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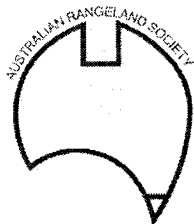
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STOCKING RATES IN ADVERTISEMENTS FOR SEMI-ARID LEASEHOLD GRAZING PROPERTIES, NSW WESTERN DIVISION, 1984 - 1993

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LAND DEGRADATION AND OVER-ESTIMATING PRODUCTIVITY

Much of the semi-arid land of the Western Division of New South Wales is degraded by wind and water erosion, loss of biodiversity, change in vegetation composition and structure, and spread of non-palatable native shrubs. But what are the causes? Many observers suggest that over-stocking by graziers is the major cause, but others prefer to blame the most recent (current) drought, or pioneers at the turn of the 19th century.

But while graziers, or at least their management, may be the direct cause, what about more indirect causes? What encourages or forces graziers to degrade the very lands to which they claim deep attachment? While ignorance may have been a plausible excuse at the turn of 19th century, it is no longer acceptable in the 21st century. degradation is an unfortunate by-product of management which is seeking to optimise something other than condition of the landscape. Presumably this is income, but various surveys indicate that maximizing income is rarely the top priority of most graziers.

In general terms, the potential income that can be derived from a parcel of land is the main determinant of the price of that land: better land costs more. This means that an intending purchaser needs some way of accurately estimating the productivity of land in the region of interest, and for the enterprise of interest. To protect their investment and collateral, financial institutions also need these estimates. If the purchaser over-estimates the productivity of the land, then the purchase price is likely to be too high. This could force a new owner to over-stock and probably degrade the land. Thus I would argue that while the direct cause of much of the land degradation in the Western Division is over-stocking, the indirect (and more fundamental) cause is over-estimating the productivity. To test the first parts of this argument, I sought data on graziers' estimates of productivity, independent estimates of productivity, and estimates of land degradation. By comparing the three, it may be possible to more closely examine the causes of land degradation.

Stocking rates in real-estate advertisements could provide a direct statement of graziers' perceptions of productivity. But how accurate are they? Are they hyperbole or a reasonable statement of productivity? Further, are these stocking rates sustainable, or do they lead to degradation?

I compared stocking rates in advertisements in *The Land* newspaper for Western Division properties with estimates of both rental carrying capacity determined by the Western Lands Commissioner, and carrying capacity estimated by the Soil Conservation Service. A total of 321 advertisements for the period 1984 to 1993, and 321 was suitable for analysis. For land degradation I used raw data of the Soil Conservation Service survey of land degradation (SCS no date) combined for counties.

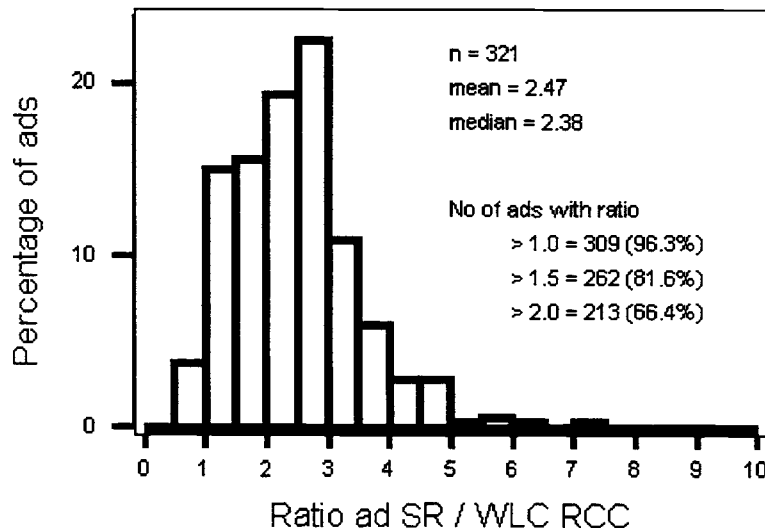
STOCKING RATES IN ADS VERSUS RENTAL CARRYING CAPACITY

Some 96% of advertisement stocking rates exceeded the rental carrying capacity (Figure 1). 82% were more than 50% higher, and 66% were more than twice as high as the rental carrying capacity. Advertised stocking rates are a median 2.4 times higher than rental carrying capacity. Results for the SCS carrying capacity are identical.

The gross discrepancy between advertised stocking rates and rental carrying capacity is not an artefact of the data or the analyses. There is no simple pattern of variation in the anomalies across the Western Division, nor over the period 1984 to 1993. There is no indication that any real estate agents are more prone to use higher or lower stocking rates than others.

- Alternative explanations for the discrepancy between stocking rates and rental carrying capacity are
- either the lessees are correct and that their stocking rates are reasonable,
 - or the Western Lands Commissioner is correct, and the excessive stocking rates are prima facie indication of unsustainable grazing.

Figure 1. Frequency histogram of ad SR / WLC RCC



LAND DEGRADATION AND THE RATIO AD SR / WLC RCC

Land degradation in counties cannot be predicted by the ratio ad SR / WLC RCC. This suggests that either:

- there is no relationship (i.e. over-estimating productivity does not lead to land degradation), or
- the summarised country data used are too coarse to detect what is actually a paddock- and property-scale issue.

Until the second alternative is more fully explored with historical property-scale data, then the first cannot be considered.

ADMINISTRATIVE AND FINANCIAL IMPLICATIONS

The discrepancies between advertisements and WLC assessments have two consequences:

- if the advertised stocking rates are accurate, then the Commissioner should immediately increase rents by at least the median value of the ratio of stocking rate / rental carrying capacity (2.4).
- if the rental carrying capacities are reasonable, then the lessees face sanctions including prosecution under the Native Vegetation Conservation Act.

In reality, the *status quo* will remain because of political power of a handful of Western Division graziers who are granted hidden subsidies by the NSW government, regardless of the impact of their management on the environment.

Financial institutions have no mandate for supporting ill-conceived social policies that permeate the Western Lands Act and NSW government policy. As they are driven solely by profit, they should protect their investments in loans by insisting on independent confirmation of the stocking rates claimed in advertisements.

Soil Conservation Service (no date) 'Land Degradation Survey, New South Wales 1987-1988.' Soil Conservation Service of New South Wales, Sydney.