Home safe

National leadership in adapting to a changing climate

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CLIMATE CHANGE AUTHORITY

Ownership

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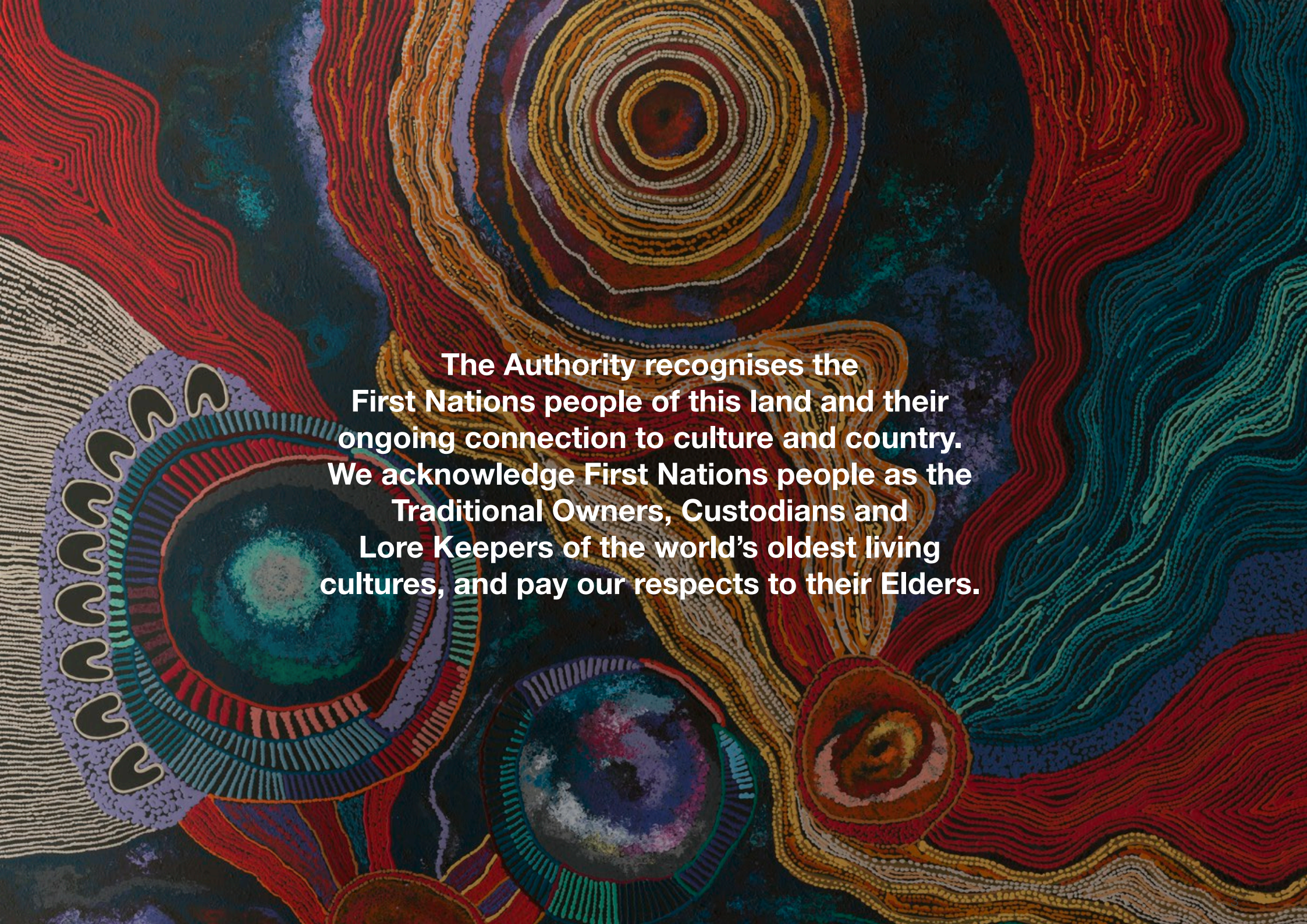
The Authority recognises the
First Nations people of this land and their
ongoing connection to culture and country.
We acknowledge First Nations people as the
Traditional Owners, Custodians and
Lore Keepers of the world's oldest living
cultures, and pay our respects to their Elders.

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Executive summary

Homes are more than just where we live. They are places of sanctuary, family and belonging. Homes are the biggest financial investments most Australians will ever make. Yet millions of Australian homes face escalating risks from natural hazards, which are growing more intense due to climate change.

Natural hazards take many forms, from floods and bushfires to coastal erosion and heatwaves. Hazards have become more frequent and severe as the climate continues to change rapidly. Right now, drought is hitting southern Australia while floods again inundate parts of the east coast, devastating communities across different regions at the same time.

As the climate changes, regions that were not previously at risk are also becoming affected. Ex-Tropical Cyclone Alfred is a recent example but will not be the last. More people are now living in higher risk areas, as urban development expands into hazard-prone regions. Households in high-risk areas, and those experiencing social and economic vulnerabilities, are being hit hardest by worsening climate impacts.

The Insurance Council of Australia estimates bushfires, cyclones and floods are already costing Australian homeowners around $4 billion annually.

These costs emerge from insured, uninsured and under-insured losses, mental health impacts, loss of housing and employment impacts. Without action to address the escalating risks posed by climate impacts, costs are estimated to grow to about $8.7 billion a year by 2050.

The costs of climate-related hazard events have been rising in Australia over the past 20 years.

The Australian Government currently spends an average of $1.6 billion a year on disaster recovery, in addition to what state, territory and local governments spend on disaster response. More frequent and severe climate-related events lead to increased insurance costs, adding to household bills. Between 2004 and 2022, climate-related factors contributed to a quadrupling in the average cost of Australian insurance premiums.

The impacts of climate change go far beyond the financial costs. Climate hazards harm wellbeing, health and safety.

Climate-related disasters impact people's lives in ongoing ways, with the potential for life-long consequences. Impacts include experiencing unstable living situations and homelessness, loss of community, ongoing physical and mental health impacts and reduced performance at school or work due to stress, trauma and displacement. Personal safety and security are also at risk, with studies demonstrating increased rates of family violence in the wake of climate-related disasters.

Research by the CSIRO, Australia's national science agency, found that every dollar invested in adaptation saves $2 to $11 in recovery costs. Investing in practical actions that reduce physical climate risks can help avoid or reduce financial and other hardships.

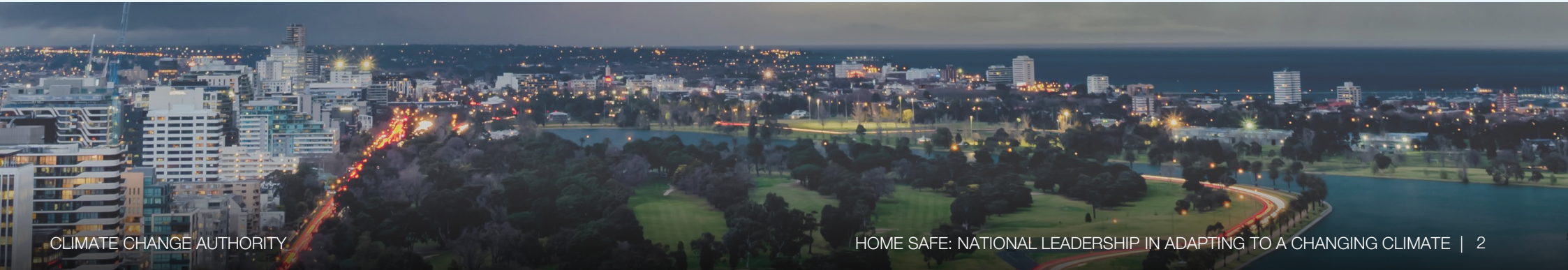
Reducing greenhouse gas emissions that cause climate change is an essential step in limiting future climate impacts. However, significant climate warming is already locked in for the next few decades because of past greenhouse gas emissions. This has created an urgent need to invest in adaptation to help limit harms.

National leadership, cooperation between all levels of government, businesses and communities, and increased investment in adaptation can help reduce the future costs and harms faced by Australian households. Governments can reduce the physical risks of climate change by:

- making appropriate investments in infrastructure and services
- ensuring standards, laws and regulations are fit-for-purpose for a changing climate
- equipping Australians with the information and resources to improve their decision-making.

The Australian Government can lead a coordinated, comprehensive and well-resourced national adaptation agenda which amplifies effort by all levels of government, businesses, and communities.

Communities, governments and businesses have made some progress in adapting to climate impacts. However, adaptation actions are fragmented, and current funding does not meet the scale of the challenge. Australia needs a coordinated and comprehensive strategy to ensure adaptation efforts are fit-for-purpose, aligned across governments and well-resourced. The Authority recognises the Australian Government's efforts in developing the first National Adaptation Plan as a critical step in Australia's adaptation journey. Ongoing monitoring and evaluation of progress against Australia's National Adaptation Plan can ensure the effectiveness and efficiency of measures to reduce the costs and harms that Australians face in a changing climate. The Australian Government agreed in principle to the recommendation in our 2024 Annual Progress Report for the Authority to play a role in this monitoring and evaluation



Chapter 1: Households across Australia are increasingly at risk

To date, 2025 has been a year of record-breaking climate disasters for many Australians. Flooding, extreme storms, drought and cyclones have struck rural, regional and urban areas alike. Australian homes, businesses and communities have been damaged in the process. There is a pressing need for the Australian Government to lead a coordinated, comprehensive and well-resourced national adaptation agenda.

Households across Australia face different types and levels of physical climate risk. The Intergovernmental Panel on Climate Change (IPCC) explains that a household's overall physical climate risk depends on four factors: hazard, exposure, vulnerability and response (IPCC, 2022b).

1. **The types of natural hazards experienced and how a changing climate may impact these hazards.** For example, homes in the New South Wales (NSW) Northern Rivers region experience riverine flooding due to severe storms and rainfall events, which are increasing in frequency and severity as the climate changes (AdaptNSW, 2025).
2. **The level of exposure of a household to hazards.** For example, homes built along the banks of rivers or in floodplains in the NSW Northern Rivers region are likely to face a higher level of exposure to flooding than homes built on higher ground (NSW Government, 2025).
3. **The vulnerability of the physical building and the household to hazards.** For example, older homes built at a time before consistent national building standards are particularly vulnerable when flooding occurs (ABCB, n.d.).
4. **The effectiveness and impacts of response actions taken to reduce physical climate risks (IPCC, 2020; IPCC, 2022b).** For example, the Government's forthcoming National Adaptation Plan will set the framework for Australia to manage physical climate risks.

Box 1 summarises findings from recent modelling and analysis on how Australian homes are likely to be exposed to physical climate risks. Actions which address the hazard, level of exposure and sources of vulnerability can reduce climate risks.

Climate adaptation is the process of adjusting to the current and future climate (IPCC, 2022a). It is a powerful tool to address the climate risks already faced by Australians, and to manage future risks that will emerge due to a changing climate. For example, planting trees and shrubs in urban areas can help reduce local temperatures by increasing shading and cooling the local climate (Santamouris et al., 2017).

Effective adaptation is essential for managing risks and minimising impacts and costs. However, there are circumstances where adaptation cannot manage all the risks from escalating climate change. This is why working to reduce emissions and limit the extent of warming is vital, alongside adaptation (IPCC, 2022c). Where reducing physical climate risk to a manageable level is not feasible, households will require support to consider alternative options like planned relocation.

Box 1: Australians' homes face significant climate risks

Currently **652,000 properties** around Australia **are considered at high risk** from one or more climate hazards, where insurance is considered unaffordable or unavailable. A further 1.55 million properties are at moderate risk and facing rising insurance costs as a result.

In the medium-term, over **3 million Australian properties are projected to be exposed** to some level of riverine flooding in the next 5 years, with 589,000 of these at high risk of becoming uninsurable. Riverine flooding is projected to reduce property values by a total of $170 billion by 2050, costing an average of $45,000 for each exposed property.

By 2100, up to **274,000 Australian homes**, **worth an estimated $72 billion,** will be affected by coastal erosion and inundation if sea levels rise by 1.1 metre under a high emissions scenario.

Sources: Climate Council, 2025; Climate Valuation, 2022, 2024; DCCEEW, 2011; UNSW, 2020.

1.1 Climate-related hazards are worsening

Climate change is amplifying many types of natural hazards, including fuelling more severe and frequent extreme weather events (ARC, 2023; CSIRO & BOM, 2024). For example, there is a demonstrated link between climate change and the dry and hot conditions which led up to, and exacerbated, severe bushfire events during the 2019–2020 Black Summer and the 2009 Black Saturday bushfires (Abhik et al., 2023; Oldenborgh et al., 2021). **Box 2** summarises evidence on the link between climate change and many types of natural hazards.

To reduce climate impacts, Australia needs to join with global partners to reduce greenhouse gas emissions and limit further warming. However, significant future impacts are unavoidable due to emissions already released into the atmosphere (CSIRO, 2025). For example, global sea levels are projected to continue rising, for at least decades and possibly millennia, even after global net zero emissions are reached (CSIRO, n.d.). As a result, flooding and storm surges will continue to become more frequent, increasing the risks for homes, communities, and infrastructure along Australia's coast (Coast Adapt, 2017). While some hazards may be unavoidable, acting now on emissions reduction and adaptation can reduce the harm from these hazards.

1.2 Households are increasingly exposed to the impacts of climate change

Climate change not only affects the frequency and severity of many natural hazards – it can also affect where they occur. Areas previously considered relatively safe are now experiencing hazards. This exposes more people and property to risk and increasing costs when hazards occur. For example, climate trends may mean that cyclones travel further south in the future, as Cyclone Alfred did in March 2025 (CCA, 2025). Cyclone Alfred put a significant number of people in harm's way – many of whom had never experienced a cyclone previously.

As Australia grapples with a growing population and housing shortages, outdated planning and development practices are failing to adequately consider physical climate risks (Environment and Communications References Committee, 2018). More Australians are now living in higher-risk areas, including along the coast in denser communities, exposing them to hazards like cyclones and coastal inundation (Boxshall et al., 2024). As Australia's major cities expand, housing developments are also gradually moving into more flood and bushfire-prone areas (Adedokun, 2024; ICA, 2022). This growth is increasing the number of people affected by climate-related disasters, in turn increasing the damage bill for individuals and governments.

Box 2: Climate change is altering natural hazards in Australia

Although it can be difficult to attribute a single natural hazard event to climate change, scientific evidence is clear: Australia's weather and climate are changing. Many hazards are expected to continue to become more frequent and severe, as the climate continues to warm.

Rising sea levels increase the risks of coastal inundation, storm surges, coastal erosion and damage to coastal infrastructure and communities, as well as causing seawater intrusion into coastal aquifers. Since 1900, global mean sea levels have risen by over 22 centimetres.

Increasing air temperatures lead to more frequent and extreme heat events. Australia's land areas have warmed by an average of 1.51 °C since 1910, with 2024 the hottest year on record.

Changing rainfall patterns are likely to lead to longer droughts in some regions. In other regions, warming is intensifying short-duration heavy rainfall events, increasing the risk of riverine and flash flooding.

Changing fire weather is leading to more extreme bushfires and longer bushfire seasons in much of southern and eastern Australia, as well as parts of western Australia.

A warmer and wetter atmosphere is associated with fewer but more intense tropical cyclones across northern Australia, with cyclone activity expanding further south. The rainfall accompanying cyclones is also likely to intensify.

Sources: ARC, 2023; CSIRO & BOM, 2024; ICA, 2022; WMO, 2025.

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1.3 Some Australians are more vulnerable than others due to physical, social, economic and environmental factors

In any given location, some properties and people experience greater vulnerability to hazards due to various physical, social, economic and environmental factors (UNDRR, 2017). Different experiences of vulnerability can drastically alter how a climate-related disaster impacts an individual, household or community, as well as their ability to recover after the event.

Physical factors, including the design and quality of buildings, can significantly influence the level of vulnerability households face. The quality and design of a building can make the difference between a house being mildly damaged in a disaster or completely destroyed. Many Australian homes are more vulnerable to hazards because they were not built to withstand Australia's current and future physical climate risks.

For example:

- In Queensland, standards requiring homes to be built to withstand cyclonic winds only apply north of Bundaberg, even though homes in the southern part of the state now also face increased risks of cyclonic winds from a changing climate (ABCB, 2022a; Get Ready Queensland, 2019).

- Poor building energy efficiency means many Australian homes are unable to maintain comfortable and safe temperatures during both heatwaves and cold snaps (ACOSS, 2025).

Social and economic factors, including income, disadvantage, and housing insecurity can also increase the vulnerability some Australians experience in the face of climate impacts. Experiences of vulnerability can exacerbate the already devastating outcomes of a disaster by creating pervasive and long-lasting impacts for those affected.

For example, people who are already struggling to maintain safe, suitable, and affordable housing may face limited alternatives when their accommodation is impacted by extreme weather. They are also less likely to have safety nets in place like insurance (Gurran et al., 2024). **Box 3** provides an example of how people can experience climate-related disasters differently.

Box 3: Impact of heatwaves

Heatwaves take more Australian lives than any other natural hazard including floods, bushfires and storms (ACS, 2025). Every year, heatwaves generate significant costs for Australians, including lost workdays and placing extra burdens on emergency and health systems. Heatwaves in Western Sydney alone are estimated to cost $1.4 billion a year and these costs are anticipated to rise to $6.8 billion a year by 2070 (WSROC, 2024).

Many Australians are not safe even in their own homes. In some cases, poor design and construction, low quality materials and a lack of appropriate cooling mechanisms like air conditioning mean that occupants cannot keep cool during a heatwave – putting them in danger. Outside of the home, the design and construction of the built environment can further intensify heatwave temperatures. Dark roofs, concrete, and roads, combined with a lack of trees and greenery, can all increase the urban heat island effect and extreme temperatures experienced during a heatwave (Santamouris et al., 2017).

Some Australians face elevated heatwave risks due to the tenure and type of housing they live in (**Figure 1**). For example, First Nations Australians living in remote communities are less likely to own their home and more likely to live in low quality, overcrowded housing (AIHW, 2023a). This reduces the capacity to upgrade the house, such as by installing air conditioning, and increases the number of people exposed during heatwaves. Australians living in social housing and private rentals face similar risks during heatwaves. Citizen science studies led by Better Renting in 2023 and 2024 found that temperatures inside rental homes during summer can be dangerously high, putting the health and wellbeing of tenants at risk (Better Renting, 2024).

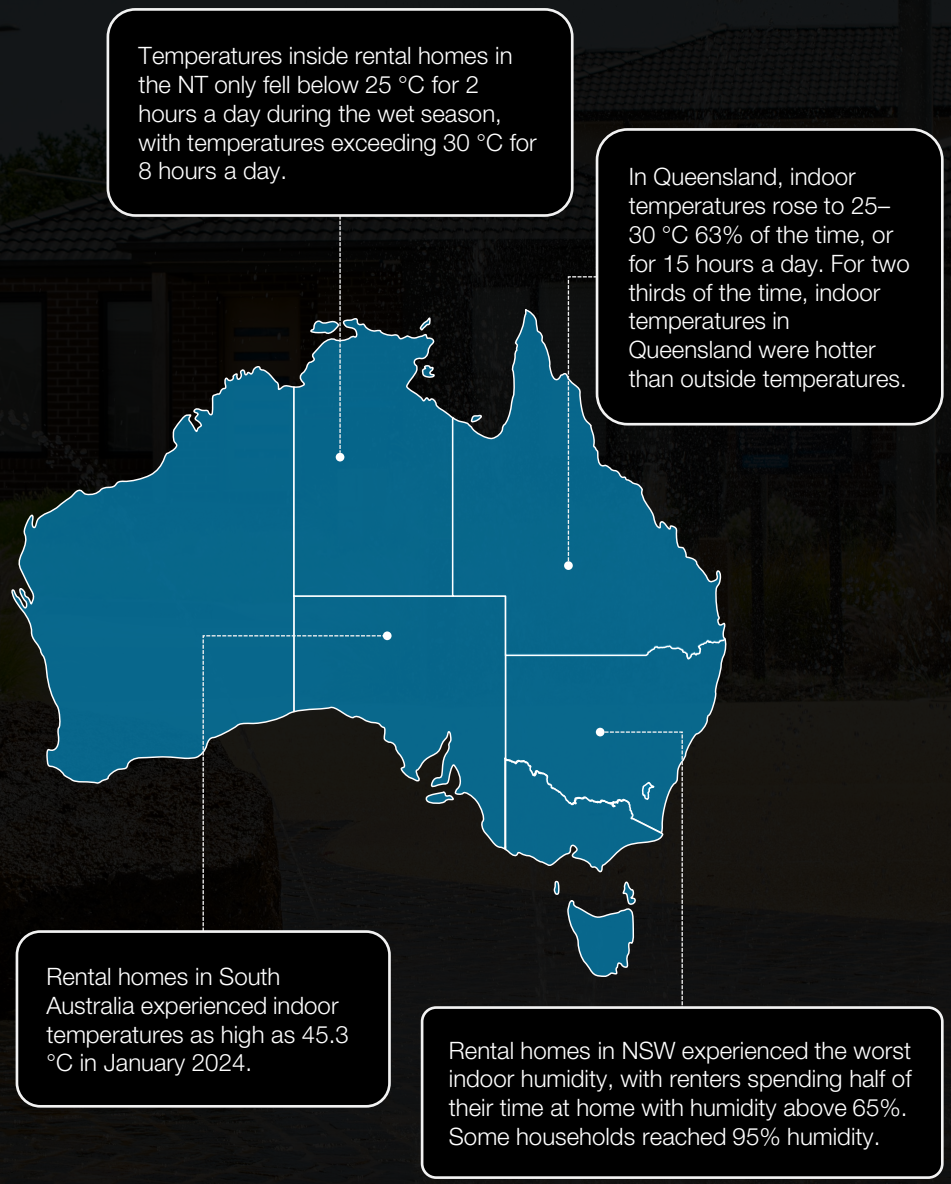
The cheaper the dwelling, the worse the heat and cold. My rental unit faces the wrong way and my bedroom bakes in summer. There is no insulation. The heat is debilitating. At 73 years old, my energy is limited, and heat and humidity drain me. … My energy bills are a constant worry.

– Queensland Resident (ACOSS, 2024)

My autoimmune issues mean that I don't function in heat nor in cold. Have trouble regulating body temperature. Feel ill. Fatigued. Exhausted. Weight gain from being unable to exercise because of the heat.

– Queensland Resident (ACOSS, 2024)

Figure 1: Rental property temperatures across Australia



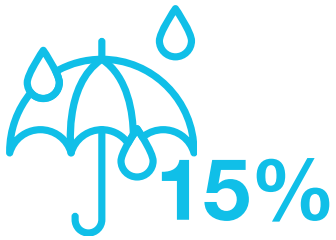
Chapter 2: The costs of climate impacts are rising

When climate-related hazards damage or destroy homes, people's economic security, possessions and memories can be lost in moments. The devastation to people's lives can be amplified if households are underinsured or have no insurance at all. Even before hazard events occur, the growing risks are imposing costs on Australians through higher insurance premiums, reduced property values, and a growing call on government budgets for disaster recovery.

2.1 Climate-related hazards damage homes and property

The direct costs of climate disasters are rising as they become more frequent and severe. Costs arise from damage to people's homes and possessions, along with the growing cost of managing physical climate risks via insurance. Figure 2 summarises recent evidence on cost-of-living impacts and projected future costs for Australians.

Figure 2: Financial costs of climate impacts to households



15% of Australian households experienced home insurance affordability stress in 2024.

Climate-related hazards are making insurance premiums more expensive, increasing cost-of-living pressures for households. In the first quarter of 2025, insurance claims for ex-Tropical Cyclone Alfred and the North Queensland floods exceeded $1.2 billion. Households experiencing affordability stress spent an average of 9.6 weeks of their gross income on home insurance, 7 times more than households that were not experiencing stress. Some households are now facing prohibitively expensive insurance costs of more than $30,000 a year. Without adequate insurance coverage, Australians risk losing homes and belongings they may have spent decades working to secure.

Sources: Actuaries Institute, 2024a; ICA, 2025b; Janda, 2021; Jones, 2025.

Extreme weather events currently cost Australians around $4 billion a year and have cost the Australian economy $2.2 billion just in the last six months.

Residential building damage from extreme weather events is estimated to cost an average of $2 billion a year for cyclones, $1.5 billion a year for floods and $486 million a year for bushfires. In 2050, these extreme weather events are projected to cost over $35 billion a year, an average of approximately $1,000 per Australian. This cost includes direct damages, insured and uninsured losses and the cost of government payments for recovery.

Sources: ICA, 2023; Messenger, 2025; Treasury, 2025; The McKell Institute, 2022.

Climate change is projected to wipe over $500 billion off the Australian property market by 2030.

Climate-related disasters can have a lasting impact on house prices in affected areas. The February 2022 floods in regional New South Wales impacted a total of 1,720 properties, of which 81% suffered major impacts or were destroyed. By March 2023, one year after the floods, house prices in the Northern Rivers region had fallen 22–30%, despite national home values rising 8.1% throughout 2023.

Sources: Climate Council, 2019; CoreLogic, 2024; Lismore City Council, 2022; NHSAC, 2024; RBA, 2021.

2.2 Social, health and wellbeing impacts go beyond direct costs

Alongside rising financial costs, Australians who experience – or are at risk from – climate-related hazards can face complex social, health and wellbeing impacts. The toll of these human impacts can be long-lasting. They can also generate new vulnerabilities for households, further reducing their ability to deal with future climate-related disasters.

Figure 3 provides insights from Australians who have experienced such events firsthand, highlighting the real impact climate change is having on personal lives and wellbeing.

Figure 3: Social, health and wellbeing impacts

Physical health

People whose homes are affected by extreme weather events report significantly poorer general health, physical functioning and increased pain, compared to people whose homes are not affected.

Economic modelling of bushfires in Australia from 2021–2030 estimated that additional healthcare costs relating to respiratory and cardiovascular health issues will amount to $110 million. There were over 9,100 hospitalisations for injury in Australia directly attributable to extreme weather between 2012 and 2022.

Sources: Ademi et al., 2023; AIHW, 2023b; Li et al., 2023

Being pregnant, I was highly concerned about my health and the impacts on my baby. Information seemed scarce and restricting myself indoors so frequently was concerning and disruptive to my wellbeing.

– Canberra resident, Australian Capital Territory (Australian National University, 2023)

Mental health

People who have lived through a climate-related disaster often experience adverse mental health impacts including anxiety, depression, post-traumatic stress disorder and a fear that a disaster will happen again. Mental health impacts can be worse for people who experienced insecure housing and financial hardship following extreme weather events.

Research has found the risk of experiencing adverse mental health outcomes can remain up to 10 years after an extreme weather event. Experiencing successive climate-related disasters is likely to worsen mental health outcomes.

Sources: Climate Council, 2023b; Gibbs et al., 2021; Li et al., 2023; Li & Leppold, 2025

The clean-up and the emotional toll is huge. Especially the months after – chasing up insurance claims, dealing with insurance companies constantly, coordinating trades to repair the house, stock taking losses. It's enormously draining and takes a toll on your mental health.

– Brisbane resident, Queensland (Climate Council, 2023a)

Poor living conditions

To avoid homelessness, people impacted by climate-related disasters are often forced to couch-surf or live in properties that are overcrowded, mouldy or without basic facilities.

Ten months after the 2022 Northern Rivers floods 52% of flood survivors were living in the shells of homes that had flooded and up to 18% were living in insecure accommodation such as emergency housing, tents, couch surfing or temporary rentals.

Sources: Archibald-Binge, 2022; Birch & Luke, 2022; NRCF, 2022

People are in a desperate situation. In the short term, people who are doing better have got mobile homes. Those who aren't doing so well are in dome tents in the mud. This is a desperate situation that needs urgent help. For the longer-term recovery, people have different needs. Some people aren't getting any support from their insurance, others want to rebuild, some want to raise their houses

– Lismore resident, New South Wales (Select Committee on the Response to Major Flooding across New South Wales in 2022, 2022)

Figure 3: Social, health and wellbeing impacts (cont.)

Education and workforce impacts

Stress, trauma and displacement can contribute to long-term impacts on academic performance.

Young Australians who experience disaster are 4.2% less likely to finish year 12, this is equivalent to approximately 28,200 children. The reduction in young Australians finishing year 12 leads to a loss of $2.9 billion in lifetime earnings or $100,000 per young person.

Sources: Mishra, 2023; NSW Department of Education, 2020; Robertson, 2024; UNICEF Australia, 2024

A few of the principals had to focus on getting fuel and getting food for the communities. It meant they could not do their core business of running the school. That impacted their wellbeing… When the principal was out doing the bus runs, it impacted on the everyday running of the school. That was really difficult.

– Fitzroy Crossing resident, Western Australia (Carter et al., 2024)

Family violence

Housing displacement can contribute to a rise in family violence and expose survivors of violence to unavoidable contact with abusive ex-partners.

Climate-related disasters and the uncertainty and insecurity following traumatic disaster events, can catalyse family violence. Following the 2009 Black Saturday bushfires, half of women interviewed reported experiencing family violence – many for the first time.

Sources: Chowdhury et al., 2022; Molyneaux et al., 2019; Parkinson, 2017; Parkinson & Zara, 2013

It's like I'm seeing this side of him that I never knew existed ... it's almost like a 360, this person you've gone from loving, you start thinking, 'I don't even know who you are mate'.

– Resident of Mitchell and Murrindindi shires, Victoria (Parkinson & Zara, 2013)

Connection to community and place

Climate-related disasters can sever ties to communities and local natural environments by displacing individuals and families.

Separation from long-established communities and environments can have profound wellbeing impacts – particularly for First Nations people. For First Nations communities, the loss of a home transcends the physical loss of a house and possessions. It can encompass the spiritual and cultural loss of songlines, sacred places, totems, traditional food and medicines, memories and histories.

Sources: Australian Red Cross, 2020; IFRC, 2021

The sight of this old tree with her crown removed brought warm, stinging tears to my eyes. It was a deep hurt of losing someone far older and wiser than me. Losing someone who was respected and adored. Someone with knowledge I cannot fathom or comprehend. When I told my mum that evening she reacted similarly, a personal and family loss. To others she might just be a big tree.

– Colo Heights resident, New South Wales (Cavanagh, 2020)

2.3 Costs to governments also cost Australian taxpayers

Without appropriate action to address the rising costs of climate-related disasters, all Australians, even those not directly affected, will end up paying more. More frequent, intense and costly disasters, combined with a growing number of underinsured and uninsured households, will increase the costs to governments and therefore taxpayers (CPD, 2025).

On average the Australian Government spends $1.6 billion a year on disaster recovery – even though it currently only budgets for around 13% of that amount ($215 million) (CPD, 2025).[1] However, the average annual cost of climate-related disaster recovery to the federal budget is growing (Colvin, 2024). For example, during the 2022 Queensland and NSW floods the Australian Government provided $3.47 billion in relief through the Disaster Recovery Allowance and the Australian Government Disaster Recovery Payment (Standing Committee on Economics, 2024). The Australian and state governments provided a further $7.45 billion through the Disaster Recovery Funding Arrangement to support flood recovery (Standing Committee on Economics, 2024).

As physical climate risks increase, costs to governments will only grow. Governments across Australia will be required to spend more tax dollars to cover the clean-up and recovery costs for communities (Carter, 2012; Colvin, 2024). This may require governments to increase taxes, reducing the funding available for other vital infrastructure and services.

[1] *This is the average of the 10 budgets to FY 2022-23.*

Chapter 3: National leadership can reduce climate risks

Australia can limit the risks of a changing climate by prioritising and investing in adaptation, in turn reducing the costs of response and recovery. The Australian Government is well-placed to lead the adaptation effort through a coordinated, comprehensive and adequately resourced national strategy, known as the National Adaptation Plan (DCCEEW, 2025). The Authority recognises the Australian Government's efforts to date in developing the forthcoming National Adaptation Plan as a critical step in Australia's adaptation journey.

There is a clear economic case for resourcing adaptation: every dollar governments invest in climate adaptation or disaster risk reduction is estimated to save between $2 and $11 in future recovery costs, as illustrated in **Figure 4** (CSIRO, 2021).

National adaptation plans are the global standard for national governance of climate adaptation (UK Government, 2024; UNFCCC, 2024). They have been adopted by both developed and developing countries (Ministry for the Environment, 2022; UK Government, 2024; UNFCCC, 2025a, 2025b). As adaptation is a continuous process, these plans should be regularly monitored and updated (IPCC, 2014). The Australian Government has committed to deliver a National Adaptation Plan and Australia's first National Climate Risk Assessment (DCCEEW, 2025). The Australian Government should now prioritise the opportunities for action set out below as part of this important national framework.

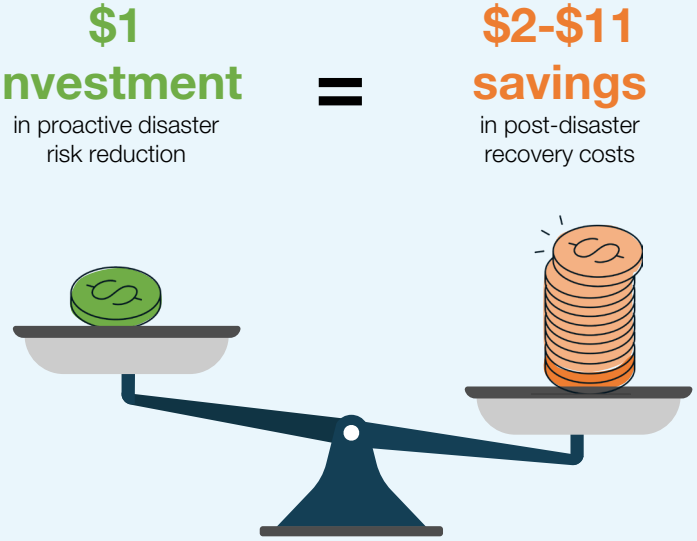
3.1 Strategic leadership can coordinate adaptation investments

National leadership is crucial for coordinating investment in adaptation to reduce climate-related risks for households. Coordinated investment can unlock benefits beyond adaptation, with the possibility of cutting emissions, creating more comfortable homes, and minimising cost-of-living increases through energy and insurance bill relief (Climateworks, 2023; ICA, 2024, 2025a). To unlock these benefits the Australian Government needs to increase funding for adaptation measures and services (Actuaries Institute, 2024a, 2024b). For example, future iterations of the National Adaptation Plan can provide the framework for directing funding to specific adaptation projects and ensuring that government investment in infrastructure considers climate impacts.

The Australian Government is best placed to ensure that investments by other governments, the private sector, and communities are coordinated and directed effectively (Actuaries Institute, 2024a; IGCC, 2024b; Murphy & Parry, 2024; Select Committee on the Impact of Climate Risk on Insurance Premiums and Availability, 2024). Governments can coordinate investment and action from the private sector and other jurisdictions for adaptation projects such as the construction of seawalls or flood levees (IGCC, 2024a; OECD, 2024).

Figure 4: Return on investment of proactive disaster risk reduction

Investment in proactive disaster risk reduction can deliver up to 10 times the savings in post-disaster recovery costs.



3.2 Fit for purpose standards, laws and regulations can prepare Australians to face current and emerging risks

The National Adaptation Plan can guide the Australian Government's review of standards, laws and regulations in place across relevant sectors for their suitability in a changing climate. In implementing the Plan, the Australian Government should update frameworks to address known or emerging climate-related risks.

For example, the National Construction Code (NCC) sets minimum construction standards for new buildings and a small number of existing buildings in Australia (ABCB, 2023). The NCC is periodically updated and has already played a role in climate adaptation through increasing fire safety standards and introducing requirements for fire-resistant features on buildings, and through features to protect from cyclone impacts (ABCB, 2022b; Walker, 2010). It could provide a mechanism to continue lifting standards for new buildings. Aligning the requirements of the NCC with projected climate impacts could help make homes more resilient – for example by ensuring houses are built to withstand cyclones across more parts of Australia where severe storms may occur in future. Beyond individual houses, urban and land use planning reform can help prevent construction in high-risk areas and reduce exposure of homes to climate-related hazards (AHURI, 2025; ICA & PIA, 2024).

Other reforms can help uplift the safety of existing buildings and infrastructure, such as minimum energy performance standards for rental properties, and incorporating future climate into the design of major infrastructure.

3.3 Information and resources can equip Australians to make choices to reduce climate risks

Households can contribute to reducing their physical climate risks with access to the right information and support.

Many households and communities do not have the necessary data, tools and finance to understand their risks, or develop effective plans to manage them (Foxwell-Norton et al., 2019).

Some public resources exist, such as the Queensland Government's digital tool for household and small business risk management, and the Australian Red Cross's tool for community climate adaptation discussions (Australian Red Cross, 2017; Queensland Treasury, 2025). These tools are valuable and could be augmented by authoritative physical climate risk information, adaptation guidance and financial support.

The Australian Government has a strong track record of leading in adaptation research, most notably with the establishment of the National Climate Change Adaptation Research Facility (NCCARF) in 2008, which ran for 8 years. A newly established Adaptation Database continues this work and demonstrates many examples of adaptation research that were initiated through the NCCARF (University of Melbourne, 2025). The Government is best placed to continue to provide national leadership, coordination and supplementary resourcing for adaptation, working with the states, territories and local governments. With this support in place, different levels of government, communities, and businesses can share responsibility for providing households with adaptation support tools (Department of Home Affairs, 2018).

A well-resourced and effective national climate service can underpin adaptation efforts by providing authoritative climate and natural hazard information. The 2024 review of the Australian Climate Service noted that, while climate and hazard information is urgently needed and in high demand, the service in its current form cannot meet national climate information needs (O'Kane et al., 2024).

With better information, Australians can make informed decisions about where to build or buy a new home, whether to rebuild after a climate-related disaster or relocate, and what steps to take to reduce their home's physical climate risks.

For existing households, the risks they face may be extreme or unavoidable, with no viable adaptation options.
National leadership is needed to provide further support and guidance for households and regions experiencing such risks. Through a national strategy focusing specifically on relocation, the Australian Government can partner with other levels of government and communities to explore a full suite of well managed place-based adaptation measures, including managed retreat, planned relocation and property buy backs (Hay et al., 2024). The National Adaptation Plan can lay the foundations for this vital work.

3.4 Ongoing monitoring and resourcing can ensure adaptation efforts make a difference to increase national resilience

The National Adaptation Plan can coordinate the implementation of adaptation actions and drive them towards the common goal of ensuring Australians and can better withstand a changing climate. Ongoing monitoring and evaluation of progress is important for ensuring that governments direct funding to where it is needed most over time.

The Climate Change Authority has previously recommended making the release and review of iterative National Adaptation Plans and National Climate Risk Assessments a legislated government responsibility (CCA, 2023, 2024). Australia should also align with best practice established by international peers and implement regular periodic reviews of progress against the framework adaptation plans and risk assessments provide. The United Kingdom and New Zealand have legislated their respective independent climate advisory bodies to report on progress on delivering each country's national adaptation plan or program every 2 years (He Pou a Rangi CCC, 2025; UK CCC, 2025). With appropriate resourcing, the Authority would be well-placed to assume this role within a strengthened national adaptation framework.

Glossary

Term	Meaning
Adaptation	In human systems, the process of adjustment to actual or expected climate and its effects, in order to moderate harm or exploit beneficial opportunities. In natural systems, the process of adjustment to actual climate and its effects; human intervention may facilitate adjustment to expected climate.
Buy backs	Government-funded programs that purchase homes in areas that are or could be affected by disasters.
Climate extreme (extreme weather or climate event)	The occurrence of a value of a weather or climate variable above (or below) a threshold value near the upper (or lower) ends of the range of observed values of the variable. For simplicity, both extreme weather events and extreme climate events are referred to collectively as 'climate extremes.'
Climate risk	The potential for adverse consequences for human or ecological systems, recognising the diversity of values and objectives associated with such systems. In the context of climate change, risks can arise from potential impacts of climate change as well as human responses to climate change. Relevant adverse consequences include those on lives, livelihoods, health and wellbeing, economic, social and cultural assets and investments, infrastructure, services (including ecosystem services), ecosystems and species.
Climate services	Climate services are the provision and use of climate data, information and knowledge to assist decision-making.
Disaster	A serious disruption of the functioning of a community or a society at any scale due to hazardous events interacting with conditions of exposure, vulnerability and capacity, leading to one or more of the following: human, material, economic and environmental losses and impacts.
Exposure	The presence of people; livelihoods; environmental services and resources; infrastructure; or economic, social, or cultural assets to hazards that could result in adverse effects upon them.
Hazard	The potential occurrence of a natural or human-induced physical event that may cause loss of life, injury, or other health impacts, as well as damage and loss to property, infrastructure, livelihoods, service provision, and environmental resources.

Glossary (cont.)

Term	Meaning
Heatwave	A period of three or more days where maximum and minimum temperatures are unusually high for a given location.
Managed retreat (see planned relocation)	A planned effort to permanently relocate people, assets, and infrastructure away from areas at risk.
Mitigation (of disaster risk and disaster)	The lessening of the potential adverse impacts of physical hazards (including those that are human-induced) through actions that reduce hazard, exposure, and vulnerability.
Planned relocation (see managed retreat)	A planned effort to permanently relocate people, assets, and infrastructure away from areas at risk.
Resilience	The ability of a system and its component parts to anticipate, absorb, accommodate, or recover from the effects of a hazardous event in a timely and efficient manner, including through ensuring the preservation, restoration, or improvement of its essential basic structures and functions.
Storm surge	The temporary increase, at a particular locality, in the height of the sea due to extreme meteorological conditions (low atmospheric pressure and/or strong winds).
Urban heat island	The relative warmth of a city compared with surrounding rural areas, associated with changes in runoff, the concrete jungle effects on heat retention, changes in surface albedo, changes in pollution and aerosols, and so on.
Vulnerability	The propensity or predisposition to be adversely affected.
Wellbeing	A state of meeting various human needs, some of which are essential, and includes the ability to pursue one's goals, to thrive and feel satisfied with their life.

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