

Senate Committee Inquiry into forestry and mining operations on the Tiwi Islands

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**Table 1** Eucalypt plantation MIS – costs and key assumptions for plantations established mid-term in the life of Australia’s MIS plantation program.

	MIS	Industry actual	Source/comments
Cost per hectare (including management over rotation)	\$9 300	\$2 000	Source for MIS costs – Lonsec Agribusiness Research 2001 using eight prospectus documents. Source for industry actual as reported by Auspine, then a major private plantation grower, reproduced in Ajani 2007 <i>The Forest Wars</i> p. 255.
Land cost per hectare	Lease costs included above	\$2 500	For most schemes, growers do not own the land.
Wood yield (m <sup>3</sup> /hectare/year)	27.3	17.00	Source for MIS costs – Lonsec Agribusiness Research 2001. Industry actual is the average of the yields used by the Bureau of Rural Sciences for their wood supply projections for eucalypt pulpwood plantations in Western Australia, Green Triangle, Murray Valley and Central Victoria (Parsons <i>et al.</i> 2007 p. 46.)
Stumpage price (\$ per m <sup>3</sup> )	\$36.72	\$17 - \$19 softwood plantation \$4 - \$15 native forest	Source for MIS stumpage prices – Lonsec Agribusiness Research 2001. Nominal stumpage prices reported at end of rotation (average 11 years) converted to nominal prices at start of rotation using average assumed annual real price increase of 0.2%. Source for industry actual – softwood plantation is ForestrySA list price; native forest is actual stumpage prices for Tasmania and Victoria (Ajani 2007 <i>The Forest Wars</i> p. 265) plus a 12% quality adjustment factor.

Source: Ajani J. 2009 Submission to the Parliamentary Joint Committee on Corporations and Financial Services Inquiry into Agribusiness Managed Investment Schemes <  
<https://senate.aph.gov.au/submissions/committees/viewdocument.aspx?id=23a3c4c5-f04d-4edf-aea4-09575f974453>>

### Key points

- The plantation MIS regime is very high cost.
- Responsible Entity’s revenue (average \$9 300 per hectare) is heavily concentrated up front – therefore it escapes most of the wood market risk.
- Tax minimisation largely drives grower-investors – 100% deductibility.
- But grower-investors also understand the project is profitable (IRR average of 6.5% calculated by Lonsec for 2001 prospectuses).
- Optimistic assumptions on wood yield and stumpage price get high cost projects over the line.
- Overplanting and collapse is inevitable. It’s a fundamentally flawed commodity production model.

**Table 2** Great Southern Plantations (GSL) 2007 hardwood for woodchips project (PR 2007/62).

	Tiwi Islands plantations	Mainland plantations
Up front cost per hectare <sup>a</sup>	\$6 000	\$9 090
Ongoing management fee <sup>a</sup>	3.0% of net sale proceeds	3.0% of net sale proceeds
Rent and lease costs <sup>a</sup>	2.5% net sale proceeds	2.5% net sale proceeds
Wood yield (m <sup>3</sup> /hectare over the rotation)	220m <sup>3</sup> /ha	250m <sup>3</sup> /ha
Rotation length	8 to 9 years	10 years
Production costs <sup>b</sup>	\$40.14/m <sup>3</sup>	\$46.71/m <sup>3</sup>
Woodchip price (\$ per bone dry tonne)	\$162.19 <sup>c</sup>	\$189.40

a. Excluding GST.

b. Cost of converting standing trees into chips and loading them onto the ship.

c. Australia exports no *Acacia mangium* chips. Price calculated by GSL using eucalypt plantation woodchip price discounted for lower quality (lower pulp yield and higher chemical cost for bleaching – GSL Product Disclosure Statement p. 20).

Source: Australian Agribusiness Group 2007, Great Southern Plantations 2007 Project – Retail Investment Report – May 2007 – updated July 2007; ATO Product Ruling 2007/62 Great Southern Plantations Project – Post 30 June Growers <<http://law.ato.gov.au/atolaw/view.htm?docid=PRR/PR200762/NAT/ATO/00001>>; GSL Product Disclosure Statement <<http://www.greatsouthern.com.au/default.aspx?contentID=697>>.

### Key points

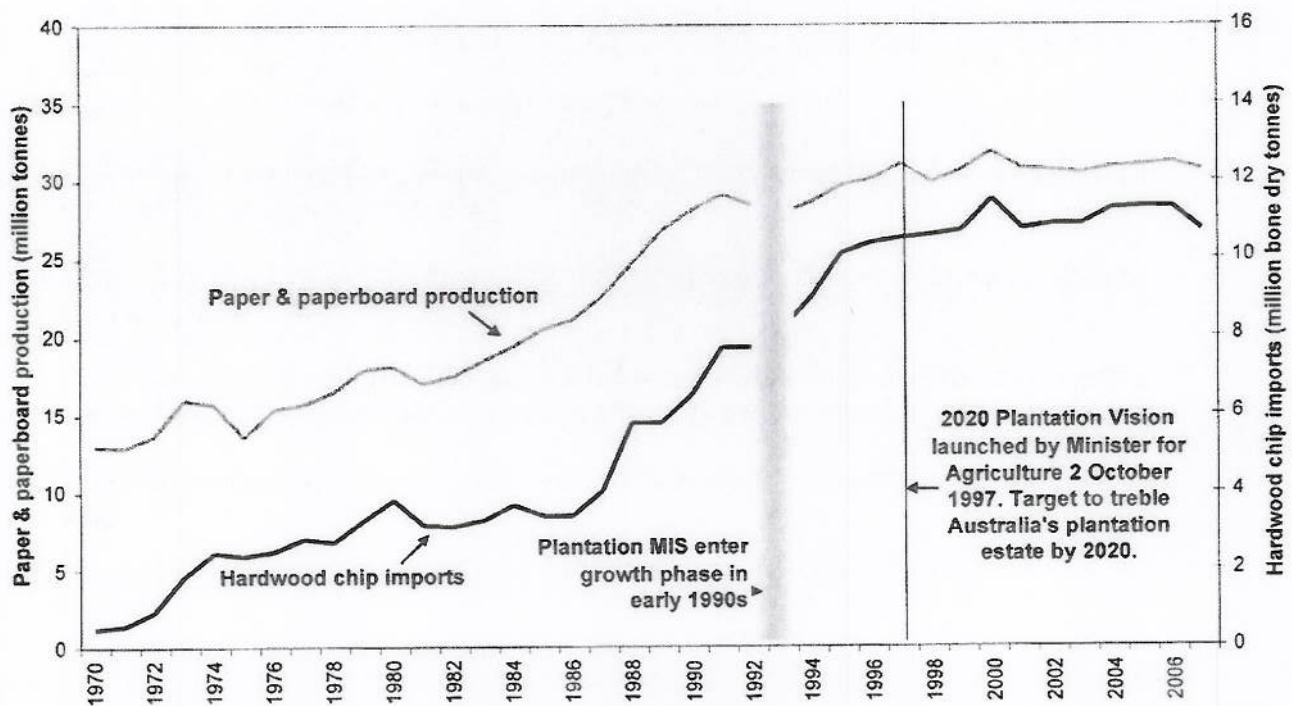
- Using its words, GSL's acquisition of Sylvatech in 2005 was primarily about 'access to low cost land'.
- GSL expected lower wood yields and a lower quality chip from Tiwi Island *Acacia mangium* plantations relative to mainland eucalypt plantations. (They stated this in their Product Disclosure Statement.)
- Projects generating lower quality resources will struggle relatively more in the looming hardwood chip glut (see next page).
- If the plantation MIS model is allowed to continue, we can expect Responsible Entities, with limited commercial exposure to the wood market to continue their rosy market predictions to boost sales (their main profit source) to tax minimising 'investors'.
- The collateral damage is significant:
  - for efficient agricultural land and water resource allocation, and
  - for regions competing with lower quality chips and wood yields (like the Tiwi Islands).



## Australia's hardwood chip export market

- Japan dominates the global hardwood chip trade – 85% of Australia's hardwood chip exports.
- Australia supplies 1/3 of Japan's hardwood chip imports.
- Australia exported 9.5 million m<sup>3</sup> of woodchips in 2007/08 (4.1 million m<sup>3</sup> from plantations and 5.4 million m<sup>3</sup> from native forests).
- The BRS projects hardwood plantation chip supply to increase to 9.4 million m<sup>3</sup> per annum over 2010 to 2014.
- **A woodchip glut – Australia needs to sell double the volume we currently export into a no growth market where we already account for 1/3 of the trade, virtually immediately.**
- China is not yet coming to the rescue and may never at the prices Australian chip exporters expect.

**Figure 1** Japan's stagnant hardwood chip market



Source: FAOSTAT (amended using Japan Paper Association statistics for 2004 to 2007 that report higher production of printing & communication paper in those years); Japan Paper Association and Japan Tariff Association statistics.

The case of GSL using a high wood yield assumption in its prospectus financials relative to the wood yield assumption used to estimate future income payments to Tiwi people.

Oakton in its Tiwi Land Council Timber Industry Arrangements Final Report states that, in addition to land rental income, Tiwi people can expect around \$693 000 each year when the plantations are harvested. GSL provided the estimate to Oakton.

The figure assumes a wood yield of 144 green tonnes per hectare (Oakton 2009 p. 12). However, GSL's Product Disclosure Statement for its 2007 Project (p. 60) reports that GSL aims to produce on average 220 m<sup>3</sup> of harvestable wood per hectare on the Tiwi Islands. This equals 196 green tonnes, using GSL information to make the conversion.<sup>1</sup> Oakton appears not to have queried the assumptions used by GSL to estimate the likely harvest income to the Tiwi people. Oakton did not offer a view as to the reliability of the income estimate.

A reworking of the estimated income using GSL's 196 green tonne (220 m<sup>3</sup>) wood yield figure would have boosted Tiwi expected annual income from harvest proceeds by 36% (table 3).

**Table 3** Estimated income from net harvest proceeds

	Oakton report p. 12 using wood yield = 144 green tonnes/ha	Income estimate using wood yield = 196 green tonnes/ha
FOB price	\$98.06/green tonne <sup>a</sup>	\$98.06/green tonne
Production costs	\$56.00/green tonne	\$56.00/green tonne
Wood yield	144 green tonnes/ha	196 green tonnes/ha
Net harvest proceeds/ha	\$6 057/ha	\$8 244/ha
GSL management entitlement/ha (5.5%)	\$333/ha	\$453/ha
Tiwi share of net harvest proceeds/ha (2%)	\$121/ha	\$165/ha
Tiwi share of management entitlement/ha (33%)	\$110/ha	\$149/ha
Total Tiwi income/ha	\$231/ha	\$314/ha
Expected Tiwi earnings/harvest (on 3 000 ha/annum)	\$693 000	\$943 470

- a. Oakton reported what appears to be a bone dry tonne price. I calculated the green tonne price Oakton probably used from the data on page 12 of their report.

<sup>1</sup> Converted to green tonnes using the basic density of *Acacia mangium* expected by GSP of 500 kg/m<sup>3</sup> at age 10 years (GSL 2007 Product Disclosure Statement p. 58 <<http://www.great-southern.com.au/default.aspx?contentID=697>>).