



Pressures and opportunities for land managers: A social practice theory ‘pilot’ study

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INTRODUCTION

Farmers and land managers are faced with a huge range of challenges, from meeting new regulations and managing staff, to satisfying international market requirements and fixing machinery. In these dynamic and complex environments, we understand that farmers and land managers are already making substantial improvements – and would often like to do more – but, for *whatever reason*, find it difficult to do so.

Our 5-year (2021-2026) MBIE funded research project is identifying those challenges and opportunities to support farmers managing change. We conducted interviews with 19 Southland farmers from deer, dairy, sheep and beef enterprises. Four themes emerged most strongly: regulations, information, technology and relationships.

RULES AND REGULATIONS

None of those interviewed really challenged the overall purpose of new rules and regulations; in fact there was widespread support for improved water/soil quality and biodiversity, and for reduced greenhouse gas emissions. However, there was concern about the sheer number of new rules, many of which appeared to be ‘one-size-fits-all’. Not just complying but also reporting on compliance was costly in both time and money.

Admin! There’s too much! There were guidelines, then plans, now new plans. I can’t keep up. I would follow the rules if I knew what they were.

One risk is that compliance is just demonstrated on paper rather than having good practices embedded in everyday life. Another risk is that complying with one set of rules (optimising) makes it hard to achieve balance (satisfice) across diverse farm requirements including being profitable, improving water quality, controlling pests, contributing to the community, and having good animal welfare.

I am supportive of [the water quality regulations] ...But we have to put up a third more electric fences in winter, every day, more than what we would have a decade ago. And it’s not easy country. It’s not easy. It creates safety issues because trying to run a line near a gully it will be me or my son who does that because it is dangerous, and we can’t delegate that job. Especially because the employees don’t know the property, where the wet spots are. Sometimes even I get caught out.



The cumulative impact of different regulations was more problematic than each regulation in isolation, keeping in mind that farm systems are complex and dynamic meaning changes in one part may affect the behaviour of other parts.

INFORMATION

Many of those interviewed had taken advantage of training opportunities, hired consultants, joined catchment groups or procured information from various sources including industry bodies, social media, print and on-line sources. While ready access to information should be an enabler, some participants reported issues with information overload.

There's such a noisy cacophony of opinion and thought and regulation and training and consultation and feedback and... information and misinformation and disinformation! If I went to every professional development opportunity or consultation, I'd be a full-time participant. Doesn't leave much time for doing the farming.

A one-stop shop or information hub was suggested, though others were wary of any one entity having too much control over all resources.



SCIENCE, TECHNOLOGY AND INNOVATION

New products, tools and IT were mentioned by some as essential in making improvements on farm. Precision agriculture, weed resistant crops, fuel-efficient machinery, composting barns and block/cell/intensive winter grazing were just a few examples. As one farmer described it:

I've realized I've got to be able to control the farm from my iPad. So now I bought an iPad. I didn't even have a laptop or anything. So, I'm becoming more business-like I suppose. Dad's still very much about just getting stuck in and get your hands dirty and just get the work done now. I'm trying to become more systemised and run it like a business.

However, there were also many stories of technology and innovation “gone wrong”; drench and herbicide resistance, stock loss from HT swede and fodder beet poisoning, accidental importation of weeds, pests and diseases... There was also a sense that farming was becoming too technical with farming more about sitting at the computer. The skill set underpinning ‘good farming’ was seen by some as changing rapidly with too much modelling-based rhetoric and not enough time to field test. A number of interviews articulated concerns that the science, technology and innovation system was not serving farmers’ needs adequately. There were plenty of new products coming to market but...

The systems of auditing and AsureQuality won't 'see' what we are doing which is sequestering GHG/carbon in the pasture and healthy guts of animals. This might produce less methane but who is doing the research to prove it? Vaccines do just one thing, but what about nutrients, animal and human health, herbage nutrient content. They just want to destock and plant pines which just kills communities and bring pests.

Personally I think we're doing a good job but we don't have the science behind that to prove it.

Another concern was that as so many farming activities became computer-based or moved “on-line”, the various IT support systems and programmes for monitoring and reporting were not always aligned. Reports often had to go to different entities at different times in different formats thereby increasing the overall compliance burden. This raises some interesting questions about how the science, technology and innovation system and how it relates to policy, practice, reporting and compliance.

RELATIONSHIPS

All those interviewed reported liaising in some way with discussion, catchment and/or interest groups. Thriving Southland was often mentioned as instrumental in supporting farmers and, at the time of the interviews, there was some concern about whether funding for this organisation would continue. It was reported that these groups helped ‘sift through the noise’ of conflicting or confusing information and were undertaking/participating in research that would provide scientific evidence for particular practices. Such groups also provided some balance to the advice given by sales reps who often had very good relationships with farmers and were up to date with the latest products, but who ultimately had vested interests.

Wintering sheds are commendable but what about the effluent that’s collected and what are you putting on over winter to replace what you took off? The answer is often ‘whatever the fertiliser guys tell me to’.

Interviewees often expressed concern for those who weren’t willing or able to connect with neighbours or interest groups or informally engage with the wider community at church or footie where ‘a lot of stuff gets sorted out’. The cumulative impact of working through new rules and reporting left some feeling time poor and concerned about the social fabric of rural communities.



Others commented on the need for better relationships with regulators with one noting ‘They’re too nosy and they use too many sticks and not enough carrots. They’re always fining people even when they are trying to do the right thing’. Another agreed these relationships could be better but observed it was difficult when you were often liaising with a position (job description) rather than a person.

There was some support for a localised rather than centralised approach because, as one farmer described: ‘We need regional councils rather than central government to make rules because it varies around the country. The wintering regulations said that you had to have all your crops in by 1st October. That’s okay for Waikato but not for Southland when it was still frosty’. Many of the interviews reflected the view that ‘one size definitely does not fit all’.

A SOCIAL PRACTICE THEORY APPROACH: A SUPPORTIVE SYSTEM FOR CHANGE

The new suite of regulations around water quality, nitrogen, greenhouse gas emissions and biodiversity will undoubtedly have an effect on the environment. Yet, the interview data suggest that there will be issues around ‘compliance’ because regulators treat these in isolation whereas farmers and land managers must manage their interactions in site-specific, highly contextualised ways. This promotes a view that the farmer is primarily

responsible making changes on farm. While we can't deny their agency, this research shows that what is known, what is recognised by regulators and what is not, what banks will fund, what information is shared in what forms, what training is offered, what labour is supplied and so on is beyond the farmer's control.

While 'rules' will prompt 'lifting standards, farm-by-farm, substantial change will demand cross-sector, systemic support. As we were told;

[It] will need system change with input from an agronomist, an environmental specialist, a banker and an accountant, but the problem is being able to do that at scale and affordably....We've got 3 pressures: greenhouse gases, water quality and biodiversity protection and we've got initiatives and rules for each of those things...But if we think holistically and put a framework in place to encourage people to work collaboratively and go for big overview rather than reacting at a farm system level, we would achieve better outcomes. Things like reinstating wetlands, which will tick biodiversity, water quality and climate resilience for flooding, so there's definitely synergies possible. We need these at catchment and regional scale too. If regional council can coordinate 6 wetlands through the catchment, and purchase and retire land, then those bigger scale things become possible that you can't achieve by just fencing that little waterway.

Over the next year, our research will identify and examine this broader system and explore opportunities to reconfigure system behaviour. In returning to the findings of the first year, research and analysis will also take into account the idea that no 'one size fits all'.

We would like to thank those who participated in the research and welcome any comments and feedback on our work in progress

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