

**PROCEEDINGS OF THE AUSTRALIAN RANGELAND SOCIETY
BIENNIAL CONFERENCE**

Official publication of The Australian Rangeland Society

Copyright and Photocopying

© The Australian Rangeland Society 2012. All rights reserved.

For non-personal use, no part of this item may be reproduced, stored in a retrieval system, or transmitted in any form or by any means, electronic, mechanical, photocopying, recording, or otherwise, without prior permission of the Australian Rangeland Society and of the author (or the organisation they work or have worked for). Permission of the Australian Rangeland Society for photocopying of articles for non-personal use may be obtained from the Secretary who can be contacted at the email address, rangelands.exec@gmail.com

For personal use, temporary copies necessary to browse this site on screen may be made and a single copy of an article may be downloaded or printed for research or personal use, but no changes are to be made to any of the material. This copyright notice is not to be removed from the front of the article.

All efforts have been made by the Australian Rangeland Society to contact the authors. If you believe your copyright has been breached please notify us immediately and we will remove the offending material from our website.

Form of Reference

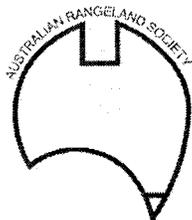
The reference for this article should be in this general form;
Author family name, initials (year). Title. *In*: Proceedings of the nth Australian Rangeland Society Biennial Conference. Pages. (Australian Rangeland Society: Australia).

For example:

Anderson, L., van Klinken, R. D., and Shepherd, D. (2008). Aerially surveying Mesquite (*Prosopis* spp.) in the Pilbara. *In*: 'A Climate of Change in the Rangelands. Proceedings of the 15th Australian Rangeland Society Biennial Conference'. (Ed. D. Orr) 4 pages. (Australian Rangeland Society: Australia).

Disclaimer

The Australian Rangeland Society and Editors cannot be held responsible for errors or any consequences arising from the use of information obtained in this article or in the Proceedings of the Australian Rangeland Society Biennial Conferences. The views and opinions expressed do not necessarily reflect those of the Australian Rangeland Society and Editors, neither does the publication of advertisements constitute any endorsement by the Australian Rangeland Society and Editors of the products advertised.



The Australian Rangeland Society

TAXATION POLICY INSTRUMENTS AND SUSTAINABLE GRAZING MANAGEMENT IN THE RANGELANDS

J. Cross and D. M. Stafford Smith

CSIRO Wildlife and Ecology, Centre for Arid Zone Research, PO Box 2111, Alice Springs NT 0871

INTRODUCTION

The importance of appropriate income taxation instruments in supporting sustainable land management practices among rural producers has been emphasised repeatedly in national policy documents published in the last decade, including the recently released discussion paper - *Managing Natural Resources in Rural Australia for a Sustainable Future* (AFFA, 1999).

Yet many producers and policy stakeholders remain concerned that a number of present policy instruments, intended to assist producers manage risks associated with variable climate and fluctuating commodities markets, may actually hinder efforts to achieve and implement sustainable management practices. It is widely recognised, for example, that drought subsidies discourage self-reliance, promote more intensive management practices, and impede rural adjustment, but the effects of indirect taxation concessions are more difficult to determine.

Livestock valuation, for instance, is an area often overlooked by primary producers, yet is one of the principal means for deferring tax in the rural sector (Douglas and Davenport estimated approximately \$A1bn in deferred income in 1992). Current taxation policy allows producers to average the low prescribed minimum values for natural increase in livestock over the entire herd or flock, but what are the resource implications of such a scheme?

Douglas (1995) suggests that the provisions may distort investment decisions by encouraging overstocking, and perhaps more critically, discouraging de-stocking at crucial times. Additionally, the 'forced sale' provisions, which allow producers to defer tax profits arising from the sale of livestock 'outside the ordinary course of business', may reinforce the effect. This project aims to test and quantify these assertions.

MODEL DESCRIPTION AND PRELIMINARY RESULTS

The 'RISKHerd' model incorporates climate and market price variability into an integrated model of pasture growth, herd management, and policy scenarios to assess the effects of various policy instruments and management strategies on both financial and biological indicators of sustainability. As well as different livestock valuation systems, the model incorporates other taxation instruments, including income averaging, Farm Management Deposits, and alternative business entities. The preliminary analysis was conducted assuming a medium sized north-east Queensland cattle property (around 20,000 ha, running 2500 head, described more fully in Stafford Smith and McKeon, 1998). Results presented are ten-year averages for a sole trader using income averaging.

Preliminary results demonstrate that not only is market valuation more profitable (Fig.1), but also provides incentives for more responsive herd management and a lower risk of soil degradation. Profitability is further enhanced for partnerships.

The apparent attractiveness of market valuation is further emphasised by examining the tax liability to producers during times of greatest hardship (modelled as the lowest 20% of rainfall years - Fig.2). While the livestock elections ('forced sale' provisions) operate to effectively ease the financial (taxation) burden associated with the 'forced' disposal of livestock, market valuation achieves a substantially similar result. Farm Management Deposits may also be used to assist in cash flow and taxation management during times of prosperity and hardship.

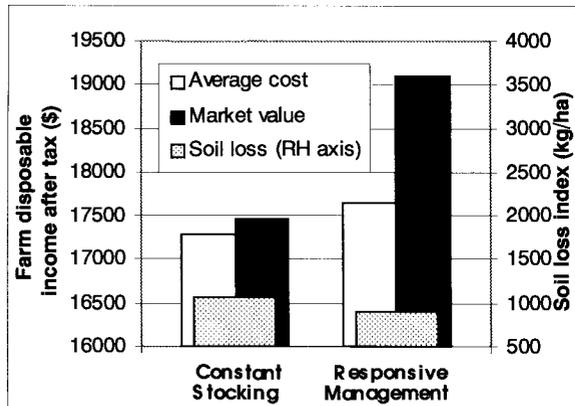


Figure 1: Farm disposable income after tax and soil loss index (risk of degradation – right hand axis), under alternative livestock valuation methods and herd management strategies, showing how market valuation supports more responsive management with beneficial financial and environmental outcomes.

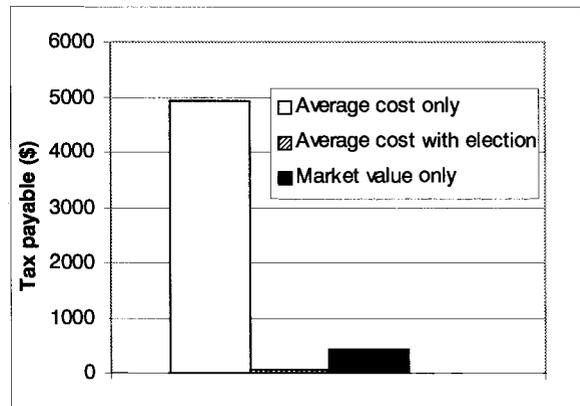


Figure 2: Tax payable in poor years (defined as the lowest 20% of rainfall years) under alternative livestock valuations and ‘forced sale’ elections at the optimal responsive management strategy, showing how market valuation achieves most of the benefits of other instruments designed to counter the tax effects of ‘abnormal’ income fluctuations associated with livestock valuation.

POLICY IMPLICATIONS

While the results generally present win-win outcomes for producers, policy makers, and - importantly - rangeland sustainability, some substantial impediments must be addressed:

Firstly, if implemented, market valuation implies that producers must pay tax on unrealised income. Fluctuations in market values could potentially destabilise taxable (and disposable) income, requiring producers to pay tax (and seek deductions) without corresponding cash flows or changes in underlying herd structure.

Secondly, to write-up the value of stock from current low average cost valuations to higher market values would place a prohibitively high, once-off, tax burden upon individual producers (estimated at between \$250,000 to \$400,000 on average), and the rural sector collectively.

In consultation with producers in different regions and national policy-makers, the ‘RISKHerd’ model is now being used to determine some of the environmental and economic consequences of different taxation instruments, including alternative livestock valuations and transition options.

REFERENCES

- Agriculture, Fisheries and Forestries – Australia (AFFA). (1999). ‘Managing Natural Resources in Rural Australia for a Sustainable Future: A discussion paper for developing a national policy’. Canberra.
- Douglas, R.A. and Davenport, S.V. (1992). ‘A Review of the Income Equalisation Deposit Scheme.’ *NSW Agriculture Policy Report No.2*, Orange.
- Douglas, R.A. (1995). Improving the efficiency of livestock valuation in Australia. *In* ‘Rural Income Taxation.’ (Eds D. Peterson and N. Warren). Australian Tax Research Foundation, Conference Series 15, pp. 58-71.
- Stafford Smith, D.M. and McKeon, G.M. (1998). Assessing the historical frequency of drought events on grazing properties in Australian rangelands. *Agric. Syst.* 57: 271-299