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The Australian Rangeland Society

SUSTAINABLE MANAGEMENT - A PASTORALIST'S VIEW

A.W. Nicolson

Middleback Station, Whyalla SA 5600

INTRODUCTION

Much of the recent literature and discussion has dealt with sustainable management in terms of either managing *ecological* sustainability **or** *economic* sustainability. Very little discussion or thought has been given to bringing these factors together in management. In fact the picture of two railway lines running parallel with a confused land manager trying to reconcile an economic system incorporated into an ecological system springs to mind.

Now I wish to introduce another factor, and that is *social* sustainability. I strongly believe that for effective sustainable management we must have all three factors, that is, ecological, economic and social sustainability.

ECOLOGICAL SUSTAINABILITY

Ecological sustainability in the rangelands is well understood and for some land types has been studied in great detail. My understanding of ecologically sustainable management is to have a management regime which enables the enterprise to be carried out in perpetuity with no degradation to the land and hopefully with an improvement in land condition. Ecological sustainability in a technical sense is achievable under grazing regimes for most land types.

ECONOMIC SUSTAINABILITY

This goal is very simple to define - it is to make enough money to be able to stay there with an adequate income, to live well and to reinvest in the enterprise to provide ecological sustainability.

Economic sustainability has always been the hardest goal to achieve and has recently been getting harder. The price of commodities has fallen by 60% in the last 20 years (Thourow 1996). Hopefully we are now entering a period where this fall will not be at such a great rate. Some economists such as Gus Hooke say that there is the potential for food prices to increase in the near future (Hooke 1995). The price of wool has been dropping in real terms since 1450, however, historically there have been short-term increases in the value of commodities and realignment of prices (Kronborg 1995). The increase in wheat prices from \$150/tonne to \$240/tonne over the last 18 months is an example of this. Producers have been able to maintain their incomes by improving productivity.

In Australia and in particular the rangelands, there has been little investment in new infrastructure over the last 20 to 30 years (Catterall 1993). This may mean that the potential for future productivity gains will be low. On many rangeland properties there needs to be a major injection of capital in infrastructure for effective labour saving technology to be adopted. This is where the major productivity gains have occurred and will continue to occur.

From the rangeland grazing industries come luxury products for the rest of the world, namely wool, meat and tourism. The other product, minerals, may be a separate case whereby they are the necessities of a modern industrial society. One has to ask what the future demand for these luxury products will be. I, for one, believe that with the economic growth in Asia and potential growth in Eastern Europe there will be a continued demand for these luxury products.

Table 1 is an attempt to bring together the ecological and economic parameters for the property with which I'm involved. These figures are over the last five years, during which time the financial markets

and the wool market have been deregulated. The table shows that by conservative stocking (1 sheep to 7 hectares) and a high level of investment in infrastructure the chenopod bush cover has been maintained (Lange *et al.* 1984), which has enabled consistency in both:

- production - sheep numbers and wool production; and
- quality - micron, tensile strength.

This consistency has been achieved whilst rainfall, wool prices and interest rates have fluctuated quite markedly. If production varied markedly due to seasonal conditions (necessitating selling of stock) income fluctuations would be further amplified, which would make management much more difficult.

Table 1. Production and economic figures for Middleback Station, South Australia, 1990-1996.

Year	Sheep nos.	Wool prod. (kg)	Rainfall (mm)	Price c/kg*	Interest rate	Micron	Tensile strength
90/91	14743	80334	194.6	399	20.48	22	36
91/92	13877	78730	190.4	576	16.38	22.1	33
92/93	12550	72065	478.2	403	12.02	22.7	42
93/94	13946	75784	338.4	506	10.5	22.2	42
94/95	12960	74437	147.6	752	11.0	22.2	34
95/96	15461	87034	252.6	560	12.5	22.3	38
Coefficient of variation	6.92	6.78	45.96	24.63	28.01	1.09	10.3

* for 23 micron wool in first sale after Easter.

Sustainable management giving consistent production and quality is a distinct marketing advantage as hopefully long-term contracts with mills could be established. In fact consistent supply and quality may be a better marketing advantage in the wool industry than 'clean and green'. Market research by the International Wool Secretariat (IWS) has shown that in clothing purchases, textile choice is fifth on the list of factors considered by consumers (IWS internal document), so one assumes that the method of production is of still less importance. How many of us here today decided not to buy a cotton shirt because the cotton industry has pumped the Colorado dry or because of the damage to the Murray-Darling system? 'Clean and green' will be much more of an issue in the cattle industry as its product is eaten!

SOCIAL SUSTAINABILITY

Finally we come to social sustainability. It is the hardest thing to quantify but perhaps the most important as it determines how we, as rangeland users and managers, act and react to situations. By social sustainability I mean that people in the rangelands have something to work for, to live for and a belief in what they're doing for the future.

Anecdotal evidence in this region suggests that the proportion of bachelors running properties is increasing. I feel the impact of this is a reflection of the following factors:

- incomes are half the Australian average (ABARE);
- there is little or no opportunity for partners to work (the middle class in OECD countries have maintained their incomes by partners working);
- social isolation;
- women having to give up careers to live in the rangelands;
- education issues;
- lack of health services, etc.

A couple of years ago I read an article in a metropolitan newspaper that talked about an image of pastoralists being responsible for the desecration of the land and the perpetrators of future ecological problems (even though the cities were prepared to accept the money the bush produced). However this leaves the pastoralist feeling even more threatened and isolated, and sometimes even contrary, especially in the face of increasing government regulation.

Many people in the bush are left questioning their economic and social worth and may withdraw into themselves. This has major ramifications for sustainable management in the rangelands as a 'peasant' culture may develop whereby land managers lack the confidence to try new ideas, technologies or come to terms with new situations. With attitudes such as these, the potential for land degradation is greatly increased. This in part could explain the low technology uptake of farmers in Australia. The IWS has found this to be a major problem.

The challenge, therefore, for sustainable land management is to amalgamate the above three factors, that is, economic, ecological and social sustainability. They are all important - any one will not work without the other two!

During the remainder of the Conference, we have the chance to ask what is the future of the rangelands? If there should be no future, what does the wider community expect the rangelands to be used for and what happens to the people?

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