

Rennie, H. G., Beaven, S., Cradock-Henry, N., Grant, A., Hughes, M. W., Langer, E.R., Orchiston, C., and Wilson, T.M. 'Co-creating Rural Resilience in Kaikoura – a new form of SEA?' Poster Paper

The National Science Challenge – Resilience to Nature's Challenges (RNC) is a 10 year \$60million research programme intended to significantly improve the resilience of New Zealanders and New Zealanders to natural hazardous events, especially those that might otherwise lead to disaster. This includes rapid and slow onset events (e.g., tsunami and drought respectively). The focus of the challenge is on building resilience rather than trying to predict the nature of events – a lesson learned from Christchurch and in itself a significant paradigm shift.

The RNC research programme comprises a number of teams working on individual but interlinked components (e.g., changing social norms, building better infrastructure) and four 'co-creation laboratories'. The laboratories are effectively case study areas within which the research from the other 'toolkit' teams can be channelled to assist and support the local community, but in a co-creative way – meaning that the community is involved from the outset in identifying research needs and developing and testing the tools developed. This is facilitated by the laboratory teams. Who will also undertake location specific research that results of which are transferrable and scaleable. One of these teams is the Rural Co-creative Laboratory which had initiated work on Kaikoura as one of its key case study communities immediately before the 2016 earthquakes.

The key elements of the Kaikoura Rural Co-creation Laboratory are:

- 1 Brokering resilience solutions** – what are the most effective ways to bring together emergency management planning with affected stakeholders to build resilience?
- 2 Social learning for rural resilience** – how does social learning for rural resilience take place, and how can we evaluate the effectiveness of resilience interventions?
- 3 Attendant benefits** – what are the co-benefits of enhancing rural resilience? (e.g. levels of trust, social capital, community wellbeing and other participatory and collaborative processes for resource management).

The process being used involves: identifying socio-ecological knowledge networks with the community; developing/strengthening network relationships; identifying (with the community) key research needs and tools to strengthen multi-scalar resilience; test tools, and test the transferability of the tools. The 2016 earthquake demonstrated some of the possibilities of this approach with the quick production and dissemination of ethical guidelines for researchers and information gatherers going into the area and the nascent connected/networked knowledge and expertise being able to be drawn on to and with response organisations to assist and inform aspects of the response.

The research has led to reflecting on the relationship between SEA and the process and goal of the Laboratory. The proposition that we see as being tested is essentially: To the extent that co-creative laboratories contribute to community resilience they potentially:

- cross statutory and institutional boundaries
- develop transdisciplinary knowledge
- enhance social capital
- access limited knowledge resources, and
- enhance legitimacy and credibility of the process.

The Kaikoura Rural Co-creative Laboratory therefore offers opportunities to demonstrate an enhanced, participatory co-creative strategic assessment founded in knowledge systems that may be a new form of SEA for building resilience. Fully assessed policies, plans and programmes emerge organically through the process.