

15 May 2024
Reference: OIA-2023/24-0802
Official Information Act request relating to a IAG briefing report
Thank you for your Official Information Act 1982 (the Act) request received on 26 April 2024. You requested:
"In the Report of the Government Inquiry into the Response to the North Island Severe Weather Events, published today, one of the references cited in footnotes is the following report: IAG, Meeting the cost of natural hazards: A briefing to the incoming government, November 2023
Could you please send me a copy of this report under the Official Information Act?"
I have decided to release the IAG briefing report in full. A copy is enclosed with this response.
You have the right to ask the Ombudsman to investigate and review my decision under section 28(3) of the Act.
This response will be published on the Department of the Prime Minister and Cabinet's website During our regular publication cycle. Typically, information is released monthly, or as otherwise determined. Your personal information including name and contact details will be removed for publication.
Yours sincerely
Anthony Richards Chief Advisor to the Deputy Chief Executive, Emergency Management







## Reducing New Zealand's natural hazard risk

New Zealand is blessed with beautiful and dramatic landscapes, abundant resources and a unique culture. It is also highly exposed to natural hazard risks that can have large and long-lasting impacts on our physical, mental and financial wellbeing. These impacts are growing faster than our economy because of poor development choices and a changing climate.

The economic and social damage from natural hazards imposes significant immediate and ongoing costs that hold back economic growth and draw resources and attention away from more productive activities. It is estimated that New Zealand has spent more than 4% of GDP per year recovering from natural disasters over the past 20 years.

While we have an established and evolving approach to managing natural hazards, it is not keeping pace with the growing risk. Our response is held back by a fatalistic attitude towards these risks and an unspoken assumption that there is only so much that can be done in dealing with them. So, we focus on response and recovery ahead of avoiding, reducing or building resilience to the impacts of natural hazards.

We can and must do a much better job at reducing natural hazard risk so that the cost of natural hazards grows more slowly than our economy. We need to reduce the economic volatility natural hazards create and ensure that the county has the financial capacity to deal with them.

Not only is reducing risk more cost-effective both in terms of fiscal risks and insurance affordability, it also supports more sustainable economic growth and improved social outcomes. Importantly, it means we reduce or may even avoid the trauma and loss that comes with disaster.

We need a different attitude and a much more targeted approach. We need to increase accountability for risk reduction, improve the measurement and targeting of risk reduction, increase our investment in infrastructure, invest in the science to understand and act on our natural hazards and evolve how we build back after disaster strikes. We also need to see through important reforms in land-use planning, managed retreat and the building code.

Reducing natural hazard risk enables insurers to get on with their job. Insurance fuels growth by enabling investment and trade, creating economic activity and bringing depth and stability to capital markets. Insurance also provides a critical buffer in our economy, smoothing financial shocks, accelerating recovery and reducing the call on the public purse.

It is vital that the new government takes immediate steps to close the emerging gap between the impacts of our hazards and how they are managed, so that we achieve a sensible, targeted and orderly reduction in natural hazard risk.

IAG is committed to playing its part in helping to achieve this outcome. I would welcome the opportunity to discuss with you our thinking and the recommendations in this paper.

Amanda Whiting
CEO IAG New Zealand



## **Growing natural hazard risk**

New Zealand is the world's second most exposed country to natural hazards. Each year it is jolted by over 150 felt earthquakes, battered by numerous storms and tornadoes and often sees communities inundated by floods. Its coastline is eroding, hills slipping and the potential for eruptions and tsunamis is ever-present.

Over the past 20 years this exposure has led to many major natural hazard events and almost 100 declared states of emergency (see Figure 1). Today, many regions are in some form of recovery from natural disaster.

This period has also seen \$44b in insurance and Earthquake Commission (EQC) payouts for natural disasters. Research suggests that the wider economic cost over this same period (from uninsured physical damage, recovery costs and economic disruption) is multiples higher. It can be estimated at c.\$120b with the long-term social costs (from social, health and education outcomes) a further c.\$40b, mainly paid for by central and local government. This gives an estimated total cost in the order of \$200b.

Lloyds of London estimates the average cost of natural disasters to New Zealand at 0.66% of GDP a year or as much as we spend on the Police or defence. However, over the past 20 years the cost has been 4.3% per year, due in large part to the Canterbury earthquakes, This is almost as much as we spend on education, superannuation or purchasing health services. The full scale of the damage, trauma and expense of these events is why natural hazards are rightly considered a nationally significant risk.

The scale of our natural hazard losses holds back our economic growth, with each dollar spent on recovery being diverted from growing New Zealand's prosperity and wellbeing.

The cost of these events is growing in absolute terms and as a percentage of GDP. Our development choices in medium and high-risk locations places more of our built environment in harm's way and the warming climate is causing non-linear increases in the frequency and impacts of weather-related events.

Significant events like the Auckland anniversary weekend flooding and Cyclone Gabrielle from earlier this year will happen again and seismic events, on the scale even of the Kaikoura and Canterbury earthquakes, could occur at any time. These large events, combined with the steady increases in losses from other events over the past five years, offer a concerning glimpse of the future.

The insurance industry will reflect growing natural hazard risk in its pricing and underwriting decisions and in increasingly granular ways. This will likely have negative consequences for communities that face acute or multiple risks, as premiums rise and the uptake of insurance falls.

Growing risk will also erode the attractiveness of the insurance market for insurers and their investors. The New Zealand market is already challenging due to its small size, low growth, low return and high volatility, making it harder for insurers to secure the capital and reinsurance they need to provide full insurance.









We must recognise that not all natural hazards are equal or require the same approach (see Figure 2). Flooding and storms are our most frequently occurring hazards but large earthquakes (and potentially volcanic eruptions) our most impactful. The understanding of hazard continues to grow, with the largest gaps and uncertainties associated with climate hazards.

Hazards, such as landslips and floods, including coastal inundation caused by sea-level rise, are best addressed through avoidance and protective measures, such as landuse planning and infrastructure. Earthquakes and storms require a greater focus on resilience through improvements in the Building Code.

Not all parts of New Zealand are equally exposed. Some towns and regions are exposed to multiple hazards and/or suffer the impacts of repeat events, compounding the costs and consequences of natural hazards. This impacts business confidence, people's willingness to stay in their community, insurance affordability and the appetite of banks and insurers to provide ongoing support. Without a significant intervention to reduce the risk, some of our most at risk communities may face a downward economic and social spiral.

Instead of this downward trajectory, it is better that we take steps now so that we don't suffer the impacts of natural hazards as often or as keenly. It is important we protect our communities and avoid the damage and trauma our weather and geography can create. This would also demonstrate that we have heard the growing warnings and are taking concrete steps to reduce natural hazard risk.

## A fatalistic attitude is holding us back

The significant presence of multiple natural hazards and the cost they impose on New Zealand demands a vigilant, proactive and relentless approach to reducing their impacts.

Yet New Zealand often has a fatalistic attitude toward natural hazards. This attitude is clouded by cognitive and behavioural biases, which hinders efforts to reduce their impacts.

We underestimate the likelihood and impact of disaster and so are surprised when events occur, shocked by the loss and damage they create, and tend to see them as exceptional.

We fail to fully appreciate the highly dynamic nature of natural hazards, in that their likelihood and scale can change over time and vary significantly from event to event. Their impact can turn on the smallest of factors and the potential for extreme events is growing faster than the growth in average sized events.

We also tend to think the hazards we face are unavoidable but also that we have time before disaster strikes. However, we don't use that time as well as we should to reduce the potential impacts.

We look to protect lives, but less so the functioning of our communities and economy, and therefore our ability to recover and become more resilient.

We rally to support people and protect affected communities after disaster strikes, but lose focus and momentum as the urgency of response fades, leaving us repeatedly chasing rather than getting ahead of the next disaster.

These attitudes manifest in what appears to be an unspoken assumption that there is only so much that can be done in dealing with our natural hazards, and the focus must be on response and recovery ahead of avoiding, reducing or building resilience to their impacts. This assumption is often wrong.

Our attitude towards natural hazard risk also leads to insurance primarily being used to fund recovery after inevitable disaster, forgetting the role it can have in helping to incentivise and reward risk reduction.

This places the political and public policy emphasis on maintaining the affordability and uptake of insurance but sidesteps important questions about the appropriateness of a particular risk itself and whether it should be insured.

Ultimately, it leads to seeing a fall in the affordability and uptake of insurance as the problem when it is in fact the symptom of a growing and / or unacceptable level of risk. This needs to change because it distracts from efforts to address risk directly and the corresponding benefits for insurance availability and affordability.









## An inadequate response to the risks we face

New Zealand has an evolving but still inadequate response to dealing with the risk natural hazards pose to the built environment. It draws upon systems that span central government, local government, business and community. These include governance, science, planning, infrastructure, building and construction, finance and insurance, and emergency management (see Figure 3). These systems are shaped by fiscal limits and the Government's responsibilities towards New Zealanders and the awareness, expectations and incentives of society.

Insurers rely on these systems to ensure that natural hazard risk is well understood and managed so that they can provide insurance cover to households and businesses that is comprehensive and affordable. Global reinsurers also look at the quality of these systems when judging a country's ability and seriousness in addressing risks.

Each of these systems has a different impact on natural hazard risk. Some help to understand it, others to avoid, reduce, withdraw from, respond and / or recover from it. Some impact existing development, others future development, or both. Some can have impacts in the short term, others only over the long term. And the level of involvement from government, business and community varies. This creates a complex environment that relies on these systems being well coordinated and well targeted, so that their combined efforts deliver the outcomes needed.

But there are significant problems with our approach. While these systems collectively contribute to the management of natural hazard risk, none has that function as a primary focus.

Moreover, there is no measurement or guiding outcome in relation to natural hazard risk that these systems are individually or collectively working towards. Specifically, the level of natural hazard risk that is acceptable for an individual building or for a community.

These systems also have their own challenges and shortcomings and therefore many have a focus and priorities that are not about natural hazards. The other priorities have a strong pull on their attention and resources, making their contribution to natural hazards less focused and less effective and efficient than they otherwise could or should be.

Some of these systems also suffer from a lack of funding and/or lack of capability to deliver the natural hazard outcomes expected of them – especially where the system is reliant on local government.

There is a significant amount of reform taking place in and across these systems that will help to improve how they operate and the outcomes they produce. However, even if all these changes are well executed, this activity will not fully address the shortcomings that exist overall in the management of natural hazard risk.

New Zealand's approach, while certainly not broken, has targeting, coordination, funding and capability gaps that will stop it from meeting the growing challenges from natural hazards.





## **Case Study**

## **Westport Flooding 2021**

In July 2021 heavy rainfall caused severe flooding in Westport from both the Buller River and the Orowaiti estuary. The water breached Westport's existing flood defences, causing widespread damage and disruption, with 826 properties affected and over 2,000 people requiring evacuation.

The flood led to 71 homes sustaining a level of damage that posed a risk to health or life and there were given a red placard. A further 384 homes sustained a level of damage that warranted restricted access, and these were given a yellow placard. In total 23% of homes needed repairs to make them habitable. Insurers paid a total of \$73.1m to affected home and business owners.

Flooding of this magnitude in Westport is not exceptional. NIWA estimates that the flow in the Buller River recorded at Te Kuha indicates that the flooding was typical for between a 1:50 and 1:100-year flood. This supports a view that Westport does not currently have sufficient flood defences.

Two further flooding events in February 2022 saw another State of Local Emergency declared, road closures, evacuation of affected residents, damage to infrastructure and the inundation of homes. To date the Government has provided \$100m of support to Westport in direct council assistance, emergency response funding, the provision of temporary accommodation and transport and water infrastructure repair.

Flooding is relatively common in Westport, with major floods occurring in 1873, 1926, 1970 and 2018. Flooding is also not Westport's only hazard. It faces earthquake risk due to its proximity to the Alpine fault and the high probability (c.75%) of a rupture in the next 50 years, liquefaction risk due to its location on the Buller River flood plain and coastal accretion that prevents the Orowaiti estuary naturally exiting to the sea. In addition, by 2100 climate change is expected to increase rainfall in the area by 9%-19%, sea levels by 40cm-80cm and the 1:100 flood flow at Te Kuha by 11%-25%.

In June 2022, the Buller District Council, West Coast Regional Council and Te Rūnanga Ngāti Waewae submitted a co-investment proposal to the Government seeking a \$44.5m contribution to a \$56.1m resilience programme. The major elements of the programme included upgrading Westport's flood defences to protect the town from a 1:100-year flood (taking into account a 'middle of the range' future climate scenario); changes to the district plan to limit subdivision and intensification in high-risk areas; the relocation of properties from the Snodgrass area; and new stormwater pumping infrastructure. In May 2023 the Government announced that it would provide \$22.9m to supportsome of these measures.

The total identified response and recovery cost of the flooding in July 2021 is c.\$173m. This figure excludes broader economic and social costs to the community. This cost greatly exceeds the estimated \$56m that would ensure Westport is not affected by flooding of a similar intensity.

## **Risk reduction is critical**

We need to close the emerging gap between the impacts of our hazards and how they are managed. If we fail or are too slow to act, we will see more households and businesses put in harm's way over coming years, greater physical, psychological and financial impacts on people and greater overall economic and social costs.

The manifestation of the increased risk we are expecting will also reduce the affordability and uptake of insurance and thereby lead to an increasing call on the taxpayer to fund response and recovery. It will create a continued drag on the economy and the prosperity and wellbeing of New Zealanders and may lead to a downward spiral for our most exposed communities.

To avoid this, New Zealand's approach to natural hazard risk must place greater emphasis on risk reduction and improved resilience. It must also support more informed and targeted decision-making, so that we understand and prioritise where the marginal dollar of investment in risk reduction should occur.

Overall, we must reverse the trend of the past decades, so that the cost of natural hazards grows more slowly than our economy. At the same time, we need to reduce the economic volatility natural hazards create and ensure that New Zealand has the financial capacity to deal with the shock of major disasters.

Achieving this will reduce the risk to hazard-prone communities, reduce the cost to the Government and communities following disaster and improve the insurability of affected communities.

To do this we recommend the Government takes the following immediate practical steps in the areas of leadership, investment and capability to deliver a sensible, targeted and orderly reduction in natural hazard risk.

- 1. Increase the focus on natural hazard risk reduction by strengthening accountability.
- 2. Reduce the cost of flooding by targeting investment in flood infrastructure.
- 3. Fill critical knowledge gaps by prioritising investment in hazards science.
- 4. Build back better by evolving the approach to postevent risk reduction.
- Better target investment by measuring natural hazard risk.
- 6. Improve council decision-making by strengthening development laws.

These actions provide a mix of immediate and longer-term improvements that will enable central and local government, businesses and communities to better understand and reduce natural hazard risk. Insurers will support these actions, as they will provide the platform to continue to support the economic health and vitality of New Zealand. IAG is committed to working with the Government on these initiatives.

It is essential that the Government takes these steps to reduce the damage, trauma and expense of natural hazards and their impacts on the prosperity and wellbeing of New Zealanders.

## Recommendations to reduce natural hazard risk.

#### **LEADERSHIP**

# Increase the focus on natural hazard risk reduction by strengthening accountability.

Assign responsibility for natural hazard risk reduction to a senior minister and clarify the accountabilities of agencies in delivering natural hazard risk reduction, including appointing a lead agency that can coordinate and drive activity, so that there is a greater focus on risk reduction across regulatory systems.

# Better target investment by measuring natural hazard risk.

Establish a quantitative measure of the risk to the built environment from natural hazards that is nationally consistent and scalable to target and measure risk reduction.

#### INVESTMENT

# Reduce the cost of flooding by targeting investment in flood infrastructure.

Establish a dedicated \$150m per year contestable fund for co-investment with local government to enable improvement in the country's flood protection infrastructure to meet growing flood risk.

# Fill critical knowledge gaps by prioritising investment in hazards science.

Establish a dedicated fund of \$50m per year (reallocated from the Strategic Investment Fund or Endeavour Fund) to commission the accelerated development and maintenance of granular, nationally consistent and open access natural hazard data sets and models so that New Zealand has the information it needs to understand and reduce its natural hazard risks.

#### **CAPABILITY**

### Build back better by evolving the approach to postevent risk reduction.

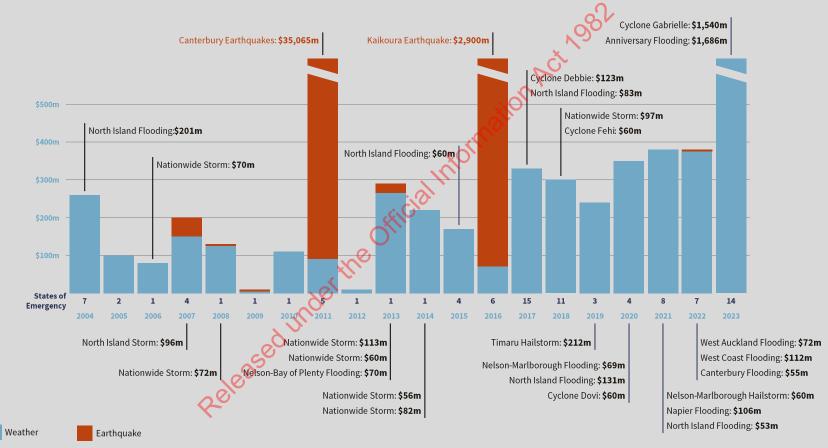
Establish a framework for reducing natural hazard risk during recovery, drawing on lessons from recent events, with a focus on area-wide protection and avoidance measures associated with flooding and mass land movement.

# Improve council decision-making by strengthening development laws.

Prioritise for delivery in your first term five existing initiatives that are aimed at reducing the impacts of natural hazards through improved land-using planning and construction:

- The development of national guidance for natural hazard management under the Resource Management Act (RMA).
- The strengthening of the RMA to avoid or limit development in medium- and high-risk locations.
- The requirement for councils to recognise natural hazard risks in long-term spatial planning.
- The development of a framework and approach to low-damage design within the Building Code.
- The development of a framework and legislation for pre-emptive retreat from high-risk locations.

Figure 1. Insurance cost of natural hazards.



Note: All figures are expressed in 2023 dollars using the average of quarterly residential and commercial building inflation rates sourced from Statistics New Zealand.

Figure 2. Characteristics of natural hazards in New Zealand.

	Likelihood	Impact	Scale of Event	<b>Аррі</b> Primary	r <b>oach</b> Secondary	<b>Insura</b> r Building	i <b>ce</b> Land	Key Regulatory Tools
Geophysical (Land)						X NOS		
Earthquakes (shaking, liquefaction)	Occasional	Regional	10x Billions	Resilience	Readiness (	Private + EQC	EQC	Building Code and land-use planning
Tsunami	Remote	Area-wide	100x Millions	Readiness	0	Private + EQC	EQC	Emergency Management
Mass movements / land slips	Occasional	Localised	10x Millions	Avoidance	dio.	Private + EQC	EQC	Land-use planning and infrastructure
Volcanic eruptions	Remote	Regional	10x Billions	Readiness	Mos	Private + EQC	EQC	Emergency management
Hydrological (Water)				· Infe	)			
Flooding (pluvial, fluvial, coastal)	Frequent	Area-wide	100x Millions	Avoidance	Reduction	Private	EQC	Land-use planning and infrastructure
Coastal erosion	Ongoing	Localised	Millions	Avoidance	Reduction	Private	EQC	Land-use planning
Storm surge	Occasional	Localised	Millions	Avoidance	Reduction	Private	EQC	Land-use planning
Meteorological (Weather)			" ille					
Storms	Frequent	Regional	10x Millions	Resilience	Readiness	Private	-	Building Code
Cyclones and ex tropical storms	Probable	Regional	100x Millions	Resilience	Readiness	Private	-	Building Code
Hailstorms	Occasional	Localised	10x Millions	Resilience	Readiness	Private	-	Building Code
Tornados	Occasional	Localised	Millions	Resilience	Readiness	Private	-	Building Code
Climatological (Heat)	Q	ele						
Drought	Occasional	Regional	100x Millions	Resilience	Readiness	-	-	-
Wildfire	Occasional	Localised	10x Millions	Reduction	Readiness	Private	-	Building Code

Figure 3. Systems for managing natural hazards.

Governance	Science System	Planning System	Infrastructure System	Building System	Finance System	Insurance System	Emergency Management System			
IMPACTS	IMPACTS	IMPACTS	IMPACTS	IMPACTS	IMPACTS	IMPACTS	IMPACTS			
New and existing	New and existing	New and existing development	New and existing	New	New and existing	New and existing	Existing			
development	development development		development	development	development	development	development			
PRODUCT DURATION	PRODUCT DURATION	PRODUCT DURATION	PRODUCT DURATION	PRODUCT DURATION	PRODUCT DURATION	PRODUCT DURATION	PRODUCT DURATION			
6-10 years	1-5 years	10 years	100 years	50 years	30 years	1 year	10 years			
<b>'</b>	,	,	,		,	,	,			
TIME TO IMPACT	TIME TO IMPACT	TIME TO IMPACT	TIME TO IMPACT	TIME TO IMPACT	TIME TO IMPACT	TIME TO IMPACT	TIME TO IMPACT			
3 years	3-5 years	2-12 years	1 year	3-5 years	<1 year	<1 year	3 years			
5,54.5	o o yeuro	2 12 / 50.15	1)64.	0 0 7 0 0	1,00.	1,000.	o years			
CURRENT FOCUS	CURRENT FOCUS	CURRENT FOCUS	CURRENT FOCUS	CURRENT FOCUS	CURRENT FOCUS	CURRENT FOCUS	CURRENT FOCUS			
Coordination	Science excellence	Sustainable	Reliability & resilience	Quality and efficiency	Funding growth	Funding recovery	Reducing impacts			
		development		Consignation of			, , , , , , , , , , , , , , , , , , ,			
		,	20)							
KEY GAPS	KEY GAPS	KEY GAPS	KEY GAPS	KEY GAPS	KEY GAPS	KEY GAPS	KEY GAPS			
No targets	Core data sets*	National guidance*	Investment in flood	Low damage design	Risk focus	Product changes	Recovery focus*			
No prioritisation	Open access to data	Managed retreat	Infrastructure			Risk signalling	Recovery playbook			
Limited accountability		1000								

<sup>\*</sup> Some work is under way to address this gap.

#### References.

- 1 'A world at risk: Closing the insurance gap', Lloyds of London, 2018.
- 2 We have drawn various papers to determine ratio for economic and social costs: 'Special report: Update to the economic costs of natural disasters in Australia', Deloitte Access Economics, 2021; 'The economic cost of the social impact of natural disasters', Deloitte Access Economics, 2016; 'Economic and Social Costs of Natural Disasters in Australia', Bureau of Transport Economics, 2001; 'The cost of natural disasters in Australia', Joy, 1991.
- 3 The estimated total cost of natural disasters over the past 20 years, excluding the Canterbury earthquakes, has been 0.81% of GDP.
- 4 'Budget Economic and Fiscal Update 2023: Core Crown Expense Tables', New Zealand Treasury, 2023.
- 5 https://www.dpmc.govt.nz/our-programmes/national-security/national-risk-approach/new-zealands-nationally-significant-risks.
- 6 Activity includes elements within the National Adaptation Plan, Natural Disaster Resilience Strategy, National Infrastructure Strategy, Critical Infrastructure Resilience Programme, Urban Growth Agenda, and Construction Sector Transformation Plan.
- 7 Refer to 'Central Government Co-investment in Flood Protection Schemes Supplementary Report', Te Uru Kahika, January 2022.
- 8 Information drawn from the Buller Recovery website, https://bullerrecovery.org.nz/weather-events/.
- 9 'Insurers Release July 2021 Westport Flood Progress Data', Insurance Council of New Zealand Te Kāhui Inihua o Aotearoa, July 2022.
- 10 'Westport Flood Recovery Information Session Frequently Asked Questions', Buller District Council, May 2022.
- 11 'Buller River Westport Flood Mitigation Engineering Report', G&E Willimas Consultants, June 2022.
- 12 'Kawatiri Deep and Swift: Co-Investment in Westport's Resilience', Buller District Council, West Coast Regional Council and Te Rūnanga Ngāti Waewae, June 2022.
- 13 'Kawatiri Deep and Swift: Co-Investment in Westport's Resilience', Buller District Council, West Coast Regional Council and Te Rūnanga Ngāti Waewae, June 2022.
- 14 'Kawatiri Deep and Swift: Co-Investment in Westport's Resilience', Buller District Council, West Coast Regional Council and Te Rūnanga Ngāti Waewae, June 2022.

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### **About IAG**

IAG New Zealand is the largest general insurer in the country, trading under the AMI, State and NZI brands, as well as providing the general insurance products sold by ASB, BNZ, Westpac and The Co-operative Bank.

IAG New Zealand provides a variety of insurance products, including home, contents, motor, commercial property, construction, business interruption, liability, marine and cyber insurance.

IAG New Zealand employs over 4,000 people, holds relationships with one in every two New Zealand households and insures over \$900b of commercial and domestic assets.

IAG New Zealand is a subsidiary of the ASX-listed Insurance Australia Group Limited.