

EXECUTIVE SUMMARY

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Improving Australian climate change adaption strategies: learning from international experience

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Executive summary

Key Points

- Adaptation is identified in the literature as bringing together interventions and decisions concerning climate change, disaster risk reduction (DRR), and sustainable development.
- In Australia, at the national level, adaptation policy frameworks rely on an aspirational strategic document, the 2021 National Adaptation Strategy. This strategy does not provide concrete guidance for action or link to structured financial mechanisms for its implementation.
- Across Australia's different states and territories, adaptation approaches vary; each jurisdiction adopts a different policy framework, with Victoria being the only state mandating adaptation plans.
- In the United States (US), the current federal administration has invested in strengthening federal standards and establishing long-term financial support for mitigation actions, shifting toward more nature-based solutions to protect cities and urban centres from the impact of natural disasters.
- The European (EU) roadmap to 2050 climate resilience, the Green Deal, frames the EU adaptation approach, which bridges national urban policies and interventions coherently.
- This study finds that substantial and long-term financial investments, community-based risk management, and nature-based solutions are common traits of effective mitigation strategies implemented internationally to effectively address natural disaster impact on cities.

- **A lack of leadership by the Australian Government, fragmentation of governance structure, and a tendency of 'business as usual' approaches has been highlighted by experts as undermining the opportunities to adopt discussed international strategies for effective adaptation in Australia.**
- **Further research to inform policy development is needed to improve the current governance model to align leadership, organisation, and policy through better coordination of actors, actions and regulations to increase institutional capacity.**

Key findings

At the national level, Australia lacks strong direction and action concerning adaptation relative to sustainable development. Even though adaptation is defined within the context of overarching sustainability goals (as partially implied in the definition provided in the 2021 National Adaptation and Resilience Strategy), it is addressed relative to the built environment through disaster risk reduction—mostly recovery. Australia lacks a strong overarching direction in climate change adaptation, including legislation and funding.

Based on analysis of international approaches to adaptation at the national level (in the US) and sub-regional scale (in the EU), adaptation emerges as a strong area of intervention to climate change, equivalent and complementary to Greenhouse Gas (GHG) emissions reduction. The US and the EU have established overarching policy frameworks, injected considerable funding through long-term financial commitment and developed mechanisms to support intervention in this area. The policy mapping and case studies present three main strategic approaches that guide effective intervention directed at adaptation in the context of mitigating the effects of natural disasters on urban and regional settlements: (i) long-term investment and holistic approach to addressing the issues; (ii) community resilience building as a pillar to sustain the resilience of our cities, especially enhancing the strength of community vulnerable to disasters; (iii) innovation in approach to structural solutions that rely on respecting and reinforcing the ecological system as a mean to build resilience, i.e. nature-based solutions.

From the interviews with experts, it emerges that the governance structure and distribution of roles and responsibilities among Australia's three tiers of government are barriers to adopting international strategies. Moreover, according to the interviews, there is good knowledge and understanding of the best practices identified in the case studies and policy mapping relative to climate change adaptation among Australian experts in sustainable development and DRR and policy makers. However, these best practices are implemented ad hoc, lacking an overarching plan that would make them more effective. The experts highlighted a reactive attitude to implementing natural disaster responses, which results in a 'business as usual' type of intervention. The experts pointed out that this way of operating is a barrier to innovation. Community-based models for risk reduction were also identified as an opportunity to build social resilience in disaster risk areas that would support structural interventions.

Policy development options

The overview of policy intervention in Australia shows how—in the absence of clear direction from the Australian Government—fragmentation in adaptation responses is inevitable. Without a national strategy, there is a multiplication of legislation and approaches developed by the individual state, territory and local governments. Specific policy approaches and strategies to overcome this key limitation to effective adaptation strategies could include:

- Amendment to the *Climate Change Act 2022* to include adaptation and to demonstrate a legislative commitment to tackle adaptation and recognise its role as to mitigation
- delivery of a more robust policy framework at the federal level, including the development of a national adaptation plan with concrete actions, timeframes and resources for implementation in the short and long-term
- revision of the Environment Protection and Biodiversity Conservation (EPBC) Act 1999 for stricter and more comprehensive consideration of the impact of existing and future development in relation to climate change
- development of financial mechanisms that provide ongoing financial support for adaptation initiatives, including insurance schemes
- building institutional capacity and better coordination of stakeholders and communication across different levels of government and other external actors
- ongoing investment in community resilience and engagement in adaptation to deliver more sustainable physical and social infrastructures.

The study

Government plays a crucial role in helping address the economic and social impacts of the increasing frequency, duration and intensity of extreme natural events and associated disasters caused by the shifting weather patterns linked to climate change. Governments at all levels implement policies and adopt strategies to protect and support communities through climate adaptation. The *2030 Agenda for Sustainable Development* identifies the urgent need to reduce the risk of natural disasters (United Nations 2015c). The 2020 inquiry on the *Current and future impacts of climate change on housing, buildings and infrastructure* identified the need to provide appropriate information about managing climate risks to all stakeholders for better decision making (Royal Commission 2020).

This research project analyses international practices and programs targeting natural disaster events associated with climate change, focusing on adaptation. It explores the limits and opportunities within current Australian policy to support the implementation of best practices and programs across Australian urban and regional cities. The following overarching research question guides the research:

What international best practices and policy approaches addressing resilience and adaptation to climate change could be translated into the Australian context to meet the 2030 Agenda for Sustainable Development goals?

This overarching research question addresses three sub-questions:

- **RQ1:** What policies exist in Australia and globally aimed at improving sustainable urban development and addressing climate change?
- **RQ2:** What evidence exists of the positive impact of best practices in lessening the impact of natural disasters on cities' liveability and dwelling supply?
- **RQ3:** How could the best practices identified in responding to RQ2 be incorporated into urban policy in Australia?

Using a mixed-methods approach, the project explores Australian and international policies addressing climate change adaptation (desktop and literature analysis). It then presents three international case studies of best practices addressing hazardous natural events experienced in Australia: flooding, cyclones and bushfires. It discusses the adaptation strategies in the context of policy, governance and leadership structure. Finally, in discussion with experts (interviews), it investigates how these best practices and policy approaches could be implemented in Australia.



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