

personal traits of those resilient farmers include a willingness to change as well as self-awareness, strong networking and an ongoing sensitivity to external issues, key to determining future solutions. These are exceptional managers who thrive despite the volatility that exists. They capture upside risk and mitigate downside risk. More research is required to ensure that we better understand how they do this.

‘Farmers are a risk-averse lot, very conservative and slow to change.’ We don’t think so. The facts tell quite a different story!

Stress Test: Supporting farmers in crisis

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Farming in New Zealand is clearly a risky business, and yet it may be argued that recent boom years in the dairy sector have led to a complacent attitude towards developing sector resilience in times of stress. Not only do real and constantly changing challenges exist on the supply side of the equation — livestock management, water supply, drought and climate change, for example — but uncertainties are also present on the demand side; the implications of the Trans-Pacific Partnership (TPP) and the structure of the auction model for the sale of Fonterra products are cases in point.

It goes without saying that instability and uncertainty are not the ideal determinants for well-being in the farming sector. Those directly involved in production can undergo months or even years of economic instability. The agricultural industry plays a fundamentally important role in New Zealand’s economy, directly accounting for 4.5 per cent of GDP, with the water-intensive dairy industry making up 48 per cent of gross agricultural production in 2013. Given this, and despite the increasing urbanisation in New Zealand, any impacts on this productive sector also flow on to those who service it, in turn influencing and encompassing entire regions, and indeed the country as a whole.

Take falling global commodity prices, and add more local hazards, such as drought and more frequent and highly intense rainfall patterns — as well as the changing distribution of where this rain actually falls — and the scenario begins to look very challenging, especially on the back of the last big dry period in 2013. All this strain on the rural agricultural economy flows through to the urban centres in a range of ways — for example, through the reduced availability of credit when banks become wary of increased debt exposure as a result of lending based on high land values.

Right now the news is all about high dairy farmer debt and the threat of foreclosure by the banks. There's no doubt that economic loss is associated with a higher risk of emotional distress, and the current plunge in prices will be having a noticeable effect on many. People may be experiencing high anxiety and constant worry, and having trouble sleeping.

Debt and reduced cash flow are a huge issue, carrying stigma and shame and sometimes leading to very public admissions when people are forced to sell up. It can be difficult for community members to know what to do. They may be reluctant to intrude into other people's business, or conversely feel a sense of *Schadenfreude* — that others perhaps got what was coming when they overextended themselves chasing financial windfalls.

When hazard leads to disaster, the impact on those in the farming sector depends much upon their exposure to the hazard, and on the personal and community risk and resilience factors that they bring to the situation. Typical reactions to unexpected hazards include shock, denial, uncertainty and confusion. Some forewarning can enable anticipatory planning but can also provoke feelings of anxiety and underpreparedness, as well as a

fear of knock-on stressors such as reduced economic opportunity.

Personal and community risk, and resilience factors, can be varied. Previous experiences may leave some people feeling psychologically vulnerable as a result of previous experiences, while others may end up feeling stronger and more connected to their families, their industry and their community networks. And it's important to note that what can be borne and absorbed for one season, or even a year or two, becomes a completely different state of affairs if it persists over time; consider, for example, the long-term impact of climate change or changes in international trading terms. Although industry and regulatory changes may mitigate against these challenges, farming communities will feel the ripples at deeply psychological and emotional levels.

In the aftermath of a disaster, survivors can experience a range of psychosocial symptoms such as stress, grief, depression and anxiety. Studies show that these reactions settle down and that most people, given the appropriate resources and support, return to a relatively stable pattern of healthy functioning in time. The majority experience passing distress but return to psychological health, with a study by George A. Bonanno and others showing that fewer than 30 per cent of adults experienced severe and lasting levels of psychological problems.

A review we undertook at Massey University of the impacts of flooding highlighted issues that can be broadly extrapolated to the farming sector and to other hazards that are cyclical, or less easy to predict. Our findings illustrated how floods can have a great impact on people's psychosocial needs and mental health. Further, the extended time frame and disruptive nature of flooding are such that the effects of secondary stressors are highly significant. More specifically, we found that the severe damage and the need to evacuate property were associated with higher levels of distress. Other factors, such as negative impact

on financial resources, lack of social support, and disruption to essential services, were noted. Furthermore, the impact of secondary stressors was a critical factor across several of the studies reviewed, especially when temporary accommodation was needed and there were subsequent insurance complications.

Longer-term research suggests that feelings of anxiety may persist long after repairs have been completed and people have returned to their homes. Subsequent periods of bad weather can be particularly stressful; individuals are reminded of their hardships during the flood and fear a replay. From a broader hazards perspective, although some people show symptoms of acute stress reaction and post-traumatic stress, a much smaller proportion of affected populations may suffer clinical levels of depression, anxiety or behavioural disorders, and eventually require more specialised mental health care. Resources and support need to be planned accordingly.

So what systems and processes have been shown to support affected individuals and communities? What is most helpful for most people in the early stages of adapting to the effects of a disaster is (i) awareness of the possible likely impacts and (ii) promotion of basic forms of support and self-help strategies to ensure safety, the security of supply to meet basic human needs, and appropriate professional intervention. Also important are reconnection with communities and loved ones; the provision of comfort, care, information and advice about the meaning of such psychological reactions; and sensitisation to such information for those who might be charged with helping them (family doctors, for example). A range of intervention levels is depicted in Figure 1.

According to this arrangement, the most basic level of intervention that contributes to supporting the well-being of

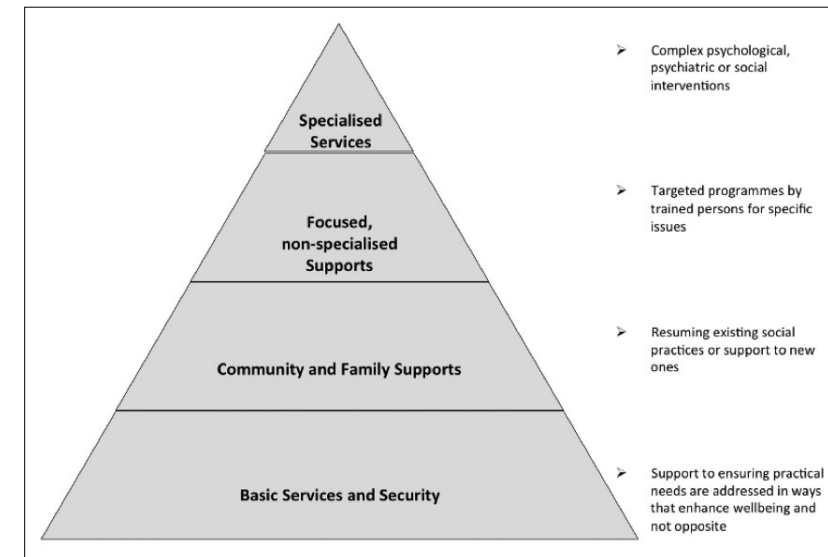


Figure 1. A stepped-care approach to meeting psychological needs after crisis.

the greatest number of people focuses on re-establishing the supply of goods and services to meet basic needs of water, food, shelter, accommodation, sanitation and security. A psychosocial perspective would also consider how to influence workers and volunteers to structure arrangements for delivering these goods and services in a safe, dignified, and socioculturally appropriate way that promotes the mental health and well-being of the affected communities (e.g. Farmstrong: www.farmstrong.co.nz). It should also leverage existing social capital, community-based structures and governance arrangements in order to augment existing, well-functioning arrangements, rather than run the risk of building new, unsustainable structures.

My sense is that Farmstrong is well received, but that networks are thin and stretched. It was good that the Ministry for Social Development announced funding after the severe flooding in Taranaki, Horowhenua, Manawatu, Rangitikei and Whanganui

in June 2015, but arguments had to be made quite strongly to fund psychosocial support. It is of concern that the sustainability of such funding is not thought about carefully enough from a resilience-building perspective. Rather, it tends to flow in response and recovery modes.

The next layer of support in Figure 1 represents a level of intervention for a smaller proportion of the population who are able to maintain (and grow) their psychosocial well-being if they can access key community and family supports. This level can include responses such as supportive programmes and advice, and the help of existing community groups such as rural support trusts.

The next level of the pyramid structure represents the response to the needs of a still smaller group of people who additionally require more focused individual, family or group interventions by trained and supervised staff. For example, those affected in the farming community may need a mixture of emotional and livelihood support from the financial sector, rural support trusts and others. This layer may also include mental health-care interventions delivered by primary mental health-care workers and the system.

The final, top layer of the intervention pyramid represents the additional support needed for the small percentage of the population for whom suffering is intolerable, and who may have difficulties with basic daily functioning, despite the available supports previously mentioned. The type of assistance that can be made available includes psychological and/or psychiatric supports for people with more profound mental health difficulties, and/or who are at risk of suicide. Some people with preexisting difficulties with mental health may find their symptoms getting worse; conversely, others may find this [what exactly?] a protective factor. Whether directly or indirectly involved, those involved in

providing psychosocial care need to be appropriately trained in post-disaster reactions and evidence-informed interventions. If at all possible, any such higher-level psychosocial interventions should be delivered through co-designed, community-led, agency-supported activities.

Although each situation is dependent upon local resources, certain universal features should be considered, including the means of promoting increased well-being and psychosocial support. This can be achieved by adopting strategies designed to (i) revitalise a community's own support networks, (ii) provide outreach and screening capacity, and (iii) make formal services available for those requiring closer support.

Outreach and assessment processes will be especially important in any psychosocial recovery disaster management plan. Wise capability and capacity planning will aim to capitalise on existing services and personnel to aid recovery activities, using non-disaster times to provide specialist training and coordination planning for eventual disasters. However, it is worth noting that often those in most need of help are least likely to present using traditional access pathways, or may be slow to present, preferring to wait for those with perceived greater needs. Public health campaigns may be needed to support affected communities until they feel ready to present for more tailored, intensive support when/if they need, and feel ready to accept it (e.g. the Healthy Christchurch initiative *All Right?* which launched in 2013).

To encourage self-help, post-disaster-event psychosocial support information can be made available and distributed through multiple channels and means, including fact sheets at welfare or health centres, press releases for mainstream and social media, key informant interviews for press and TV/radio, educational workshops, free telephone helplines and professionally facilitated peer support groups. The type of information that is likely to be

helpful includes information about a possible range of responses, how to facilitate the healing process for oneself and others (for example through the provision and acceptance of basic needs support), and when and where to seek further help if required. Information could be provided to caregivers to help them to understand their critical role in assisting young children and their ability to cope. Modern media developments such as Facebook and Twitter also mean that it is not enough to merely broadcast information without also developing and devoting resources to promote engagement, respond to ongoing queries — which may be significant in volume and frequency — and control fast-spreading false or unverified sources of information that may compete with *bona fide* resources.

The challenges that face the farming sector in New Zealand seem to be significant, additive and cumulative in their impacts. For example, it used to be that droughts were not commonplace; rather they occurred approximately every five years. As these events become more frequent, it is likely that we will no longer experience them as one-off events. The impact of this is not linear, but places an additional strain upon the resources and coping mechanisms of farming and associated communities. The financial impact is likely to be carried forward into the next economic planning cycle, and there may be a lag in putting into place the processes to mitigate for future risk.

As well as establishing resources and processes to support community members who experience reduced health and well-being, interventions must also take place at a structural level to modify the sources of these strains. Unless the sources are addressed, logic dictates that the load will continue to escalate, with ever-increasing associated costs to the health and welfare sector, and the potential for additional misery and suffering for those who are affected.

Chasing The Taste Of Goodness: Playing to New Zealand's reputation with super-premium brands

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It's hard not to stress how important food and beverage exports are to New Zealand. This diverse sector accounts for around half of the country's export of goods by value, and government appetite is for much, much more. Asian markets are expanding, and New Zealand business visitors to newly affluent Asian cities quickly discover the unifying flavour of the country's products: it's the taste of goodness.

Understanding why the wholesomeness of New Zealand products is valued by consumers elsewhere is key to New Zealand's food and beverage businesses holding their own in extremely competitive international markets.

The size of the opportunity in Asian markets is mind-boggling. New Zealand's population is around 4.6 million. Thailand has 68.8 million people, Vietnam has 91.6 million, and China has around 1340 million people. While the scale is overwhelming, New Zealand businesses are seeing the most promising opportunity in just a tiny sliver of the market — the high-margin niches.

To really understand what overseas consumers are buying, there is no substitute for being immersed in the market. Richard McPhail, export manager for Gisborne-based fresh produce firm LeaderBrand, visited Shanghai last year to refresh his perspective