National Disaster Resilience Strategy
Rautaki ā-Motu
Manawaroa Aituā
Why all this hype about resilience anyway?!
Disasters cost us more than we think
The cost of disasters is growing and the portion absorbed by governments and its citizens are even greater...

Global economic losses from disasters 1970-2017

Source: Swiss Re Institute
Understanding the true cost of disasters

Tangible costs

Direct tangible costs: costs incurred as a result of the hazard event and have a market value such as damage to private properties and infrastructure

Intangible costs:

Indirect tangible costs: the flow-on effects that are not directly caused by the natural disaster itself, but from the consequences of the damage and destruction

Intangible costs: direct and indirect damages that cannot be easily priced, e.g.:

- Loss of life
- Physical injury and disability
- Chronic disease
- Mental health and psychosocial issues
- Drug and alcohol misuse
- Crime
- Family violence
- Environmental issues
We face many risks, known and unknown
OUR INCREASING EXPOSURE

Our population is increasing, and changing in demographic makeup and diversity.

We are adding to our built environment – buildings and infrastructure – at a rapid rate.

We value and depend on an increasingly wide array of products, services, and technology.

We have fought hard for economic development, growth, prosperity, and wealth.
OUR VULNERABILITIES

Our population is ageing, has large migrant communities, and deprivation still exists in many areas.

Our existing building stock/infrastructure is also ageing. Bridges, roads, railways, ports, water supply and the electrical grid all have weaknesses.

People are living in increasingly marginal locations, particularly around the coast.

The budget climate means government and communities must do more with less.
We live in an age of uncertainty
The future holds new operating modes
Life 3.0

- Unprecedented connectivity and data richness
- AI, VR, AR, and other enabling technology
- Growth of the sharing economy
- The changing balance of power between institutions and individuals
- Blurred roles between public sector, private sector, and civil society; the drive for ‘shared value’
- Becoming super-diverse
- And more…
The Government is prioritising wellbeing
NZ Government to lead world in measuring success with wellbeing measures

Laura Walters  •  16:32, Feb 01 2018

Wellbeing an elusive prize as Labour's budgetary pressures mount

Patrick Smille  •  05:00, Apr 05 2018

Ambitious targets to reduce child poverty.

Jacinda Ardern sets ambitious targets to reduce child poverty.

New Zealand plans to be the first in the world to measure its success in how it does socially, culturally and environmentally.

During her first major public address of the year, Prime Minister Ardern said her Labour-led Government wanted to go further than the current measures it had announced this week.

By the 2019 Budget, it would introduce a tool and framework to wellbeing of New Zealanders a measure of our economic success.
Our five strategic policy priorities
Policy Statement 2017 – 2019

1. INFRASTRUCTURE
Ensuring infrastructure and associated funding mechanisms are in place to allow for growth and maintenance across housing, building, transport, broadband, tourism-related assets, and control infrastructure.

2. RISK AND RESILIENCE
Understanding natural hazards and working alongside central government and stakeholder groups to protect infrastructure and support the economy.

3. ENVIRONMENTAL
Leading and advocating on behalf of councils working alongside central government and stakeholders to improve the quality of New Zealand’s environment and the quantity of New Zealand’s natural resources, and protect the environment.

4. SOCIAL
Working alongside central government and iwi to address social issues and needs in our communities including an ageing population, disparity between social housing and market housing, and increasing impate from climate change including climate-related risks and adaptation needs.

The welcome return of the four wellbeings to local gov't law
Tracy Hicks, 12:00, May 10, 2019

OPINION: It’s not unusual to either see or expect government to place their stamp on policy direction. Nevertheless, it was reassuring to this week see the Government agree to re-insert what has been referred to as the “four wellbeings” into the Local Government Act after an absence of a decade.

This provides a mandate for councils to consider the effect all-inclusive decisions will have on the overall wellbeing of the community. Sounds like simple common sense to me.
Developing a new strategy
A good strategy
= a diagnosis, a guiding policy, and coherent action
Considering a new Strategy: the evidence

- Lessons from events and exercises over the last 10 years
- Planned or in progress programmes of work
- Research on risks – shocks, stresses, system trends
- Future foresight data and research

Past

- Recent Performance
- Assessment of Capability

Current

- Strengths
- Weaknesses
- Opportunities
- Barriers

Future

- Hazards and Risks
- Societal Trends
- Best Practice
- Desired Future

- 2 x National Capability Assessments
- LGNZ white papers
- Scoping work for Local Govt Risk Agency
- Natural Hazards Research Platform, National Science Challenges, Sendai Framework, OECD papers, etc.
- Stakeholder engagement

- Research on risks – shocks, stresses, system trends
Considering a new Strategy: the evidence

Past

- Lessons from events and exercises over the last 10 years
- Recent Performance
- Assessment of Capability

Current

- Planned or in progress programmes of work
- Strengths Weaknesses Opportunities Barriers
- 10yr Strategy: Priorities and Actions

Future

- Research on risks – shocks, stresses, system trends
- Hazards and Risks
- Societal Trends
- Best Practice
- Desired Future
- Stakeholder engagement

Planned or in progress programmes of work

- LGNZ white papers
- Scoping work for Local Govt Risk Agency
- Assessment of SFDRR actions
- Natural Hazards Research Platform, National Science Challenges, Sendai Framework, OECD papers, etc.
- Future foresight data and research
“resilience is a way of life for businesses”

“buildings and infrastructure are more resilient to shocks and stresses”

“What does a resilient mean to you?”

“trust in leadership, in the process, and between government and community”

“everybody has a part to play”

“harness and enable community action, rather than direct and control it”

“establish relationships in communities before needed”

“resources are treasured – Te Ao Maori”

“greater lifeline functional redundancy”

“connectivity & embracing technology”

“building individual resilience – making the sum of the parts of a resilient system”

“resources are treasured – Te Ao Maori”

“transform data into information via spatial data infrastructure”

“land use reduces our exposure over time”

“nation mean to you?”

“financially strong, with appropriate infrastructure to respond and recover”

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What makes us resilient to disasters?
Model of a Resilient Nation

Social Resilience
- Social capital
- Health
- Education
- Welfare
- Justice and protection

Cultural Resilience
- Cultural values and identity
- Cultural life, heritage, and taonga
- Traditional knowledge and practice

Economic Resilience
- Economy
- Businesses
- Livelihoods
- Financial management
- Insurance

Resilience of the Built Environment
- Infrastructure
- Transport
- Buildings and housing
- Engineering and construction
- Urban growth and design

Resilience of the Natural Environment
- Resource management and land-use
- Indigenous ecosystems, biodiversity, and conservation
- Climate change

Governance of Risk and Resilience
- Leadership
- Policy
- Strategy
- Coordination
- Safety and security

Underpinning Knowledge, Research, Data, and Assessment
Putting it all together: National Disaster Resilience Strategy
National Disaster Resilience Strategy
Rautaki ā-Motu Manawaroa Aituā

We all have a role in a disaster resilient nation
He wāhanga tō tātau katoa i roto i te iwi manawaroa aituā
Our Vision

New Zealand is a disaster resilient nation that acts proactively to manage risks and build resilience in a way that contributes to the wellbeing and prosperity of New Zealanders.

New Zealand takes a proactive, anticipatory, smart approach to limit impacts before they happen, understanding that action up-front limits costs later. This includes taking steps to mitigate the risks of climate change, and to adapt to change already taking place. Through issues are tackled through collective conversations and action. Resilience is integrated into urban and rural design principles as a matter of course and supported by quality information on safe building materials and design. Risk data and modelling of hazard and risk are enabling the transition to smart land-use, where permanent dwellings and key infrastructure are not built on the highest risk ground.

Response to emergencies is characterised by an early warning system that suggests cooperative and coordinated emergency management, and timely, accurate, and relevant information that enables the public to understand the situation and take action to protect themselves and others, and limit damaging and costly flow-on effects.

New Zealand as a whole is able to have informed debate about the optimal level of resources to invest to ensure all aspects of recovery, including economic recovery are smooth and swift. Recovery from emergencies is comprehensive, participatory and inclusive of all peoples and organisations; having had discussions about priorities, processes, and desired outcomes before emergencies happen.

In summary, as a nation, we understand we live in a country exposed to hazards, but we also understand the range of actions to take to limit impacts and ensure the hazards, crises, and emergencies we will inevitably face do not become disasters that threaten our prosperity and wellbeing.
To strengthen the resilience of the nation, by:

1. Managing Risks
2. Effective Response to and Recovery From Emergencies
3. Enabling, Empowering, and Supporting Community Resilience
18 objectives give effect to the goal:

1. Managing Risks

1. Identify and understand risk scenarios (including the components of hazard, exposure, vulnerability, and capacity), and use this knowledge to inform decision-making.
2. Put in place organisational structures and identify necessary processes – including being informed by community perspectives – to understand and act on reducing risks.
3. Build risk awareness, risk literacy, and risk management capability, including the ability to assess risk.
4. Address gaps in risk reduction policy (particularly in the light of climate change adaptation).
5. Ensure development and investment practices, particularly in the built and natural environments, are risk-aware, taking care not to create any unnecessary or unacceptable new risk.
6. Understand the economic impact of disaster and disruption, and the need for investment in resilience; identify and develop financial mechanisms that support resilience activities.

2. Effective Response to and Recovery From Emergencies

7. Implement measures to ensure that the safety and wellbeing of people is at the heart of the emergency management system.
8. Build the relationship between emergency management organisations and iwi/groups representing Māori, to ensure greater recognition, understanding, and integration of iwi/Māori perspectives and tikanga in emergency management.
9. Strengthen the national leadership of the emergency management system to provide clearer direction and more consistent response to and recovery from emergencies.
10. Ensure it is clear who is responsible for what, nationally, regionally, and locally, in response and recovery; enable and empower community-level response, and ensure it is connected into wider coordinated responses, when and where necessary.
11. Build the capability and capacity of the emergency management workforce for response and recovery.
12. Improve the information and intelligence system that supports decision-making in emergencies to enable informed, timely, and consistent decisions by stakeholders and the public.
13. Enable and empower individuals, households, organisations, and businesses to build their resilience, paying particular attention to those people and groups who may be disproportionately affected by disaster.
14. Cultivate an environment for social connectedness which promotes a culture of mutual help; embed a collective impact approach to building community resilience.
15. Take a whole of city/district/region approach to resilience, including to embed strategic objectives for resilience in key plans and strategies.
16. Address the capacity and adequacy of critical infrastructure systems, and upgrade them as practicable, according to risks identified.
17. Embed a strategic, resilience approach to recovery planning that takes account of risks identified, recognises long-term priorities and opportunities to build back better, and ensures the needs of the affected are at the centre of recovery processes.
18. Recognise the importance of culture to resilience, including to support the continuity of cultural places, institutions and activities, and to enable the participation of different cultures in resilience.
Resilience of cultural places and cultural life

Infrastructure resilience

Community connectedness and capacity

Holistic approach to city/district level resilience

Individual, household, business preparedness

Risk assessment

Risk governance

Risk comms and capability

Climate change adaptation

Land use planning and development controls

EM leadership, roles, responsibilities, and comms

Partnership with iwi/Maori for EM

1. Managing Risks

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- Put in place organisational structures and identify necessary processes— including being informed by community perspectives— to understand and act on reducing risks
- Build risk awareness, risk literacy, and risk management capability, including the ability to assess risk
- Address gaps in risk reduction policy (particularly in the light of climate change adaptation)
- Ensure development and investment practices, particularly in the built and natural environments, are risk-aware, taking care not to create any unnecessary or unacceptable new risk
- Understand the economic impact of disaster and disruption, and the need for investment in resilience; identify and develop financial mechanisms that support resilience activities

2. Effective Response to and Recovery from Emergencies

- Implement measures to ensure that the safety and wellbeing of people is at the heart of the emergency management system
- Build the relationship between emergency management organisations and iwi groups representing Maori, to ensure greater recognition, understanding, and integration of iwi/Maori perspectives and tikanga in emergency management
- Strengthen the national leadership of the emergency management system to provide clearer direction and more consistent response to and recovery from emergencies
- Ensure it is clear who is responsible for what, nationally, regionally, and locally, in response and recovery; enable and empower community-level responses, and ensure it is connected into wider coordinated responses, when and where necessary
- Build the capability and capacity of the emergency management workforce for response and recovery
- Improve the information and intelligence system that supports decision-making in emergencies to enable informed, timely, and consistent decisions by stakeholders and the public

3. Enabling, Empowering, and Supporting Community Resilience

- Enable and empower individuals, households, organisations, and businesses to build their resilience, paying particular attention to those people and groups who may be disproportionately affected by disaster
- Cultivate an environment for social connectedness which promotes a culture of mutual help; embed a collective impact approach to building community resilience
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- Address the capacity and adequacy of critical infrastructure systems, and upgrade them as practicable, according to risks identified
- Embed a strategic resilience approach to recovery planning that takes account of risks identified, recognises long-term priorities and opportunities to build back better, and ensures the needs of the affected are at the centre of recovery processes
- Recognise the importance of culture to resilience, including to support the continuity of cultural places, institutions and activities, and to encourage the participation of different cultures in resilience

Economics of risk and resilience

EM capability, capacity, information and intelligence

Partnership with iwi/Maori for EM
So, what’s different about this Strategy compared to previous strategies?
It focuses strongly on resilience

The Strategy promotes resilient practices at all levels, from individuals and families/whānau, businesses and organisations, communities and hapū, cities, districts and regions, and Government and national organisations.
It is explicit that the purpose of resilience is the protection of wellbeing and prosperity.

The Strategy puts the wellbeing of people and communities at its core, to ensure our investment in resilience pays dividends for all our people.
It encourages us to be ‘risk-informed’

The Strategy is concerned with identifying and monitoring risks to our wellbeing, taking action to reduce our existing levels of risk, minimise the amount of new risk we create, and ensuring that everyone has the information, and tools they need to be able to make informed decisions about resilience.
It builds a fit-for-purpose emergency management system

The Strategy embeds the Government’s decisions on the Technical Advisory Group report *Better Responses*... to ensure we have an emergency management system that is fit-for-purpose, capable, and future ready.
It promotes an inclusive ‘whole of society’ approach where ‘we all have a role’

The Strategy promotes an inclusive approach to strengthening societal resilience that connects with a range of agencies, sectors, communities, and hapū/iwi, for improved outcomes for New Zealanders.
2 more key ideas
TRIPLE DIVIDEND OF RESILIENCE

1st Dividend of Resilience: Avoided Losses
Increased resilience reduces disaster losses by:
1. Saving lives
2. Reducing infrastructure damage
3. Reducing economic losses

2nd Dividend of Resilience: Economic Development
Increased resilience unlocks suppressed economic potential and stimulates economic activity by:
1. Encouraging households to save and build assets
2. Promoting entrepreneurship
3. Stimulating businesses to invest and innovate

3rd Dividend of Resilience: Co-benefits
Beyond increasing resilience, disaster risk management investment also yields positive social, cultural, and environmental side-benefits (‘co-benefits’)
1. **A common agenda**
Collectively defining the problem and creating a shared vision to solve it.

2. **Shared measurement**
Agreeing to track progress in the same way.

3. **Mutually reinforcing activities**
Coordinating collective efforts to maximize the end result.

4. **Continuous communication**
Building trust and relationships among all participants.

5. **A backbone organisation**
Having a team dedicated to orchestrating the work of the group.
The Strategy is the “basis for integration of national and local activity and planning” (CDEM Act 2002)

- to make sure we are all going in the same direction, and all putting effort towards the same goals and objectives.
We all have a role in a disaster resilient nation
He wāhanga tō tātau katoa i roto i te iwi manawaroa aituā
National Disaster Resilience Strategy

- Governance
  - e.g., Local Government Act 2002
  - e.g., Community resilience plans
  - e.g., Local government long-term plans

- Natural Environment Sector
  - e.g., Biosecurity 2025, Resource Management Act 1991
  - e.g., Earthquake-prone building policies

- Built Environment Sector
  - e.g., Building Act 2004 and regulations

- Social Sector
  - e.g., Health Act 1956, NZ Health Strategy, NZ Disability Strategy
  - e.g., Emergency plans

- Cultural Sector
  - e.g., Heritage New Zealand Pouhere Taonga Act 2014
  - e.g., Marae preparedness and resilience

- Economic Sector
  - e.g., Public Finance Act 2004, Living Standards Framework
  - e.g., Business continuity planning
  - e.g., Lifeline utilities planning and coordination
1. **A common agenda**
   Collectively defining the problem and creating a shared vision to solve it.

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   Agreeing to track progress in the same way.

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Roadmap of Actions

Actions to implement the Strategy priorities and objectives:

• For the Strategy as a whole
• Organisationally/by sector

Questions of scope, detail, and balance

(what is ‘guiding’ and ‘driving’, but not ‘directive’, or ‘prescriptive’?)
Measuring and monitoring regime

How are we doing?
Are we doing the right things?
Measuring and monitoring regime

**Input**
- Resources committed
- Activities and measurable outputs
- Resilience capacity indicators
- Resilience outcome indicators
- Wellbeing and post-shock indicators

**Outputs**
- National Disaster Resilience Strategy roadmap of actions
- CDEM Group Plans
- National Disaster Resilience Strategy roadmap of actions
- New Zealand Resilience Index
- Living Standards Framework, Sendai Framework for Disaster Risk Reduction

**Interim Outcomes**
- Dollars/hours spent on building code enforcement
- Staffing levels of first responder organisations
- Number of community networking events held
- Exercises with lifeline groups
- Quality of land-use planning for hazards
- Hospital response capacity
- Rates of development in areas prone to disasters
- Water system redundancy
- Health outcomes

**Outcomes**
- Number of disaster-related casualties
- Cost of livelihood disruption
- Quality and health of soil and water

**Impact**
Governance

- Strategy
- Governance Committee
- Sub-committees or Contributing Platforms
- Monitoring & Evaluation

Priorities 2019-2020 (tbc)

- Contributing Organisations:
  - DPMC
  - MfE
  - MBIE
  - DIA
  - EQC
  - LINZ
  - MSD
  - TPK
  - LGNZ/SOLGM
  - MOT/NZTA
  - Local Government
  - Private Sector
  - Civil Society

Advisory Groups
- E.G. Science/Research
- E.G. Community
We all have a role in a disaster resilient nation
He wāhanga tō tātau katoa i roto i te iwi manawaroa aitūā

Find out more at
www.civildefence.govt.nz
1. DEPTH OF IMPACT (ABSORPTION)  
2. SPEED OF RECOVERY (ADAPTABILITY)