

# Rural

**Programme Title:** Resilient Rural Backbone

**Programme Leaders:** Assoc Prof Tom Wilson (University of Canterbury), Dr Nick Cradock-Henry (Landcare Research)

## Background

The Rural Co-Creation Laboratory will broker innovative solutions for enhancing the resilience of rural New Zealand, recognising its unique contribution to our national identity and its pivotal economic function. A resilient rural backbone will be built via:

- Developing an integrated framework for assessing resilience to natural hazards across rural value chains: from households to regions and small to global-scale agribusinesses;
- Producing tools for resilience-interventions and defining opportunities, through comprehensive scenario activities with key sectors, communities and regions; and
- Building a researcher-stakeholder co-creation team and outreach network as 'honest brokers' for policy and practice leadership via new networks and through chains of land care, disaster management and other farming, tourism and rural community initiatives.

These outcomes will fast-track resilient solutions for multiple hazards into the New Zealand rural context.

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## Programme Outcomes

**Contribution to Challenge Mission:** The ongoing drivers towards more intensive modes of agricultural production have connected rural communities and economies (including agribusiness and tourism) to global capital, resources, environmental and social change. Along with these stressors, a resilient New Zealand will require innovative and enduring solutions for rural communities and economies to ride out the shocks induced by natural hazards. The programme will also focus tool development to adapt to creeping change to the rural hazard profile, especially increased drought and wildfire risk in many parts of the country. This programme will deliver the research required to enhance rural resilience across social, ecological and economic domains, at multiple scales to help build a thriving future for our rural sector.

**Vision Mātauranga ("VM") outcome:** The programme will contribute to innovative indigenous solutions for mitigating the risks and impacts associated with complex and evolving hazardscapes in rural regions, and contribute more generally to the development of locally derived, culturally meaningful resilience strategies for Māori. Specific efforts will include: partnering with rural Iwi business(es) to identify and share resilient solutions for natural hazards; and use a case-study approach to explore Iwi and/or Hapu led initiatives in a rural context.

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**10-year outcome:** The suite of resilience tools and strategies co-created during the programme have been successfully implemented and adapted to suit the needs of a range of stakeholders in rural case study settings, and resulted in a measurable and perceived increase in resilience across the case study communities. We have had success in transferring the approach to other rural communities across Aotearoa New Zealand, resulting in increased resilience across the country. Strong and lasting relationships have developed between rural stakeholders and the research community, facilitated by the Rural Resilience Network, which has grown to include many rural communities in the country. Rural resilience science has been advanced through empirical applications (tools), and the development of theory, methodologies, tools and frameworks, for wider application in New Zealand. Rural communities are equipped to deal with change in natural hazard profiles, including wildfire, exacerbated by climate change and land-use changes.

**5-year outcome:** Through knowledge co-production, and context-specific research, rural stakeholders will have larger, stronger and more inclusive resilience networks, together with a suite of accessible, and effective tools to enable rural stakeholders' capacity to thrive in complex natural hazardscapes. A strong rural resilience network is proactively engaging rural people and organisations to help create thriving rural communities. The co-creation process has produced policy and practice-relevant insights and tools for enhancing rural resilience, and contributed to clearer pathways to decision making for practitioners and policy-makers.

### **Specific Projects within Programme**

- 1. Resilience Solutions for Rural New Zealand:** will co-produce and broker innovative solutions for enhancing the resilience of rural New Zealand.
- 2. Multi-level Resilience:** will develop and apply an integrated, analytical framework for promoting resilience at multiple scales across rural value chains. It will showcase the economic consequences of resilience initiatives for agri- and tourism businesses under multi, cascading and creeping natural hazard events.
- 3. Resilience to Wildfire Challenges:** will co-develop resilience initiatives for wildfire with communities and integrate rural wildfire hazard risk assessment and resilience initiatives within a multi-hazard environment.
- 4. Resilience in Transient Rural Communities.** This project, funded through the Challenge's contestable funding process in 2017, is examining and documenting the response and recovery to Kaikōura-Hurunui earthquake from a community perspective, in order to identify community structures that can help foster greater resilience.
- 5. Rural Value Chains.** This project, funded through the Challenge's contestable funding process in 2017, sees several methodologies combine to analyse disruptions in complex

networks of interdependent rural value chains and how these networks will react in a natural hazard.

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