Irrigation Insight: Co-innovating better water management practices in Canterbury

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Dairying, irrigation, water. These three words produce sharply divided opinions across the population of Aotearoa New Zealand. A number of public voices go so far as claiming the dairy industry has lost its social licence to operate. At the heart of this challenge are the matters of water use, water quality and animal welfare. The Ministry of Business, Innovation and Employment (MBIE) funded Irrigation Insight programme aims to improve irrigation management by co-innovating practical tools with farmers and other relevant stakeholders such as industry and regulators, to enhance their (farmers’) ability to better manage irrigation water-use on farm to be economically sound and environmentally responsible. The co-innovation approach brings together farmers, scientists, industry organisations and government bodies. Irrigation Insight is a new idea that sits within a complex social, biophysical, economic and regulatory context. By including stakeholders in the co-development and co-design of potential solutions to better manage water-use, the final product(s) promises to be far more adoptable and practical, and therefore enhance uptake amongst farmers. One of the key components of this research programme is the communication of farmer narratives pertaining to environmental commitment and on-farm management changes to water use.

Social licence to operate is a relatively new concept internationally and in Aotearoa New Zealand. Its origin is mostly in the mining industry and has been applied to other industries more recently. While definitions vary across authors, industry and geographical context, there is consensus that at the heart of social license is the notion that an industry receives the approval of local communities and other stakeholders in relation to some form of activity (e.g. fisheries, aquaculture, dairy, and mining). Many authors’ frame social licence to operate as an outcome, rather than a process or method to achieve an outcome. In terms of generating social licence to operate, key authors point to the importance of relationships between industry and the public and other stakeholders. As summarised by Quigley and Barnes (2014: 4), a number of key components in positive relationships to enable social license to operate include:

- Openly shares information;
- Actively networks and engages (not passive);
- Has developed a shared understanding;
- Delivers on commitments made.

Across these aspects is the underlying notion of a two-way relationship, in which both sides need to engage with each other.
Within New Zealand the social licence to operate agenda has largely been applied to aquaculture and fisheries (Quigley & Barnes, 2014). Dairying is a more recent focus of attention (e.g. Woodward, 2017). This has largely emerged from heightened environmental concerns pertaining to water quality and water use, particularly in the Canterbury region. Industry stakeholders have dedicated considerable resources to better communicating how they operate. However, the current relationship between the dairy industry and the wider New Zealand public is tense, which has been amplified by the increasing effects of public media and social media platforms.

The notion of social licence to operate entered the Irrigation Insight programme through the research team’s conversations with farmers. It was not an explicit focus of the research programme. However, during interviews and within workshops, farmers themselves expressed their commitment to being transparent and informing the public about their farm management as well as their reasons for participating in Irrigation Insight. As a co-innovation project, farmers inform the process and outputs of the research programme. As such, farmers commitment to communicating their stories to the wider public is a core aspect of the programme. In particular, farmers discussed the following matters in regard to public perceptions of dairy farming in Canterbury:

“It’s getting the public to understand that actually, we are making the best effort to make the best use of water… and that we are actually caretakers as well as managers and that we are wanting to do the best. We are not out there trying to pillage everything for our financial gain, because a lot of us are long termers like myself, born to it” (Farmer A, 2018).

And, another farmer mentioned:

“I think the risk can be fairly high from a public perception level. Honestly, it’s a very highly talked about topic in the media so we need to be doing the best we can. There is a lot of talk around degradation to streams and rivers and bits and pieces” (Farmer B, 2018).

As such, public opinion is important to this group of farmers (as with other farmers). Through their participation in the Irrigation Insight programme, they want to share their stories of water management and any changes they make with wider audiences to foster greater understanding of dairying.

The research programme is charged with developing media and communication tools to facilitate the sharing of these farmers’ stories of environmental commitment and the process of making sustainable changes on farm. As such, we aim to develop tools that help inform and generate positive relationships with the public and other stakeholders. To date the programme has produced a series of communication tools, including a recently launched website. As the programme continues, the research team will investigate and develop tools for bringing different groups together in order to foster better understandings of farmers’ water management practices. These tools have not yet been defined and will emerge through the process of co-innovation.

In this presentation, the authors will provide an overview of the applied co-innovation process and discuss the challenges and opportunities of this approach within the research programme and the overarching aim of better enabling sustainable water management. The authors will discuss one of the media outputs of this project, which encapsulates the commitment and complexity of water management changes. Ultimately, the project envisages creating a platform for
improved integrated water quantity-quality management. A commitment within this project is to better publicise farmers’ commitments and efforts to improve water management and enhance local environments.

References


