

Assisted Relocations

a community-centred approach

Discussion paper prepared by Suncorp Group and Natural Hazards Research Australia

November 2023



TT I A THE

















Disclaimer: Natural Hazards Research Australia and AAI Ltd trading as Suncorp Insurance advise that the information contained in this publication comprises general statements based on scientific research. The reader is advised and needs to be aware that such information may be incomplete or unable to be used in any specific situation. No reliance or actions must therefore be made on that information without seeking prior expert professional, scientific and technical advice. To the extent permitted by law, Natural Hazards Research Australia and AAI Ltd trading as Suncorp Insurance (including its employees and consultants) excludes all liability to any person for any consequences, including but not limited to all losses, damages, costs, expenses and any other compensation, arising directly or indirectly from using this publication (in part or in whole) and any information or material contained in it.

All material in this document, except as identified below, is licensed under the Creative Commons Attribution-Non-Commercial 4.0 International Licence.

Material not licensed under the Creative Commons licence:

- Natural Hazards Research Australia logo

- Suncorp logo Australian Government logo Any other logos All photographs, graphics and figures

All rights are reserved in content not licenced under the Creative Commons licence. Permission must be sought from the copyright owner to use this material



Assisted Relocations

- 2 Overview
- 4 What is assisted relocation about?
- 6 Australian context: climate adaptation responsibilities
- 7 Australian context: recent developments
- 8 International context
- 10 Recent developments in New Zealand
- 12 Case for further government action on assisted relocations
- 14 Issues for further consideration
- 16 Case studies
- 22 Reform directions: overview
- 24 Reform directions: end state
- 25 Reform directions: policy ideas
- 26 Insurance product innovations to help with assisted relocations
- 28 Sources



Overview

Purpose of this paper

This paper was jointly prepared by Suncorp Group and Natural Hazards Research Australia. It aims to help drive a national conversation across the government, research, community and corporate sectors about assisted relocations (moving communities from high natural hazard risk areas to lower risk areas) as one of the options in an integrated, locally tailored, risk-based approach to improve natural hazards resilience.

The conversation around assisted relocations is one that has been underway in recent years in Canada and New Zealand; it is the right time for the conversation to begin in Australia. There is considerable research to support this analysis, from academia and other participants, including Insurance Australia Group (2023) which has already made a timely contribution to this debate. We acknowledge these contributions and look forward to working together with these organisations.

In the aftermath of the 2019-2020 Black Summer bushfires and the 2022 eastern Australia floods, Australian governments have taken decisive action to build up our natural hazard resilience. The Australian Government has taken the lead by setting up the Disaster Ready Fund, the Hazards Insurance Partnership, and establishing the new National Emergency Management Agency. The Second National Action Plan to implement the National Disaster Risk Reduction Framework is another important initiative. Queensland and New South Wales governments have responded by setting up Resilient Homes Funds jointly with the Commonwealth Disaster Recovery Funding Arrangements.

These examples demonstrate that Australian governments are willing to listen and take action to improve our natural hazard resilience.

This paper reflects discussions at a roundtable event hosted by Suncorp Group and Natural Hazards Research Australia on 7 September 2023 in Canberra. CEOs, executives, researchers, government leaders and community partners came together to discuss the role that assisted relocations can play in building Australia's natural hazard resilience.

At this roundtable, participants discussed the assisted relocation of Grantham, Queensland, as an important case study, but noted it was a model that may not be easily replicated. Each community will have specific circumstances and needs to consider.

Participants noted the experience of forced relocations for First Nations peoples and the need for detailed consultations to ensure these perspectives were included throughout the decision-making process.

What is the role of governments?

This is a complex issue and we should not look for easy answers. We heard clearly from our roundtable participants that assisted relocations should be regarded as part of a national strategy – rather than a panacea – and as one of the options in the toolkit for federal, state and local governments to tackle intensifying natural hazards resulting from climate change.

This places assisted relocations alongside other natural hazard resilience enhancement options, including public infrastructure builds, such as flood levees as well as household-level resilience upgrades, such as home-raising.

Ultimately, the decision between these options should be evidence-based, having regard to current and future risks and the relative impact of each option on the wellbeing of people and communities.

While further research could be undertaken on the challenges, our concern is that people and communities could find it hard to deploy relocation as a natural hazard resilience strategy without government intervention. The cost of relocation is one factor. Another is a potential market failure which could arise if house prices do not reflect the social cost (including the cost of emergency response and post-disaster recovery) of people and communities living in high-risk zones. This could mean that even if governments buy back homes in high-risk zones, people and communities may be priced back into high-risk zones. They may, for example, move from high flood risk to high bushfire risk because that is all they could afford.

Where do we start?

This is a structural reform agenda that will not happen overnight. In this paper, we put forward the following ideas to get the conversation going:

- Policy Idea 1: A national map of natural hazards risks to inform a conversation about priority natural hazard risk zones, incorporating data from the insurance industry.
- Policy Idea 2: A small number of risk-based assisted relocation planning trials to be undertaken and evaluated, building on buybacks already taking place in Queensland and New South Wales. Natural Hazards Research Australia should continue to capture the key learnings through evaluation of buybacks and assisted relocation programs.
- Policy Idea 3: Local councils participating in community co-designed trials should develop a plan for engaging with First Nations peoples to ensure these perspectives are reflected.
- Policy Idea 4: Over the longer term, the natural hazard risk map should be updated to indicate which zones should be subject to future public infrastructure or household-level resilience upgrades funding, or funding for assisted relocations, similar to the June 2023 announcement by the New Zealand Government.

There could also be a broader conversation about the private sector's role. Insurers could, for example, consider developing a form of affordable insurance cover that specifically addresses the needs of relocating households and communities.

What is assisted relocation about?

Definitions

Assisted relocations are about helping people and communities relocate from high natural hazard risk zones to lower natural hazard risk zones. The term 'assisted relocations' is sometimes referred to as:

- 'Managed retreats' or 'strategic relocations': focusing on the planned aspect of moving away from risks.
- 'Climate-induced migration': focusing on intensifying natural hazards resulting from climate change as the reason for people and communities moving away from higher risk zones.

The New Zealand Ministry of Environment (2020) says:

Managed retreat identifies areas considered of intolerable risk and reduces or eliminates exposure to extreme weather events. It enables people to relocate their houses, activities, and sites of cultural significance away from at-risk areas within a planned period.

The Canadian Taskforce on Flood Insurance and Relocation (2022) says:

Strategic relocation, also referred to as managed retreat, is the purposeful movement of people, buildings and infrastructure out of areas where there is a high likelihood of incurring severe and/or repetitive damage as a result of a hazard. Strategic relocation contributes to disaster risk reduction by effectively eliminating risk within a given area by removing exposed property and assets at highest risk of repetitive hazard impact.

Context: land-use reform

Assisted relocation is about addressing the location of existing buildings and communities. This is in the context of other initiatives, not addressed in this paper, that relate to new buildings as well as building repairs/renovations – reforms of local council zoning and building standards, for example.

Progress is being made in relation to new developments, including at the recent National Industry Roundtable on Land Use Planning and Resilience, organised by the Insurance Council of Australia, Master Builders Australia and the Planning Institute of Australia.

According to the Insurance Council of Australia (2023):

The disasters experienced in Australia in recent years have highlighted the need for policy settings that more consciously consider the relationship between land-use planning and extreme weather risk. Greater precision, transparency and consistency is needed to ensure extreme weather risk is assessed and addressed in planning for communities across Australia...

Following a disaster, it's natural for communities to want to rebuild what was there before, but too often this leaves them vulnerable to the next flood, storm or blaze that threatens their homes or businesses.

In the aftermath of such extreme events, collectively we should be asking ourselves whether it's safe to rebuild and if it is, how do we build to withstand future events?

The key here is building back better and stronger, and away from harm.

Example: Queensland buybacks

The Resilient Homes Fund (RHF) in Queensland was designed to provide flood-impacted homeowners with a pathway to recovery, following the 2022 floods, as well as greater resilience to future flood events.

Under the RHF, Queenslanders were invited to register to be considered for one of three program options: Resilient Retrofit, Home Raising or Voluntary Home Buy-Back. Registrations for all programs are now closed.

The Resilient Retrofit program provides funding to repair or retrofit homes to enhance resilience ahead of future flooding events. The Home Raising program provides funding to raise homes to reduce the impacts of such events. Voluntary Home Buy-Back was considered for homes that were the most severely impacted and at the greatest risk of future flooding. The Queensland Government aimed to assist as many homeowners as possible; however, given that funding for the Voluntary Home Buy-Back had its limitations, it was important to ensure those with the most damage and exposure to flood risk were prioritised for the program.

As all property purchased is ultimately rezoned for non-occupied use, the program must also be managed responsibly so as to not remove potentially viable residential land from communities at a time when demand for housing is high.



Australian context: climate adaptation responsibilities

Australia's national adaptation efforts are underpinned by agreed roles and responsibilities as set out in the Council of Australian Governments' 2012 agreement, 'Roles and Responsibilities for Climate Change Adaptation in Australia'.

All governments:

- Help build the adaptive capacity of individuals, groups and businesses, in particular vulnerable communities.
- Provide accurate climate information for private parties to adapt.
- Ensure that regulatory arrangements and policy settings do not distort private incentives and market signals and facilitate climate change adaptation.
- Provide public goods and services and manage public assets.

Australian Government:

- Provide leadership on national adaptation reform.
- Manage Australian Government assets and programs, including embedding climate change impacts into existing risk management frameworks and working with all governments to manage climate risks to nationally significant public assets.
- Provide and manage national science and information that is high quality and includes national and regional climate projections to allow Australia to effectively adapt.
- Maintain a strong, flexible economy and a well-targeted social safety net to ensure resources are available to respond to climate change and climate change does not disproportionately affect vulnerable groups.

State and territory governments:

- Deliver adaptation responses in their areas of policy and regulation.
 This includes service delivery and infrastructure. For example, emergency services, health system, the natural environment, planning and transport.
- Provide local and regional science and information through collaboration with all governments to develop and implement a consistent approach.
- Work with the Australian Government to implement national adaptation priorities and monitoring and evaluation arrangements.
- → Encourage climate resilience and adaptive capacity.

Local governments:

- → Deliver adaptation responses that align to state and Australian Government legislation to promote adaptation as required including the application of relevant codes, such as the Building Code of Australia.
- → Provide information about relevant climate change risks and contribute appropriate resources to prepare, prevent, respond and recover from detrimental climatic impacts.
- → Inform other levels of government about the on-the-ground needs of local and regional communities.
- → Manage risks and impacts to public assets owned and managed by local governments and to local government service delivery.

Australian context: recent developments

National initiatives

The 2023-24 Federal Budget invested \$27.4 million over two years to identify and prioritise nationally significant risks to Australia from climate change impacts and provide a robust and scientifically sound evidence base for government investment in adaptation measures. This funded the development of two interconnected products:

- A National Climate Risk Assessment, to provide a clear and consistent process for identifying and prioritising climate risks.
- A National Adaptation Plan, which will build on the risk assessment to deliver an agreed, nationally consistent pathway for adaptation action in Australia and practical, evidencebased actions to reduce climate risks.

These products will help give government, industry, businesses and communities a better understanding of their climate risks and impacts, and inform their adaptation actions.

Both projects are being led by the Department of Climate Change, Energy, Environment and Water, in partnership with the Australian Climate Service.

Australian Climate Service

Since its establishment in 2021, the Australian Climate Service (ACS) has been incorporating Australia's climate, natural hazard and socioeconomic information into a single national view to aid decision making. The ACS is working to provide the intelligence, insights and analysis to governments, industries and communities to build understanding and support decisions on the impacts of climate change, and to improve climate resilience. The Australian Government is also spending \$22.6 million over four years to help reduce the cost of insurance in disaster-prone communities. This funding will be used to establish partnerships between government and the insurance sector, including the Hazards Insurance Partnership. It will also improve consumer understanding of insurance products, and leverage private-public initiatives to inform mitigation projects that reduce premiums for Australian households.

Disaster Ready Fund

This fund has \$1 billion allocated over five years to mitigate potential disaster loss and damage, including projects for direct investment in infrastructure, and projects that target systemic risk reduction to improve the quality and impact of the response to future disasters.

Natural Hazards Research Australia

Natural Hazards Research Australia was funded for 10 years from July 2021 as a collaborative research organisation to address the major challenges arising from natural hazards. Its aim is to deliver usable research and knowledge that creates safer and more resilient communities. Natural Hazards Research Australia works in the broad emergency management and disaster resilience sector with partners in all states and territories, including federal, state and local governments, key industry bodies, private and not-for-profit organisations, researchers and others with a stake in protecting Australian communities.

International context

New Zealand

Assisted relocation as part of broader natural hazard resilience package

The New Zealand Government has consulted on assisted relocations as part of a broader package of policy options to improve natural hazard resilience. This is in conjuction with asset protection (eg. levees), accommodation for change (eg. raising properties or rebuilding more resiliently) and avoiding areas of risk for new properties through land-use planning. In some cases, the New Zealand Government says retreat may be a last resort, and in all cases the costs and benefits need to be carefully weighed.

Māori communities

Consultations have focused particularly on the impact of assisted relocations on Māori communities. Many of these communities live in coastal fringes and lowland areas currently exposed to flooding, erosion and sedimentation.

Progress to date

The New Zealand Government's aim has been to introduce the Climate Adaptation Bill on assisted relocations by the end of the 2023 calendar year, to address legal and technical issues including governance and funding.

In June 2023, the New Zealand Government also announced voluntary buyouts will be offered for Category 3 properties, and it will work with councils to build flood protection for Category 2 properties. This could be a critical part of progressing the national conversation in New Zealand about where to rebuild and where to relocate.

Canada

Assisted relocation and flood insurance affordability

In November 2020, the Canadian Government established the Flood Insurance and Relocation Taskforce. It was given a mandate to explore low-cost flood insurance solutions for residents in high-risk areas, and to consider assisted relocations in areas at the highest risk of recurrent flooding. The Taskforce was to bring together federal and provincial agencies and representatives from the insurance industry.

First Nations communities

As in New Zealand, the Taskforce prioritised engagement through focused dialogues with Canada's First Nations peoples. This included Indigenous Services Canada working with its First Nations partners on a dedicated Steering Committee on First Nations Home Flood Insurance Needs.

Insurance implication

The Taskforce noted that flood hazard exposure and vulnerability to flooding is increasing as a result of climate change, growing populations, increasing housing and infrastructure development and asset concentration in flood-prone areas. This increased risk was manifesting in flood insurance affordability problems for the 'vast majority of flood risk' – high risk areas accounting for approximately 90 per cent of Canada's residential flood risk.

The Taskforce submitted its final report in 2022, finding that assisted relocations can be a powerful risk reduction tool (Recommendation 6), that assisted relocations must be informed at the community level (Recommendation 7) and that cultural connections of First Nations people to water and land must be respected (Recommendation 10).

United States

At a September 2023 roundtable in Canberra (organised by Suncorp Group and Natural Hazards Research Australia), international expert Professor Gavin Smith of North Carolina State University provided the following observations regarding buyouts and assisted relocations in the United States:

- → A range of highly bureaucratic, institutionalised and rigid funding programs – Hazard Mitigation Grant Program, Building Resilient Infrastructure and Communities Program – often fail to meet local needs and conditions.
- There is provision of substantial funding, largely post-disaster, but without a clear understanding of who was 'managing' assisted relocations.
- → There are inadequate levels of pre – or post-disaster capacity building support provided by state and federal governments.
- Public participation is hampered by reactive and post disaster engagement, with poor pre-event planning including management of open space and identification of destination areas, despite the Disaster Mitigation Act 2000 requiring development of pre-event hazard mitigation plans.
- → There is limited ability to extract lessons across state and local levels, with the exception of wealthier communities.

Other international examples

Recent predictions cited in The Economist (2023) suggest there would be between 44 and 216 million people in Africa, Asia, eastern Europe, Latin America and the Pacific Islands who will be moving within their own countries as a result of climate-induced disruptions to water supply, agriculture and sea levels. The research also suggests people will be unable to maintain their livelihoods as the climate changes.

Indonesia

Indonesia is comprised of more than 17,000 islands, which are home to more than 300 million people. In Jakarta, where more than 30 million people reside, approximately 40 per cent of the land now lies below sea level. Flooding has been a long-term challenge with canals and other structural concrete control measures used in the past to mitigate impacts. These structures, however, also bred mosquitoes, spread disease and separated communities from one another.

One long-lasting effect of modifying the watercourse has been a decrease in sediment carried by the 13 rivers that once met at this point, leading to alterations in the city's soil and aquifer composition. Consequently, the city has experienced sinking issues with its buildings and infrastructure.

Indonesia's President Joko Widodo – a former builder and carpenter – has used new and raised sea walls to mitigate sea level rise impacts over the last decade. However, the country is realising that these solutions are temporary at best.

The Indonesian parliament has approved a bill to relocate the capital from Jakarta to a new city which will be built on the island of Borneo. The building of 'Nusantara' will involve a new dam and the associated relocation of Borneo's Indigenous Dayak people. While Indonesians are positive about the potential for a more sustainable capital city, the scale of construction required and associated relocation of Indigenous people presents significant challenges.[†]

[†] Acknowledgment: Special thanks for Professor Gavin Smith, North Carolina State University, and Professor Cheryl Desha, Griffith University, for the United States and Indonesia case studies.

Recent developments in New Zealand

New Zealand Expert Working Group

In August 2023, the New Zealand Government's Expert Working Group on Managed Retreat published a report that proposed a system for assisted relocations in relation to Māori people.

The Expert Working Group suggested the following three steps in making adaptation and relocation decisions:

- → Step 1 understanding the need for adaptation: This step involves assessing risk at a sufficiently high level to focus efforts on 'at-risk' areas and prioritise planning for those areas.
- → Step 2 planning to adapt: This step involves assessing risk in the priority areas at a more granular level, identifying adaptation options, and determining adaptation actions and future pathways (including considering where people relocate to, when relocation is an option).
- → Step 3 undertaking adaptation: This step involves implementing the package of adaptation actions, monitoring change, and reviewing actions against the changed conditions over time.

In relation to Māori people, the Expert Working Group noted that:

- Processes for deciding if a communityled adaptation and planned relocation plan relating to Māori communities is necessary will need to be determined by those communities.
- → Access to good-quality information is important, to enable Māori communities to exercise rangatiratanga (translated as chieftainship, right to exercise authority, chiefly autonomy, chiefly authority, ownership, leadership of a social group). This information should be shared with Māori communities, including landowners and governors.
- → Space will need to be provided for workshops for Māori communities to draw upon their own knowledge, including the opportunity to rediscover historical narratives around relocation, to inform the relocation process.
- → Māori knowledge should be considered and applied alongside Western knowledge, worldviews and values in any decision-making process.
- Māori communities should make decisions on planned relocation as an adaptation option.
- → The framework should be sufficiently flexible to recognise that Māori boundaries do not always align with district and regional council boundaries. Māori communities may wish to organise and interact with the process at different levels or by specific location.
- → The Crown should fund partnership processes with Māori communities and the development of adaptation plans by those communities.

New Zealand Ministry for Environment paper

In August 2023, the New Zealand Ministry of Environment also issued an 'issues and options' paper looking at the current system and what new powers, roles and responsibilities might be needed to support community-led retreat, as well as how the costs of adaptation might be met.

In relation to Māori people, the paper noted:

- They are disproportionately affected by climate change.
- Despite this, they are already undertaking adaptation planning. The Māori have a long history of adapting to natural hazards and changing environments.
- In areas where community-led retreat may be the only option, the Māori should retain ownership of the land to maintain their connection with the land.
- There needs to be a discussion of what retreat might mean for subsequent land use and support that is needed for the Māori to relocate.
- The Māori will need adequate resourcing to participate.

The paper also noted that there are barriers for Māori people to adapt to climate change, including:

- Historical dispossession from colonisation: The loss of land has disrupted cultural practices and traditional knowledge systems. This may increase the challenges for some Māori communities in adapting and maintaining their connections to significant sites.
- Limited resources: Māori people often face resource constraints, including limited access to funding and administrative and technical support. This affects their ability to engage in comprehensive adaptation planning and to implement actions, making them more vulnerable to climate change impacts. Māori people are also not often able to fully engage due to the high demand from central government to engage on multiple priorities, at times simultaneously.
- Institutional barriers: Existing decisionmaking processes and institutions do not adequately recognise or accommodate Māori rights and interests.
- Power imbalance: Power imbalances between Māori people and the Crown can hinder meaningful engagement and collaborative adaptation planning. Māori communities may find it difficult to influence outcomes and ensure their cultural values are respected and included in plans.
- Cultural disconnect: The cultural disconnect between Western approaches to adaptation planning and Māori cultural values and practices can create a barrier to Māori participation. Western frameworks often prioritise economic considerations and infrastructure-based solutions. In contrast, Māori perspectives emphasise holistic and interconnected approaches that integrate cultural, environmental and social dimensions.[†]

[†] Acknowledgment: Special thanks for Dylan Lee, Suncorp New Zealand, for bringing these recent developments to our attention.

Case for further government action on assisted relocations

Intensifying natural hazard risk

Intensifying natural hazards with climate change has been identified by the CSIRO as one of seven megatrends that will shape the next 20 years. According to CSIRO (2020), natural hazards will cost the Australian economy almost three times more in 2050 compared to 2017. Australians can expect to live in a more volatile climate with heat extremes, severe droughts, fire seasons, sea level rises, prolonged heatwaves and more intense cyclones in the coming decades.

Impact on global reinsurance markets

Intensifying natural hazards are already having an impact on the global market for reinsurance – insurance for insurers. Global reinsurer Swiss Re notes that property CAT reinsurance rates reached 20-year highs in January 2023 renewals. Demand for cover grew with natural disasters intensifying; global economic losses reached USD\$275 billion in 2022, with USD\$125 billion covered by insurance.

To put this in context, the 2022 eastern Australia floods were the most expensive in Australian history at AUD\$6.6 billion (USD\$4.3 billion). This is dwarfed in comparison, however, to global events. Hurricane lan in North America, for example, cost USD\$50–60 billion alone – which will flow through to Australian insurance customers through reinsurance premiums. This is seen as a key factor driving growing concerns about home insurance affordability.

Home insurance affordability

Measuring insurance affordability concerns continues to be challenging. The most comprehensive attempt to date has been from the Actuaries Institute (2023), which found that there are 1.24 million financially vulnerable households (12 per cent of total) in Australia, facing home insurance affordability pressure; defined as needing four or more weeks of gross household income to pay for home insurance.

Financially vulnerable households

The Actuaries Institute (2023) found that these financially vulnerable households are concentrated in high natural hazard risk zones in northern Queensland, Northern Territory and northern New South Wales. Households experiencing no to high pressure are concentrated in capital cities (with median of one week of gross household income to pay for their premiums). This is particularly alarming given broader concerns about consumer research suggesting that a third of NSW residents would be forced to go into debt to cover an unexpected bill – more than 50 per cent would be forced to dip into their savings and 11 per cent would not be able to cover the bill at all.

Hazards Insurance Partnership

The Hazard Insurance Partnership is a forum for insurers and government agencies to work together to address insurance affordability concerns. Over the coming years, increasingly granular insights into home insurance affordability concerns will be an area of focus for the partnership.

Government action to date

In the aftermath of the 2019-2020 Black Summer bushfires and the 2022 eastern Australia floods, Australian governments responded strongly with an unprecedented commitment to invest in natural hazard resilience.

The Australian Government has committed to investing \$200 million annually through the Disaster Ready Fund, with the first round of funding decisions completed in June 2023.

The Queensland and NSW governments have committed to jointly funding, with the Australian Government, \$741 million and \$700 million respectively through their Resilient Homes Funds, which provides:

- → Retrofit: funding for retrofit and/or repair to enhance the resilience of liveable areas of eligible properties.
- → Raising: funding for the elevation of liveable areas above a property-specific flood level to reduce impacts of future events.
- Buyback: buying back homes at risk of severe and frequent flooding.

Call for further action

The next step is to leverage the recently released Second National Action Plan to implement the National Disaster Risk Reduction Framework, so that assisted relocations would be considered within that framework alongside other natural hazard resilience enhancement options, including public infrastructure builds such as flood levees, and household level resilience upgrades such as home raising.

Ultimately the decision between these options should be evidence-based, having regard to the relative impact of each option on the wellbeing of targeted people and communities. Close consultations with affected communities, including First Nations communities, is essential in this regard.

Issues for further consideration

Economic incentives for relocation

An argument against government action on assisted relocations is that households should have a financial incentive to migrate to regions with lower natural hazard risk. The rationale being that these regions should attract higher 'wellbeing' scores, factoring in higher investment leading to higher wages and other associated benefits such as better educational opportunities and local infrastructure.

For further consideration

Price incentives to move to other higher risk zones: If households bought into higher natural hazard risk zones in the first place because they were cheaper (reflecting the higher natural hazard risks), to what extent can they be expected to take buyouts to purchase in other high natural hazard risk zones?

For example, if they could only afford to buy in a high flood risk zone, would they only be able to afford to buy in a high bushfire risk zone? Does this suggest a market failure in the housing market, in that prices do not fully reflect full economic costs (negative externalities)?

Costs and benefits of assisted relocations

The cost of buying out properties and relocating communities and households should be compared against the cost of continued exposure to future events. This comparison should include the cost of emergency services response, recovery and rebuilds, and the broader impact of recurring disasters on mental and physical wellbeing, which needs to factor in economic opportunities foregone.

For further consideration

An agreed framework is needed for assessing the fiscal costs as well as broader economic impact of assisted relocations. Insurance Australia Group (2023) provides a valuable starting point with its cost-benefit analyses of case studies in assisted relocations.

Assessments should also draw on the Australian Government's new Measuring What Matters Framework. This sets out the factors contributing to individual and collective wellbeing across all phases of life in five broad themes – healthy, secure, sustainable, cohesive and prosperous.

This includes, for example:

- → Broad opportunities for employment and well-paid, secure jobs.
- Having time for family and community.
- Protecting, repairing and managing the environment.
- → Equitable access to quality health and care services.
- → Valuing diversity, belonging and culture.



Case studies

In Australia examples have included the relocation of entire towns or major parts of towns, including Bega (1851), Gundagai (1852), Terara (1870), Clermont (1916), parts of Kempsey (1949), Bathurst (1986) and Grantham (2011). All these examples were sparked by a tragic flood event that took lives and destroyed much of the community.

Australian case studies illustrate many of the challenges that relocation programs face including cost, management of end-state, timeframe and the need for community support.

Case study: Grantham, Queensland

Context

The assisted relocation of Grantham, Queensland, following the 2011 floods is studied internationally as a case study in how assisted relocations can be achieved.

In 2011, Grantham was a community of around 370 people (with 137 dwellings) in southeast Queensland. The town is approximately 100 kilometres west of Brisbane, within the Lockyer Valley Regional Council (LVRC), which has a land area of 2272 square kilometers.

The majority (96.4 per cent) of residents lived in private dwellings, mostly single detached houses, with most homes owned entirely or with a mortgage. Most people were employed in small businesses with under four employees.

Grantham had a lower unemployment rate than the state as a whole, but Lockyer Valley had one of the highest levels of socioeconomic disadvantage (income, education, health) in that region.

Grantham was built in a floodplain with a long history of flooding, having been repeatedly flooded in 1863, 1864, 1887, 1889, 1890, 1893, 1959, 1974, 1983 and 1999.

Twelve people died in Grantham in 2011 when the Lockyer Creek rose in a three metre high wall of water over the low-lying town. Over the next year, the Lockyer Valley Regional Council purchased 300 hectares of land on higher ground above the original township and began a process that offered residents the option to rebuild at a lower risk of flooding.

As of July 2013, around 115 households had signed up to relocate to the new area of Grantham.

Financing

While we do not have the figures on how the specific relocation was funded, the recovery from Queensland floods as a whole was funded by the Australian Government (47.5 per cent), Queensland Government (17.8 per cent), insurance (30 per cent) and private donations (5 per cent).

Most government funding was used to replace key infrastructure, including \$16.7 million for Grantham roads, drainages and other infrastructure improvements. Household reconstructions were funded mainly through insurance payments.

Private donations were used for one-time grants to uninsured or under-insured residents.

Table 1: Grantham relocation: Timeline of events in 2011

January	Flash flooding in Grantham			
February	LVRC consultations for Grantham master planning exercise			
	Queensland Reconstruction Authority (QRA) established to coordinate reconstruction			
March	Community visioning session on rebuilding Grantham			
	LVRC purchases 377 hectares to relocate Grantham			
	LVRC requests Grantham be declared a State Reconstruction Area to fast-track regulatory process			
	QRA approves State Reconstruction Area designation for Grantham			
	Design options workshop focusing on two-year vision and master plan			
April	State Reconstruction Area designation approved by Queensland Cabinet and legislated			
May	LVRC releases Grantham relocation policy for land swap program			
lune	LVRC mayor and Deputy Premier turn the first sod in Grantham relocation area			
	Grantham proposed development scheme submitted			
July	LVRC holds first meeting to discuss land swap ballot program			
August	Grantham redevelopment scheme approved by Queensland government			
	72 residents participate in first land swap ballot			
December	First new home finished in relocated Grantham			

Case study: Grantham, Queensland

Problems and challenges arising in assisted relocations – Grantham and elsewhere

Choosing the right resettlement site	Resettlement sites need to be safe places to live.				
	Sites too far away from original community can cause economic and social problems if employment connections, family and social networks are disconnected.				
Cost of relocating	Costs include payouts, buybacks and developing new property.				
	Newtok, Alaska, secured resources to build housing but not for critical infrastructure to support relocation and have not been able to relocate as result of this shortfall.				
Timing and length of time involved in relocation	Allenville, Arizona, was devastated by recurrent flooding over decades but residents had to wait years (after moving possessions) before they could relocate after floods in 1981.				
	Research suggests that the best time for relocation is immediately after disaster.				
Long-term impact of short-term decisions	Decisions made immediately after disaster can have long-term repercussions e.g., location of temporary housing and business premises, where waste is dumped, restoration of critical infrastructure, resettlement of houses.				
Managing social issues during relocation	Key issues include keeping community together during the wait for relocation, addressing problems of communication and rumour control, maintaining commitment to relocation, and managing opposition to relocation from residents in surrounding communities.				

Local council leadership	LVRC Mayor Steve Jones first raised the idea of a relocation in the days immediately following the 2011 Queensland Floods.				
	Sipe and Vella (2015) says the community was first intrigued about the possibility of relocation but 'many thought it was too good to be true'.				
	Weekly workshops run by LVRC and one-on-one meetings between case managers and affected property owners helped convince the community that assisted relocation could occur.				
Streamlining regulations and processes	Queensland Reconstruction Authority declared Grantham a reconstruction area on 23 March 2011 – it was officially designated on 8 April. This fast- tracked the process so what would normally have taken two to three years to plan and approve was accomplished in four months.				
	LVRC made a decision to purchase resettlement land prior to designation of Grantham as reconstruction area.				
Community consultations	LVRC began consultations for a master planning exercise in February, followed by a community visioning meeting and a design options workshop in March.				
	LVRC decided a lottery was the fairest way to select who would be able to participate in the relocation.				
	The relocation program was introduced to the community in July and the lottery was held in August.				

SOURCE: NATURAL

HAZARDS RESEARCH AUSTRALIA

Case study: Moorebank-Liverpool and North Wagga, NSW

Moorebank-Liverpool, NSW

Milperra is a flood-prone suburb located along the Georges River in south-west Sydney. Initiated in 1984, the Moorebank-Liverpool Voluntary Purchase Scheme has progressed with the acquisition of 170 properties within a floodway adjoining the Georges River.

Over the last 39 years, around 70 per cent of properties with the scheme have been purchased. Given the large expense associated with acquiring property, only a small number of properties are acquired at any time when they become available.

As the scheme has progressed, a patchwork of buildings has now been created and issues have arisen regarding illegal dumping in the area.

The scheme is perhaps one of the largest of its kind prior to the implementation of the Resilient Homes Fund. It highlights issues associated with the length of time such schemes may take to operate, and the need to manage vacant land and infrastructure for remaining properties.



Above: Moorebank-Liverpool: vacant land where there were once houses

Right: Sign at North Wagga entry

North Wagga, NSW

North Wagga, located within the City of Wagga Wagga along the Murrumbidgee River, has a long history of flooding. For more than 50 years, there have been proposals to relocate around 170 homes located in the village, but to date the community has favoured options relating to flood levees, providing opposition to relocation proposals. Such opposition is illustrated by a sign erected at the entry to the village stating, 'we shall not be moved'. This case study illustrates that assisted relocation can only be effective with community support.



Reform directions: overview

Long-term vision

The end state for public policy reform should be one where natural hazard resilience decisions are made within a robust decision-making framework that:

- → Relies on clear evidence.
- Integrates genuine and deep engagement with community groups, including special consideration being given to First Nations perspectives.
- Allows decision making at the national level by federal government, with state, territory and local governments drawing on an agreed assessment criteria.

Within this framework, assisted relocations would be one of a range of public policy options that governments could choose from to improve natural hazards resilience.

Opportunities to explore this long-term vision include:

- → The Independent Review into Disaster Funding headed by Andrew Colvin APM OAM. The review is considering how government investment in disaster risk reduction, preparedness, response, recovery and resilience can better support a national system. It is also looking at what needs to be built to face the extreme disasters Australia is projected to experience over coming decades.
- The Independent Review of National Natural Disaster Governance
 Arrangements, headed by Dr Robert
 Glasser, Australian Strategic Policy
 Institute and commissioned by Australia's emergency management ministers.
 This includes the consideration of establishing an authoritative disaster advisory body and expanding the remit of the National Emergency Management
 Ministers' Meeting – a ministerial council reporting to National Cabinet.

Natural hazard risk map

But how do we get there? This is a structural reform agenda that will only happen if there is a strong, united coalition of supporters that continue to call for reform and hold governments to account on progress.

Two key steps can be taken:

Natural hazard risk map: One idea is to urgently develop a national map of priority natural hazard risks and exposures – reflecting an agreed view across all levels of government about the location of risks. This would draw on climate data from within government agencies, including the Australian Climate Service, and data from the private sector, including the insurance sector. This would also need to be regularly updated to reflect the latest climate change projections. This is reflected in:

Policy Idea 1

A national map of natural hazard risks to inform a conversation about priority natural hazard risk zones – incorporating data from the insurance industry.

International examples include Flood Risk Maps for Rivers and Sea in England, produced under the United Kingdom flood risk regulations, requiring the Environment Agency to produce and review flood risk maps every six years. The maps show the potential risks and impacts of flooding from rivers and the sea in flood risk areas. They focus on the potential impacts to people, economic activity and the environment (including cultural heritage).

Capturing key learnings

The second idea is to start small – with a series of pilots or trials of assisted relocations that help us accumulate learnings, engage at the local level with communities on how we can do things better, and build grassroots-level support for reform through community co-designed trials. There should be a particular focus on First Nations engagement. This is reflected in:

Policy Idea 2

A small number of additional riskbased assisted relocation planning trials to be undertaken and evaluated building on buybacks already taking place in Queensland and NSW. Natural Hazards Research Australia should continue to capture the key learnings through evaluation of buybacks and assisted relocation programs.

Policy Idea 3

Local councils participating in community co-designed trials should develop a plan for engaging with First Nations communities affected by community co-designed trials in Policy Idea 2 – to ensure First Nations perspectives are reflected.

For this purpose, community group partnerships could play an important role. One example of an organisation with deep expertise in local engagement is the Foundation for Rural Regional Renewal (FRRR). FRRR is a not-for-profit organisation that provides funding and capacity building support at a 'hyper local' level. It has delivered \$155 million to nearly 13,000 projects, many of which provide support in the aftermath of natural hazards.

Zoning for the future

A critical threshold point could be to update the natural hazard risk map to indicate which zones should be subject to future public infrastructure or household-level resilience upgrades funding, or funding for assisted relocations.

Policy Idea 4

Over the longer term, that the natural hazard risk map be updated to indicate which zones should be subject to future public infrastructure or household level resilience upgrades funding, or funding for assisted relocations, similar to the June 2023 announcement by New Zealand Government.

This would need to be subject to a prolonged period of community and First Nations consultations, given the potential impact of zoning decisions on the community and the local economy.

Reform directions: end state

OBJECTIVE	RESPONDING TO CLIMATE CHANGE THROUGH COMMUNITY-CENTRED NATURAL HAZARD RESILIENCE DECISIONS				
STRATEGY	Better understanding of natural hazard risk	Pipeline of feasible resilience projects assessed on wellbeing impact	Governance, ownership and shared responsibility	Enhanced investment and financing	
			ŢŢŢŢŢŢŢŢŢŢŢŢŢŢŢŢŢŢŢŢŢŢŢŢŢŢŢŢŢŢŢŢŢŢŢŢŢŢ		
ACTIONS	NATURAL HAZARD RISKS MAP	WELLBEING ASSESSMENT CRITERIA	NATIONAL DECISION MAKING FORUM; COMMUNITY, FIRST PEOPLES CONSULTATIONS		
	A national map of priority natural hazard risks and exposures to help governments decide where to prioritise resources – updated with climate change projections – drawing on both public sector and home insurance data	 Prosperity: Contributing to growing, productive economy Inclusivity: Contributing to shared opportunities enabling participation – including improved home insurance affordability for households dealing with high hazard risks Natural environment sustainability Contributing to social cohesion, physical and mental health 	 National governance structure for Commonwealth, state and territory, and local governments to make resilience decisions Community and industry engagements: Process to ensure local communities, industry (including home insurers) and NGOs on the ground can contribute to wellbeing assessment of natural hazard resilience decisions First Nations community engagement: Process to ensure that impact of climate change and adaptation options on First Nations peoples and communities are prioritised as part of wellbeing assessment 	National agreement on spending requirements for natural hazard resilience and how to pay for this through public (tax and fiscal reform) and private funding	
ІМРАСТ	ASSIS	TED RELOCATIONS AS PART OF PIF	PELINE OF NATURAL HAZARD RESI	LIENCE	

Assisted relocations: A community-centred approach

Reform directions: policy ideas









POLICY IDEA 1	POLICY IDEA 2	POLICY IDEA 3	POLICY IDEA 4
Natural hazard risk map	Community co-designed trials	First Peoples partnership	Zoning for the future
That a map of priority natural peril risks be developed to assist with the prioritisation of investment – including by drawing on data from the insurance industry	That a small number of additional risk-based assisted relocation planning trials to be undertaken and evaluated, building on buybacks already taking place in Qld and NSW. Natural Hazards Research Australia should continue to capture the key learnings through evaluation of buybacks and assisted relocation programs	Local councils participating in community co-designed trials should develop a plan for consulting with First Nations peoples and communities affected by community co-designed trials in Policy Idea 2 – to ensure First Nations peoples' perspectives are reflected	Over the longer term, that the natural hazard risk map be updated to indicate which zones should be subject to future public infrastructure or household-level resilience upgrades funding, or funding for assisted relocations, similar to the June 2023 announcement by the New Zealand Government.

Building evidence base

i _ i I

i____ i



Implementation Longer term

Community engagement Short term

Community co-design Medium term

Insurance product innovations to help with assisted relocations

What customers expect from insurers

According to Bain and Company (2023):

- The traditional premise of insurance
 providing capital to cover risk and reimburse claims – doesn't fully satisfy customers anymore.
- Customers are increasingly looking for help from insurers to reduce and even prevent risks.
- → This is in part attributed to increased turbulence and uncertainty over recent years, including from extreme weather events, the pandemic and technological disruptions.
- → The opportunity for insurers is to redefine their role to take a firmer hand in moving beyond reimbursement for damage to encouraging behaviours and providing solutions in ways that will reduce risks. In other words, the industry's central purpose could shift from loss reimbursement to risk solutions.

Consistent with these views, for years Suncorp has been providing customers with opportunities to reduce and even prevent risks through its Build it Back Better scheme. Under the scheme, if the insured home is damaged by an insured event and the assessed repair or rebuild costs are more than \$50,000 or 10 per cent of the sum insured (whichever is higher), the customer will be offered additional recommended resilience options to help protect against severe weather. Depending on the level of cover this could be up to \$5,000 to \$10,000.

Product innovations for assisted relocations

The call for general insurers will be to develop product innovations that provide affordable options for financially vulnerable households and communities (as discussed earlier in this report) that could participate in assisted relocations.

Ideas could include products designed to provide either or both:

- Building it back 'somewhere' better The insurer's promise to the customer could be different to the usual promise to repair or replace the original asset. It could instead be to rebuild in a lower risk zone that helps reduce premiums going forward.
- Temporary accommodation and other benefits that help households make the transition.

Product innovations that support financially vulnerable households and communities are key to this. Imagine if, instead of merely replacing the original asset, insurers could commit to rebuilding in lower risk zones, ultimately leading to reduced premiums that align with the decreased risk profile.

Issues for further consideration include:

- Consulting with the community to receive feedback on how such products can be designed to provide affordable solutions for assisted relocations.
- Whether products should be designed only at the household level or whether 'group policy' type arrangements for the targeted community should also be considered.
- How product innovations can complement government assistance for assisted relocations, including buybacks before and after natural hazard events.

International examples

A contributor to the September roundtable in Canberra, global reinsurer Swiss Re has suggested that the government could purchase insurance to cover the cost of recovery after an event, and that this happens in many other countries for floods and cyclones etc., at sovereign and local levels.

Examples include:

- → New York City: a pilot project (launched by the Center for NYC Neighborhoods, in partnership with the Mayor's Office of Climate & Environmental Justice, and the Environmental Defense Fund) to support low-income communities in high-flood-risk neighborhoods with emergency cash funds after a major flood.
- India: An MOU between Tata AIG General Insurance and the Nagaland State Disaster Management Authority to provide parametric coverage for excess rainfall events that can lead to severe flooding.

Swiss Re has suggested this can in turn free up funds allocated for recovery that could be redirected towards investment in resilience programs. With the government as a policy holder, the payout could be used for broad scale cleanup and re/building contracts, rather than the current approach of individuals each applying for assistance, which creates personal stress, generates negative media, inflates supply prices, and can exclude the more vulnerable members of society who cannot navigate the system on their own.[†]

Suncorp Group and Natural Hazards Research Australia have not explored the full implications of how these ideas could apply in the Australian context but would be keen to engage with interested stakeholders to explore these ideas further.

Suncorp Financial Inclusion Action Plan

Suncorp Group takes its responsibility as an essential services provider seriously and is committed to growing its business inclusively to serve the whole community. Over the course of its three-year Financial Inclusion Action Plan, Suncorp aims to collaborate with key external decision makers, community groups and customers to more deeply understand the barriers impacting homeowners purchasing insurance, and design insurance solutions to improve financial resilience and inclusion.

This approach to building financial inclusion and wellbeing involves:

- Ensuring products and services are accessible, affordable and suitable, especially for those experiencing vulnerability or at risk of financial exclusion.
- Supporting Suncorp people, customers and communities in times of need through emergency relief, internal and external pathways and community partnerships.
- Collaborating and advocating for an improved understanding and response to financial vulnerability within the organisation, the financial services industry, and Australia more broadly.
- Building capability that leads to financial wellbeing through programs delivered to Suncorp people, and through community partnerships.
- Facilitating initiatives that contribute to economic security including workplace equality, education and employment pathways, and social impact investing.

[†] Acknowledgment: Special thanks to Cherie Gray, Swiss Re, for contributing these examples.

Sources

Government

Australian Treasury (2023), 'Measuring what matters', July 2023

Australian Department of Home Affairs (2019), National Disaster Risk Reduction Framework, April 2019

CSIRO (2022), 'Seven megatrends that will shape the next 20 years', 27 July 2022

Canadian Taskforce on Flood Insurance and Relocation (2022), 'Adapting to rising flood risk: An analysis of insurance solutions for Canada', August 2022

New Zealand Ministry for the Environment (2023), 'Communityled retreat and adaptation funding: issues and options', August 2023

New Zealand Expert Working Group on Managed Retreat (2023), 'Report of the Expert Working Group on Managed Retreat: A Proposed System for Te Hekenga Rauora/ Planned Relocation', August 2023

Productivity Commission (2023), 'Advancing Prosperity: 5-Year Productivity Inquiry report', February 2023

United Kingdom Environment Agency (2019), Flood risk maps 2019, December 2019

Research

Actuaries Institute (2023), 'Home insurance affordability update and funding for flood costs', August 2023

Australian Broadcasting Corporation (2023), 'Grantham residents moved to higher ground after record floods, so why haven't others?', news article, 13 March 2022

Bain & Company (2023), 'Customer behaviour and loyalty in insurance: Global edition 2023', 16 February 2023

Hino M, Field C and Mach K (2017), 'Managed retreat as a response to natural hazard risk', Nature Climate Change, 27 March 2017

Insurance Australia Group (2023), 'Planned relocation – protecting our communities', 28 March 2023

Okada T, Haynes K, Bird D, van den Honert R (2014), 'Recovery and resettlement following the 2011 flash flooding in the Lockyer Valley' International Journal of Disaster Risk Reduction, 8: 20-31

Sipe N and Vella K (2015), 'Relocating a flood-affected community: Good planning or good politics?', Journal of American Planning Association, 80:4: 400-412

Smith G (2023), 'Rising to the challenge: learning from natural hazards to build resilient communities', Natural Hazards Research Australia webinar, 14 February 2023

The Economist (2023), 'The surprising upside of climate migration', 1 July 2023

The Economist (2023), 'Americans are moving to places besieged by extreme heat', 20 July 2023

The New York Times (2023), 'Welcome to Nusantara', news article, 16 May 2023















CONTACT US

Suncorp Group

JongSok Oh, Executive Manager, Industry Affairs and Public Policy JongSok.Oh@suncorp.com.au

Natural Hazards Research Australia Phone: +61 3 7032 6309 office@naturalhazards.com.au www.naturalhazards.com.au/contact-us



