



It's Our Fault Annual Progress Report 2024-2025

Disaster Research Science Report 2025/01 June 2025

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BIBLIOGRAPHIC REFERENCE

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ABSTRACT

This report outlines work contributing to the It's Our Fault (IOF) programme for 2025 relating to mana whenua in Wellington Region, and draft planning for Years 2 and 3 (2026–2027). Success factors/KPIs were codeveloped in Q1/Year 1 and work was to contribute to the following goals: (1) improvement in understanding of natural hazards risk; (2) increased participation in emergency management events; (3) increased levels of emergency management training. Our outputs were two hui with community whānau; a community activity led by tamariki and rangatahi on Waitangi Day in Porirua; educational material for participating kura; the development of an awareness and education pathways plan; and this Report on our activities.

KEYWORDS

Tūhonotia! - Connecting, collaborating!

Kanohi ki te kanohi - Meeting face to face at the community

Integrating mana whenua learning that includes culture, history, and effective ways of acquiring knowledge and wisdom

CONTENTS

1.0	Summary 5		
2.0	Background and context 5		
3.0	Rep	t on activities7	
	3.1	Two public facing activities February 1 st and 6 th , 2025	
	3.2	Waitangi Day Te Rauparaha Porirua lwi Engagement Booth	
	3.3	Education materials for participating kura	
4.0	Awaı	reness and education pathways plan 11	

1. SUMMARY

This science report from the Joint Centre for Disaster Research (JCDR) focuses on completed work with mana whenua in Wellington Region contributing to the It's Our Fault (IOF) programme. The report details processes of co-design for KPI's, and draft plans for Years 2 and 3 that will provide context for future funding strategies in Year 3 (2026-2027). Background is provided to explain the role of Hono (the Māori Emergency Management Network) and outline the network and associated activities that align iwi Māori needs and aspirations in emergency management (EM) with the wider disaster risk reduction (DRR) strategies of IOF. We also provide an overview of how mātauranga Māori has informed our work.

The success factors/KPIs were codeveloped in Q1/Year 1 and were to contribute to the following goals:

- improvement in understanding of natural hazards risk
- increased participation in emergency management events
- increased levels of emergency management training.

Our outputs were:

- two hui with community whānau
- community activity led by tamariki and rangatahi on Waitangi Day in Porirua
- education material for participating kura
- an awareness and education pathways plan
- this Report on our activities.

2. BACKGROUND AND CONTEXT

Mātauranga as a place-based knowledge system has been integral to the salience and validity of multiple Māori approaches in environmental management and disaster risk reduction (DRR). Our challenge is to identify and implement how this distinct knowledge system contributes to and complements disaster sciences. We have drawn on our existing networks with iwi Māori, EM agencies, and Māori researchers and administrators to co-design and deliver our training and education strategies.

Indigenous Knowledge (IK) has been recognised as having a fundamental role in understanding disaster risk and supporting the resilience of Indigenous and other communities as outlined in the UNDRR Sendai Framework¹. Despite this, implementing

¹ UNISDR, Sendai Framework for Disaster Risk Reduction 2015-30 (United Nations, 2015).

Indigenous-centric DRR and EM approaches has proven difficult². Successive reports in this country have noted the value of Māori institutions and practices in EM and argued for their roles to be formalised within government civil defence and EM, including through legislation³. While Aotearoa New Zealand is a signatory to the Sendai Framework and has regularly declared the urgency of a comprehensive DRR and EM strategy, a report into the response to several severe weather events in 2022/23 found significant gaps, including:

- limited emergency management experience, capacity, and capability, including experience managing large-scale events
- communities and key organisations not being involved in planning activities
- a significant mismatch between community expectations about what the emergency management response should offer and what it is able to deliver.

Hono was established in response to these well-known gaps in mainstream EM service delivery that were emphasised in the poor response to the severe weather events of 2023, notably Cyclone Gabrielle which seriously impacted Te Tairawhiti. The vision of Hono is a world where Indigenous wisdom and self-determination protect our people and the environment, drive resilience, and inspire global solidarity in the face of disaster. Our mission is to develop and sustain a national Māori Emergency Management Network, rooted in mātauranga and tikanga Māori, that empowers Māori leadership, strengthens capacity, fosters collaboration, and drives innovation to ensure resourced, equitable, and culturally grounded disaster responses.

The vision and mission of Hono are to be achieved through focusing on three pou:

- Whakahau / Empower: Building Māori leadership and capability in emergency management.
- Tiaki me te Whakaora / Protect and Restore: Protecting taonga, whenua, and whānau through Māori-led responses and recovery.
- Pūnaha Ārahi / Systems and Behaviour Change: Embedding tikanga Māori into disaster systems, research, and governance.

An important part of this project that supports Hono's strategy was a collaboration undertaken between GNS, and the "It's Our Fault" programme and Takapūwāhia Marae community, Porirua. This community is vulnerable to several hazards, mainly earthquakes, tsunami, and landslides. The key output is the mapping of community exposure to natural hazards to inform decisions on managed retreat and the best ways to protect homes, marae,

² Prerna Chand and Sarah Hemstock, *Midterm Review of the Implementation of the Sendai Framework for Disaster Risk Reduction 2015-2030 Thematic Report: Local, Indigenous and Traditional Knowledge for Disaster Risk Reduction in the Pacific (UNDRR, 2023), 46,*

https://www.google.com/url?sa=t&rct=j&q=&esrc=s&source=web&cd=&ved=2ahUKEwjts5Ty5MiGAxVUamwGHX6HAbkQFnoECBkQAQ&url=https%3A%2F%2Fwww.undrr.org%2Fmedia%2F89327%2Fdownload%3FstartDownload%3Dtrue&usg=AOvVaw2f7XDYzeQmblgrpiZm4xZ-&opi=89978449.

³ Ministry of Civil Defence & Emergency Management (MCDEM), *Ministerial Review into Better Responses to Natural Disasters* (Ministry of Civil Defence and Emergency Management, 2017),

https://www.dpmc.govt.nz/publications/ministerial-review-better-responses-natural-disaster-and-other-emergencies.

kura and medical centres4.

IOF scientists are leveraging the success of this pilot project to support two other Wellington region communities and Hono likewise have a greater understanding of the technical aspects of hazard mapping as well as key relationships for future engagement.

Along with the need to address the EM capacity and capability of communities, we recognise that bilingual training and teaching resources were fundamental in achieving our goal of increasing the understanding of disaster risk. By implementing Coordinated Incident Management System (CIMS) training and building educational resources, we connect with Māori in practical ways that contribute to their resilience to known hazards (seismic activity, flooding and landslides) and build networks and relationships that enable future programmes with participating communities and allow us to expand work to other communities in the region.

Breaking down the siloes is important, in which so many services for Māori and other vulnerable community are isolated, both from Māori and from other service providers. We also recognise the urgency which frames the need for greater Māori capacity and capability in EM, and a more integrated system that recognises Māori and can effectively and efficiently work alongside iwi Māori leaders and practitioners.

3. REPORT ON ACTIVITIES

3.1. Two public facing activities February 1st and 6th 2025

- In consideration of the passing of Distinguished Professor David Johnston early in 2025, our planned talks with mana whenua at Kohunui Marae - intended to coincide with the 170th anniversary of the 1855 Wairarapa Earthquake (scheduled for Jan 22nd) were postponed. We also postponed an invite to deliver an Historical Awareness talk for the public at Aratoi Museum (scheduled for Jan 23, 2025).
- Te Rā o te Raukura Day (Feb 1st) Waiwhetu, Lower Hutt: The organiser's lwi Engagement Day provided education stalls, and health and wellbeing information (see Figure 1 below). The shake table allowed us to simulate seismic activity and communicate physical details that build awareness of the need for whanau emergency planning that included education pathways to emergency management with the Joint Centre for Disaster Research at Massey University.

⁴ S.-L. Lin et al., *It's Our Fault; No Matou Te Hapa (IOF): Natural Hazards Impacts on Maori Communities and Key Facilities, Takapuwahia, Porirua, Case Study. Lower Hutt, N.Z*, 2024/40. 29, GNS Science (2024), http://dx.doi.org/10.21420/6XFB-X221.



Figure 1: Community engagement, Waiwhetu marae, Lower Hutt, February 1st, 2025.

3.2. Waitangi Day (Feb 6th) Te Rauparaha Porirua lwi Engagement Booth

This day was attended by approximately 35,000 people with a busy public facing engagement. There was a large representation of Māori and Pasifika communities, and we enjoyed great success with children and families who enthusiastically participated in discussions and the shake table activity (see Figure 2 below).



Figure 2: Porirua, February 6th, 2025. Tamariki working with the Shake table (l); Hono and JCDR staff and supporters (r).

3.3. Education materials for participating kura

Preparatory engagement enabled us to quickly co-design an approach to improve the accessibility of science (pūtaiao) in the Earth Sciences disciplines by recognising hurdles for Immersion Māori tauira (students) and Kaiako (staff). This was lead by Kelvin Tapuke who translated scientific landslide terminology and explanations into te reo and introduced kupu hou pūtaiao to tauira at participating kura. For example, two key kupu Māori we introduced were 'hapa' for earthquake fault and 'horowhenua' for landslide as these two hazards are particularly relevant for participating communities in Te Tairawhiti.

We have published two books and produced a short film/video. The first book 'Rū Nui Rū Roa' is on earthquakes and tsunami (Figure 3) and walks tauira through how to respond when the ground shakes. The second book deals with landslides (Figure 4). Both publications were checked for science consistency by Alice Lake-Hammond (AF8). Script illustrations are being developed for the next iteration of both pukapuka specifically for natural hazards including earthquakes, tsunami and landslides. These activities continue to support developing a partnership with iwi māori.



Figure 3: Book 1 – 'Rū Nui Rū Roa', earthquake and tsunami booklet (Tapuke, 2025)



Figure 4: Book 2 - 'Landslides' (Wanoa and Mark-Shadbolt, 2025)

Video Te Reo Māori Preparedness for Hazards

A short film/video was created on preparedness for earthquake and tsunami hazards (Figure 5). The final version will be released for social media.



Figure 5: Rū Nui Rū Roa, short film on earthquake and tsunami hazards

Tamariki from the Puna Matauranga in Porirua afterschool programme have participated in light community rescue activities and landslide education with Brenda Rosser from GNS Science (now Earth Sciences NZ) (Figure 5).



Figure 5: Tamariki participating in community rescue activities and landslide education

4. AWARENESS AND EDUCATION PATHWAYS PLAN

Years 2/3 will see engagement with Wairarapa (Kahungunu and Rangitane) to design and develop community resilience workshops and a rangatahi education programme on disasters relevant to their rohe, based on the models developed in previous roadshows and wananga in Tairawhiti, Porirua and Turangi. This contributes to their own STEM programmes, providing valuable resources and contributing to lessons relevant to the resilience of whanau, kura and communities. Specific dates are TBD in late July, 2025. Iwi Engagement with Andrea Rutene GM iwi Partnerships Kahungunu & Rangitane ki Wairarapa continues. Mihirangi Hollings GM Rangitane has also been engaged regarding a STEM programme for rangatahi and kura Kaupapa schools on natural hazards and emergency management education pathways.

The roadshows and kura activities are to be repeated twice more, cementing both the relationships with kura and community leaders and expanding the teachings to include more complex concepts as the initial cohort progresses through their education and bringing younger tauira into this learning space.

In addition Tash Wanoa (Emergency Management Masters student Massey) and Hohaia Keogh (aspiring scientist accepted to Otago Medical Programme) will be visiting Wairarapa with the NIWA (now Earth Sciences NZ) science team who will deliver the findings from a seismic testing voyage. This voyage was completed to map the sedimentary seismic data of Wairarapa coastal areas. These talks will be given to mana whenua at Kohunui Marae August 1, 2025. This will continue to provide up-dated risk modelling to the iwi and will add to the scheduled public talks at Wairarapa Museum on Jan 23rd, 2026. An iwi bus tour of Wairarapa fault lines and Wairarapa historical earthquake 1855 historical talks have been rescheduled

at Kohunui marae also. These talks were previously postponed due to the sad passing of JCDR Professor David Johnston.

Tash and Hohaia will be participating on the Cook Straight Tangaroa Voyage Oct 2025 and will film the voyage to play to Kura Kaupapa Māori students. The aim is to have mentors captured on video who can encourage career paths in science, research and emergency management.

5. REFERENCES

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