

# ISSUES IN THE HIGH COUNTRY: TOWARDS SUSTAINABLE MANAGEMENT

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## INTRODUCTION

The high country has a range of opportunities for alternative land uses which are largely unrealised for many of the reasons discussed in this paper. Pastoralism dominates the current land use discussions but this need not be the case for the future.

High country issues need to be described in biophysical, social and economic terms with the first consideration for solutions given to the environmentally least disruptive strategies.

The term land use is used throughout this paper to include both land use and land management.

The term runholder is used to describe people farming in the high country on either leased or freehold land. The term farmer is used as a more general description of people farming throughout New Zealand, including runholders.

## KEY ISSUES

### Tenure

The greater area of the high country is held under pastoral lease (Land Act) and is consequently held privately by individuals in an arrangement which is different to most farmed land in New Zealand. Parts of the high country are leased from the universities of Otago and Canterbury but the greater area is leased from the Crown.

The past administration of leases has meant that the limitations imposed by the lease have been used selectively against the Crown by the lessees. The accepted lease administration was not seen as a constraint to the farming objectives of the individual lessees. This is evidenced by:

- the price for property at time of sale
- a disregard for the limitations and consents required for normal farming practices (earth disturbance and burning consents).

When seen as appropriate the Crown lease is used by lessees as a convenient argument to attract Government involvement into their private affairs. Recent examples include arguing a role for Government to pay for pest control in the Rabbit and Land Management Programme on the basis of protecting the nation's natural resource base.

Lessees usually see themselves as land owners not occupiers or tenants. This is the common view held by lessees and it negates any public consideration in land management which the rights retained by the Crown suggest.

The outcome of the Waitangi Tribunal has likewise been raised as a Crown concern which has imposed unnecessary farming limitations on lessees. The uncertainty of the outcome of compensation negotiations between Ngai Tahu and Government are seen to increase risk associated with investment/expenditure on leased land by the runholders. However, there is a well recorded history of off-farm investment by lessees which predates any Waitangi Tribunal claim or decision. This off-farm investment has continued in the face of declining farm incomes and increasing costs, such as pest control.

In the high country the net effect of tenure on land use has been to cloud issues relating to:

- public and private costs and benefits of land use
- rights of access and use
- risks associated with individual land use decisions

The incorporation of sustainability into tenure is a fundamental principle which underlies an occupant's obligation to maintain society's natural resource base. To my knowledge this has not been addressed to date but needs to be.

### **Biophysical Systems**

Most research in the past has centred on biophysical systems and especially on the soil, vegetation and animal components of high country farming. Most of the research has been single interest centred on these topics. This research has described the high country as an ecosystem in collapse.

There is virtually no comprehensive research which has attempted to place farming practices into an environmental context. Consequently, the problems of rabbits and Hieracium are not identified as symptoms of a larger problem, but rather seen by many as isolated problems in their own right. Little of the separate resource based research has been integrated and so it is no wonder that runholders have problems accepting the tussock grassland as an ecosystem in collapse.

Research needs to put all agriculture into an environmental frame so that the limitations and opportunities for development and use can be more clearly seen. Such a frame would allow recognition of the risks of production and identify the true costs including the public, off-farm and environmental costs. Also, the land could be managed accordingly to its potential. The scientific expertise to undertake this type of research is different to that which is presently operating in the high country.

The national productivity loss caused by degradation is small but the productivity damages can not be ignored because:

- large losses occur on small areas of land
- small losses occur over large areas of land
- base productivity levels are low for unimproved sites
- damage while small is cumulative and irreversible (unless significant inputs are made)

The resulting cumulative effects cannot be ignored as the ecosystems are generally unable to quickly respond to disturbance unless significant inputs are made. These results are important for the design and targeting of policy. In many cases treatment of widespread, relatively minor problems is economically more effective than addressing isolated but greater land degradation problems.

Specific issues relate to rabbits and Hieracium and the land use conflict of rabbits and pastoralism are equally well reported.

### **Farming**

New Zealand today still needs farmers. As consumers we all have a personal interest in the sustainability of farming. We still need farm exports to pay for our imports. Consequently, New Zealand needs farmers who are making a reasonable return on their labour and capital.

Most people, including runholders and other farmers, care about the land in ways that go well beyond personal financial gain. Besides farm management and conservation, farmers have other things on their minds. Increasingly farmers number one concern is financial survival. In the past most Government economic and agricultural policy and incentives encouraged runholders to develop land and increase stock numbers at the expense of biophysical degradation in the form of

soil erosion and water pollution. Runholders have invested heavily in seed, fertiliser and fencing but now they find themselves in a high cost low profitability spiral.

Unfortunately, in the high country farming on the basis of good business practice (annually balancing the financial book) results in unacceptable resource degradation. These are the classic conflicts between short term, private objectives and long term, societal objectives; and between tangible, financial measures of production and intangible environmental qualities and their maintenance.

In contrast to any resource conservation ethic society places on runholders it condones an economic environment that demands short term investment decision making.

This dichotomy highlights the conflict between timescales, and public and private costs and benefits associated with high country management and pastoralism. Runholders do not address all the costs of pastoralism especially the biophysical degradation and even some specific production costs such as rabbit control.

Despite advances in agricultural technology soil erosion rates and estimates of production loss, resource degradation and environmental damage remain high. Runholders continue to use practices that degrade the soil resource despite:

- being aware of erosion problems
- believing they have a social obligation to protect the soil resource
- having favourable attitudes toward conservation
- having greater access to more knowledge than previous generations

Consequently, there is a real need to do more to alter land management practices than merely provide information and poorly directed financial incentives. There is a need to include a discrete focus on changing behaviour.

Farming systems operated in the high country are relatively unsophisticated in comparison to the underlying land resource. Results suggest that there is little landholder recognition of variations of pastoral production, within seasons or between years.

The unimproved tussock grasslands have extreme limitations to pastoral growth. This is recognised by runholders who have shown a reluctance to invest in them concentrating their production investment into the choice mid-altitude and now oversown areas.

The grassland ecosystems are sensitive to climate, especially rainfall in the semi arid area and temperature in the high altitude area. Consequently, the grasslands dry matter, sheep feed, production varies with the weather. Runholders annual stocking policy relates poorly to variations of food production as few monitor pasture growth or food production. Stock numbers are increased rapidly with inputs of seed and fertiliser but decline slowly in the face of pest explosions, drought or other factors which limit food supply. Consequently, grazing is greatly in excess of recommended levels at the most critical times, when plants are stressed and sensitive to disturbance.

### **Communication**

Communication between all the parties involved in management is essential for the common description of problems and therefore agreement on the specific nature of issues. This common agreement is necessary to allow a united search for a common solution.

In the high country, problems relate to conflicts between private and public objectives. Consequently there needs to be comprehensive communication between runholders, communities and government. This communication is not occurring at present. As a result government, community and runholders are not united in the search for a common solution. Clearly this unanimity is unrealistic in the extreme, but until concerns are expressed in physical, social and economic terms each of the parties will not be able to understand the others concerns.

Essential to good land use decisions is determining:

- what people know
- what people want
- what people are willing to do/pay/allow government to do

Government policy and programmes seldom have explicit, direct land use controls but they usually call for (land use) planning and therefore effect land use decisions. In contrast good land use decisions need the commitment of local communities and therefore must be developed by and reflect the local desired results.

Unfortunately, workable programmes are usually politically unacceptable while programmes that are politically palatable will often not achieved their stated objectives. Therefore, there is a need to inform, educate and involve people to identify their needs, problems, opportunities and choices. A strong community desire to achieve a specific objective can drive a political will to assist the change. In this way the cure of land use problems is less painful than the continuation of the problem.

### **Land Use Change**

Clear definition of land use problems is often lacking, as occurred in the Rabbit and Land Management Programme where the connection between rabbit problems and urban activities was not and still has not been expressed. Off-farm benefits relate to employment and expenditure associated with fertiliser, transport and processing beyond the farm gate.

Land use change is made with great difficulty because:

- people directly involved have a vested interest in maintaining the status quo
- the remainder of society has only an indirect interest in the land use change

The management of the high country has been largely left in private hands with a weak outside political will to impose regulatory constraints. Lease conditions, regulations and statutory controls have been only imposed at a superficial level. Instead high country management has been largely influenced by runholder, private objectives.

The bottom line is that if society really sees that pastoralism is degrading the high country to an unacceptable degree and that it wants a land use change then it has few options with which to achieve the change.

Clearly, there is a need to improve the communication between farmers, communities, advisors and government. The present limited communication is almost entirely related to the biophysical environment and largely ignores any social or economic considerations. Rural extension needs to address the role of women in rural communities and recognise their legitimate role as partners in property specific decisions.

### **Economics/Finance**

The significant effect of economics on land use decisions is discussed above. However, there is little economic information on natural resource use in the high country. The difference between public and private benefits is brought into focus in the high country where public access and farm management objectives conflict or compete for the same or similar resources, including space.

Farm production from unimproved tussock grasslands is insignificant to the national economy and for much of the high country pastoral areas the costs of production greatly exceed the returns. For many of the presently defined properties in the high country there is little or no hope of medium to long term independent survival, irrespective of size, debt structure or managerial capability.

The parameters that mean a farming enterprise is viable are varied but some simple parameters to give a measure of an operations robustness needs to be developed. This would mean that the task of making the change to a healthier and more viable community could begin.

The Rabbit and Land Management Programme is an attempt to make this change. The principles contained in the Programme are equally applicable to all high country properties as the risks of resource degradation, weed and pest invasion, snow and drought are of a similar magnitude. The high country is a high risk environment for farming, but is seen by runholders as a wild landscape able to be tamed.

In the past conservation and acceptance of advice or pressure to change has been employed on a voluntary basis. The rationale for this voluntarism being that acceptance was in the individual runholders best interest with the cost of non acceptance being shown in productivity losses. However, as discussed elsewhere, farming on the basis of good business practice is not always in the long term best interest of the underlying resource base.

Time scale appears to be the principle key to implicating policy for high country management.

The short term is dominated by situations where runholders cannot afford to implement conservative management. This arises because of short term episodic biophysical events (e.g. droughts and storms) or macro economic changes (e.g. wool price collapse). In comparison, the long term is dominated by chronic run down of biophysical and financial systems. It is here that information should provide clarity of issues and assist development of solutions and show that it is in the runholders best interest to take action.

## **Social**

The farm family is important for decision making in rural areas but in the high country there is a predominance of views publicly expressed by the male leaders. Also within rural communities there is a female network which has been largely ignored as a reasonable alternative for communicating with and getting information into rural communities and farm families.

The broader high country community incorporates a wide range of social groupings ranging from runholders to farm labourers, casual workers and labourers. Advisors, accountants, and others generally live in rural and provincial towns, some distance from the runholders. Consequently, contact between the parties is usually purely professional without any social overtones.

Farming is usually seen within an industrial frame rather than a biophysical, natural resource frame. Consequently, farm development attempts to overcome production limitations rather than taking opportunities to develop alternatives.

## **Community Role**

Past management of the high country has had the same weakness as many treatments for deep seated problems. It addresses or attempts to address symptoms but does not correct the primary cause of the problem. Often only fundamental changes to the system can do that.

High country problems need to be redefined using social and economic terms rather than biophysical ones. The 1988 Social Policy Review highlights the national concern for soil erosion, water pollution, resource abuse and the well being of the environment of New Zealand.

Most of the legislation and resulting organisations (MAF, DSIR, DOC, FRI, Universities, MLI, Regional Councils, Landcorp) are focused toward management of the biophysical features of the high country. There is very little legislative base and few organisations focused toward the social and economic dimensions of high country management. Notable among these later bodies are Internal Affairs, REAP and MAF.

The realisation that high country concerns are social and economic problems demand new methods of analysis of the biophysical processes and systems. This new focus would look at how high country management decisions are made. Also, it suggests that more attention needs to be given to

the policy questions of changing property rights and the implication that come from changes of existing ownership rights. This also recognises that ownership contributes to the problem and the status quo cannot be considered sacrosanct.

Also, needed is recognition and understanding of the impact of present and future policy and rules, and pastoral practices on the high country, and the impact of policy and rules on runholders production and income.

As discussed above, the success of any land change decision relies on a community recognition of a common problem. The greater the acceptance of this problem then the easier will be the acceptance of the solution. However, the definition of the problem and development of solutions can be time consuming and frustrating if people involved do not understand the process or their roles.

In situations where there is a need for radical landuse change the issues can quickly become polarised as the private lives of some are threatened by the public desires of others.

Usually the landuse problem is only described with an incomplete use of biophysical terms. For example, the rabbit problem talks about resource/land degradation with the description being purely qualitative. There is very little empirical description of land degradation. There was very little economic and no social dimension to early descriptions of the rabbit problem.

Successful land management programmes must be implemented in the context of macro economic and social constraints, such as high interest rates, low product prices and peculiarities of agricultural production. It is often these constraints that prevent runholders from using conservation/sustainable practices.

### **Future Management**

Management programme organisation and implementation for the high country need to recognise several factors if they are to remain relevant, acceptable and achievable. These factors include:

- reduced reliance on Government subsidy to allow local innovation from national standards and greater ability to set regional/local standards and priorities
- organisation of effort toward concerns with solutions targeted to achieve results within the defined areas
- enhanced regional and local accountability to address the community interests in the external impacts of biophysical resource degradation
- continuation of targeted works programmes to assist change and encourage local involvement and commitment
- apportionment of costs to reflect benefits
- collection and storage of information according to preset standards to allow ease of national or inter regional comparison

Achieving high country objectives will depend upon six factors, these being:

- an accurate perception of high country problems
- community agreement on the definition of each problem
- continuation of farm level targeted programmes
- consistent national, regional, local and community goals and policy

- adequate funding for implementation and enforcement
- appropriate staffing at the regional and local level

Past Government land use policy have been delivered in programmes that encouraged specialisation, expansion, and over investment. These policies had a production/output focus and ignored input and consequential output effects. The Livestock Incentive Scheme and the Land Development and Encouragement Loan Scheme are typical of such programmes. Pastoralism has been no different to other agricultural activities. These policies were implicit in Government tax laws which subsidised investment in pastoralism that has been unneeded and unwanted. Resulting from this has been increased production, lower product prices, over use of the land resource and loss of farm families.

The future of the high country lies in merging land use change with rural development - finding ways to make changes in land use consistent with a viable future for rural communities.

First, pastoralism must change as it is not a basis upon which to build a future for the economy of communities in the high country. Second, resource conservation must become an integral part of land use policy. Third, equity is important so that progress does not produce victims.

Land use development must be based on the strengths and capabilities, not on the deficiencies and needs, of a rural economy. Subsidies need to go where the profits will remain in the community with a focus on an economic development strategy that maximised returns to labour, not capital. Labour is what is most available in rural communities.

In developing a management strategy for the high country, the community needs to address the biophysical, social and economic dimensions of land use as it designs a programme using regulation, education, advise and incentive. Such a programme will therefore have the understanding and consequent support of the rural communities involved in the use of the high country.

## **SUMMARY**

As long as private, sectorial interests dominate the discussion surrounding the management of the South Island high country the opportunities to develop more sensitive uses of the fragile resource will not occur. That the public has a major stake in the sustainability of the high country resource is implicit in the tenure of the land.

Whereas property is a human, legal concept land is a naturally occurring entity. How society allocates rights to use land and enforces conditions placed on its use act to dictate how individuals treat the land.

Knowledge is important to all who manage land. The effects of actions and limitations need to be rationally assessed. The risks associated with decisions are poorly understood and consequently discounted by most runholders. Information important to wise decision making needs to be integrated and presented to communities in a readily accessible way.

Communities need to be actively involved in decisions effecting the future management of their local resources. This involvement will drive commitment to the successful implementation of solutions to problems.

Nothing is constant, the grasslands evolve, communities age, perceptions change - management needs to recognise that understanding change and processes is more important than creating arbitrary and artificial ends.