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DUTY OF CARE TOWARDS THE ENVIRONMENT ON NEW ZEALAND FARMS*Terry Parminter**PACT Consulting, PO Box 354, Paraparaumu 5254.***Abstract**

A description is provided of how the principles of environmental duty of care can be applied within the policy milieu of New Zealand's livestock industries. Workshops with farmers in the Waikato region were used to explore concepts associated sustainable farming. Duty of care principles were developed from the workshop results.

About 120 farmers attended the workshops. They came from a mix of backgrounds and enterprise type, from dairying and mixed livestock, to deer farmers. The concepts and practices of sustainable farming was generally understood to consist of maintaining: efficient farm animals, contented farm animals, productive vegetation, clean water, control of feral pests, farmer and farm family health, and adequate rural and agricultural services.

Plans developed through the Resource Management Act (1991) are able to limit the extreme consequences of unsustainable practices but may not be enough to encourage farmers to avoid putting at risk the long term state of natural resources in their care. The use of feed budgets, nutrient budgets, water budgets and animal observation can assist farmers to incorporate duty of care principles and find a balance between achieving farm viability and sustainability.

Keywords: agricultural systems, environment, welfare, health

Subtheme: The Environment

Introduction

The concept of "duty of care" has a long legal tradition as part of Britain's common law (Academic Dictionaries and Encyclopaedias, 2010). Its use in New Zealand has mainly been restricted to describing every professional's responsibility to avoid causing harm to the individual people under their care, through negligence or poor practice (for example see New Zealand Government, 1996). Establishing the principle of duty of care towards the environment moves away from its current applications protecting individual people, towards providing for an entity that has no "personal voice" in law. This may make it a difficult concept to establish with enough explicitness to monitor and enforce. However it could be considered an extension of the concepts' introduction into agricultural policy in the Animal Welfare Act (New Zealand Government, 1999).

Duty of care represents a standard of behaviour that reasonable people in the same profession and circumstances, should expect to see performed. Fulfilling duty of care towards the animals being farmed means deliberately and consciously, avoiding the situations that could lead to animal cruelty. Merely avoiding cruel acts against animals on its own is not enough. Animal owners also must provide for their nutritional, environmental, health, behavioural and mental needs (Ministry of Agriculture and Forestry 1999).

The exercise of duty of care by farmers may not on its own be sufficient to ensure that animals under care do not come to some sort of harm. This may still result from conditions outside the owner's knowledge or control. However, having in place practices that meet duty of care standards should be considered a necessary requirement to ensure that all reasonable steps have been taken, to avoid and limit the effects of such eventualities.

Requiring landowners to apply the principle of duty of care would complement the Resource Management Act (RMA; New Zealand Government, 1991). The RMA is written as outcome-based legislation to manage and limit the undesirable effects of landowner activities upon the state of natural resources.

The RMA primarily operates through regional and district plans which designate certain practices to be either: permitted, require consents, or to be non-complying (RMA, part 6, section 87). As outcome-based legislation, the RMA is not intended to provide decision making guidelines or specific advice for any landowners that may wish to identify sustainable practices. Other jurisdictions dealing with environmental issues in similar circumstances have considered including duty of care principles to supplement their outcome based legislation (e.g. Bates 2001).

This paper considers what the practices might be that a reasonable farmer would include in their concepts of sustainable farming and how these practices might be incorporated within industry expectations about duty of care towards natural resource management.

Methods

Three workshops with Waikato farmers were used to address these questions. The workshop methodology provided a way for farmers to reflect upon each other's contribution, linking them to their own ideas and adding additional ideas to fill-in any gaps that become apparent.

In the early 1990s a Waikato Regional Committee of New Zealand Federated Farmers commissioned a project with AgResearch to identify agricultural practices associated by farmers across the region with sustainable farm management. During 1993, the project held three evening workshops in Huntly, Cambridge and Te Kuiti.

At each workshop, participants were asked to contribute their ideas about sustainable farming. The ideas were written down on post-it notes with each note used for a single idea. Each person then brought their ideas forward and used them to build a "concept pyramid" that described what the term – sustainable farming – might mean in practice for farmers like the participants (Parminter and Perkins 1996). The conceptual pyramid method used in the workshops was based upon a clinical theory from social psychology of personal constructs. Personal construct theory has been a way of considering the construction of meanings and the relationships between meanings most relevant to a topic of importance to the participants (Fransella 2005, Neimeyer, & Neimeyer 2002). Meanings can take the form of simple concepts which can then be interlinked to form constructs. An example of how concept interlinkages work is provided by starting with the concept "I enjoy farming" which may be linked to "when I am on my farm I can be my own boss" and "when I am not on my farm, I feel that my life is controlled by others". In turn, this may be linked to "when I feel that my life is controlled by others, I become anxious". In the example, an activity becomes an expression of identity and its absence a source of stress. The concept pyramid method makes use of these principles from social psychology to provide greater understanding of how the behaviour of social groups can be linked to their concepts of purpose and identity.

The linking of concepts from activities to super ordinate goals and abstract values in a concept pyramid provides positive and negative cues for how people will tend to behave in circumstances that they consider linked to that topic.

To make a concept pyramid about sustainable farming, everybody at the workshops contributed their ideas by placing their post-it notes on the workshop board on the end wall of the room. Their ideas were then clustered together by the participants, so that those ideas that were most abstract were linked directly to the top statement – "sustainable farming". The ideas about activities went to

the bottom of the pyramid, and remained linked to the top statement through their physical association with the other ideas in the pyramid (Fransella, 1972).

Results

Between 30-50 farmers attended each workshop. They came from a mix of backgrounds and enterprise type, from dairying and mixed livestock to deer farmers.

There was sufficient commonality in the results of the three workshops for their results to be combined in Figures 1, 2 and 3.

The applied definition of sustainable livestock farming described by the participants (Figure 1) was that it consisted of having:

- Farm animals that could efficiently produce marketable products with the minimum of costs (efficient farm animals in Figure 2)
- Animals that were well fed, healthy, quiet and with good coping abilities (contented farm animals in Figure 2)
- Productive vegetation based upon high producing and low input pastures, as well as fertile, stable and healthy soils and visually enjoyable landscapes (productive vegetation in Figure 3)
- Water in streams and rivers that could be drunk by humans and livestock, that was being used efficiently within farms for production, without flooding, and that could support ecological functions within and around waterways (clean water in Figure 4)
- Feral pests and disease are under control (control of feral pests in Parminter et al, 1993, p8)
- Export markets where demand is being encouraged and access is not restricted (unrestricted market access in Parminter et al., 1993, p19)

Figure 1. Workshop farmers' concepts of sustainable farming

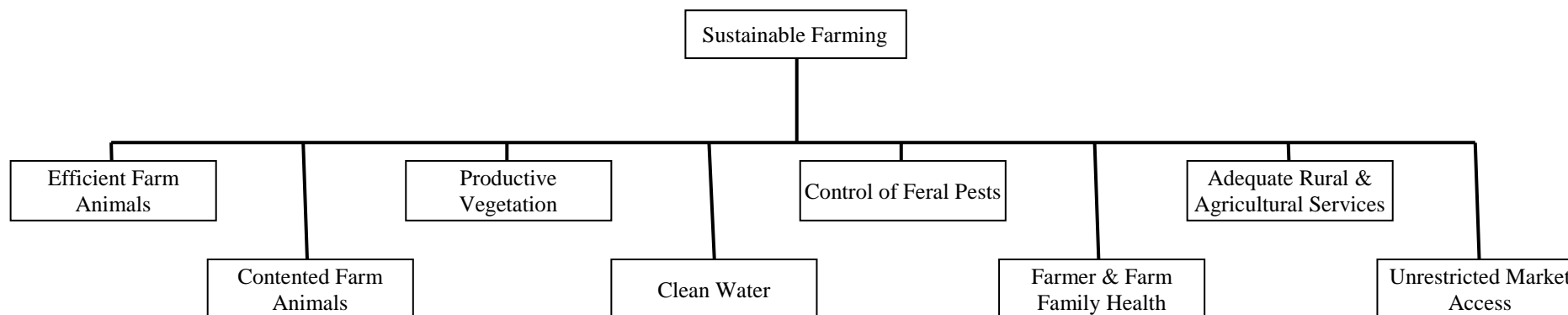


Figure 2. Workshop farmers' concepts about animals

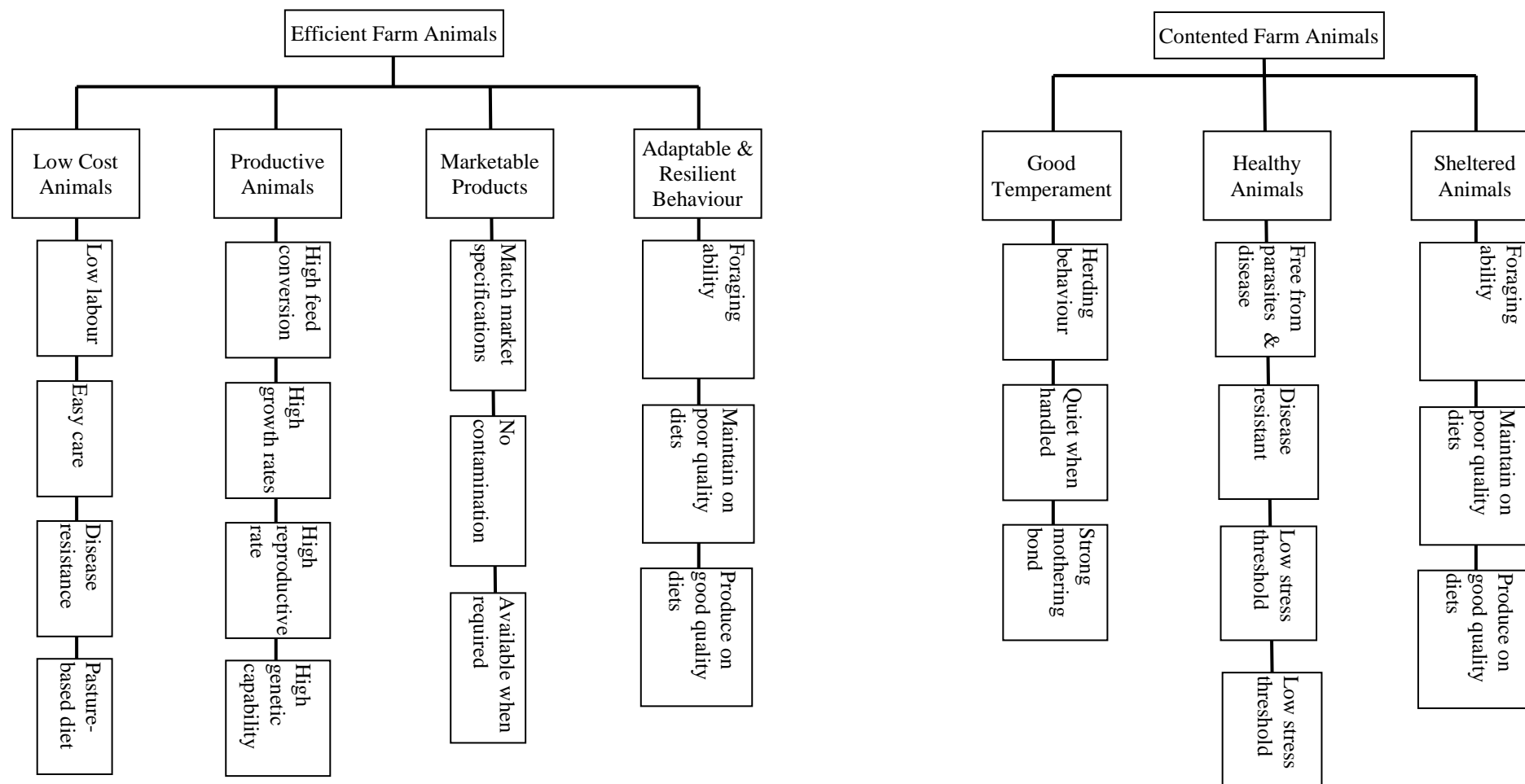


Figure 3. Workshop farmers' concepts about productive vegetation

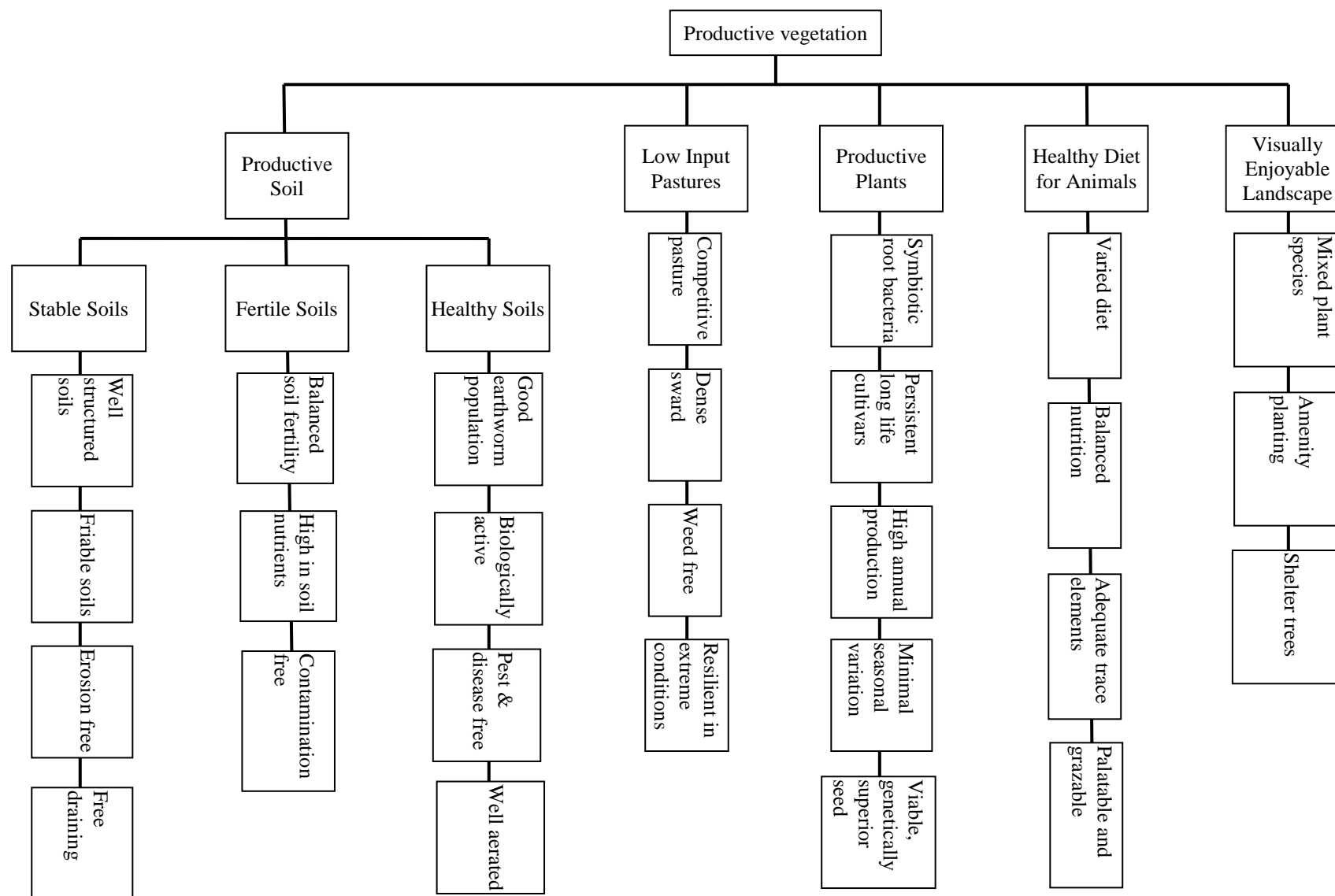
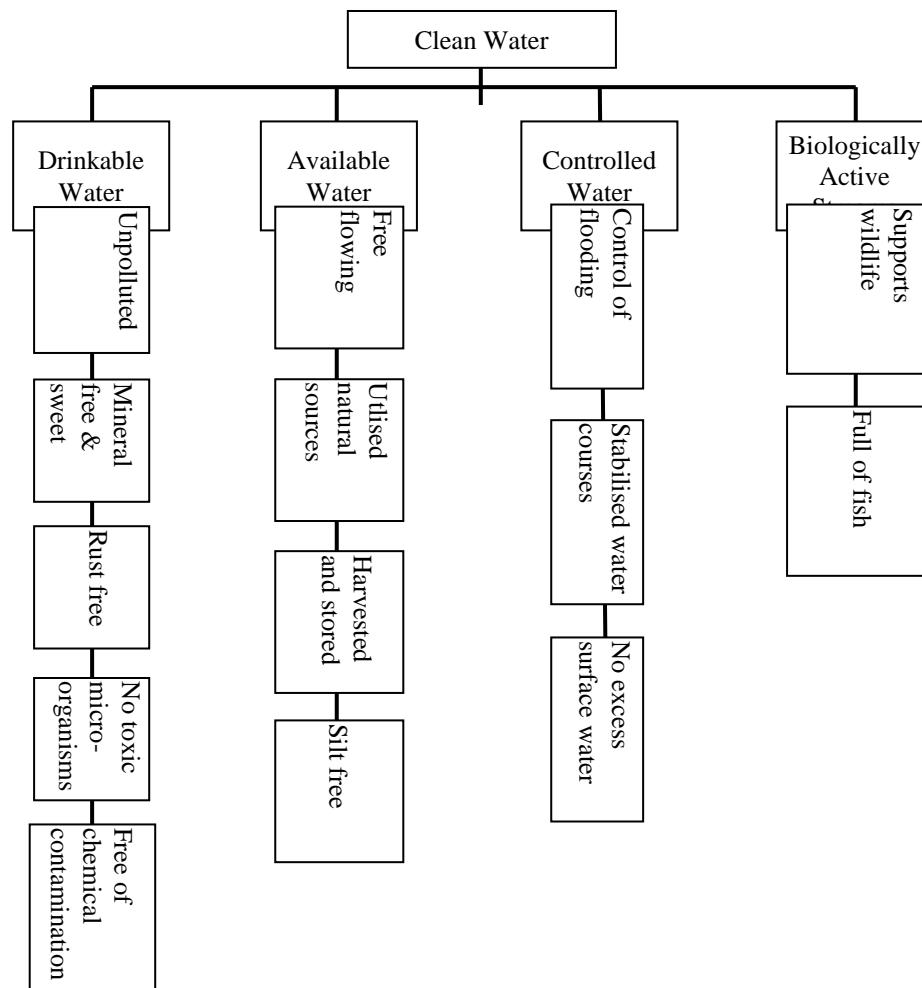


Figure 4. Workshop farmers' concepts about waterways



- The health of farmers and their families is protected by providing safe working conditions, safe work practices and an enjoyable and low stress working environment (Farmer and farm family health in Parminter et al., 1993, p9)
- Rural and agricultural services to develop innovative industries and vibrant rural communities with a good supply of labour (adequate rural and agricultural services in Parminter et al., 1993, p12)

Biodiversity has not been isolated out as an issue but it is included as part of farmer concepts about soils, water and rural landscapes (Parminter et al., 1993). Climate change is also not specifically identified as a specific issue, although adapting to climate change has been included in a number of concepts.

Application

Landowners that are utilising soils, water, vegetation, and biodiversity in ways that put the long-term integrity of these resources at risk, will need to consider the requirements contained in regional and district plans to avoid, mitigate or remedy the effects of their activities. The rules in statutory plans are only going to be sufficient to contain the consequences of extreme behaviour. Like the subject of animal welfare, duty of care expectations could encourage the use by farmers of practices that limit areas of environmental risk. These duty of care provisions may be suited to policy agencies working with industry organisations in the development of industry standards and environmental management systems (for example, Wharfe and Manhire 2004).

The results of this study support a number of principles in the development of duty of care initiatives:

- For livestock farmers, such provisions should be inclusive of all aspects of farming systems including: efficient farm animals, contented farm animals, productive vegetation, clean water, control of feral pests, farmer and farm family health, adequate rural and agricultural services, unrestricted market access. To exclude any of these when making long term strategic plans is to fragment the systemic nature of farming.
- The management of soils was subsumed by farmers within the management of pastures and other vegetation. Any soil issues that might arise (fertility, structure and biological activity), can become visible through their effects upon vegetation, e.g. pasture vigour. Similarly the effectiveness of any changes can be judged through vegetation responses.
- Water management was linked with other farming activities, but remained separate from them. Access to water of adequate quality was needed to support a range of farming activities. Farmers recognised that they were also responsible for ensuring that the water continuing downstream remained fit-for-purpose for subsequent landowners.
- Sustainable farming did not require a new mix of especially environmental practices. Instead, farming sustainably required a balance between the extractive, consumptive, and production parts of the farm and the use of existing practices in different combinations and to new standards.

The duty of care principles could be applied to develop strategic farm plans for sustainability that provide a balance between short term and long term outcomes. Balancing the use of natural resources on farms is going to require regular updates of:

- Feed budgets to balance livestock intensity with the productive capacity of pastures and soils.
- Nutrient budgets to balance nutrient losses and soil fertility.
- Water budgets to balance water availability with water consumption.

- A balance between the use of animals for productive purposes and their ability to express natural behaviours to assist animal care.

Budgets are currently widely being used by farmers to manage their finances sustainably. A duty of care approach in farming requires the extension of producing balanced budgets in the resource management side of farming as well.

Conclusions

Duty of care towards the environment provides some useful principles for guiding landowner strategies and practices. These principles add to New Zealand's current legislative framework for protecting the environment – particularly the RMA. It is now up to livestock industries to work with Local Authorities to have duty of care principles included in regional and district plans.

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