



Environment Institute
of Australia and
New Zealand Inc.

Natural Disaster Resilience

EIANZ Position Statement | 2024

Summary

The human, ecological, cultural and economic costs of natural disasters in Australia, Aotearoa New Zealand and globally are significant and increasing.

Impacts on communities can be mitigated through best practice management of natural and cultural landscapes as well as the way these landscapes interface with communities.

EIANZ believes:

1. Enhancing natural disaster resilience requires further attention from governments, industry and the environment profession.
2. Further coordinated action is also required to better understand, plan for and respond to natural disasters.
3. Environmental practitioners have an important role to play in safeguarding natural assets from natural disaster events and supporting disaster management professionals across the resilience building-disaster event response-recovery chain.
4. Further information on managing the risks of natural disasters is needed for long-term planning and response.
5. Collaboration across disciplines with a 'convergence of solutions' philosophy will deliver natural disaster resilience.

Introduction

Many types of natural disaster events impact people, settlements, cultural heritage and natural assets. They include **exposures** to both *geological* events (e.g earthquakes, volcanic eruptions and tsunamis) and *climate* related events (e.g extreme heat, bushfires, cyclones, severe storms, storm surge, drought, flood, tidal inundation and land slips). Climate change is increasing the severity of a number of these events.

The **vulnerabilities** to natural disaster events of people, settlements, cultural heritage and natural assets are dependent on the severity of the events, but also the way these assets are used, managed and interfaced with settlements and infrastructure. Increased development pressure is leading to more people and infrastructure becoming vulnerable.

Resilience to disaster events can be increased by:

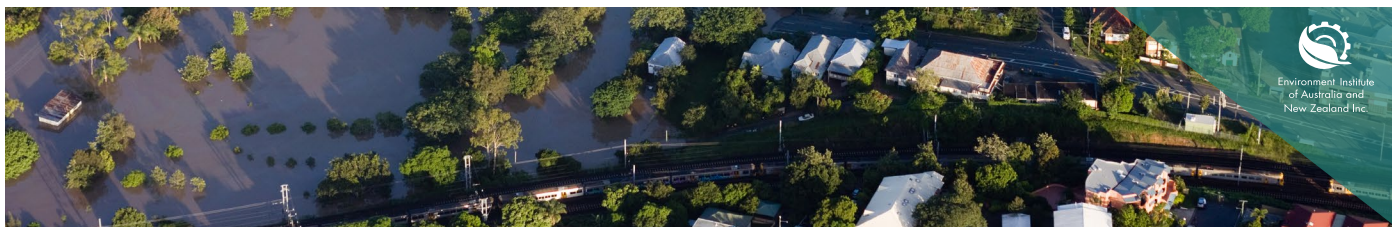
- Better knowledge of disaster events and vulnerabilities, appropriate planning and design of infrastructure.
- Engagement with Indigenous knowledge holders on appropriate landscape management.
- Building resilience into and strengthening already existing natural asset management plans.
- Well conducted incident management.
- Recovery and rehabilitation measures.
- Cross-discipline collaboration.

As human, ecological and economic (including insurance) impacts from natural disaster events escalate further, coordination of resilience-building, disaster event management and recovery is vital.

Policy context

In **Australia**, the [National Disaster Risk Reduction Framework](#) (based on the internationally agreed [Sendai Framework](#)) sets policy within which jurisdictions work consistent with national Disaster Recovery Funding Arrangements. The [Royal Commission into National Natural Disaster Arrangements](#) (2020) made recommendations for improving national disaster management arrangements, with subsequent National Action Plans further supporting the implementation of Australia's Risk Reduction Framework.

In **Aotearoa New Zealand**, the [National Emergency Management Agency](#) (NEMA) provides leadership for an emergency management system. NEMA works with central and local government, communities, iwi, and business to ensure effective responses to and recoveries from emergencies. The [National Disaster Resilience Strategy](#) provides a common resilience agenda that individual organisations align with for collective impact.



Role of environmental professionals

Environmental practitioners appreciate that natural systems, along with cultural landscapes, vary in their vulnerability to and resilience from natural disaster events. Environmental practitioners understand complex systems thinking and so are well placed to assist national natural disaster response capabilities.

EIANZ recognises three themes, adapted from the Sendai Framework, to guide action by the profession:

- Providing transparent **data and information** to understand natural disaster hazards, exposures, vulnerabilities and post-impact assessments.
- Improving understanding and management of natural resources and the way they are considered in **enhancing resilience**.
- **Collaborating with other disciplines** to guide natural disaster resilience using a 'convergence of solutions' philosophy, and applying multidisciplinary approaches for multi-objective outcomes.

Policy into practice

The Institute's guidance on how best to implement each of the above three principles is as follows:

1. Data and information

Stakeholders should work together to:

- Improve identification of significant ecologically significant areas and cultural landscapes as well as at-risk areas through consistent data collection, mapping and use of technology.
- Engage with Indigenous knowledge holders to understand Indigenous environmental management practices.
- Undertake natural hazard and exposure mapping to identify both vulnerable assets and barriers to recovery.
- Present climate change information in a format usable for assessing climate-related hazards. This includes providing downscaled climate projections for agreed-upon climate scenarios to allow for local and regional planning.

- Systematically collect impact data from natural disaster events, while recognising the need for pre-disaster data in post-disaster assessments.
- Carry out air and water quality impact assessments and recognise the potential for cascading and cumulative impacts in these areas.

2. Enhancing resilience

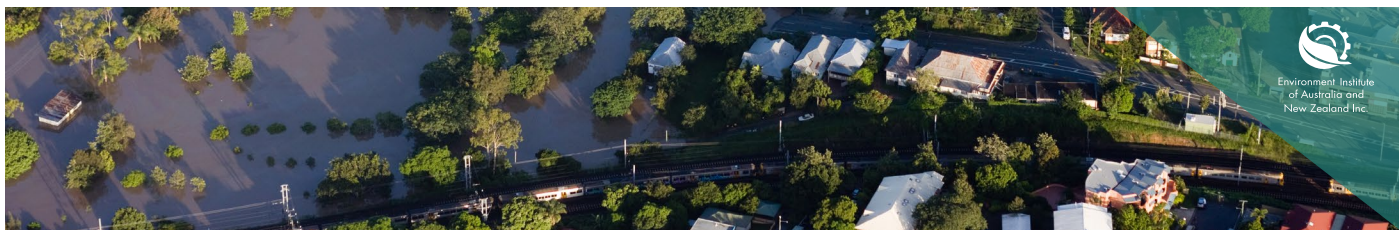
Governments should:

- Support investment in long-term ecosystem and land management, modelling and evaluation to develop sustainable natural disaster resilience and adaptation requirements.
- Develop communication strategies, including targeted storytelling, to increase understanding of the benefits of, and economic business cases for, natural assets practices that improve community and economic resilience.

3. Collaboration with others

Governments, industry and the environment profession should:

- Collaborate on adapting to climate change; addressing cumulative effects of natural hazards, social issues, and economic impacts; and transitioning to more disaster resilient communities.
- Include comprehensive disaster resilience objectives (covering mitigation, disaster event management and recovery) in land use plans.
- In developing local disaster management plans, plan on a whole-of-ecosystem basis, rather than just on single administrative units of land.
- Develop resilience strategies that incorporate Indigenous knowledges and approaches to restore and maintain cultural and ecological integrity as well as community safety.
- Ensure disaster management related environmental considerations are included in planning documents and development applications.
- Establish requirements, training and capabilities for wildlife response and recovery.
- Develop guidelines for post impact 'unwanted material' collection in consultation with waste and recycling groups.
- Support national and state institutions researching and enhancing disaster resilience.



Looking ahead

EIANZ is committed to working with governments, Indigenous Peoples, industry and other stakeholders to improve natural disaster resilience in Australia and Aotearoa New Zealand.

We actively encourage members and other environmental practitioners to develop their knowledge and capacity in this area, in recognition of the increasingly significant impacts of natural disasters.

EIANZ's next review of this position statement is scheduled for 2027.

About EIANZ

The Environment Institute of Australia and New Zealand (EIANZ) is Australasia's leading body for environmental professionals. We represent over 3,500 members and Certified Environmental Practitioners across Australia and Aotearoa New Zealand. Our members are at the forefront of environmental issues and come from a range of technical disciplines including science, policy, law, engineering and economics.

The Institute is responsible for the leading environmental certification scheme in Australasia, the Certified Environmental Practitioner (CEnvP) Scheme. We also provide professional development to environmental practitioners and advocate for sound environmental policy and ethical practice.