

“Draft Report Impacts of Native Vegetation and Biodiversity Regulations”

Comment

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Abstract

Two shortcomings are identified in the Draft Report. Firstly, no direct link has been identified between the decision making process at farm level and the activity of land clearing. This is a structural weakness in the Report that places property owners at a distinct disadvantage in the debate over vegetation management. The links are the underlying direction of rural policy and the long- term decline in industry terms of trade. Farm management is forced to focus continually on the need improve efficiency and increase productivity to maintain farm income and long- term viability. Clearing of standing timber becomes a logical management decision on underdeveloped properties as an alternative to farm build-up.

Secondly, the robustness of underlying analytical framework of the Draft Report is weakened considerably by not illustrating the Third Coase Theorem under which property rights are delimited by government regulation or legislation. This requires an underlying assumption of fairness and impartiality by government. It is shown theoretically that this important assumption is breached. Furthermore, it is illustrated theoretically that a policy of zero land clearing is not the optimum solution. A policy of zero land clearing will prove costly in terms of overall social welfare of the Australian community

Thirdly, in the section “Towards a Solution”, the principles of the Second Coase Theorem are employed to structure a solution that would incorporate trading of property right. Consequently, the initial inefficient delimitation of property rights can be moved to a more efficient and equitable allocation and increase social welfare of the Australian community to an optimum. This will require a fundamental change in direction of the current debate.

1 Introduction

Most farmers would agree with the findings outlined in the Draft Recommendations and Findings (Chapter 6 p.p XLVIII-XLIX) that current policy direction and legislation has had negative impacts upon rural production and farm viability. The inadequacy of the financial packages on offer, confirmed by your Murweh and Moree Shire examples, will also come as no surprise to landholders.

However, within The Draft Report there are two major shortcomings that will allow the debate “ off the hook ” and weaken the opportunity for achieving constructive change to the established policy direction and structure. Failure to identify any direct link between farm decision-making

and vegetation clearing is a serious structural weakness. A link could have been established through the drivers of change in rural Australia already identified as government policy, terms of trade and productivity in a former Productivity Commission Draft Report “ Impact of Competition Policy Reforms on Rural and Regional Australia”, Chapter 3. Instead assertions, generalizations, and motherhood statements are offered supported by excerpts from selected submissions to establish the rationale for vegetation clearing from a farmer’s perspective. Opponents of your findings are given a “free kick” by this oversight

A second criticism is directed at the limited application of your chosen analytical framework i.e. the Coase Theorem. Your generalized discussion of the analytical framework implies the first Coase Theorem with zero transaction costs. Where governments intervene to delimit property rights by regulation or legislation, the Third Coase Theorem is the appropriate analytical framework. (Felder, 2001). This Theorem should have been demonstrated to establish the theoretical robustness of your analysis and conclusions. It is particularly relevant to the Queensland situation with large tracts of remnant vegetation and a current temporary ban on remnant vegetation clearing to become permanent from 2006.

This discussion is in three parts

- Forces Driving Farm Decision Making
- The Coase Theorem
- Towards a Solution

2 Forces Driving Farm Decision Making

2.1 Does Policy Matter?

The underlying role of agricultural policy is not recognized; and, yet, the Draft Report often refers to environmental policy in discussion to establish various points. One reason for the absence of any in depth discussion on the role of rural policy could well be the narrow focus of listed reference literature. It is dominated by environmental research material. Consequently, it is difficult to find anything related to the underlying role of agricultural policy direction and its impact at farm level upon profitability, viability and decision-making. This omission begs the questions:

- What has been the point in the direction of agricultural policy over the past three decades?
- Why did we abolish the wool stabilization floor price scheme?
- Why did we deregulate domestic selling of wheat?
- What was the purpose of national Competition Policy?
- Why did we deregulate the dairy industry?
- Why is sugar industry deregulation such a hot political issue?

Very clearly, one former senior bureaucrat would disagree:

“ Farm policies during the 1970’s shifted noticeably in the direction of promoting productivity, adjustment and economic progress. The 1980’s offer the opportunity to

consolidate, reinforce and advance those policies. If this opportunity is grasped, the 1990's will welcome a continuing strong and prosperous rural sector"

Geoff Miller

'Future Agricultural Policy in Australia"

BAE Quarterly Review of the Rural Economy

Vol I, No 2, May 1979, p136

The direction identified by the former director of the BAE in 1979 did continue through those decades. The rural sector witnessed the continued withdrawal of established industry assistance, abandonment of the floor price scheme for wool, and the orderly marketing of wheat. In the mid 1990's Competition Policy extended competitive conduct rules of the Trade Practices Act to all businesses including remaining rural statutory marketing authorities and cooperatives. This continued "*the reform of SMA's that had been under way since the 1970's*" (Productivity Commission, May 1999, p.177)

The direction of policy begun in the 1970's was to allow market forces to drive structural adjustment in the rural sector to create a viable market orientated rural sector highly competitive internationally through increased efficiency and rising productivity. The Rural Adjustment Scheme and Agriculture Advancing Australia are examples of policy instruments specifically designed to assist the necessary structural adjustment demanded by the underlying policy direction.

It is a brave economist that is prepared to argue that underlying policy direction in any industry has no impact upon decision-making at enterprise level.

2.2 Industry Terms of Trade

"Australia's primary producers are generally 'price takers' on world markets. They have little control over prices they receive and, hence, limited capacity to pass on cost increases."

Productivity Commission

Impact of Competition Policy Reforms on Rural and Regional Australia

, May 1999, p. 49

The Productivity Commission Draft Report (1999) on the effects of competition policy clearly recognized the role of industry terms of trade upon the farm sector. For the record however, between 1960-61 and 2000-01 industry terms of trade fell from an index value of 222.9 to 99.6 (ABARE Australian Commodity Statistics, 2001). This represents an annualized averaged decline of 2% in industry terms of trade.

A break down the component parts of the terms of trade demonstrates the significance of terms of trade decline as an important factor influencing decision-making at farm level. Over the forty-year period to 2000/01, the prices received index increased at the annual rate of 3.7% whilst prices paid rose by 5.8%. This left a gap between input prices and output prices movements of 2.1% that had to be filled by increased real output. Real

output actually did slightly better rising by 2.7% (calculated from value of GVFP and the Prices Received Index).

Despite this increase in real output, the index of real net value of farm production fell from 199 to 139 representing an annual average rate decline of 0.9%. To increase real output under falling net real income, production had to be financed by credit; and, RBA statistics on rural debt show that annualized indebtedness rose on average by 8.8%. The inference from this empirical analysis of industry terms of trade is that rising cost imposts drive production decisions, which in turn are financed by increasing debt. This has been identified previously (Rees, *Economics of the Rural Sector 1996*)

Under conditions of long term declining industry terms of trade, increasing farm efficiency and rising productivity become the key to long-term survival for farm families. Rural literature is replete with recognition of the role of increased efficiency and rising productivity at both farm and industry level to overcome the historic differential between rates of change in input and output prices in the struggle to maintain farm income.

“Deteriorating terms of trade do not necessarily mean that farmer’s average incomes will also fall. ----- Over the longer term, productivity gains, whether achieved through improving technical efficiency at the farm level or by taking advantage of scale economies are likely to result in average incomes being, at least, maintained”

(Buckland and Campbell,

BAE, Quarterly Review of the Rural Economy, Vol. 2, No. 1 Feb. 1980.

“The downward trend in real commodity prices need not of itself produce a loss of national income nor a decline in the profitability of commodity producers if the decline in real commodity or manufactures price is a result of higher productivity”

“Beating the commodity price cycle”

National Farmers Federation 1995

“Productivity growth continues to be a key determinant of the international competitiveness of Australian agriculture and the profitability of particular farm industries”

ABARE Farm Surveys Report 96 p.53

“ Productivity growth is a key factor in determining the profitability of Australian agriculture”

ABARE Farm Surveys Report, 1999, p.37

More recently, reports commissioned by the Queensland and Federal Governments into the sugar industry confirm this view

“ Looking at the worst case scenario, the only way to restore the industry to its 1996-97 levels of profitability would be for ‘productivity growth in growing (excluding CCS), harvesting, transport and milling to increase by 37% or world price to increase by 33%”

“Cleaning Up the Act”

CIE Report, 2002, p.vii & page xi

The CIE Report went on to use an underlying assumption in their modeling that would deliver on farm productivity gains leading to a 20% increase in cane yields and a 0.75% increase in CCS (CIE, 2002 p.xi)

“ These prices will create an urgent need for productivity and cost improvements over the medium –longer term in order for the industry to remain internationally competitive”

Hildebrand,

Report Independent Assessment of the Sugar Industry 2002,p.11

Given the established policy direction and subsequent industry acceptance of benefits flowing from increasing efficiency and rising productivity, it should come as no surprise that under conditions of long term real commodity price decline efficiency and productivity improvement become the focus of farm management decision making.

Improved management techniques, application of technology, reconfiguration of farm resource use, and farm build up (purchase of additional land) are the parameters for increasing efficiency and lifting productivity on fully developed properties. For underdeveloped grazing properties, bringing relatively unproductive timbered land into a more intense production system through improved pasture becomes a realistic alternative to farm build up. For an underdeveloped agricultural property, clearing virgin timber from idle land is a more logical option than farm build-up. Very often equity reasons dominate the decision for further development of underdeveloped land relative to purchasing additional developed land.

An un-discussed side effect of a prohibition on clearing remnant vegetation will be the impact upon young farmer entry. “Starter blocks” for young farmers are generally underdeveloped properties that lend themselves to improvement through development. The rising income generated by development flows on to increase farm valuation. Over time, the young farmer consolidates financially. At some future point, the young farmer has the choice of continuing with the development program or cashing out and using his improved financial position to buy a fully developed property somewhere else. His start in farming is however made possible by tapping the potential of an underdeveloped property

2.3 Implications

The failure to acknowledge the underlying forces that drive the decision making process at farm level is a serious shortcoming of the Draft Report. Because no direct link is established as to why farmers need to clear remnant vegetation on underdeveloped properties the position of the farm sector is considerably weakened in the current debate. Political parties with electoral support

agendas are thereby given an opportunity to deny the real world at farm gate level for urban electoral support. Further, failure to establish the link undermines The Draft Reports valuable contribution to the debate by allowing the criticism, that an adequate understanding of how the farm sector actually works in a real world is not demonstrated.

3 The Coase Theorem

3.1 The Problem

Coase identifies the problem for analysis as

*“ Should A be allowed to harm B or should B be allowed to harm A?
The problem is to avoid the more serious harm”
The Problem of Social Cost*

Translated;

Should the values of the environmentalist movement be allowed to structure the drive for efficiency, productivity and long- term viability of the rural sector; or, should the drive for efficiency, productivity and long-term viability of the rural sector be allowed to erode values of the environmentalist movement?

The question to be answered

Which harm will least damage overall social welfare of the Australian community?

The answer is found by determining whether the value of the damage to environmental values will be greater or lesser than the value of lost potential rural production and its flow on effects right through to impacts upon the balance of payments and the value of the \$AUD.

Findings in the Draft Report suggest that the former will be more damaging than the latter

3.2 Which Coase Theorem?

There are three situations discussed by Coase which are presented in simpler terms by Joseph Felder (2001) as, “ Coase Theorems 1-2-3

1. Allocation of property rights tradable under zero transaction costs,
2. Allocation of property rights tradable under non zero transaction costs
3. Delimitation of property rights by government through regulation or legislation.

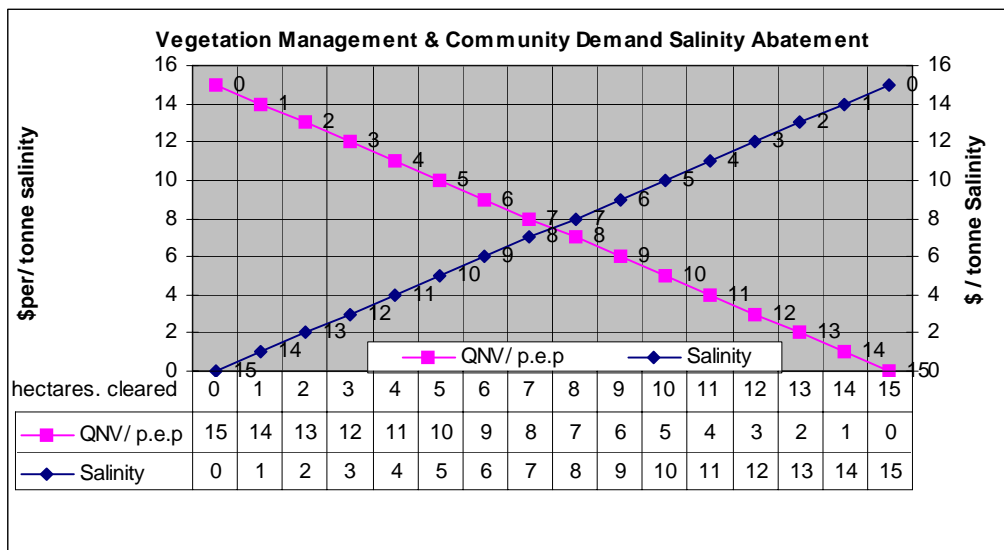
In the first two theorems, trading of property rights is demonstrated to move the economy to a more efficient allocation and use of resources by correcting the original allocation of property rights. Different outcomes emerge under zero transaction costs than under non- zero transaction costs. The difference being determined by how much transaction costs influence choice relative to a non-zero transaction costs situation.

3.3 The Third Coase Theorem A Theoretical Illustration

Government delimits property rights and no opportunity exists for market correction of the initial allocation.

Underlying assumptions (Felder 2001)

- Governments can approximate and compare the welfare effects of alternative delimitations of rights at relatively low cost
- Governments act in a way that approximates fairness and impartiality



Note: Notional values are allocated to the X and Y Axes for illustrative purposes. Other values could be used; but the underlying direction of the outcome would not be compromised

Reading from left to right, the curve QNV/pep represents the rural sectors demand for potential profitability as efficiency and productivity are increased through vegetation clearing. The curve, Salinity, represents the marginal costs or welfare loss to the community of increasing salinity and reduced biodiversity as vegetation clearing is undertaken. The Y-axis represents cost measurement in money value

Maximum social welfare loss is at 15 units of vegetation clearing on the X-axis and is represented by the area under the marginal community cost Salinity Curve. Welfare maximization for the community will be at 0 units on the X-axis where no clearing is undertaken. The cost of salinity abatement to the rural sector can be measured as the area under the QNV/pep curve reading backwards from 15. Under a prohibition on clearing remnant vegetation, this will be the full 15 units of hectares cleared and reflects the real life situation in Queensland.

The two curves intersect at approximately \$7.50 on the left hand Y Axis defining an equilibrium point between land clearing and welfare loss to the community. This confirms that a prohibition on clearing is an undesirable outcome from the social welfare perspective of the community.

If we read the graph from right to left using the QNV/pep tab values as the X-axis, the structure of the analysis changes and the problem is viewed from a different perspective. Instead of being a marginal welfare cost curve the salinity/biodiversity curve becomes the community demand for a salinity reduction and biodiversity improvement program. The QNV/pep curve becomes the rural sectors marginal cost curve of supplying the salinity reduction and biodiversity improvement program.

At \$0 cost to the community on the Y-axis reading from right to left, the community's demand for salinity abatement and biodiversity is at its maximum. Demand contracts however as the program must be paid for by the community and can be read for particular values on the X and Y axes. At a value of approximately \$7.50 per tonne salt, an equilibrium point is determined between the producer's marginal cost curve and communities demand curve for environmental improvement. This simply reflects a budget preference choice in the community's budget ordering process. At prices beyond \$7.50, the community accepts levels of vegetation clearing higher than the equilibrium point. Very clearly the graphical analysis demonstrates that once the community has to pay for environmental values, demand contracts relative to the "free good situation" of \$0 cost

The overall outcome remains the same from whichever perspective the problem is viewed. Consistent with economic analysis, at some point the curves intersect to determine market equilibrium between supply and demand at the market-clearing price. This is the optimal outcome from a community social welfare perspective; and, the level of land clearing is within the bounds acceptable to community welfare values and preparedness to pay.

3.4 Implications

Theoretical graphical analysis of the problem demonstrates that the optimal outcome between vegetation management and community environmental values is not zero land clearing. Therefore, a policy of zero clearing of remnant vegetation will breach the necessary assumption of impartiality and fairness by government. The Draft Report's conclusions and recommendation are consistent with this theoretical analysis that the assumptions of fairness and impartiality are breached in Australian vegetation management legislation. It can be inferred therefore that the proposed current policy direction of zero land clearing in Queensland will be more about politics than overall economic welfare of the community.

Delimitation of property rights prohibiting clearing of remnant vegetation will deny the community their right to the optimal solution between vegetation clearing and environmental values. Unless some common sense prevails, the proposed policy direction will be very costly in social welfare terms to the wider community. Delimitation of rights to include some form of property rights trading would solve this problem of excessive social welfare diminution. The question now becomes: how might this be structured?

4 Towards a Solution

A possible solution lies in the Second Coase theorem. Government delimits property rights that structures a framework under which environmental groups and rural producers could trade property rights. This would become possible if the proposed compensation package was made available to active environmental groups for the purpose of purchasing rural property rights directly from producers. Market forces would structure suitable and attractive financial contract conditions necessary to entice producers to forego proposed land clearing. In this way a market assessment of the communities willingness to pay would be identified. Budgetary costs would be clearly identifiable in budget papers. Costs to the community would be measurable in terms of foregone provision of health, education, law enforcement and infrastructure expenditure. Accountability and transparency of the environmental problem would be established and hopefully reduce the political agenda driven solutions now on offer.

At the coalface, scientific identification of environmental issues would be still required. Local government would be ideally positioned to regionally zone levels of risk according to scientific analysis and local knowledge. The environmental movement, armed with their compensation monies, would be in a position to approach landowners in a risk situation with a desire to negotiate a suitable contract. Alternatively, at risk landowners would be free to approach the environmental movement once their risk levels were known.

It would be sensible to require environmental contracts to comply with WTO Agreement on Agriculture exempt payments provisions. As public monies would flow to the rural sector, WTO regulations would require this to be accounted for either as an exempt payment or included in Australia's Aggregate Measure of Support for agriculture. Contracts falling into the AMS category would simply structure unnecessary future problems within WTO regulations as national AMS are reduced over time.

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