Professional Paper

Planting Rates, Ownership and Species

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While the total area of plantation forests in both Australia and New Zealand is fairly similar (~2m hectare each), there are considerable differences in ownership, species distribution and recent rates of new land establishment. The following analysis has been carried out using data from the NZ National Exotic Forest Description1 and the Australian National Plantation Inventory2 for the period 1995-2009.

The total plantation areas in each country, broken down by that in public and private ownership, are shown in Figure 1. Areas of new land planting are shown in Figure 2 with the Australian figures broken down into hardwood and softwood. Figure 3 shows the species distributions in 2005.

NZ’s annual new land planting (virtually all softwoods) peaked at 98 000ha in 1994 (1 year prior to the period for which data has been plotted for this analysis) and has been in rapid decline since to the extent that over the last two years reported it has been only some 6000 ha, and the total plantation area has been in decline since 2003. In contrast the Australian plantation area continued to increase, with new land planting areas peaking in 2000 (137 000 ha), followed by a decline then another boom to 87 000 ha in 2007. However the new land planting area in Australia has been in rapid decline since that date.

For both countries the area of plantation in public ownership has been in decline over the period of the analysis and the new land planting programs have been mostly driven by the private sector. Substantial areas of public plantations in Victoria and Tasmania have been sold to private investors. As a result the proportion of plantation in public ownership has decreased significantly so that in 2009 Australia had 33% in public ownership (down from 63% in 1995) and NZ 7% (down from 23%). The 2010 figures for Australia will show a significant decline in the proportion in public ownership when the sale of the Queensland Governments 200 000 ha resource to Hancock Queensland Plantations is taken into account.

In Australia hardwoods, mostly short rotation, have accounted for some 85% of the new land planting over the last 15 years. Hardwoods comprised 49% of the total in 2009, up from 15% in 1995. While Pinus radiata is the most common softwood plantation species in Australia (75% of the total softwood plantation area), there are significant areas of other softwoods (Southern Pines, Pinus pinaster and Hoop Pine) which occupy climatic niches. In contrast the NZ resource is of course almost all softwood and of that almost all Pinus radiata with some Douglas-fir.

2 Australian National Plantation Inventory, Australian Bureau of Agricultural and Resource Economics and Sciences (2010, Mark Parsons, pers com)
Figure 1: Areas of public and private forest ownership in New Zealand and Australia.

Figure 2: New land planting by year.
Figure 3: Species distribution of Australian and New Zealand plantations in 2005