WELLS ECONOMIC ANALYSIS

May 2009

Support for Tasmanian Forestry

1997-98 to 2007-08

Report prepared for The Wilderness Society (Tasmania) Inc. and
Environment Tasmania Inc.

Report Key Findings

- Considerable assistance has been provided by State and Commonwealth governments to forest industries over many years, including plantation establishment schemes, favourable loan agreements, economically inefficient pricing policies, taxation policies and direct and indirect financial assistance, amongst other measures

- It is noted that a Productivity Commission study for Australia as a whole found that from 2001-02 to 2006-07, assistance to forestry was 50% higher than for primary production generally

- In the 11 year period between 1997-98 and 2007-08 there has been an estimated $632.8 million in financial assistance provided by Commonwealth and State governments to the Tasmanian forestry industry

- Despite this ongoing financial assistance, ABS data indicates that employment in the three sectors of growing/harvesting, haulage and processing fell by 4.5% over 1996-2001 and 2.5% over 2001-2006

- Key areas of financial assistance have been through: 1) One-off subsidies, 2) Ongoing assistance provided by the Commonwealth and Tasmania under Regional and Community Forest Agreements 3) Ongoing assistance derived from the pricing policies for State-owned operations and 4) Subsidies to plantation forestry via the use of preferential tax treatment offered by Managed Investment Schemes 5) Support for forestry on private land via operating grants to Private Forests Tasmania

- The timber market in Tasmania, especially for pulpwood, has closely resembled a bilateral monopoly.

- Forestry Tasmania's average realized rate of return from 2000-01 to 2006-07 is 2.17% which, even allowing for annual expenditure on community service activities, is well below a reasonable benchmark for government trading enterprises

Introduction

State and Commonwealth governments have for many years provided assistance to forest industries. In Tasmania, early schemes include the establishment of government softwood plantations in the 1930s as a stimulus to employment. Plantations were established by the State government after the Second World War so as to provide self-sufficiency in softwood. In the 1960s and 1970s, the Commonwealth government promoted plantation forestry by way of Softwood Loan agreements with the States, making loans to the States on favourable terms to establish and maintain softwood plantations. Pricing policies of the Forestry Commission and more recently Forestry Tasmania have also played a role by setting economically inefficient prices, whether through low stumpage rates or by setting prices which favour some downstream users at the expense of others. An example of the latter was the subsidy to the paper manufacturing industry in Tasmania provided by the then Forestry Commission. The Commission charged lower prices for pulp logs used for within-state paper manufacturing than for those used for export woodchips. Taxation concessions which favour plantation forestry over other land uses have also impacted resource allocation.
The Productivity Commission, which conducts regular reviews of industry assistance, argues that

> Assistance ... extends beyond direct government subsidies targeted to particular firms or particular industries, and includes tariffs, quotas, anti-dumping duties and regulatory restrictions on imported goods and services, as well as tax concessions and subsidies for domestic producers. Assistance also arises from the provision of underpriced services by government agencies and from government procurement policies.
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> Although assistance generally benefits the firms or industries that receive it, it comes at a cost to other sectors of the economy. For example, direct business subsidies increase returns to recipient firms and industries, but to fund subsidies governments must increase taxes and charges, cut back on other spending, or borrow additional funds. Similarly, while tariffs provide some price relief to domestic producers, they result in higher costs to local businesses (for their

inputs) and higher prices for consumers, who then have less money to spend on other goods and services[1].

For Australia as a whole, the Productivity Commission evaluates effective rates of assistance at the sectoral level, finding that from 2001-02 to 2006-07 assistance to forestry was 50% higher than for primary production generally[2]. If one were to provide a comprehensive picture of the impact of assistance to the Tasmanian forestry industry, an analysis of this kind, comparing rates of assistance to all industries for Tasmania, would be a good way to start. One could then ask – given the failure to arrest the decline in employment in the forestry industry – whether continuation of assistance, at current levels and in the current form, is justified[3].

The present report has a more modest objective – to estimate the dollar value of support for the Tasmanian forestry industry over the last decade. The industry is defined, in the same way as in Schirmer (2008)[4], as including growth and management of native forest and plantations, wood and paper processing, and contracting services.

This time period, the 11 years between 1997-98 and 2007-08 is chosen as it coincides with the starting date for the Tasmanian Regional Forest Agreement (RFA), (subsequently amended in 2005 to become the Tasmanian Community Forest Agreement.)

Summary of Assistance

Assistance to the forest industry, in 2007-08 prices, is estimated to total $632.8m. This sum comprises five categories:

1. One-off subsidies;
2. Ongoing assistance provided by the Commonwealth and Tasmania under Regional and Community Forest Agreements;
3. Ongoing assistance derived from the pricing policies for State-owned operations;

[1] Productivity Commission, *Trade and Assistance Review,* 2002-03, p1.1.
[2] Productivity Commission, *Trade and Assistance Review*, various issues.
[3] ABS data cited in Schirmer (2008) indicate that employment in the three sectors of growing/ harvesting and haulage/ and processing fell by 4.5% over 1996-2001 and 2.5% over 2001-2006. While there may be some doubt as to the stability of the 'boundary' of the ABS definition of employment in the forestry industry, it is almost certain that emplyment has continued to decline since 2006 with a number of contractors exiting the industry in 2007-08, the closure of sawmills at Scottsdale and, more recently, the slowdown in harvesting occasioned by the global financial crisis.
[4] J. Schirmer (2008), Forestry, jobs and spending: Forest Industry employment and expenditure in Tasmania, 2005-06, Technical Report 184, CRC for Forestry, University of Tasmania.

4. Subsidies to plantation forestry via the use of preferential tax treatment offered by Managed Investment Schemes;
5. Support for forestry on private land via operating grants to Private Forests Tasmania.

Subsequent sections of this report summarise the calculations underlying estimates of each form of assistance.

Table 1 Support for the Tasmanian Forest Industry, 1997-8 to 2007-8 (2007-08 $m)

One-off subsidies	96.3
Regional and Community Forest Agreements	268.4
State-owned operations	96.5
Managed Investment Schemes	152.5
Private Forests Tasmania	19.0
Total	**632.8**

Sources: Calculations and estimates described in subsequent sections. Expenditure in various years has been inflated to current-period values by using the Hobart Consumer Price Index.

One-off subsidies

One-off subsidies include provision of assistance for development of documentation for the proposed pulp mill, consultancy fees, RPDC expenses, government advertising, upgrades to the East Tamar highway and other roads, funding for the Pulp Mill Taskforce, and the subsidy for transport of logs from Strahan to the Auspine mill at Scottsdale. Estimates are compiled from a number of sources, including submissions to the RPDC, information on costs of RPDC assessments and consultants' reports as provided in the tabulation in the *Sunday Tasmanian*, 15 July, 2007 and other newspaper sources.

Regional and Community Forest Agreements

In 1997, a Regional Forestry Agreement between the Commonwealth and Tasmanian governments was signed, and was later amended and renamed as the Tasmanian Community

Forest Agreement in 2005. Both agreements provide for preservation of old growth forests and various forms of subsidy to the Tasmanian forestry industry. These subsidies have been directed to a variety of uses with the majority of the funds being directed to Forestry Tasmania for:

- plantation establishment
- roading
- intensive forest management
- research.

Heritage payments directed towards conservation values on private land have been excluded from the scheduled payments detailed in Table 2 below[5].

Table 2 Schedule RFA and TCFA Payments ($m)

	Commonwealth	Tasmania
97-98	35.6	
98-99	35.6	
99-00	35.6	
00-01		
01-02		
02-03		
03-04		
04-05	24.0	-4.0
05-06	45.2	13.8
06-07	38.0	13.3
07-08	24.0	13.7

Sources: *Tasmanian RFA Second Five Yearly Review Report* p.122, and *Supplementary Tasmanian Regional Forest Agreement*, Attachment 2.

Pricing public-sector outputs

Competitive neutrality (CN) principles developed by the National Competition Council and agreed to by all States and Territories are designed to ensure that Government Trading Enterprises face the same costs and commercial pressures as their private sector competitors.

[5] More detail of expenditure categories is provided in Appendix 2. The Supplementary Tasmanian Regional Forest Agreement specifies further payments by the Tasmanian Government of $26.2m and $27.0m, in 2008-09 and 2009-10 respectively, which are not included in the above table.

In practice it is difficult to determine whether this is the case – whether the returns earned by GTEs match those of private sector counterparts.

In Tasmania's case there are a number of areas where pricing of publicly-owned resources might be considered. These include the adequacy of road user charges to cover additional maintenance costs incurred by increased heavy truck traffic, pricing of electricity to major contract users in the wood processing sector, water pricing for plantation timber, and pricing of outputs for Forestry Tasmania. This report provides estimates for only the last of these, pricing outputs for Forestry Tasmania.

At present, water is explicitly priced only when it is extracted from watercourses. It has been argued that the water uptake by forestry plantations is sufficiently large as to affect local stream flow in some catchments, impacting on water availability for other users. In this situation, water uptake by plantation forestry should be priced in the same way as for extraction from watercourses. We do not attempt to estimate the water-diversion cost here as there is insufficient information on which to base an estimate for Tasmania as a whole.

Similarly, there is a lack of information as to electricity supply contracts with major forestry processors. This lack precludes investigation of the possible impact of pricing in this area.

Now turn to pricing by Forestry Tasmania. First, Forestry Tasmania's stewardship of the forest resource is directed toward a variety of objectives such as research and management of various forest reserves. It receives specific grants for some of these activities. Although Forestry Tasmania reports its expenditure on Community Service activities, the cost of meeting these objectives would be more transparently priced if they were the subject of Community Service Obligation funding agreements between Forestry Tasmania and the State Government.

Second, there are two approaches to assessing whether selling prices generate full cost recovery (including a satisfactory rate of return on assets). One approach relies on the reported rate of return on assets, expressed as the ratio of profit to net assets. This approach has the advantage of providing a 'single-number' estimate which covers a wide range of Forestry Tasmania outputs – wood supply of various types, pricing of access to Forestry Tasmania roads, and so on. For the numerator of this ratio, either operating profits or the statutory measure of profits (which include revaluation gains or losses on assets and liabilities, the most important of which are the forest estate and the superannuation liability) may be used.

The valuation of the denominator depends on expected future returns on forestry assets and superannuation liabilities. The value of forestry assets depends on the expected wood flow, expected prices and the market interest rate used to discount returns. In turn, expected prices are based on an average of past realised prices. Expected wood flow is also partly dependent on past forest management practices. So the use of expected future returns in this way involves an unavoidable element of circularity in evaluating performance, since poor past performance can lower the value of the forestry asset. If this were the case, poor performance would not be fully revealed by a rate of return measure because reported returns as measured by operating profit, say, would be higher relative to the depressed asset base[6].

One way to avoid these problems is to focus on longer-run average rates of return. The average realised rate of return from 2000-01 to 2006-07 (a period over which rates of return appear to have been calculated on a comparable basis) is 2.17%. Even allowing for annual expenditure of $5m on identified Community Service activities, this is well below a reasonable benchmark for government trading enterprises[7].

An alternative approach is to compare selling prices with a residual value derived by subtracting harvesting, transport and processing costs from the market price for prices of processed wood products. This approach, which needs to be applied on a product-by-product basis, is sensitive to the structure of the product market.

Here the difference between *ex ante* and *ex post* analyses matters. The *ex ante* case would apply, for example, if one were analysing future pricing in a long-term supply agreement such as Forestry Tasmania's recent agreement with Gunns Ltd in relation to the proposed pulp mill[8]. Over the lifetime of that agreement it is reasonable to suppose that new entrants to downstream processing, or alternative uses for forests, could emerge as the counterfactual to

[6] This circularity is discussed more fully in Appendix 1. Other accounting policies can also impact reported rates of return. For example, prior to its 2007-08 financial statements, Forestry Tasmania accounted for native forests under the accounting standard for Property, Plant and Equipment – in the 2007-08 report, native forests are valued under the Agriculture accounting standard, in line with the treatment of plantation forests.

[7] While they emphasise return on equity rather than return on assets, Davidson and Novak (2008) come to a similar conclusion – that Forestry Tasmania returns fall short of benchmarks. See pp22-24 of Davidson and Novak, 'Sustaining Growth: Reforms for Tasmanian Prosperity' Report to Tasmanian Chamber of Commerce and Industry, December 2008.

[8] This was the approach followed by the Tasmanian Round Table for Sustainable Industries, *Sustainable development in Tasmania: is the proposed pulp mill sustainable?,* Launceston Environment Centre, August 2007. Also cited as TRSTI (2007).

long term supply to Gunns. This would mean that in the long run an assumption of competitive markets would apply.

After the event, or *ex post*, the assessment must take account of actual market conditions. Here the market, especially for pulpwood, has more closely resembled a bilateral monopoly. In that case there could be a range of pricing outcomes determined by the bargaining power of the parties. If the world market for woodchips is reasonably competitive, the f.o.b. export price (less manufacturing costs for the processor) sets an upper limit to the price that can be negotiated. The lower limit is set by the average cost of production for Forestry Tasmania, where average costs include the requirement to make a reasonable rate of return on capital invested.

Over the last decade the low rates of return achieved by Forestry Tasmania suggest that the negotiated price has been less than this lower rate-of-return-inclusive limit for average cost, implying a subsidy. While its size is difficult to determine, our illustrative (and conservative) estimate is based on the requirement that the average rate of return on assets should have been one percentage point higher over the last decade. In 2007-08 prices this amount is estimated to sum to $96.5m.

Managed Investment Schemes

Managed investment schemes (MIS) in forestry have been vigorously supported by the Tasmanian Government[9] MIS offer taxation advantages over other forms of investment, offering more attractive write-off provisions than would be the case were other forms of business structure, or other forms of farming such as horticulture, adopted. These taxation advantages have underpinned the rapid expansion of plantation forestry which, as vividly illustrated by recent company collapses in the MIS industry, would not have occurred in their absence.

The total plantation estate on Tasmanian private land at June 2008 is estimated to have been approximately 170,000 hectares[10]. Of this amount it is estimated that 100,000 hectares have been established as managed investment schemes over the decade analysed in this report. The subsidy rate is estimated by comparing after-tax rates of return on income streams for an

[9] See, for example, Department of Infrastructure, Energy and Resources (Tas) (2005), 'Submission to the Australian government review of taxation of plantation forestry', 23 August.
[10] Author's estimate based on an update of 2007 figure provided by Private Forests Tasmania, accessed 15 November 2008, http://www.privateforests.tas.gov.au/forestry_facts/forest_cover .

illustrative woodlot project, for (i) a conventional business structure such as a company or unit trust, and (ii) an MIS investor. The difference between these rates of return is estimated to be 2%, which is then converted to a dollar amount of subsidy per woodlot. Applying this approach gives an estimate of the accumulated subsidy of $152.5m.

Private Forests Tasmania

Private Forests Tasmania was established in 1994 with the objective of promoting the forest industry on private land in Tasmania. It is funded by an annual operating grant from Tasmanian consolidated revenue, industry levies and special purpose grants from programs such as Landcare. The sum recorded in Table 1 comprises the operating grant from the Tasmanian government grossed up to allow for the superannuation liability which is not recorded in the Private Forests Tasmania annual accounts.

Appendix 1

The rate of return circularity mentioned on p.7 can be illustrated, in a stylised way, with the following example. For accounting purposes Forestry Tasmania values forests using the average of prices achieved over the preceding three years. Denote this price as p per tonne and the forecast flow of timber as q tonnes per annum. For simplicity, suppose the annual flow is constant. The present value of the forest asset is then given by the formula $\frac{pq}{r}$, which is the expression for the present value of an infinite stream of annual flows of pq dollars, discounted at rate r.

This stylised case assumes Forestry Tasmania operating costs are zero and there are no non-forest assets. It is highly unrealistic on that account, but illustrates the circularity in a simple way. In this zero-cost case the annual rate of return achieved by FT would be the annual revenue (pq) divided by the value of the asset which, from the previous paragraph, is $\frac{pq}{r}$. In other words, the annual rate of return is $\frac{pq}{pq/r}$, and after re-arrangement this expression is equal to the discount rate r. So the rate of operating return on forestry assets is then equal to the discount rate, and independent of the performance of Forestry Tasmania, since the rate of return is independent of p and q. In this stylised example it would not matter whether FT performance was good, bad or indifferent – the rate of return would always be equal to the discount rate.

This example also illustrates a second important point: even though the stylised operating rate of return on assets is independent of operating performance, changes in any one of the discount rate, the three-year moving average of price per tonne (p), or the annual wood flow (q) lead to capital gains or losses (i.e. changes in the value of the asset or, in terms of the formula, changes in $\frac{pq}{r}$). While these gains and losses are recognised in the statutory measure of profit, they do not result in changes in current cash flow. Considering the three factors in turn, a change in the discount rate has no effect on either present or future cash flows. The above formula assumes that the forecast price p remains the same as the three-year moving average price; future cash flows, however, depend on the price which is actually realised. Similar arguments apply to q. So, while it is true that capital gains and losses are a

'theoretical number'[11], it would assist in public interpretation of FT financial performance if annual reports included a tabulation which deconstructs capital gains and losses on the forest asset into the effects of

- changes in the discount rate *r*;
- changes in moving average selling prices;
- changes in forecast wood flows; and
- other factors.

Appendix 2 Schedule RFA and TCFA payments 1997-8 to 2007-8 ($m)

	Commonwealth	Tasmania
Reduction in clearfelling, including research	2.0	4.9
Intensive forest management	123.0	10.0
Support for hardwood timber industry	42.0	
Support for country sawmills	4.0	
Industry Infrastructure		9.5
Support for special species, special species sawmills and beekeeping		11.5
Roading infrastructure	6.0	12.0
Communications program	2.2	
Tourism and recreation	5.0	2.0
Other, including unallocated	1.0	
Total	185.2	49.9

Note: These amounts are in current prices, not 2007-08 prices.

[11] A. Kloeden, Statement to Tasmanian House of Assembly Government Business Scrutiny Committee, 3 December 2008.