



Natural
Hazards
Research
Australia

Strategic Plan 2021–2031

Natural Hazards Research Australia

Natural Hazards Research Australia

Our vision

That communities will be safer, more resilient and sustainable in the face of natural hazards.

Our mission

To work with partners and the community on research that is useful, actionable and supportive of better decision-making to save lives and protect communities.

Partnerships

Partnering and collaborating with end users, researchers, government and the community.

Strategic themes

Governance and management

- Robust governance, oversight and engagement strategies
- A clear, shared strategy to guide the work of the Centre
- Transparent, equitable and fair processes
- Efficient and effective use of resources
- A safe and rewarding work environment

Capability

- A national research workforce enhanced through funding and investment
- National frameworks for research data
- Professional development opportunities provided for researchers and end-users

Partnerships

- Partnerships that facilitate research efforts
- Investment increased for research and implementation into natural hazards.
- People, networks and ideas connected across the nation and internationally

Research informed advice

- Public debate led and informed by research knowledge
- Issues identified to inform and influence policy and standards identified
- Working with partners to translate the research outcomes into action

Research and implementation

- A 10-year research strategy to deliver quality research across the mitigate-respond-recover spectrum
- Partnerships that ensure delivery of key research outcomes
- Measured and articulated benefits of the research on disaster resilience and disaster risk reduction
- Research that widens knowledge and understanding of natural hazards

Outcomes

The outcomes of our work will be used by communities and governments to build resilience and to enhance capability.



Natural Hazards Research Australia (The Centre) is Australia's research and implementation centre for natural hazards resilience and disaster risk reduction. The Centre began on 1 July 2021 and is now working closely with the Australian government and other partners across Australia to deliver a strategic research agenda for the nation.

The Centre is built on the strong foundations of its preceding Cooperative Research Centres, the Bushfire CRC and the Bushfire and Natural Hazards CRC.

The challenge

Over many years, large natural hazard events have led to significant loss of life, injuries, loss of community infrastructure and homes, loss of economic activity and loss of natural landscapes. The impact on vulnerable communities and environments has led to large increases in government and societal costs.

In the coming decades, the frequency, intensity and distribution of natural hazards across Australia will increase, placing more of the population at risk more often.

The challenge that natural hazards pose to Australia is an ongoing one, and the Centre will work with its partners and governments to establish a sustainable research and utilisation capability for the nation and the region.

The Centre has the opportunity to work across Australian communities, through governments and their agencies, with the private and not-for-profit sector and also directly with those communities, to find innovative and sustainable solutions to minimise the impacts of these natural hazards.



Our vision

That communities will be safer, more resilient and sustainable in the face of natural hazards.

Our vision encapsulates future outcomes for the nation. It is a statement of the impact that the Centre will have had at the end of the current funding period. Through the work of the Centre, Australian communities will be safer, more resilient and more sustainable – environmentally, economically and socially – in the face of the growing threats of increasing natural hazard¹ frequency, intensity and distribution.

The Centre will achieve this by working with partners, the community and researchers, in Australia and internationally, to find better ways to mitigate, respond to and recover from the effects of natural hazards.

At the end of the initial funding period, the Centre will be able to identify how and where the investments made in new knowledge, data and systems have improved decision making across the sector, resulting in lives saved and injuries reduced, and resulting in more resilient communities and infrastructure, as well as the services they provide. The Centre will also have identified evidence-based priority areas for future investment.

¹ Natural hazards are defined as sudden-onset hazards. Natural hazards highlighted by the Australian Government under the funding agreement for the Centre are bushfire, flood, cyclone, heatwave, storm, inundation and erosion caused by sea level rise, earthquake, tsunami and landslide.



Our mission

To work with partners and the community on research that is useful, actionable and supportive of better decision-making to save lives and protect communities.

The mission is to provide valued, high-quality research outcomes and advice on natural hazards and their impacts to:

- reduce risk
- enhance disaster resilience
- reduce negative social, economic and environmental impacts
- build an internationally renowned Australian research and utilisation capacity and capability.

The Centre is the core of a network of stakeholders that will build a national capability to be flexible and innovative as challenges emerge. The research undertaken must be useful and able to be used in order to achieve the Centre's vision, mission and strategic objectives.

Factors that will affect how this is achieved and how investments are prioritised include:

Changing climate: the climate is changing, and the nature, frequency, distribution and severity of hazards is changing along with it.

Changing demographics: a growing and aging population, a shift in urban and rural growth and settlement trends mean that the nation's vulnerability to threats of natural hazards is changing.

Escalating costs: the costs associated with the impact of natural hazards are rapidly increasing to unsustainable levels. A renewed focus on the costs of mitigation and adaptation together with response and recovery is underway.

The resilience agenda: international, national and local policy is changing to embrace a renewed focus on resilience at the community, enterprise and government levels. There has been a clear shift in national priorities from response and recovery to mitigation. The Centre's work will be pivotal to achieving the national benefits embodied in this shift in priorities.

The Centre will play a critical role in the implementation of the recommendations and findings from the Royal Commission into National Natural Disaster Arrangements and other state-based inquiries. The work of the Centre will also be aligned to the implementation of the National Disaster Risk Reduction Framework. It will work with all levels of government, in particular the National Recovery and Resilience Agency, to ensure that the work of the Centre remains relevant at the national level and that implementation of the research is ensured.

The Centre will also seek to reduce the impacts of natural hazards through the application of better knowledge and the creation of core national datasets.



Our partners



The Centre is an incorporated not-for-profit venture between the Centre, its partners and researchers.

Partners are drawn from all jurisdictions around Australia and have committed to contribute to the development of the research and its use.

Government end-user partners

The government end-users are largely composed of government agencies, departments or statutory bodies that are responsible for policy, response or recovery. These partners help to set the Centre's research agenda, guide the researchers, and contribute cash and in-kind resources to the Centre.

Non-government end-user partners

These partners are drawn from the range of small and large non-government organisations, private and not-for-profit, and peak bodies that play a critical role in the delivery of policy and service to the community. These partners help to set the research agenda, guide the researchers, and contribute cash and in-kind resources.

Research partners

These partners are drawn from Australian and New Zealand universities and national research organisations, including the Bureau of Meteorology, CSIRO, Australian Research Data Commons and Geoscience Australia. These partners contribute substantial in-kind resources, know-how and research expertise to create new knowledge, supervise PhD students to build capacity.

Research institutes

The Centre will work with other local and international research institutes and centres to derive the best possible value. These will include the Australian Research Council, the National Health and Medical Research Council, National Collaborative Research Infrastructure Strategy and National Environmental Science Program funded bodies as well as the various university centres of excellence in Australia and overseas.

Our principles

The Centre is a values-based organisation. Stakeholders, directors, staff and partners all work to our vision because the protection of the Australian community from future natural hazards addresses a fundamental risk to Australia's people, way of life, its environment and its economy. It is critical to embrace key values that will enable the best outcomes.

The core values are:

Excellence – To pursue the highest-quality research methods and implementation.

Independence – To be open, transparent and independent in all activities.

Integrity and honesty – To be honest and act with the highest levels of integrity.

Respect – To recognise and value the contributions of everyone through embracing diversity in gender, ethnicity and thought.

Supportive leadership – To enable all involved to achieve their best.

Trust and collaboration – To share and work cooperatively in a trusting environment.



Our research

Research is the core activity of the Centre and is what differentiates it from other membership organisations in the sector.

The Centre must create research that is useful, usable and used by the sector and community.

The research demands are many and diverse, particularly within the broad nature of the area that the Centre is working. The research of the Centre will necessarily be a balance between competing issues, interests and timelines.

This document – the *Strategic Plan* – outlines the Centre’s overarching mission, vision and strategic research themes.

The Centre’s *10-Year Research Strategy* determines the research portfolio and defines in more detail the approach and strategic focus areas for the Centre. It is developed in consultation with the Centre’s stakeholders and will be reviewed every five years.

The *10-Year Research Strategy* is initially informed by the needs of the nation, as expressed in the National Disaster Risk Reduction Framework, the findings and recommendations of the National Natural Disaster Arrangements Royal Commission, and the *National Research Priorities*, which were developed by the Centre in its first year.

The detailed portfolio of projects and initiatives are then captured in the rolling *Biennial Research Plan*, which is reviewed annually by the Board.

The *10-Year Research Strategy* and *Biennial Research Plan* are set in collaboration with the partners to form a portfolio of research projects and initiatives – all linking back to the Centre’s vision and mission, and all prioritising usability.

The *10-Year Research Strategy* provides for a balance across mitigation, response and recovery, using a mixture of time scales: short-, medium- and longer-term projects.

Research collaboration

The Centre’s research portfolio incorporates a wide network of knowledge creators and providers from across partner organisations, policy makers, universities and other research organisations and researchers, including higher-degree research students. The Centre works as a truly collaborative enterprise.

The Centre will work collaboratively with the many research centres of excellence and areas of expertise to help to better link the nation’s capabilities.

Additionally, the Centre undertakes targeted commissioned research that leverages the capabilities and capacity in the Centre and its partners. This work is funded separately from the core funds of the Centre. The outcomes and findings of this work are combined with the core work of the Centre ensuring greater knowledge base for the nation.

Hierarchy of plans

Strategic Plan (this document)

This outlines the Centre's overarching mission, vision and strategic research themes.

10-Year Research Strategy

This defines, in more detail, the themes and influencing factors that guide the broad areas of focus for the Centre. It defines the balance between hazard type, mitigation response and recovery, and timeline of projects short, medium or long.

Biennial Research Plan

This defines the detailed research project portfolio, outlining the individual projects, as well as implementation, education and training initiatives. This plan is reviewed annually, to ensure that the immediate and longer-term needs of partners are being addressed.

This plan will define the investment in research by the Centre over the following two-year period.

These strategies and plan are overseen by the End-user Advisory Panel and the Research and Implementation Committee of the Board.

10-Year Research Strategy

Reviewed 5 years

INFORMS

Biennial Research Plan

Reviewed annually

DEFINES

Research portfolio
of projects



Key result areas

The Centre's Board has set key result areas for the early phase of establishment and operations.

Undertake leading research

The Centre, in partnership with researchers and end-users, will undertake leading research that is useful, usable and used.

Create and assist knowledge networks

Core to the Centre's future success will be the creation and support for knowledge networks across Australia, in particular those relating to research into natural hazards and assisting with connecting people.

Create national research data frameworks

The Centre will develop national frameworks for creation, curation and access to research data, which enhances data collection, modelling, prediction and forecasting.

Build partnerships

The Centre will build partnerships that attract investment into natural hazards research and implementation.

Create a national research capability

The Centre will enhance the nation's ability to understand and solve natural hazard challenges through the building, maintaining, growing and supporting a national research capability.

Provide a trusted and independent voice

The Centre will be a trusted and independent voice to government and the broader community, informed by research and insight, informing and leading community debate, policy, actions and community resilience.

Translate research into action

The Centre will ensure that research gets used for the benefit of all Australians. It will actively engage with those who can translate research into action.

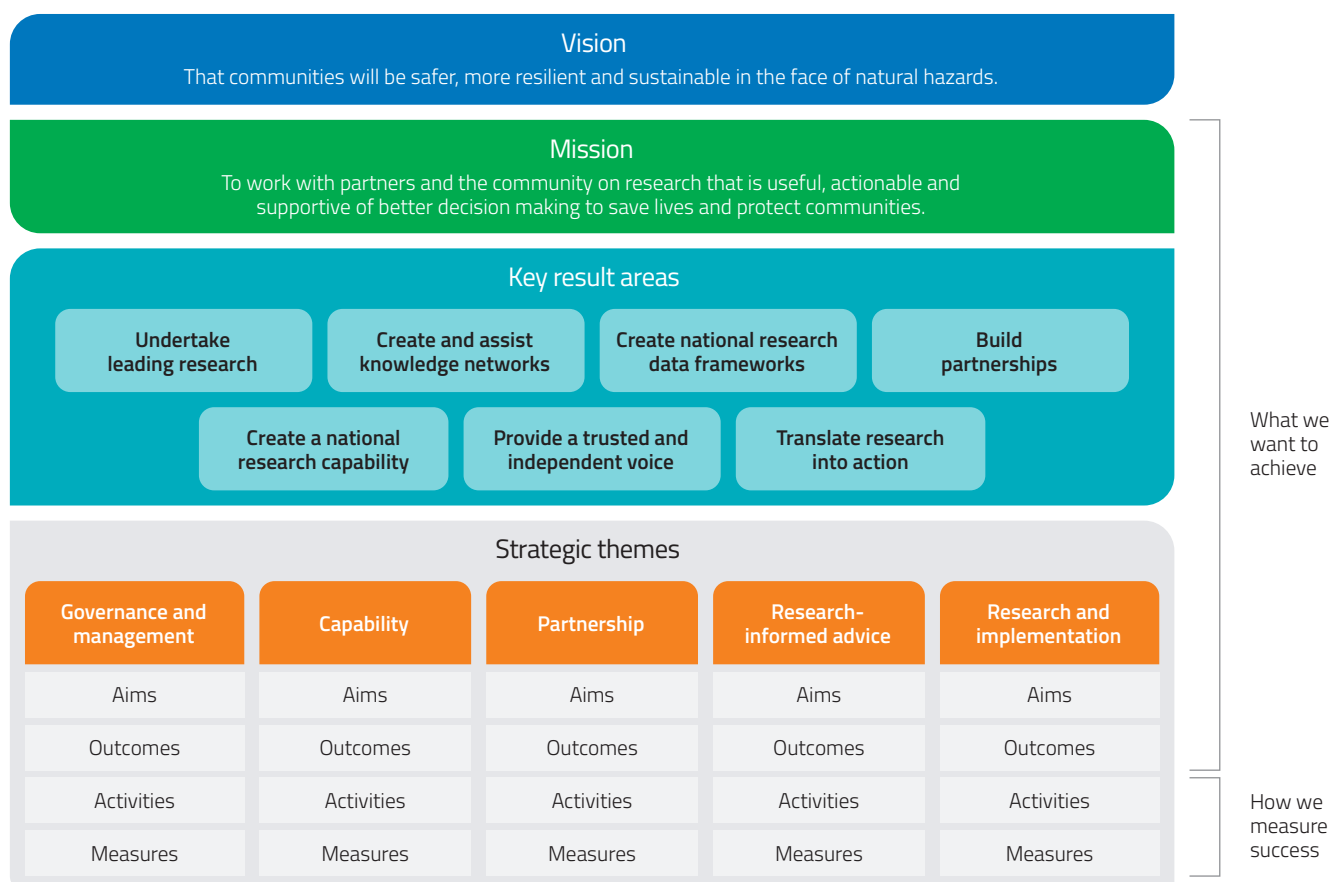
Strategic themes

To achieve these results, the Centre is focused on five strategic themes. They are all of equal importance and mutually supportive. These themes will be used to organise strategies, plans and actions over the coming years.

They are:

- Governance and management
- Capability
- Partnerships
- Research-informed advice
- Research and implementation

The following diagram shows how the elements fit together:



Governance and management

The Centre holds and manages substantial financial and intellectual resources on behalf of its members. It is therefore imperative that the Centre has strong governance and management processes in place to ensure confidence in its use of those resources.

Aims

Build and maintain a viable, sustainable and well-managed Centre.

Outcomes

- Robust governance, oversight and engagement strategies
- A clear, shared strategy to guide the work of the Centre
- Transparent, equitable and fair processes
- Efficient and effective use of resources
- A safe and rewarding work environment

Activities

- Implement the agreed strategy through actions and performance plans, including measurement and reporting on the delivery
- Ensure confidence of all partners in the governance processes and performance of the Board
- Ensure secure and rigorous financial, governance and management processes
- Ensure there is the active management of major risks in the Centre
- Ensure policies and procedures are in place and adhered to
- Establish accountabilities and rewards for all key roles
- Ensure each staff member has a professional development plan
- Ensure all partners are aware of and act in accordance with Centre values

Capability

The Centre will build the national researcher capability to ensure there is a succession plan for critical areas of work. It will provide better access to data and tools to enable others to conduct research outside of the Centre's workplan.

The Centre will build the capability of the individual partners and the industry to use the knowledge that is created.

Aims

Build and enhance the capability for research, research management and research implementation within the sector. Build better access frameworks for research data.

Outcomes

- A national research workforce enhanced through funding and investment
- National frameworks for research data
- Professional development opportunities provided for researchers and end-users

Activities

- Establish a regular professional development schedule in consultation with the industry
- Provide opportunities and training for researchers to better promote themselves as potential employees to partners, to draw research capacity and knowledge into partner organisations
- Develop and implement a data management plan
- Hold an annual conference and regular Research Advisory Forums, and participate in other relevant sector events
- Provide opportunities for staff of partners to be involved in the research or management of the Centre



Partnerships

The successes of the Centre will be enabled by its partnerships. The Centre must build and nurture its partnerships to ensure there are mutual benefits in the relationships.

Aims

Build and nurture sustainable partnerships that create mutual benefits for researchers, end-users and the community.

Outcomes

- Partnerships that facilitate research efforts
- Investment increased for research and implementation into natural hazards
- People, networks and ideas connected across the nation and internationally

Activities

- Ensure the Centre has strong membership management processes and systems
- Ensure each partner participates in an individual meeting with the Chairman, CEO or senior manager at least once a year
- Ensure Board members are exposed to the views of the partners
- Maintain an active and dynamic online presence that is widely accessed and engaged with by the members of partner organisations and the broader community
- Be represented and promoted at critical international, national and local events
- Actively manage a media profile



Research-informed advice

The Centre is in a strong position to draw on research and outcomes to influence public debate, and shape policy and practice through research-informed advice. The Centre's position of being independent of government, but also a trusted advisor to government, enables it to lead debates and guide policy through its networks.

Aims

To be a trusted advisor to governments and the community on natural hazards science, community resilience to natural hazards and related policy and practice.

Outcomes

- Public debate led and informed by research knowledge
- Issues identified to inform and influence policy and standards identified
- Working with partners to translate the research outcomes into action

Activities

- Create meaningful partnerships with key departments in governments to build trust
- Build a network of trusted subject matter experts
- Build a reputation by publicly highlighting research successes and opportunities
- Build a trusted national and international reputation through presence at events, and the support of scientific exchanges
- Actively manage media relationships



Research and implementation

Research is the core activity of the Centre and is what differentiates it from other membership organisations in the sector. The Centre must be known for its high-quality, relevant, usable and used research.

Aims

To undertake the highest quality partner-relevant research while maintaining a balance between scope, disciplines, horizons and timelines.

Outcomes

- A 10-year research strategy to deliver quality research across the mitigate-respond-recover spectrum
- Partnerships that ensure delivery of key research outcomes
- Measured and articulated benefits of the research on disaster resilience and disaster risk reduction
- Research that widens knowledge and understanding of natural hazards

Activities

- Establish strong management of research delivery and reporting processes
- Ensure partners are involved in the planning and conduct of research
- Conduct research utilisation events to ensure users are aware of research and its implications
- Ensure research use is a priority in the planning and conduct of research
- Ensure research is published in a publicly accessible form, through the production of summaries of research
- Ensure research is published in the highest-quality journals
- Build an international reputation through presence at events, and the support and exchange of scientists



Find supporting research documents and the portfolio of projects on our website www.naturalhazards.com.au

We acknowledge the traditional custodians across all the lands on which we live and work, and we pay our respects to Elders both past, present and emerging. We recognise that these lands and waters have always been places of teaching, research and learning.

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Disclaimer:

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