



Weathering the Storm: The Power of Social Resilience in Disaster Recovery

By Grant Maxwell, Growth Leader - Infrastructure Resilience, Stantec

In Aotearoa New Zealand, we're geographically and geologically vulnerable to tsunamis, earthquakes, flooding, extreme storms, and volcanic activity.

Christchurch's earthquakes, Nelson and Auckland's atmospheric rivers, and Cyclone Gabrielle have had massive impacts on our infrastructure, requiring long-term recovery work to restore a level of service in its region. To keep our people safe, disaster resilience needs to be a national priority. The challenge? There's no quick fix.

New Zealanders learn what to do in an emergency at an early age because safety is our priority—we all know how to drop, cover, and hold an emergency go-bag at the ready. The same level of preparedness should apply to our infrastructure, but the damage sustained through continued natural disasters makes it clear we have room to improve.

So, what does a resilient nation look like?

Ultimately, resilience is a multimodal and complex set of efforts. How do we plan, design, build, and maintain our infrastructure with resilience in mind? How can we learn from past experiences? How can we engage stakeholders, policy makers, funders, communities, consultants, and constructors to create strong private and public investment? How can we better equip our communities?

We need a whole-of-society approach to resilience, with responsibility cascading from government to local authorities to communities and their individual members. Here, policy, legislation, and funding are the necessary foundation. These must work to support our regional entities to successfully implement resilience strategy, response, and recovery.

Programmed recovery work should be rolled out without delay, a feat which has proven challenging in Aotearoa without a blueprint to follow. Countries like the USA, Canada, and Japan exemplify the value of a national disaster recovery framework; it gives confidence to the people affected and guidance to those wanting to aid the recovery.

A resilient Aotearoa could boldly respond to future events with knowledge and

confidence, make swift decisions to restore infrastructure and communities, and lessen both financial and wellbeing impacts.

The power of resilient communities

While large-scale action is essential, so is the strength of our communities. Natural disasters are unsettlingly familiar in Aotearoa; many locals are accustomed to extreme weather events and dealing with the damage they leave behind. For example, the residents of Gisborne have endured multiple storms in the past few years, each causing more destruction and disruption with insufficient time between inhibiting any meaningful recovery. Our communities have learned to turn to one another for support, especially in rural areas where loss of water, electricity, or access often hit hardest. Both social media and physical communication help circulate information and coordinate people in times of need.

In Central Hawke's Bay, the response and ongoing recovery following Cyclone Gabrielle holds experience of how these three levels—central government, councils, and local communities—can work together successfully. The region's transportation network suffered during the cyclone, including washed out bridges, scoured bridge approaches, landslide-damaged roads, and substantial volumes of slash and debris across the area.

Douglas Cutting Bridge is a key example: the rural bridge was damaged by high river flows with one of the abutments completely washed out. This posed a structural risk and prevented safe use, which completely cut off the community. In response, a local farmer jumped into action and built an alternative track across his property, providing the isolated community with fast interim access. This allowed Council time to acquire response funding and install a temporary river crossing which will remain in use until the permanent bridge solution is complete. Though the farmer's track is an especially inspiring example, efforts like this are not uncommon; stories of local heroes always grace our headlines when natural disasters hit Aotearoa.

How can we recover better?

To successfully prepare for, respond to, and recover from natural disasters, central government and the local councils must do their part. It's imperative to permanently reconnect our impacted communities or find better alternatives if resilience requires challenging the status quo. Here, local engagement is essential for building trust, sustaining support, and meeting expectations.

It can't be understated that the initial act of people coming together can rapidly restore safety, security, and access in compromised areas. It sets the recovery in motion, informing its direction in a more meaningful way. However, this can only go so far without the required legislative and financial elements, particularly addressing damaged infrastructure.

Without a national recovery blueprint for decision making, our population is still at risk. Delays and inconsistent outcomes are still likely. The National Resilience Plan released last week is a welcomed step from the Government. While the devil is in the detail, it shows we're starting to respond to having learned the hard way about our infrastructure deficit. Aotearoa will continue to see natural disasters affect our beautiful motu. We need to see an investment in a national recovery framework, but it will take nationwide support to drive the need for change.