

# Edge

**Programme Title:** Living at the Edge - Transforming the Margins

**Programme Leader:** Professor Paul Kench (The University of Auckland)

## **Programme Overview**

Communities living on 'The Edge' are located in dynamic physical settings (e.g. coastal margins, flood plains), which are highly vulnerable to natural hazards. The experience of these hazards is exacerbated by climate, socio-economic and demographic change. New Zealand is characterised by many of these communities, facing intensification and acceleration of risk in response to natural hazards and experiencing an amplification of conflicts over how to adapt to changing environments.

This priority co-creation laboratory programme will initially be developed in Hawke's Bay, one of New Zealand's "hot spots" of community conflict around coastal hazard management. It will lead to tangible, viable and acceptable solutions to support communities living in highly vulnerable settings. A participatory approach underpins the programme with the aim to develop pathways that enable communities to meaningfully engage, understand and contribute to the resolution of intense conflicts in high-risk locations, especially those exacerbated by changing climate, environment, socio-economic and land-development scenarios. The project will explore the policy, governance and community transitions required to adapt to current and future hazards. The solutions created will empower New Zealand communities to be risk-aware, agile participants in decision-making and developing resilient futures. Stakeholders will produce a shared understanding and a set of strategies to build resilience that are integrated with planning processes and support integrated governance systems at multiple scales.

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## **Programme Outcomes**

**Contribution to Challenge Mission:** Future risk-aware, thriving communities will need to be agile and adaptive in reducing the increasing and compounding risks they and future generations face. This laboratory programme will showcase the transdisciplinary research needed to tackle areas where unsustainable local community practices (including planning practices) exist. In particular, we will work with communities that are perceived to have high vulnerability to natural hazard challenges, against a backdrop of ongoing climate change in New Zealand. The programme will co-produce understanding of local-scale experience of hazards and support the implementation of shared adaptation pathways, to be integrated with enabling planning and governance processes.

**Vision Mātauranga ("VM") outcome:** This research lab will work collaboratively with the Maori Resilience Co-creation Laboratory in ensuring local iwi are effectively engaged in all stages of the Hawke's Bay case study. In addition a later case study will work directly with local iwi to address 'edge issues' in the Bay of Plenty.

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**10-year outcome:** Successfully implementation of the first case study, and tools transferred to new case studies in urban centres and with local iwi in rural areas.

**5-year outcome:** Stakeholders will have developed a series of strategies as part of a comprehensive approach to enhance community resilience to coastal hazards. These strategies will underpin a set of community guidelines to inform and advise future decision-making processes.

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### **Specific Projects within Programme**

**1. Building a shared understanding of processes, hazards and community resilience.**

The project aims to explore wider community understandings and experiences of hazards in the case study area, including characterisation of the social and economic characteristics, networks and values and attitudes that underpin community attachment and resilience.

**2. Scenario exploration of coastal futures.** The aim is to develop a shared community – scientific – local government understanding and vision for future hazards and identify whether, and to what extent, there will be intensification of risk to the community over time.

**3. Building the resilient vision.** This project explores and develop adaptive technical and planning pathways to build community resilience and inform and advise future decision-making processes.

**4. Managed retreat.** This project, funded through the Challenge's contestable funding process in 2017, is investigating the legal and social implications of changing existing land use in hazard areas.

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