

Answer to Question on Notice

Ajani 1 - Thursday 2 October 2009 Senate ECS 13

CHAIR—To what extent do you expect the overall woodchip supply in Australia to change in the period 2010 to 2014?

Dr Ajani—I think there will be a continuing displacement of native forest resource. I do not think it will get to 100 per cent plantation supply by then, although it should. I am not sure exactly where it will be.

CHAIR—Could you take on notice that aspect?

Answer

The wood supply projections prepared by the Bureau of Rural Sciences (Parsons *et al* 2007) indicate strong growth in hardwood plantation pulplog supply in the very near future (Table 1 and Figure 1). As Australia's hardwood plantations have come on stream effectively since 2000, exporters into Japan's dominant but flat market have built market share by displacing overseas competition and Australian native forest woodchips.

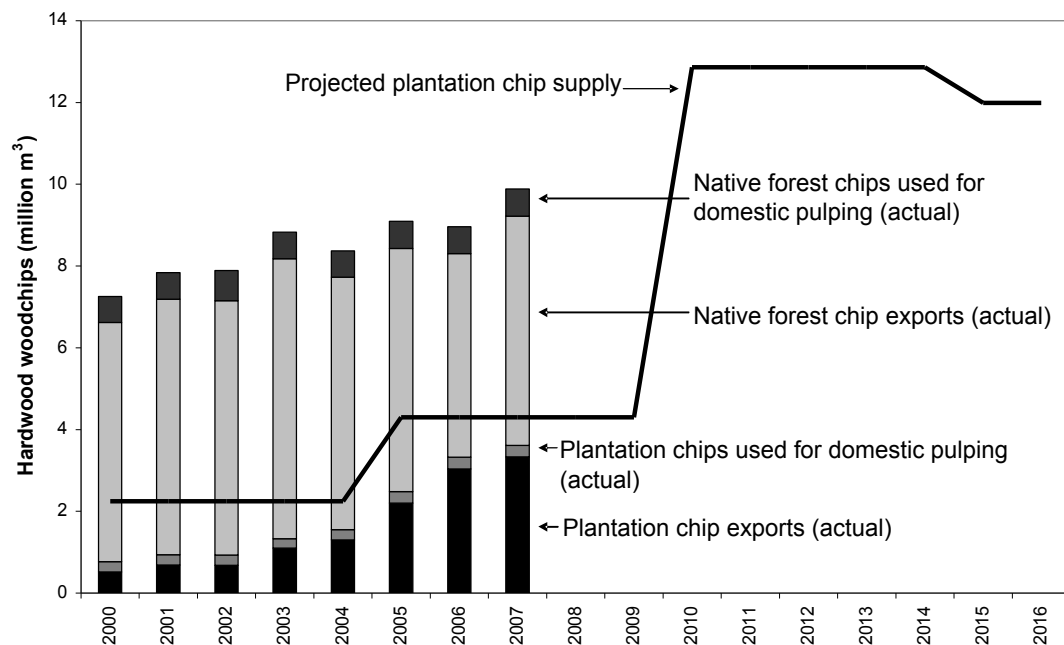
Using the supply projections prepared by the BRS, Australia's hardwood plantation sector can substitute for all native forest chip exports as well as meet its current export volumes and have plantation resources left over (Figure 1). The speed and extent of the substitution between Australian plantation and native forest resources depends on Australian woodchip industry structure, corporate strategy, state (Tasmanian, Victoria and NSW) and federal government policy and market developments. Insights from the Australian softwood plantation sawntimber industry experience suggest that as new resources come on stream in significant quantities in tight markets, what would be a normal free market forces displacement by higher quality and cost attractive resources becomes frustrated by politics. My book *The Forest Wars* described this process in detail for Australia's softwood and hardwood plantation resources. Only one state, largely through the motivation of one premier, has overcome the forces delaying economically and environmentally rational substitution in Australia's hardwood chip industry.

Table 1. Australia – projected hardwood plantation pulplog supply

	Projected wood supply (million m ³ per annum)
2005-09	4.6
2010-14	13.8
2015-19	12.8
2020-24	14.6

Source: Parsons M., Frakes I. & Gavran M. (2007), *Australia's Plantation Log Supply 2005-2049*, Bureau of Rural Sciences.

Figure 1. Australia's hardwood chip production



Source: Ajani J. (2008) 'Australia's Transition from Native Forests to Plantations: The Implications for Woodchips, Pulp Mills, Tax Breaks and Climate Change' *Agenda: A Journal of Policy Analysis and Reform*, 15(3) <http://epress.anu.edu.au/titles/agenda.html>
 Compiled using Parsons *et al.* 2007 (BRS plantation wood supply projections); Ferguson *et al.* 2002; ABARE *Forest and Wood Products Statistics*; Australian Plantation Products and Paper Industry Council (A3P) 2005.

Ajani 2 - Thursday 2 October 2009 Senate ECS 13

CHAIR—On page 4 of your notes, the fourth dot point is about hardwood plantation chips and the BRS projections there. If you could provide that for the entire woodchip market, that would be helpful. If you could point the committee to any evidence that backs up the statements you made before in relation to the global demand for woodchips being flat as a result of a substitution with recycled products and so on, that would be useful evidence for us to see as well.

Answer

The BRS projections are presented in table 1 above.

For Australian chip exporters, Japan is the dominant market. In its 2007 report (*Pressures facing harvesting contractors in the Tasmanian forest industry* <<http://www.daffa.gov.au/media/documents/forestry/australias-forest-policies/pressures-report.pdf>>) to DAFF, URS Forestry reported that 'The global hardwood woodchip trade is dominated by Japan, which accounts for around 90% of that trade in the Asia Pacific region'. Japan's imports of hardwood chips have been stagnant since the mid 1990s (Document tabled by J. Ajani to Senate Committee Inquiry into forestry and mining operations on the Tiwi Islands 1 October 2009, Figure 1).

Globally, we have seen wood saving technology sending wood used to make paper on a significantly lower growth path relative to growth in paper consumption. Paper recycling dominates wood saving strategies. Other major wood saving strategies include investment in high pulp yielding pulp mills and high wood yielding plantations. The effect of wood saving technologies on the demand for wood was reported in Clark (now Ajani) J. (2001) 'The global wood market, prices and plantation investment: an examination drawing on the Australian experience', *Environmental Conservation* 28 (1): 53–64. In that paper (p. 55) and using FAO data, I reported:

'The uncoupling of paper from wood pulp has intensified during the 1990s. Global paper consumption increased by an average 2.9% per annum over 1990 to 1998, but the use of wood pulp to meet this paper consumption grew by only 0.8% per annum over the same period. The use of recycled paper grew by 3.7% per annum and non-wood pulp by 2.7% per annum over the same period. The FAO expects these trends to continue, with projected consumption of wood pulp growing by only 0.6% per annum over 1997 to 2010 and wood pulp declining to 44% of the material input for paper production by 2010 (Zhu et al. 1998). New, relatively high yield pulping technologies further weaken the linkage between paper and wood. Sedjo and Lyon (1990) note the adoption of wood-saving technologies such as chemi-thermo-mechanical (CTM) pulping which almost doubles traditional chemical pulp yields per unit of wood input. Tree selection and breeding associated with plantation programmes complement wood-saving pulping technologies. Macrae et al. (1999) report 20% reductions in wood input per unit of pulp output using selected species in plantation growing regimes. In combination, the projected increased use of recycled paper and continuing investment in wood-saving pulping technology will significantly constrain growth in wood input for paper production. Wood input required for wood pulp used in global paper production is likely to grow at less than 0.6% per annum.'

An investigation of FAO data released since publishing that paper indicates no shift in the underlying trend of resource saving strategies dampening the demand for wood to make paper.