

Rural people's responses to environmental stress

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Methuen Morgan is currently a PhD student at the University of New England. Having completed his Bachelor of Arts (H1 and UNE APA prize winner 2010) in 2010 his thesis topic was 'Future time, environmental attitudes and behaviours within the Australian rural sector'. His proposed PhD thesis topic is 'Environmental stressors and mental health outcomes in Australian farmers: working towards a model of resilience'. His thesis is attempting to develop cognitive profiles of Australian farmers. To do so, he has chosen to investigate farmers' attitudes to chronic stressors such as climate change, and mining lease interactions, which, he says, are not generally well understood.

Prior enrolling in psychology at UNE he has worked as a property manager, feedlot manager and a practice manager in a GP's surgery. Together with his wife and daughter he currently has a 'postage stamp' property outside Armidale running cattle.

Methuen is passionate about rural men's health having been a speaker at several rural men's mental health events in Qld.

Thank you, James. Thank you, everyone. My fear is currently running at several levels. I'd like to take this opportunity to thank the organisers, particular Gordon and Leanne, for all your assistance and the invitation to speak here today. While at this point in time I consider Armidale in New South Wales to be my home, I'm a born and bred Queenslander and my hometown is Condamine, a small rural town on the western Darling Downs which shot to national prominence early this year.

Before I start, I must confess I'm a bit of a technophobe. I was obviously beaten up by a PowerPoint slide presentation as a child and, as a consequence, I may give you a headache but it won't be as a consequence of having to read anything. Instead, I've got about 10 pictures of water. A cruel twist of fate has resulted in my being nominated as the opening batsman for this particular session. The subject of this address has been the subject of some discussion over the last week or two. Gordon was very clear that he wanted me to give you a bit of an insight into the Condamine floods and the community responses to them and provide a bit of a positive note about the resilience and strength of rural communities.

I suggested to him that I was sure you would be staggeringly interested in my research work on time perspective, environmental attitudes and behaviours within the rural sector. Gordon urged caution, and rightly so, because as one tired academic at the UNE said to me, "No one gives a—insert your own expletive here—about fourth year research." I was then somewhat surprised to learn a week ago when I finally looked at the web conference program that I was actually going to talk about rural people's responses to environmental stressors and, as interesting as that topic is given it's my PhD topic, I don't consider myself an expert in that.

So in the best of tradition I have compromised and I will try to incorporate all of these things using the floods at Condamine as a vehicle to carry the message. Can I say that the session on environmental challenges that I attended yesterday was particularly interesting and I congratulate all the speakers. Just to diverge for a moment, I find the climate change debate—and I use the term "debate" pretty loosely—very intriguing. What intrigues me is the language that's used—climate change deniers, sceptics, believers—all emotional. And depending on where you go, the vehemence of the positions is intriguing. I confess that also the weight of evidence suggests to me that anthropogenic climate change is a distinct possibility. After all, the addition of 30 billion metric tonnes of CO₂ that we humans pump into the atmosphere every year I would have thought had some effect.

However, that said, the survey I did last year of 539 farmers Australia wide suggests that they generally thought climate change and the threat of climate change was a non-issue. We also looked at issues of trust, that is the level of trust that farmers have in a range of groups such as the Federal government, State governments, government departments, landcare and media sources. It may surprise you to learn that, generally, this group of farmers trusted the governments and their departments about as far as you could spit. So if we extrapolate this out, we have a group of people, the farmers, who are stewards of 55 per cent of the

Australian land mass. They appear not to trust the government or their representatives. They think climate change is overstated—after all, extreme weather events have been around since the day dot—and so, to add insult to injury, they've also been told that their livestock and their land management practices play a major role in anthropogenic climate change.

Is it just me or are there some fundamental problems here? As suggested, my thesis looked at time perspective and environmental attitudes, ie ecocentrism, anthropocentrism, environmental apathy as described by Thompson and Barton, and level of self-efficacy associated with sustainable farming practices. Ecocentrism and anthropocentrism both describe a positive attitude to the environment, with the difference being the underlying driving force of these positive attitudes. Ecocentrics essentially believe the environment has its own intrinsic worth and should be protected even if it requires individual sacrifice. Anthropocentrics, on the other hand, while having a positive attitude to the environment, do so for fundamentally different reasons. Anthropocentrics are pro environmental because of what they can get from it and, when a conflict arises between self interest and the environment, the literature suggests that the environment generally loses out.

We found with our sample, however, that the farmers were both ecocentric and anthropocentric within their environmental attitudes, but they also engaged in pro environmental behaviours in the form of sustainable farming practices. This is perhaps intuitively unsurprising but it was in contrast to all previous published literature. The study also found that self-efficacy was a better predictor of pro environmental behaviours than future time orientations. Higher self-efficacy or perceived self-efficacy is instrumental in motivating behaviours and is usually associated with more adaptive individual behaviours in adverse circumstances. “Adaptive capacity” is a term from anthropology which describes the necessary precondition for adapting to change. It refers to the ability of the individuals or communities to adapt to stressful life events. It also refers to the capacity of a community to proactively and reactively cope and adapt to adverse life circumstances. It's fair to say the Condamine community is brimming with adaptive capacity.

The photographs up on the screen that you can currently see are just an indicator of what the Condamine district looks like. The township of Condamine is approximately 150 people within the town boundary and a similar number in the surrounding areas. Until recently, the main employer of the district was, of course, the surrounding properties and associated agricultural operations. These include broadacre farming and a mix of farming operations including feedlots. While the agricultural operations still play a major role in the lifeblood of the Condamine district, another big boy has come to town, notably the mining industries in the form of coal mining and coal seam gas operations which contribute to the economic wellbeing with mixed blessings.

Like most rural communities, the Condamine community has developed the capacity to deal with chronic stressful events such as droughts and acute stressful events such as floods. The backbone of this capacity to deal with chronic and acute stressors has been forged through generational experience and knowledge. Most members of the community have seen major floods before. Every 10 years or so the river comes up, the bridge goes under, the river goes down, leaving a perfect environment for mosquitoes and sandflies. This time, however, it was the sheer magnitude of the peak of the floodwaters and the temporal proximity between the two peaks that surprised the residents and the emergency services alike.

The photograph indicates the extent of the water, and you can see the township of Condamine swimming. Very few residents escaped without some damage of one kind or another. Now, let me please be clear about the term “disaster” which was used. The catchment area of the Condamine River had none of the personal cost of life that was seen in the Victorian bushfires that Colin will speak of, nor did it have the terror or loss of life experienced by those who suffered the fury of the floods in Toowoomba and Grantham. There was, indeed, a great deal of flood damage in the town itself, and damage in the form of fence, crop, livestock and equipment loss by those farmers on the Condamine River and its tributaries. While the level of damage was substantial, it was far from out of the spectrum of what might be considered normal.

The flood threat started to emerge on the Darling Downs as early as September when the Bureau started to talk about the la nina and the possibility of a wet summer. While the job the Bureau does is often criticised, given the elements they deal with and then try to predict, which is, to my mind, a little bit like trying to muster feral cats, they have at least my admiration. The rain started on 5 December and, while Dr Roger Stone was predicting floods, the extent was not envisaged by anyone.

By Boxing Day 2010 the town of Condamine was cut off from the surrounding towns of Miles and Chinchilla and the floodwaters were well on their way to the 15.2 metres that we experienced. The township of Condamine was evacuated on 30 December and then again on 11 January, the media reporting that the entire town was evacuated to Dalby by Black Hawk helicopter. This, in reality, is not quite what happened. One of the backbone industries for the Condamine area is feedlotting. In the local Condamine area there is, at any one time, between 30,000 and 50,000 head of cattle on feedlots. I'll get to the right photo. Here we go.

This is a photo of my family's feedlot, and there were two in the area similarly affected by the rising floodwater. As you can see, there's about 8000-odd pretty anxious potential swimmers watching that water rise. No doubt you'd be aware that rain, hail or shine, the animals need to be fed twice a day and the pens ridden, health status checked. This then resulted in the feedlot employees, ie, residents of Condamine, rolling their swags and camping on farms and in the feedlot offices. In the case of my family's feedlot, the 25 members of the staff were all camped on the property and, between my family, the staff and trapped visitors, we were providing food and accommodation for 56 people for three weeks.

Goodness me, five minutes to go, so much to say. Like all rural communities, the Condamine community is comprised of a variety of individuals and characters. They're fiercely proud of their independence, tenacious resilience in the face of diversity and their ability to not just get the job done but to do it well. Events such as the floods provide a quantifiable example of a sense of community that exists I suspect in most rural communities. During both the flood events, people went out of their way to check on friends and family and neighbours by radio, phone or boat, making sure they were okay. The emergency services, including police, SES and general volunteers, were constantly checking on the property and livelihoods that were most imminently in danger of flooding.

The potential problem that community health services providers are now conscious of is that the manifestation of the sense of community that took place during the floods needs to be maintained. We need to be careful that, even though the flood as a threat has passed, the threat of emotional distress may yet manifest itself amongst individuals further down the track. As one resident described the flood event in Condamine, "It was a bit like the effect on the landscape of a bushfire having gone through the place leaving everything, including the houses, standing, but all of the grass and vegetation destroyed. The land was covered with black and brown mud. It smelt of rotting vegetation and rotting possessions." Of course not everyone on the Darling Downs or in the Condamine area viewed the flood in a negative light. Indeed, some farmers perceived it as a very positive event. In fact, crops and harvesting that's taken place since with the summer crops have never been experienced in the area before.

A resilient system or individual has the ability to cope with the stress or adversity and adapt to change. Unsurprisingly, resilient systems and individuals are adaptable, flexible and prepared for change and uncertainty, while non-resilient systems are prone to often irreversible and catastrophic change. An understanding of the level of resilience then within, in this instance, a community such as Condamine, enables community organisations, government and health authorities to foresee the likely consequences of the external events such as floods or other natural events such as droughts, bushfires and cyclones. It is pleasing to be able to report that the level of resilience among the members of the Condamine community that I have communicated with is generally high.

However, there are some concerns in some quarters where people are starting to tire. The levels of exhaustion experienced by some may be the result of what can be described as the cumulative and chronic stress associated with farming. There is rarely one event that can be said to cause mental distress, but rather it's usually the one that breaks the proverbial camel's back. The usual stresses of financial problems, mandatory compliance with government regulations, and market prices are always in the back of every farmer's mind, but when then do issues—such as those highlighted by the ABC's Four Corners program which investigated mining encroachment in the form of coal mines and coal seam gas, together with their perceived heavy-handedness over water security in the Murray-Darling or, for that matter, the milk wars—how do they fit into the equation?

While this is the question that will make up a large component of my PhD, I'd like to offer some anecdotal observations. These extraneous stressors appear to add significantly to the cumulative stress of some farmers. Like many rural land areas on the eastern board of Australia, Condamine has been subject to an extended period of drought over the last 12 years. During that time farmers have been confronted with several

regulatory issues that have increased the perception that rural landholders are an easy target for government bodies. NLIS requirements, vegetation management have, in certain quarters, raised the spectre of a perceived discounting of the worth of farming communities.

Against this backdrop, the debate/confusion of water allocation and the apparently insurmountable rights of mining companies to access properties without appropriate compensation is now being played out. The individual effect of each of these on mental health outcomes may not be significant. Added together, historically and current events appear to have had, anecdotally, a negative influence already on some individuals' coping resources, when it comes to dealing with a not unknown stressor, such as floods.

So, in conclusion, and so as not to unduly upset you at the beginning of this talk, I have left what might be considered the most acute of all the stresses of the flooding till last. Happily, the Condamine pub survived. The watering hole for the world-famous Condamine Cods rugby team is operational, though for a while there really were only the Cods drinking there. I suppose my message then is there should be limits, not to change so much as to the timing and implementation of that change. A comprehensive understanding of potential area-specific environmental stressors should be combined with an extensive consultation and dissemination of information in an effort to understand the level of resilience within the community.

While this is often part of the process for regulatory development and implementation, in the case of water allocation and mining encroachment, the perceived view by a substantial number of affected farmers is that this process has not taken place. These simple procedures will, I believe, minimise the experienced psychological distress amongst those who provide us with 93 per cent of our fresh food every day. Australian farmers are 1 per cent of the population. They are among the most efficient in the world at providing us with the cleanest, safest, cheapest food on the planet. We're bloody lucky to have them.