

Community Housing Climate Action Network (CHCAN) Roadmap

National Risk Scan

This National Risk Scan has been adapted from the Appendix of the [National Climate Risk Assessment – First Pass Assessment Report](#) to capture the key risks that may be relevant to CHOs in Australia.

Australia has a number of systems, including the natural environment, food production, infrastructure, health, regional and remote, which are all at risk from climate change impacts. Direct and some indirect climate change impacts include acute, chronic and slow onset changes that give rise to a number of risks with local, regional, national and international implications. With these risks are also opportunities that can arise from climate change, however this document is focussed on identifying the key national risks.

Risk descriptions refer to current risks and future risks, roughly to the end of the century.

Notes:

- The use of 'extreme' or 'extreme events' includes increased severity or frequency of those events.
- The use of 'climate events' or 'climate impacts' includes increased severity of those impacts with greater warming or over time.
- Natural environment system means Australia's ecosystems, biodiversity, and natural processes, which includes: the ocean, coastal areas and shorelines, national parks, rangelands, grasslands, forests and bushland and other natural landscapes. It is highly interdependent and supports other systems including food, regional and remote communities and First Nations values and knowledges systems.
- Food system means land, marine, and estuarine activities that form part of the process to produce food, fibre, wood, fuel, and other products from extraction to the consumer.
- Infrastructure and built environment system means man-made structures, including physical buildings, green and blue spaces, transport, water, and energy systems.
- Health system and services means population health and wellbeing, including the provision, availability, and access to healthcare, public and preventative health, aged care, disability services, housing support, employment and financial wellbeing.
- Regional and remote communities means natural, social, economic, and built aspects of communities outside of major urban areas, including: regional centres, towns, remote communities, mining settlements, small islands and external territories.

Climate Change Risks

Table 1 Key national risks for CHOs

Risk statements	Risk description	Risk Category
Risks to disaster response and recovery assistance from competing needs in responding to multiple natural hazard events, resulting in concurrent pressures and overwhelming the CHOs capacity to respond effectively.	Climate driven extreme events place greater pressure on emergency services, economies and communities to respond and recover. An increase in climate-related events may result in more pressure and expectation for CHOs to assist the community with response and recovery activities. This will place a greater strain on CHOs from managing competing needs to respond to multiple issues, including emergency response and the lack of resources to do both.	• Organisational capacity (resources and budget)
Risks to personnel health and safety that limit workforce productivity and periodically limit operations.	These impacts could affect both the physical and mental health of staff and reduce the ability to respond to and manage emergencies. Climate-related health impacts could reduce the ability of personnel to function effectively. This could reduce workforce productivity and limit operations, and may decrease employment retention.	• Staff health and wellbeing
Risks to emergency preparedness, response and recovery, critical and supply chain infrastructure that provide access to essential services that result in extended periods of isolation. Risks to community cohesion and resilience through exacerbated outmigration, environmental	Damage to infrastructure (such as transport (roads, rail), utilities (energy and water), telecommunications, healthcare (including hospitals, emergency, medicine, medical centres) from extreme weather may lead to extended periods of isolation and disrupt the provision of essential services, with flow-on impacts to other activities that rely on these services as critical inputs. Isolation can hamper immediate response efforts and also complicate the recovery processes, putting further pressure on CHOs to provide the necessary support and services to their communities.	• Organisational capacity (resources and budget) • Tenant health and wellbeing

Risk statements	Risk description	Risk Category
degradation, decreased liveability, and increased inequality and conflict. Risks to supply and service chains from climate change impacts that disrupt goods, services, labour, capital and trade.	Increased risks of health complications and mortality due to decreased delivery, availability and increased cost of essential services such as health services, energy, water, food and transport. If access to financial services, accessibility and cost of food, energy and transportation are frequently impacted this can adversely impact household resilience to prepare, respond and recover from climate-induced crises. This may exacerbate household vulnerability and deepen social inequality over competing demands for shared resources. It may also result in increased outmigration and workforce disruption. If environmental conditions worsen, the liveability and community wellbeing could be negatively impacted with possible flow-on impacts to community cohesion and long-term resilience. Climate-related impacts to critical and essential infrastructure will also increase the need for repairs and maintenance. This would lead to increasing demand for supplies, and potentially competition for limited resources. An extended disruption or stresses in supply chains may negatively impact the economic viability of remote areas, e.g., from cost increases and labour shortages. Rural, remote and First Nations communities are most at risk as all of the above can exacerbate their existing vulnerabilities due to fewer and more susceptible access routes to dispersed populations with greater distances from critical services.	
Risks to CHO finances and capacities that increase expenditure and increase demands from tenants.	Increased construction and repair costs for housing will result in higher expenses. High demand in the affected area for repairs may pose delivery challenges. The costs to CHOs of emergency response and recovery during and after natural disasters may increase. Diversion of costs and attention may increase the risk of maladaptation to climate change.	• Organisational capacity (resources and budget)
Risks to health and wellbeing from slow onset and extreme climate impacts including increasing temperatures, heat extremes, storms, floods, and bushfires.	Risks to human health and wellbeing from climate change can arise from (but are not limited to): • extreme climate events such as bushfires and floods, • climate-related hazards such as heat and air pollution, • land use change and loss of native habitat (for animals)	• Staff health and wellbeing • Tenant health and wellbeing

Risk statements	Risk description	Risk Category
	and result in the following (but not limited to): • increase in transmission of and exposure to communicable and non-communicable diseases; • the emergence of novel diseases; • impacts to mental health and wellbeing; • an increase in injuries and mortality; • increase in food-borne diseases such as Salmonella and Campylobacter • increase exposure to zoonotic diseases. Increase in average temperatures, hot days, and heatwaves cause higher incidences of heat-related illness and mortality. This can result in heatstroke and exacerbate cardiovascular, renal, and respiratory diseases. Indoor and outdoor air quality impacts include: increased bushfire smoke, altered production of allergens (including thunderstorm asthma), increased indoor mould from flooding. The health impacts of heat and extreme weather can also result in more accidental and occupational injuries. This has follow-on impacts including reduced or lost economic productivity. Heatwaves, when compounded with vulnerability factors such as low-quality housing, can also impact mental health and general wellbeing. Extreme weather events can impact waste management services, which can lead to an outbreak of communicable diseases or threaten public health and safety due to the increased risk of disease transmission from the waste generated from these events. Disruption and damage to farms from extreme weather events may cause food shortages. This may disproportionately impact at-risk populations who may not be able to afford fresh products. Extended and frequent disruptions that remain unaddressed could result in detrimental health outcomes. Climate change migration can impact human health, wellbeing and livelihoods for both the populations who are moving and for the communities they settle in. Certain groups are more vulnerable including: older, younger, and pregnant people, occupationally exposed workers, those with pre-existing illnesses, those with poor	• Organisational capacity (resources and budget)

Risk statements	Risk description	Risk Category
	quality or insecure housing, and First Nations and culturally and linguistically diverse communities.	
Risks to health and wellbeing of individuals and communities in exposed and vulnerable situations that increase inequity as a result of impacts on the wider determinants of health, and reduce access to health and social support services	Extreme events and other climate-related impacts may exacerbate existing health and wellbeing inequities and the capacity and capability of support service providers (including healthcare access) to bridge the gap. At-risk communities include regional and remote communities, the very young, the elderly, culturally and linguistically diverse communities, socio-economically disadvantaged, First Nations, and those with pre-existing illnesses. Increased physical and mental health risks from compounding, co-occurring and cascading climate events (such as drought, flooding and bushfires) could worsen existing inequalities for rural and remote communities. The could have flow-on impacts affecting individual and community wellbeing and resilience. Increased risks of health complications and mortality due to decreased delivery of essential services such as health services, energy, water, food and transport.	• Tenant health and wellbeing
Risks to mental health and wellbeing including post-disaster trauma, climate anxiety, and a lost sense of belonging and connection to Country	Climate-related impacts increases the incidence of mental and psychosocial ill health. Examples include: • post disaster stress and trauma, • the effects of a loss of place, solastalgia, • reduced connection to Country, • heightened anxiety about climate change (climate anxiety), • increased social isolation. • Changes in societal dynamics (such as community cohesion) due to loss or change in the urban natural environment.	• Staff health and wellbeing • Tenant health and wellbeing
Risks to health and wellbeing from compromised ecosystem services that support food and water security and other services.	Ecosystem services are produced from environmental assets (land, water, vegetation and atmosphere) that support the production of food, water, fuel and fibre. A loss or damage to the system providing food and water could have wide-reaching impacts on human health and the health system. This could result in poor nutrition and increased disease from poor water quality.	• Staff health and wellbeing • Tenant health and wellbeing

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	Existing inequalities may be exacerbated and more vulnerable populations are likely to be at high risk. Regional, remote and First Nations communities are commonly highly dependent on nature for the ecosystem services it delivers (e.g., food, fibre, water, timber, biodiversity, amenity and medicines). Ecosystem changes due to climate change may increase the vulnerability of these communities and be detrimental to their lives. The impacts of climate change could negatively impact rural livelihoods, farming and fishing communities and supply chains designed around natural environments.	
Risks to health and wellbeing of First Nations peoples that increase food, water, energy and housing insecurity, and impact connection to Country. Risks to biosecurity from invasive pests, diseases and weeds that affect the economic and intrinsic value of landscapes that support regional, remote and First Nations livelihoods.	Climate change is likely to increase the risk of food, water, energy and housing insecurity for communities in regional and remote areas. First Nations peoples may be more vulnerable, particularly those living in remote and coastal areas. Impacts to First Nations peoples could include the loss of connection to Country, cultural heritage, traditional practices and resilience techniques; changes to hunting and harvesting grounds; and displacement of native food sources. Constrained supply and quality of food and water, combined with increased costs of disaster recovery, could negatively impact First Nations communities and traditional Indigenous economies. Displacement from Country and decreased delivery of essential services such as health services, energy, water, food and transport could also impact the health and wellbeing of First Nations. Impairment of living conditions may also be compounded through a loss of services, amenities, significant cultural places and other attributes valued by local communities. This may have a cascading impacts onto community resilience and social cohesion. Extreme events could impact access, benefits from, or work to manage or conserve land and sea. It could also impact First Nations' ability to be on, move through and care for Country. Potential long-term impacts include an increase in migration away from some regions, especially for already impacted or highly exposed communities.	• Staff health and wellbeing • Tenant health and wellbeing

Risk statements	Risk description	Risk Category
Risks to water supply availability, quality and management systems that may decrease water security and exacerbate water scarcity issues	Events such as extended drought, extreme heat, floods and increased rainfall variability increase risks to water quality, security and scarcity issues. They can impact wastewater management and increase pollution of the natural environment, impacting water quality. These conditions may lead to heightened competition among various users including fire fighting, food production, energy production (hydropower), industrial processes, environmental needs, housing for displaced people and drinking water supplies. The challenge of allocating limited water resources among these competing needs could lead to conflicts over access to water in an extreme case. These pressures may create flow-on risks if systems that support or deliver water fail or are cut off. A flow on risk from lower water quality includes the spread of disease, contamination or pollution.	• Staff health and wellbeing • Tenant health and wellbeing
Risks to species, through loss and extinction that affect ecosystems, ecological and human communities, and intrinsic, cultural and economic values	Compounding and cascading climate events and impacts may result in the loss of keystone species with potentially adverse impacts to ecosystems. These events and impacts may mean that many species cannot adapt or recover, especially as they are already under pressure from land use change, habitat loss and human population. Species extinctions may lead to the loss of social, cultural, and economic values from iconic, keystone or economically important species and in the longer term, to food system collapse for both First Nations peoples and non-indigenous communities. There may be flow-on impacts to health, mental health and connection to culture, such as significant impacts on First Nations if totemic species become extinct or due to shifts in indigenous seasons.	• Staff health and wellbeing • Tenant health and wellbeing
Risks to communities from legacy-and-future planning and decision-making that increases the vulnerability of settlements	Sea-level rise and extreme weather events, such as floods and bushfires, will have significant impacts on communities. Increased frequency or severity in these events could lead to community displacement and domestic outmigration. This may result in: • lowering community resilience by weakening community connection, • increasing vulnerabilities and social inequalities, • increased pressure on CHOs to respond appropriately.	• Staff health and wellbeing • Tenant health and wellbeing • Organisational capacity (resources and budget)

Risk statements	Risk description	Risk Category
	Insufficient building and infrastructure planning and regulation, (such as development in flood-prone zones or reduced thermal performance in homes) may worsen the impacts and negatively impact housing occupancy levels. For example, community housing tenants may be more exposed to climate hazards are likely to disproportionately suffer, as CHOs may not be able to afford to retrofit homes to improve their thermal comfort.	
Risks to the real economy from acute and chronic climate change impacts, including from climate-related financial system shocks or volatility	Financial shocks, crises and tipping points due to climate change could create macro-economic shocks through economic volatility. The production, purchase and flow of goods and services in the economy could suffer long-term impacts as a result. This could lead to an increase in the cost of living that widens inequalities, such as an increase in insurance costs or reduced insurance availability, increased health, food and water costs. This would erode the adaptive capacity of individuals and households. A possible worst-case example would be the withdrawal of financial services (e.g., insurance and lending) from vulnerable communities due to increasing extreme events. These financial shocks could have cascading effects on infrastructure and the built environment (e.g., house prices and repair costs), potentially exposing communities with flow-on impacts to health, social support and food and water systems.	• Organisational capacity (resources and budget) • Staff health and wellbeing • Tenant health and wellbeing
Risk to adaptation from maladaptation and inaction from governance structures not fit to address changing climate risks	Inflexible governance structures (both public and private) will reduce the ability for communities and organisations to respond and appropriately adapt to climate change as new data arises (e.g., climate science). Equally, the potential for maladaptation, where actions and plans intended to be beneficial, increase risks in the long term. A lack of coordination could lead to fragmented or conflicting approaches. This would hinder effective climate adaptation. Responding to the compounding effects of climate change may result in financial and technical resource constraints. Misalignment between critical climate risks and governance priorities could hinder cohesive adaptation strategies and their effectiveness. This is true especially if critical vulnerabilities are inadvertently excluded.	• Organisational capacity (resources and budget)

Risk statements	Risk description	Risk Category
Risks to social cohesion that cause polarised or fearful social environments, leading to domestic security challenges and civil unrest due to unplanned movements of people.	The combined impacts of international events (such as humanitarian crises, climate impacts in other countries (e.g., food and energy shortages, displacement and migration)) and climate change impacts in Australia (unplanned migration, travel and displacement) could destabilise social cohesion. Unplanned climate-related travel could arise from the avoidance of hazards or in their aftermath and temporary or permanent migration in or out of Australia. Unplanned and/or involuntary migration and displacement could lead to civil unrest and disrupt industries and employment. The resilience of regional employment becomes crucial to overall sustainability and prosperity in communities facing the challenges of adapting to climate change and navigating economic change. Flight disruptions from extreme weather events or predictions could limit evacuation of areas at risk, delivery of emergency supplies, and critical regional connections. Cascading and compounding extreme events and hazards could negatively impact emergency services and lead to a flow-on adverse impact on the capacity of CHOs to provide support. In an extreme case this could lead to civil unrest from a breakdown in community ties and social cohesion. Changes in domestic migration, community displacement and relocation due to climate impacts (including buildings and infrastructure that become inhospitable), can increase the pressure in the communities left behind and in the new host communities to respond or react appropriately. Lower socioeconomic communities who will find it difficult to pay for retro-fits and those in geographical locations heavily impacted by climate hazards, could disproportionately suffer more than others.	• Organisational capacity (resources and budget) • Staff health and wellbeing • Tenant health and wellbeing
Risks to buildings and building liveability that reduce building life expectancy and increase maintenance and running costs	Changes in coastal and shoreline areas, wind and extreme weather events could cause damage or fatigue to buildings structures. This accelerated degradation of materials, structures and foundations of buildings could also occur through ground shifts (sub-soil movements). This could reduce the life expectancy of buildings, increase maintenance costs and lead to possible structural failure.	• Organisational capacity (resources and budget) • Staff health and wellbeing

Risk statements	Risk description	Risk Category
	Increases in extreme temperatures and heatwaves will impact building occupancy, liveability and lead to higher costs and need for heating and cooling.	• Tenant health and wellbeing
Risks to vulnerable environments and interconnected ecosystems , such as mangroves, reefs and green spaces, that buffer against other disturbances and provide critical ecosystem services	The tipping points of natural environments are vulnerable to climate change impacts and consist of complex and interconnected ecosystems. Impairment of natural environments that have critical ecosystem functions will have significant cascading impacts to species and communities. Natural environments that may surround community housing include mangroves, ground water systems, wetlands, marshlands, green spaces in cities, grasslands, and connecting corridors. Climate change may reduce the critical functions provided by natural environments, such as habitat provision, and related buffering services, including storm surge mediation, water oxygenation, reduction of heat islands in urban spaces, and amenity. Impacts on one can create a ripple effect of compounding and cascading impacts. The rate of degradation and loss of the environments they buffer may increase due to damage to these critical environments due to climate change.	• Organisational capacity (resources and budget) • Staff health and wellbeing • Tenant health and wellbeing
Risks to governance systems that leave regional communities and institutions increasingly marginalised and decrease their ability to adapt	Misalignment and differences between federal, state and neighbouring local governments could impair the effectiveness of providing community support. Administration challenges and a lack of clarity on responsibilities for managing risks or adaptation action can result from complex governance structures. This may result in communities continuing as is, while at heightening risks of climate change impacts, reducing resilience and ability to adapt. As hazards increase in these regions and migration out occurs, the capacity to respond with sufficient time will greatly diminish.	• Organisational capacity (resources and budget) • Staff health and wellbeing • Tenant health and wellbeing



The Roadmap and associated resources have been prepared for use by Community Housing Organisations across Australia to support their journey in building climate resilience into the homes they own and/or manage to enable better outcomes for their tenants and contribute to reducing the worst impacts of climate change.

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