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The Dirty Dairying Campaign and the Clean Streams Accord

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Introduction

In this paper I trace the genesis of the 2003 Dairying Clean Streams Accord and in this process look at the aims of the organisations involved in the accord, using their public records. In addition I trace the story as reported by the press and the scientific community and examine the story of the accord in light of policy theory, and then discuss some of its limitations and how these reduced its potential for success.

2003 Dairying Clean Streams Accord

In 2003 The Dairying Clean Streams Accord came into being. It is an agreement between the Fonterra Co-operative Group, all New Zealand's Regional Councils, and the Ministry for the Environment and the Ministry of Agriculture and Forestry. The stated goal of this policy was:

"Fonterra Co-operative Group, regional councils and unitary authorities, the Ministry for the Environment, and the Ministry of Agriculture and Forestry will work together to achieve clean healthy water, including streams, rivers, lakes, ground water and wetlands, in dairying areas.

In particular, the goal is to have water that is suitable, where appropriate, for:

- Fish;
- Drinking by stock;
- Swimming (in areas defined by regional councils)"

Ministry of the Environment (26 May 2003).

Each of the parties in this agreement had a differing role. Fonterra is a cooperative dairy company that was formed in 2001 by the merger of the two largest of New Zealand's then four largest dairy companies. In 2003 Fonterra processed over 90% of the milk produced in New Zealand. Their main roles in the Accord were to provide information and advice to farmers on how to achieve best environmental practice, to create and implement an assessment scheme to monitor farmer compliance and to publicly report the results. The regional councils along with Fonterra were to develop regional action plans to identify actions needed to implement the accord. Finally, the Ministry of Agriculture and Forestry (MAF), along with the Ministry for the Environment were to provide an overview of progress on the aims of the accord, while providing assistance for the development of tools to do so and to provide a statutory environment that was conducive to the meeting of the Accords aims (Ministry of the Environment, 26 May 2003).

'Dirty Dairying' and its link with the Clean Streams Accord.

The "Dirty Dairying Campaign" was a campaign started by NGO Fish and Game (an organisation of fishers and hunters) in 2002 as a way to voice their growing concern and mobilise public opinion in the fight against the declining ecological health of freshwater in New Zealand. The issue was brought to a head by their receipt of a 2002 NIWA (National Institute of Water and Atmospheric Research) report that they had commissioned. This outlined a substantial and on-going decline in water quality in dairy farm areas (Deans & Hackwell, 2008).This report was later published as a journal article, Water quality in low-elevation streams and rivers of New Zealand (Larned, Scarsbrook, Snelder, Norton, & Biggs, 2004). In addition to this report there has been a growth in pressure from government agencies and environmentalists for higher environmental standards. When coupled with consumers and retailers demanding more sustainable agricultural

practices (Tufts-Rickson et al., 2006) this added to pressure for the industry to be seen to be acting responsibly on these matters.

The phrase "Dirty Dairying" has entered the New Zealand lexicon as illustrated by a search of the Newztext database which shows 1001 articles containing the phrase since it was coined in 2002. This is an example of effective use of a symbol to represent a policy problem as described in Stone (1997, pp. 138-162). As a symbol the phrase works on multiple levels: it is a synecdoche that through its multiple uses in the media associated with images and stories of bad dairy practise has now become a metaphor for much of what is seen as the shortcomings in the industry's environmental performance.

The strength of the link in the public mind between dairying and dirty dairy was so strong that it directly led Fonterra along with the Ministry for the Environment, the Ministry of Agriculture and Forestry, and regional councils to create the Dairying and Clean Streams Accord. The phrase is often used by headline writers when reporting environmental misdemeanours, as in these recent examples; "Farmers with more debt leads to more dirty dairying" (Bowen, 2013), "Dirty dairying laid bare "(Sharpe, 2012) and "Farmer accused of dirty dairying" (Watson, 2013).

Policy v policy theory

The drafting of the first Accord was notable for four flaws, the composition of signatories, the nature of the goals, the monitoring approach, and its voluntary nature.

1) Who signed the Accord?

Unlike other accords in New Zealand it had a limited number of stakeholders involved in its drafting. Protagonists like Fish and Game and Forest and Bird were excluded even though it appears that the writing of the Accord was at least in part a reaction to their public statements. This contrasts with the 1991 New Zealand Forest Accord which was an agreement between the owners of commercial forests and ten different conservation organisations, each of whom were involved in the drafting process. The exclusion of a group of stakeholders reduces both the effectiveness of the document and how it is perceived by the broader public (Deans & Hackwell, 2008). Fonterra were also criticized from within the industry for their lack of consultation with farmers. Dairy Farmers of New Zealand chair Kevin Wooding went on record as saying "…dairy farmers are disappointed with the lack of consultation…"(Keeling, 2003). The failure of the parties that created the first Accord to engage with their opponents meant that throughout its life it was under intense scrutiny. If instead the environmental pressure groups had been included using the Cooperative Pluralism model as outlined by McFarland (2008 pp. 104-123) or a policy development model more akin to Collaborative Environmental Governance as outlined by Ansell and Gash(2008) the outcome may well have been a more workable, relevant and lasting solution.

2) The stated goals of the Accord

These were to achieve clean healthy water, including streams, rivers, lakes, ground water and wetlands, in dairying areas. When the then Green Party Co-Leader Jeanette Fitzsimons stated "The Clean Streams Accord should be subject to outcome-based measures, not just input-based ones"(Green Party, 2004) she was pointing out, as have many others, that there is a disjuncture between the stated major goal of the Accord being 'clean water', and the evaluation tools used. These tools are all measurements of outputs and not direct measurements of cleaner water and therefore have the underlying assumption that they are a proxy for the measurement of the stated outcome of 'cleaner water'. These assumptions have faced challenges from a number of quarters, for example Cowie, van Voorthuysen, and Ridley (2006) in their journal article, A Monitoring and Reporting Strategy for the Dairying and Clean Streams Accord, state categorically that none of the evaluations relate directly to the measurement of water quality. Instead, the measurement criteria all relate to on-farm objectives, such as fencing off streams and swamps to exclude stock, compliance with consents and the writing of nutrient budgets. To have the desired results it is fundamental to measure the right criteria (Scott & Baehler, 2010 pp. 88 – 138.) This is not what happened in this case, and it reflects badly on those involved. Either they were misguided in their design or for some reason they were unwilling or unable to measure the desired outcome that they stated.

Fitzsimons' view of the limitations of the fencing policy is not restricted to the political arena. Waikato University water quality expert Professor David Hamilton in a press release stated:

"The 'put up a fence' attitude hid underlying considerations required for the size and management of riparian buffers, as well as the nonpoint source pollution. In most cases it was nothing more than window dressing and there had been minimal progress since the Clean Streams Accord, (Hamilton, 2008)

Also water quality scientists Bewsell, Monaghan, and Kaine (2007) in a peer reviewed article bluntly stated:

When there are no perceived on-farm benefits from stream fencing adoption, compliance rates will be low. The focus of any effort to increase adoption of stream fencing would need to shift to promoting practices that mitigate impacts on water quality and deliver on-farm benefits. Regulations may also be needed to increase the rate of adoption of stream fencing.

The reality is that even as compliance with the accord code has increased, water quality has continued to decline (Deans & Hackwell, 2008). This raises two questions. The first was whether the Clean Streams is a true attempt to make streams cleaner or a symbolic policy whose main purpose was to appease critics of dairy farm practice. Secondly, and perhaps even more importantly, is whether even the 100% implementation of 'best practise' as defined in the Accord would improve water quality enough to offset the increasing number of dairy cows (Deans & Hackwell, 2008).

3) Numbers and ambiguity

It is very easy for the promoters and defenders of a policy to use ambiguity in the presentation of their results as a way of manipulating the perception of the results of a policy (Stone, 1997 pp. 163-188). This, when combined with a monitoring programme that relies on self-assessment, leads to misreporting of policy outputs.

An example of ambiguity can be seen in the way the percentage of waterways fenced is reported; Fonterra reported that in 2010/11, 84% of their suppliers' farm waterways were fenced (the target was 90%) (Fonterra, 2013). Fonterra's reports do not make it clear whether the reported compliance with this provision is a proportion of all Fonterra farms or of Fonterra farms with 'accord waterways'.

Adding to the ambiguity is the fact that data about compliance was collected by farmers' self-reporting. The weakness of this self-reporting of the stream fencing policy is highlighted in an Environment Canterbury (Ecan) report, Dairying and the Clean Streams Accord:

While the thrust of compliance with the Dairying and Clean Streams Accord lies with Fonterra and its shareholder farmers, it is disappointing to discover there is little monitoring of progress towards achieving the Accord targets and no auditing of the information supplied by the shareholders (Jones, 2007).

This report made headlines when Professor David Hamilton released a press statement containing:

This is borne out by the data supplied by Fonterra and its shareholders which claims compliance with Accord targets while Ecan's physical inspection of the catchment has revealed quite different conditions as revealed in this report. There is, however, a window of opportunity for Fonterra to provide some robustness to their monitoring programme and request their shareholders to achieve a greater level of compliance before the next round of monitoring begins (Hamilton, 2008).

4) The voluntary nature of the Accord

The choice of voluntary policy instruments in the Accord has drawn many critics, among whom are notable scientists like Bewsell et al. (2007) who pointed out that voluntary uptake of stream fencing will be slow unless farmers see it in a context of an easier or more profitable way to manage their farms. They then went on to suggest that regulation would be a stronger option.

As Deans and Hackwell (2008) pointed out, voluntary participation in natural resource policy implementation is limited in that whilst it changes attitudes and behaviour of the majority of players relatively rapidly, it has little effect on the 'hard-core' of players who either have no interest or lack the resources to change the way they act. For this group regulation seems a necessary step that will either induce them to comply or if they are unable to do so will force their exit from the industry.

Deans and Hackwell stated this succinctly in their report:

The failure of the Clean Streams Accord to improve water quality, and the absence of any effective mechanisms to deal with the sizable minority of dairy farmers that continue to flout the law in respect to their dairy effluent discharge resource consents, indicates that the Accord in its present form is failing and needs to be either fundamentally reformed or else a new approach is required .(Deans & Hackwell, p.31 2008)

Improving on the 2003 Dairying Clean Streams Accord

By addressing each of the four flaws (see section 1.3 above) identified in the previous section, the Accord could have been greatly improved.

The issue of who is party to the accord could be addressed as it was in the 1991 NZ Forest Accord. At the national level this would have involved the participation of NGOs like Fish and Game and Forest and Bird for both their expertise and to get buy in and support from them. Similarly, The Department of Conservation needed to be involved in their role as an advocate for the environment as well as for their expertise and knowledge of managing natural systems. The processing sector of the dairy industry has changed since 2003 with a greater number of companies now participating. These companies also need to be represented, as does DairyNZ which is funded by a compulsory commodity levy on production and therefore is both representative of all dairy farmers in New Zealand as well as being the pivotal organisation for both knowledge generation and transfer in the industry. The final group that needs to be added to the team is the farmer political organisations of which Federated Farmers is largest and therefore the most representative.

The second issue is that of the disjuncture between the stated goals (to achieve clean healthy water, including streams, rivers, lakes, ground water and wetlands, in dairying areas) and the measurement of this objective. To this end there needs to be a mechanism to directly measure the quality of water in dairy catchments in an on-going and meaningful way, coupled with a commitment for either the industry or government to fund this properly. Alongside this direct measurement there needs to be an ongoing commitment to independent monitoring of the best practice measures like stream fencing. These results need to be studied to determine whether best practice is in fact good enough to meet the stated goals

The third issue, the ambiguity of the collection and reporting of results, needs to be addressed by all parties' involved. In part this issue should be resolved by both the protagonists and the industry jointly being involved in the policy development process. The result of this process needs to be a transparent and scientifically robust testing and recording process, trusted by all the parties and the public.

The final step is addressing the weakness of the document that comes from its largely voluntary nature. Firstly the self-reporting of compliance needs to be made more robust with more independent moderation to check accuracy. Second in the solution to this problem is that there needs to be financial inducements to perform well and penalties for non-compliance. The industry itself already has mechanisms available that could be modified for this purpose. There is already a differential price structure for qualities of milk which could easily be extended to include the environmental status of the farm; this could be done with either financial inducements or penalties. The ultimate sanction already exists but is so rarely used that it does not appear to be a disincentive. Each farmer signs a 'conditions of supply' agreement, regardless of which company they supply their milk to. These contracts contain the rules and regulations that a supplier must comply with to have their milk collected. These conditions have traditionally been based mostly on milk quality parameters, for example milk temperature. Again these could easily be extended to include the environmental performance of the supplier. To be effective this would need all milk processors to uphold an agreed minimum standard.

The 2013 Sustainable Dairying: Water Accord

The first accord expired in late 2013 and it has been replaced by the 2013 Sustainable Dairying: Water Accord(DairyNZ, 2013b) which is an agreement between a larger group of stakeholders in three tiers. The new Accord, differs from the first, as it is part of a bigger policy statement titled Making Dairy Farming Work for

Everyone - Strategy for Sustainable Dairy Farming 2013-2020. It signals the intent of dairy farming to be a part of New Zealand's future for the long term (DairyNZ, 2013a) and is led by DairyNZ in contrast to the previous Accord driven by Fonterra.

DairyNZ is an organisation that describes itself as:

DairyNZ is the industry good organisation, representing New Zealand's dairy farmers.

We are funded by farmers through a levy on milksolids. Our purpose is to secure and enhance the profitability, sustainability and competitiveness of New Zealand dairy farming. We aim to do this by leading innovation in world-class dairy farming and by working always in the best interests of New Zealand's dairy farmers (DairyNZ, 2013c).

The top tier the, 'accountable partners' who have specific responsibilities includes DairyNZ, most of the major milk processors in New Zealand (there are now more of these than in 2003), and the Dairy Company Association of New Zealand (DCANZ).

The second tier is the 'supporting partners' who make a commitment to support the accountable partners in their commitment to the Accord's aims. They are the Fertiliser Association, Ravensdown, Ballance (all part of the fertiliser industry), Federated Farmers, Irrigation NZ and The Institute of Primary Industry Management.

The third tier is the 'friends of the accord' who are 'supportive of this accord'. They are all of the Regional and Unitary Councils, The Federation of Maori Authorities (who represent a growing portion of dairy farmers in New Zealand), The Ministry for the Environment, the Ministry of Primary Industries (replaces MAF, who no longer exist), and lastly Westland Milk Products (the only one of the larger dairy companies not to have signed at the 'accountable partner' level).

The stated purpose of this accord is to:

Enhance the overall performance of dairy farming as it affects freshwater by:

- Committing to good management practices expected of all dairy farmers in New Zealand
- Recording pledges by the dairy sector, with the support of others, to assist and encourage dairy farmers to adopt those good management practices and to monitor and report progress...

…And in so doing ensure the dairy sector contributes responsibly to realising the vision for New Zealand's waterways (DairyNZ, 2013b)

Which is:

'Underpinning the Accord is a common desire of the signatories to recognise, protect and, where opportunities exist, enhance the many benefits and experiences New Zealanders enjoy in freshwater. These include fishing, swimming, recreating, gathering mahinga kai and provision of habitat for aquatic species as well as the ability to use water for social, cultural and economic betterment. The Accord refers to these as freshwater values and interests" (DairyNZ, 2013b).

Is the 2013 Accord an improvement on 2003?

On the first issue, that of inclusiveness, the new Accord partially addresses the problem by including a much larger cross-section of the stakeholders in the industry and by being led by DairyNZ rather than Fonterra. Sadly this is offset by the continued absence of any of the groups that could be termed protagonists. Added to this is the major omission of DOC and the fact that the inclusion of the multi-tier structure can be seen to indicate differing levels of commitment to the document. Notable for the fact they are only in the third tier is the Westland Dairy Company that, whilst it is only a relatively small player in terms of production, is large in terms of land area and the environmental sensitivity of much of that area, with high conservation values on both the farm land and adjoining lands.

The new accord has a tighter raft of monitoring with a higher level of compliance required, but in the main these are again measures of outputs such as the fencing of streams and the bridging of stock crossings on waterways. These measures, whilst they are often locally effective, struggle to keep up with the intensification of existing farms and the rapid expansion into new areas as the national herd continues to grow. The process of setting nutrient loading where the measurement mechanism is only a proxy measure, not a direct measure of the goal of better water, remains (Deans & Hackwell, 2008; Jones, 2007). So again, on this issue the new accord does not fully address the issue of the strengthening of compliance for these measures; they may be effective tools if the industry was not expanding and intensifying, but

are unlikely to be enough to cope with the expanding national herd.

From the accord itself it is very hard to judge if the problem of ambiguity in the reporting and monitoring has been addressed. This will depend on the details of response of each agency or player to the Accord. Again, the fact that the protagonist groups were not part of the process means that this controversy will continue.

The voluntary nature of the first document has been addressed in many places in the new document with provision for financial penalties and exclusion from supply more prominent. This is potentially influential but still relies on the will of the industry and government agencies to both fund and undertake this work.

Conclusion and reflections

As I have outlined above the first Clean Streams Accord was a flawed document that would have had much improved outcomes if these flaws had been addressed. The second Clean Streams Accord is a much improved effort and can be seen as an aspirational document that addresses some of the environment issues of dairy farming. The health of waterways in dairy farming areas needs to be dealt with by a policy that requires direct measurement of the public's desired outcome 'clean water'. To achieve what is required is a process that involves all of the stakeholders, the industry to be seen to be doing the right thing, as well as having a genuine desire to do so. These changes need to be implemented while windfall profits mean the industry can afford to. However the larger issues of intensification and expansion of the industry are issues that can only be dealt with at a societal level and would require a new level of engagement by the public in the political process.

The pressure on Fonterra to be a good environmental citizen continues to grow. The pressure is not limited to the immediate environs of the farms but has widened to include issues such as the use of coal in milk processing factories

But what might its consumers say, here and abroad, if they knew? Since coal is the dirtiest fuel around, they might expect Fonterra to lead in seeking alternatives. There are. But it is not.(Oram, 2013)

Added to this is the use of imported palm kernel extract (PKE) as a feed source which is the target of concern for Greenpeace (Carlton, 2011).

Against this background the industry is starting to look for new ways to change both farmer behaviour and public perception. The second Accord can be seen in this light. What is needed is a major shift in farmer attitudes which will need to be driven by financial imperatives. The way to do this has been sign-posted by Synlait, a small dairy producing and processing group, that recently announced differential pricing for milk that rewards farmers for not only sustainable environmental practices, but includes animal health and welfare, milk quality and social responsibility (Synlait, 2013).

Since the original Accord in 2003, the dairy industry has expanded rapidly and is likely to continue to do so. This growth is being driven by many political and economic factors: Record prices for milk products, the increased availability of irrigation, low interests rates and the continuing problems in the red meat industry represent but a few of them. These factors have the potential of creating a 'perfect storm' of expansion of the dairy industry. This rapid expansion has the potential to change the landscape and environment of New Zealand on a scale that has not been seen in the country since the late nineteenth and early twentieth century "Grasslands Revolution" that saw the replacement of much of the native vegetation with English grasses (Smallfield, 1970).

This land use change will affect all New Zealanders and is a challenge that as a society we must face. Collectively we must decide what kind of country we wish to live in and act accordingly. This will not be achieved by pitting farmer against conservationists but by working collaboratively. Above all we will have to ask the hard question 'how much is enough?'

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