

## **Submission to the House of Representatives Inquiry into public good conservation: Impact of environmental measures imposed on landholders**

The challenge of improving the sustainability of Australian agriculture is not to be underestimated. The ‘new reality’ for rural Australia may be that even with best management practices and more investment in land rehabilitation, Australians will have to continue to accept a degree of resource degradation across many rural landscapes<sup>1</sup>. Farm management decisions will increasingly rely on information of a broad, integrated nature, which will cross institutional boundaries and scientific disciplines, as well as personal attitudes and beliefs. As such I welcome with enthusiasm (and just a glimmer of hope) the Government’s attempt to investigate the impact of conservation controls on farmers and landholders.

One of the most relevant terms of reference for this inquiry asks how to equitably share the costs of improving conservation efforts on farms, and thus the sustainability of Australian agriculture, recognising that both the private landholder and the general public will benefit from such efforts. In this submission I would like to highlight some current research that seeks to provide data that may answer these same questions.

### *Shifting attitudes – changing practices*

On a very broad level, many believe that the traditional European-style farming practised in Australia is unsuitable for this environment and the cause of a multitude of land use and degradation problems. From this broad, national perspective, perhaps the most pressing concern is the rise in salt-affected land resulting from inappropriate management practices. From a regional or an individual farming perspective, however, these broad land degradation issues can seem far from home, and are often the least of a farmer’s worries when struggling to survive financially. Management decisions under these conditions (and they do exist) may then be based entirely on economic factors.

Many of today’s farmers are less at the mercy of the weather, the local grocer or butcher than of the fierce and competitive climate of international trade and politics. Given the cost/price squeeze faced by many farmers in the course of intensifying production, it is no wonder that some farmers are beginning to seek alternatives. It is this shift in farmer attitudes, however slight, from awareness to ‘interest’ and perhaps ‘evaluation’ of alternatives<sup>2</sup>, that offers hope for a change in farming practices that will nurture and not degrade our natural resources. We may have a long way to go in achieving sustainability, but it is no longer appropriate for farmers and environmentalists to be adversarial<sup>3</sup>.

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<sup>1</sup> See pages 6-7 of the AFFA discussion paper released December 1999: *Managing natural resources in rural Australia for a sustainable future*.

<sup>2</sup> Brian Ilbery suggests a psychological resistance to adoption of non-traditional alternative farming enterprises, or diversification, in Chapter 7: ‘State assisted farm diversification in the United Kingdom’ (IR Bowler, CR Bryant and MD Nellis (eds) (1992) *Contemporary Rural Systems in Transition. Vol 1: Agriculture and Environment*. CAB International, London)

<sup>3</sup> In the Preface to J. Pratley and A. Robertson (eds) (1998) *Agriculture and the Environmental Imperative*. CSIRO Publishing, Collingwood.

### *Valuing the environment*

Despite the vast literature on environmental, and now ecological economics, there is still uncertainty and some trepidation when it comes to placing values, or costs, on aspects of environmental management (or damage). In Lampkin's assessment of methods that may be used to measure the costs and benefits of sustainable soil management<sup>4</sup>, *willingness to pay* is described as the only way to value environmental externalities (with due consideration of a number of problems with the method). Others have given similar warnings that this method only expresses how much people are willing to pay without considering whether or not they have the opportunities to do so<sup>5</sup>.

Lampkin's take home message is that even if such methods can be identified, good quality, comparative data on the environmental and other impacts of sustainable practices is an *essential prerequisite*. He questions whether current research is in a position to supply that data.

### *Long term solutions*

Herein lies the heart of a current project lead by Dr Rowland Laurence<sup>6</sup> and supported by the Horticultural Research and Development Corporation (HRDC): '*Improving the long-term sustainability of intensive horticultural cropping systems: a feasibility study*'. The project has gained broad national support for the idea of establishing a range of experimental sites, nationally, that will begin to measure some of the long-term costs and benefits of more sustainable intensive vegetable cropping systems. The project builds on a previous regional study<sup>7</sup> within Tasmania and southern Victoria, which gained support, from both industry and government, for the concept of such long-term experimentation.

Driving both these projects is a realisation that current changes in farming practices may be based on market demand rather than an understanding of the relative environmental benefits of different farming systems. Consequently, the lack of objective measurement of the magnitude and rates of remedial change required to make our agricultural systems sustainable calls for quantification on a large scale and over long time-periods. Australia has very few such long-term projects or experiments in place to address these concerns, particularly within the vegetable industry, where markets often dictate intensive production (often associated with excess use of water, fertiliser and pesticides).

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<sup>4</sup> Other methods listed are *cost of damage* and *cost of damage regulation*. See NH Lampkin (1993) Economic issues in sustainable soil management. HF Cook and HC Lee (eds) *Soil Management in Sustainable Agriculture*. Wye College Press, Kent.

<sup>5</sup> See Chapter 3: Valuing ecosystem services: philosophical bases and empirical methods by LH Goulder and D Kennedy in GC Daily (ed) (1997) *Nature's Services: societal dependence on natural ecosystems*. Island Press, California.

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<sup>7</sup> See R. Laurence (1999) *Economics of soil and environmental amelioration in intensive temperate rotations*. Final Report for the RIRDC Project TAR2A.

One exception to this may be the Somersby experiment at the Gosford Horticultural Research and Advisory Station in NSW. The Somersby experiment is unique in that the five systems under investigation are defined by the goals and values of 'the farmer' rather than by the practices employed. Some of the comparative data analysed to date suggests that relatively small and simple adjustments to conventional farm management can result in substantial environmental benefits<sup>8</sup>. The question that now remains is to analyse the costs incurred to achieve these benefits, to determine how much the public should contribute towards them, so as farmers may be more able to (or at least encouraged to) undertake conservation efforts as part of a sustainable farming system.

Such long-term projects are an important attempt to gain factual rather than anecdotal information on the costs and benefits of more sustainable vegetable production systems. As such they may represent Lampkin's *essential prerequisite* for valuing and thus sharing both the costs and the benefits of conservation measures on farms.

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<sup>8</sup> Wells, A.T., Chan, K.Y., Cornish, P.S. 2000. *Comparison of conventional and alternative vegetable farming systems on the properties of a Yellow Earth in New South Wales*. Agriculture, Ecosystems and Environment 80:1-2, 47-60. In press.