6. We should not underestimate the impact of the COVID-19 pandemic – it will be extensive, long-lasting, and damaging. It is forcing new change and accelerating other change already underway. It intersects in complex ways with the social/political/economic/ecological challenges facing Australia (and the world in general). And the nature of complexity means that there are many interdependencies between these systems which are not amenable to simple ‘mapping’. For this reason, a conventional ‘plan’—top down, expert driven, laid out, followed, and measured is not a feasible option.

9.7. How should /could we use information, ideas, and theories to try out new directions and create experiments that will help to chart a way forward towards resilience? What shifts in thinking and action would be necessary? We propose that there is a need:

• for a complete change in 'mind-set' in Australia in the face of the rising uncertainties faced by communities, regions, and countries due to increased complexity and the crises to which it gives rise; financial, climate, droughts, fires, pandemics, terrorism, etc.

• for local self-organised efforts in preparing, responding, recovering, and 'building back better' after crises have hit – mobilisation of the 'commons' .

• to build strong strategic partnerships locally, based on networks including business and the private sector, community-based organizations, non-governmental organizations, neighbourhood associations, churches, schools, etc.

• to establish a national forum, possibly a National Resilience Institute, to develop a holistic approach to resilience, analyse vulnerabilities across domains, learn from experiences elsewhere, and document good practice to share with stakeholders at all levels of society.

The federal government needs to act on the' big picture' issues that only it can tackle – addressing inequality and disadvantage, setting a national resilience agenda, building a healthy democracy, rebuilding trust, 'open government' initiatives, open communication, and ending 'stove-pipe' approaches.
10. Enhancing public sector policy capability for a COVID world

This report concludes that the policy capability of the public service has reached dangerously low levels and needs to be rapidly and purposefully rebuilt. The public service is a core social institution whose foundations, purpose and performance need to be rescued and restated and, as a result, better protected into an uncertain future to which it will be an inescapably central part of any effective response.

10.1. The ability of the public sector to enable society to cope with external shocks such as a pandemic, and to stabilise the internal volatilities of a small, democratic and market-based society, is at the heart of our national peace and prosperity. We neglect it at our peril.

10.2. It is true that the COVID-19 pandemic has caused disruption across every segment of society and the economy, as well as putting pressure on individuals’ sense of their own identity. Yet a less obvious, but just as significant weakness highlighted by the pandemic, is the down-side risk of ‘just-in-time’ business models being applied to the ‘business’ of public policy. It has raised questions about whether this aspect of private sector operations is appropriate to the public sector, given government’s role as society’s ultimate risk manager and problem-solver. A degree of spare capacity or redundancy, which can all too easily be construed as “waste”, is a necessary aspect of any resilient system. It can provide surge capacity and the ability to absorb shocks, thus offering the stability that citizens need to live and make choices with some confidence. However, we have not developed a reliable method for valuing and paying for this spare capacity.

10.3. As a result of disinvestment and political neglect over past decades, the policy capability of the public service has reached dangerously low levels and needs to be rapidly and purposefully rebuilt. The odds of the current generation of politicians accepting the need as a legitimate and high priority for their time, attention and spending are, unfortunately, low.

10.4. As Australia attempts to move forward from the pandemic our immediate national challenges are ones of response and recovery. However, we need to begin preparing for the future challenges, such as climate change, and the public service will need to be at the centre of future risk-management, problem-solving and resilience-building. Public service capability across policy, regulation and delivery needs to be a major focus of the thinking of those wanting to “build back better”.

10.5. The public service is a core social institution whose foundations, purpose and performance need to be restated. It needs to evolve its capabilities to better manage such issues as the relationships between policy and delivery, strategy and execution, specialist expertise and generalist skills, private sector and public sector, stability and innovation, all within a context characterised by speed, complexity and intensity.

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30 This section is based on the project Public Sector Policy report - https://www.jbcs.co/iieraustralia-projects
10.6. A reformation of the public service would require a re-evaluation (indeed a revaluation) of expertise and knowledge. Public servants need to know things and be able to go deep as well as wide. Convening teams for better public problem solving is a skill and capability, but it is intimately connected to a depth and nuance of actual knowledge that has also apparently reached dangerously low levels.

10.7. The public service has a role in supporting governments to make progress not only through implementing policy but in providing advice on what good (and implementable) policy looks like. Political parties seeking election usually espouse high level policy ends, but when they get into government discover that the achievement of those ends is not nearly so straightforward as they imagined. Wise governments will call upon the experience of knowledgeable and skilled administrators to help them convert high principle and vaguely expressed policy directions into practical programs for change. This requires the public service to be involved in the process of developing practical policy, not just implementing it.

10.8. In other words, the likelihood that a solution to a public policy problem will be fit for purpose will be better if the people tasked with applying themselves to finding that solution, actually know something about the matter at hand. In addition, while expert knowledge of relevant domains will play a key role in building policy capability, the increasing complexity of many of the problems that the public sector is being called upon to solve means that the range of expertise that needs to be harnessed is expanding.

10.9. Whilst the COVID-19 pandemic has resulted in the little-known disciplines of epidemiology and contact tracing being brought into the light and glare of public attention, the public sector’s policy response has also required the marshalling of expertise across a vast number of disciplines and occupations.

10.10. How are we enhancing the capability of the public sector to assemble this collective intelligence from across society for the purposes of developing high quality strategic policy advice to government? These kinds of capabilities aren’t developed without deliberate planning and action. Recognising the importance of professional learning/education for public servants and developing promotion pathways for subject matter experts and specialists, will be part of this effort.

10.11. The public service is often criticised for lacking innovation yet being innovative itself relies on being familiar with the issues and problems associated with a particular industry. Creativity requires, among other things, paying attention to and immersing oneself in the work of people who have lived with the same questions and concerns that are relevant and of interest within a particular sphere of human action or discipline or industry.

10.12. Can the public sector learn from the private sector? Of course. Can the private sector learn from the public sector? Of course. Any good organisation could and should be on a path of learning and continuous improvement and look widely to find ideas and models for improvement.

10.13. However, the ability to strike this balance should not left to chance, to the skills and insights of individual leaders. It needs to be consciously and intentionally fostered as a key plank of public sector reform for the post-COVID world and leadership development. A resilient Australia cannot occur without a resilient, resourced, professional, and valued public service.
11. **First Responders and Defence in Australia**  

*Resilience in the Face of Climate Change*

*The strength of a safety net is directly proportional to the ability of each of its parts to absorb their share of any stress imposed upon the net within its intended limit. While essential elements of our nation’s response, First Responders and Defence are a finite resource whose extended involvement masks our nation’s resilience and ability to preserve and restore essential basic structures and functions.*

11.1. First Responders (police, ambulance/paramedics, rangers, firefighters, health support) and Defence are perceived by the public, and more frequently governments, as a dependable response and remediation force – perhaps even a ‘silver bullet’ – when disaster strikes. Dependable and effective they certainly are, but is the current use of Australia’s First Responders and Defence helping or hindering our journey to a resilient nation?

11.2. Recent and ongoing national emergencies involving First Responders and Defence have cemented community perceptions, and expectations, that their involvement is normal and routine. In many ways, this ‘normalisation’ has masked points of failure within our nation’s systems, some of which were identified in the aftermath of the Black Summer Bushfires,\(^{32}\) and starkly apparent in the shortcomings of quarantine and vaccination arrangements for COVID-19. These points of failure and shortcomings deserve our undivided understanding and action.

11.3. The statement by the Chair of the Royal Commission into Natural Disaster Arrangements that “unprecedented is not a reason to be unprepared,”\(^{33}\) is loaded with criticism of the status quo when it comes to disaster preparation, management, and mitigation. Yet it also opens the door on an ‘unprecedented’ opportunity for Australia to shift from a perpetual cycle of reaction, to one of foresight, planning, cross-sector cooperation, and ultimately genuine preparedness for the disasters (natural and man-made) that lie ahead.

11.4. The climate change impacts outlined in the August 2021 Intergovernmental Panel on Climate Change were dramatic and significant for Australia\(^{34}\). However, it is also worth keeping in mind that there will be other national crises beyond the natural, that will occur requiring First Responder and/or Defence intervention. For example, the next pandemic, regional geopolitical instability, domestic societal unrest – how do we build the resilience necessary to prepare and then mobilise for these future eventualities?

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31 This section is based on the First Responders report - [https://www.jbcs.co/iieraaustralia-projects](https://www.jbcs.co/iieraaustralia-projects)

32 Royal Commission into Natural Disasters Arrangements and NSW Independent Inquiry in the Black Summer Bushfires

33 ACM Binskin AC, Chair, *Royal Commission into Australia’s Natural Disaster Arrangements*, Commonwealth of Australia, 28 October 2020, p.7

11.5. Given the scale of current and predicted climate change impacts, expecting better outcomes from existing organisational and political systems is foolhardy. It is unreasonable to expect First Responders and Defence, called upon in extremis, to overcome the growing risks and vulnerabilities created by the current, fragmented, and reactive disaster response system. A nationally coordinated and, where appropriate, standardised and interoperable disaster preparedness and mobilisation system, needs to be built.

11.6. However, we cannot build such a system if we do not know where the gaps are because of our ever-increasing use of Defence to undertake tasks above and beyond their remit. The gaps and deficiencies in civil society will not be identified, therefore never rectified, and consequently we will continue to be ill-prepared. Added to this imperative, the geostrategic environment is changing and becoming more volatile, traditional alliances are fragmenting and Australia must ensure that Defence is ready to act when needed to fulfill its national security role. Domestic border patrols, support to police in suburban COVID monitoring, testing and vaccination centre admin support and porter services do not draw effectively on ADF personnel specialised and higher-level skills and capabilities.

11.7. It is true that Humanitarian and Disaster Relief (HADR) is an identified Defence Aid to the Civil Community role, but it is not a core role for Defence – and more importantly, it is not always a cost-effective use of a very costly asset. Australia’s current strategic environment demands that the Defence force be trained, and operationally ready, to respond when and where the Government needs it. The loss of skills, and readiness, caused by an unending commitment to support for any-and-all civil crises, has the potential to undermine our national security.

11.8. That said, it does not mean Defence should be a ‘no-go’ area for aid to the civil community. Quite the converse is true. This report proposes that there are more constructive ways to employ Defence to benefit not only the civil community. For example, Defence could advise/assist the training of a civilian cadre of personnel to be dispatched in support of a HADR operation – Defence providing the transport and logistics, the civilian staff remaining on the ground to deliver the support. Continuing, but targeted support, to the civil community could also benefit Defence in developing crucial skillsets in environments difficult to simulate or emulate in a military only domain.

11.9. While they are essential elements of our nation’s response, First Responders and Defence are a finite resource whose extended involvement masks our nation’s resilience and ability to preserve and restore essential basic structures and functions. With planning and preparation, the role of First Responders and Defence during periods of disaster, could be re-shaped to contribute more effectively and be fit-for-purpose for the 21st century.

11.10. As the Royal Commission into Natural Disaster Arrangements observed, Australia has a daunting path ahead – ‘natural disasters are expected to become more complex, more unpredictable, and more difficult to manage. ...Australia needs to be better prepared for these natural disasters.’

35 Royal Commission Report, ibid, p. 22.
12. Symptoms, Causes and Conclusions

The individual project reports summarised in sections 1 through 10 identified many common symptoms and causes of the resilience issues we face in our society today.

The following discussion examines these, using the themes of shared awareness, teaming, and preparedness.

Australians will need to remember the health and social impacts of the 2019-2020 summer of bushfires, and every Australian should have a story to tell about dealing with the health and social impacts of the COVID-19 pandemic. There are many similarities between these two national disasters. The most significant of these is how poorly prepared we were, and still are, for such major occurrences. We must not forget this fact.

12.1. A resilient society is one that can identify and assess emerging risks and prepare for their impact without catastrophic failure. But resilience is not absolute. Regardless of how resilient each of the constituent elements of the system may be, there will always be give and take between individual freedom and collective responsibility, between business in different markets, between competing political parties and between nations.36

12.2. The lack of preparation for, and genuine cooperation during, the COVID-19 pandemic by both Federal and State/Territory Governments, and our reluctance to reach any form of consensus on how to address emerging significant risks, has highlighted critical shortfalls in all three key resilience areas: shared awareness, teamwork, and the ability to prepare and mobilise in the face of a crisis.

12.3. Compounding these shortfalls is the lack of integrated strategies and plans across federal, state and territory governments. Our Federation system may have been fit for purpose a century ago, but it cannot deal with the scale and complexity of the challenges we face today. The result is the gaps and vulnerabilities identified in the component reports.

12.4. So, what should our governments do? As a start, we need to analyse a range of scenarios based upon credible threats for both today and the future, and to determine what actions can be taken to limit the risks for our society. We need to face reality and understand the resource constraints that we have and will have over time. There needs to be a public debate leading to a bi-partisan approach to address critical areas such as climate change, economic and security risks, and the complexity of our energy systems transformation.37

36 PARA 3.5
37 PARA 3.14
Lack of Shared Awareness

12.5. Increasing levels of misinformation in both professional and social media, combined with extensive use of political spin have resulted in higher levels of complacency, confusion, and disengagement in our society. Political divisiveness further diminishes the ability to build shared awareness and shared goals in our nation at a time where the need to do so has never been higher.

12.6. There are also relationship, and therefore information, gaps between governments, political, private sector and community decision-makers, and citizens. Our assumptions frame our resilience and therefore they also need to be made explicit.

12.7. Short-termism or 'quick win' thinking is deeply embedded in the Australian culture; we tend to focus on today and largely on our personal needs, not on future interacting and cascading risks that will impact our whole society. Thirty years of growth, driven by lower trade barriers, privatisation and deregulation, have raised our productivity and wealth, generating the resources we need to tackle the problems we now face. However, some of the problems we now face, i.e. the economic, health and environmental shocks to our nation, are themselves partly a result of the globalisation of finance, people movement and pollution. The changes have also resulted in our extensive reliance on overseas supply chains for critical goods. This has left the nation vulnerable, eroding our ability to absorb shocks to our nation’s systems. Whilst the lower cost of goods has had economic and standard of living benefits, there is a very high price to cheap in a crisis.

The historical ideology or “shared goals” of growth at any price, has stunted our capacity to have “shared awareness” of our increasing fragility.

Lack of Teaming

12.8. Social cohesion enables and derives from social activity, especially collaborative and supportive activity built on a foundation of trust. Without trust and social cohesion, the ability to adapt and chart new ways forward is compromised.

12.9. Australia sits in a relatively unique but possibly precarious position in 2021. While we have many elements that have served us well to date, in our contemporary volatile and complex world we are facing circumstances that leave our society vulnerable to further fragmentation.

12.10. Federal and state / territory governments need to cooperate on the development of a comprehensive, evidence-based national resilience framework to assess current capabilities and future threats and set objectives as part of an overall resilience strategy. Whilst the formation of the National Cabinet in the early months of the COVID-19 pandemic was met with hope and optimism, that soon faded when the behaviour of Federal and some State  

38 PARA 2.2  
39 PARA 5.3  
40 PARA 9.2  
41 PARA 5.9
leaders regressed into self-interest and power plays, compounded by the partisan elements in the media.

12.11. Given the propensity of the Federal political level to market success stories and dismiss discussion of risks and vulnerabilities for short term political gains, leadership may need to come from those in our nation who are actually delivering services to Australians. That is at the State/Territory Government and at Community / Industry levels. A willingness to act together for the common good to achieve shared goals can only be built through practice and demonstration. We all need to demonstrate this willingness to work together and then to act.  

**Lack of Preparedness**

12.12. As a nation we fail to prepare for future disasters / crises and largely wait to react. It is not a surprise that we are currently not able to mobilise the nation to address emerging threats. The COVID-19 pandemic and the 2019-20 bushfires were not “Black Swan” events; we should have been better prepared.

12.13. A less obvious, but just as significant weakness highlighted by the pandemic, is the down-side risk of ‘just-in-time’ business models being applied to the ‘business’ of public policy. A degree of spare capacity or redundancy, which can all too easily be construed as “waste”, is a necessary aspect of any resilient system. It can provide surge capacity and the ability to absorb shocks, thus offering the stability that citizens need to live and make choices with some confidence that we are prepared.

12.14. A sovereign nation must buttress, rather than outsource, its self-reliance, and while State, Territory and Federal Governments have taken measures to protect and restore the economy in the wake of COVID-19, a broader long-term vision would prepare the ground for a more sustainable recovery, and better prepare the nation for future challenges.

**Conclusions**

12.15. Australian Governments have readily accepted responsibility for national security; however, our current Government does not have a national security and resilience strategy. This is an unacceptable situation in today’s complex world, ravaged by a pandemic and facing growing global economic and regional security challenges.

12.16. We should not underestimate the impact of the COVID-19 pandemic; it will be extensive, long-lasting, and damaging. It intersects in complex ways with the social, political, economic, and ecological challenges facing Australia (and the rest of the world.) The nature of complexity means that there are many interdependencies between these systems which are not amenable to simple ‘mapping’.

12.17. We are likely to see more compounding disasters on a national scale with far-reaching consequences. Some will have cascading effects, threatening not only lives and homes, but

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42 PARA 4.7  
43 PARA 10.2  
44 PARA 4.5  
45 The Gillard Labor Government had a National Security Strategy but failed to table it in Parliament  
46 PARA 6.3  
47 PARA 9.5
also the nation’s economy, critical infrastructure, and essential services. Australia needs to be better prepared for these disasters. A nationally coordinated and, where appropriate, standardised, and interoperable disaster preparedness and mobilisation system needs to be developed for both natural and “unnatural” disasters. Business-as-usual, or more correctly business-as-was, is not an option.

12.18. A world struggling to emerge from the COVID-19 pandemic and ‘return to normal’ is also a major economic risk. Growing inequality, and a growing disenfranchisement of large segments of the voting population in advanced economies, risks further undermining of the fragile institutional defence mechanisms against the next crisis.

12.19. We cannot address our systemic risks using business models developed for stand-alone, stove-piped components. We need a ‘designed’ approach to the change we need to make; it is about more than just the pieces, it is about how we develop, operate, and sustain our societies in a more complex interconnected global context. Faced with this challenge, cultural change of the scale experienced in a war is required in order to prioritise some collective/community outcomes over individual personal wealth or lifestyle goals; this will require societal cohesion beyond that which we currently have.

12.20. Whilst this is a grim assessment there is some cause for cautious optimism. The actions we need to take are not beyond our ability to design and implement. We have considerable expertise, will and resources in this country. In these times of uncertainty, we, the Australian people, need to act and demand more of our political system.

A Recommendation

13. The scope and scale of issues identified in the National Resilience Project were at times overwhelming. However, the fact that many participants were surprised by the extent of the issues and gaps highlighted the lack of a shared understanding of our risks and vulnerabilities in our society.

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The statement by the Chair of the Royal Commission into Natural Disaster Arrangements that “unprecedented is not a reason to be unprepared,” is loaded with criticism of the status quo when it comes to disaster preparation, management, and mitigation. Yet it also opens the door on an ‘unprecedented’ opportunity for Australia to shift from a perpetual cycle of reaction, to one of foresight, planning, cross-sector cooperation, and ultimately genuine preparedness for the disasters (natural and man-made) that lie ahead.

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48 PARA 11.10
49 PARA 11.5
50 PARA 10.4
51 PARA 3.16
52 ACM Binskin AC, Chair, Royal Commission into Australia’s Natural Disaster Arrangements, Commonwealth of Australia, 28 October 2020, p.7
53 Para 11.3
13.1. Given the challenges we face today, and that we will face in the future, we must work together to improve our shared understanding and to develop shared goals to focus our collective actions. We therefore recommend the formation of an independent National Resilience Institute.

13.2. The creation of such an Institute could facilitate a thorough and ongoing examination of the issues raised in this report, helping to inform the policy debate and ensure it remains on the political agenda beyond the current pandemic. It could also build on the National Resilience Framework established to manage natural disasters to encompass a broader remit of economic, environmental, societal, and political challenges over the medium and long term.

13.3. A detailed proposal to form an independent National Resilience Institute is being developed, based upon this report.

Report Authors and Workshop Leads

In early 2020, the International Institute for Economic Research - Australia (IIER-A), in partnership with Global Access Partners (GAP), embarked on an 18-month long project to examine Australia’s resilience in the face of a changing world. Over 250 people participated in 40 activities which included Taskforce meetings, workshops focused on specific issues, and the GAP Summit on National Resilience.

This integrated report for the National Resilience Project was co-authored by Air Vice-Marshal John Blackburn AO (Retd) and Anne Borzycki.

The integrated report is based on the work of the component stream workshop leads/authors who included: Neil Greet, Dr Paul Barnes, Dr Simon Quilty, Stephen Hayes MBE, Professor Peter Sokolowski, David de Carvalho, Dr Paul Atkins, Mark Crosweller AFSM, Emeritus Professor Mike Jackson OBE, Dr Pamela Kinnear, Dr Margaret Moreton, Dr Stephen Mugford, Dr Robert Styles, Commodore Vince Di Pietro AM CSC RAN (Retd), Air Vice-Marshal John Blackburn AO (Retd) and Anne Borzycki.

The contribution by all participants was highly valuable. Each individual component report records the names of participants who agreed to be listed.