Australian **Forestry Plantations**





Invest Australia

Department of Agriculture, Fisheries and Forestry



a strategic destination for forestry plantation investment

A vast, open country with arable land that is among the best in the world for growing trees—it's no surprise that Australia is the smart destination for investment in forestry plantations.

the **australian advantage**

established hardwood and softwood plantations totalling 1.7 million hectares

rapid growth with new plantings averaging 75,000 hectares a year

arable land at competitive prices, with 2.9 million hectares viable for plantation

internationally-certified environmental sustainability practices that provide assurance to end-consumers

high returns with a yearly A\$1.4 billion log harvest processed locally into A\$18 billion in forest products

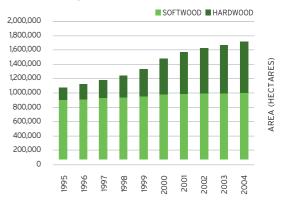
high-technology infrastructure to locate optimum growing locations and internationally-acclaimed forestry R&D to improve yields, productivity and profitability Add a mature industry served by infrastructure from tree to port plus a business regime that promotes sustainability and it is clear why Australian plantation rates are soaring. Join the international forestry groups that are finding the future is here, in Australia.

new growth

Forestry plantation investment is consistently expanding in Australia with new plantation establishment averaging 75,000 hectares a year from 2000 to 2004 (refer figure 1).

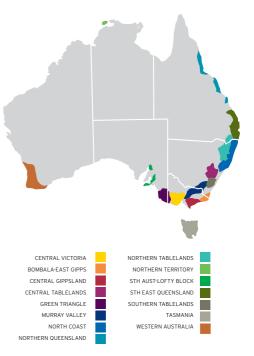
Investment in new plantations has totalled more than A\$4 billion since 1997. Australia now has about 164 million hectares of forests, including 1.7 million hectares of plantations and 162 million hectares of native trees. New plantation investments are concentrated in hardwood, which now make up 41 per cent of plantations, compared to 59 per cent for softwood. Land suitable for plantation is located in coastal areas, close to local markets and ports (refer figure 2).

FIGURE 1: EXPANSION OF PLANTATIONS IN AUSTRALIA, 1995-2004



SOURCE: NATIONAL FOREST INVENTORY, BUREAU OF RURAL SCIENCES

FIGURE 2: MAJOR PLANTATION REGIONS



SOURCE: BUREAU OF RURAL SCIENCES



space to grow

On an island continent with vast tracts of arable land, Australian plantations produce wood-fibre yields among the highest in the world.

Australia is ranked the world's top country for the availability of arable land, and large areas are suited to plantation establishment. Around 2.9 million hectares are considered economically viable for timber production and prices are competitive compared to other land uses (refer table 1).

Land is not only plentiful, it is high-yielding. Local production periods and growth rates are among the most favourable in the world (refer table 2). Regions with suitable climate and soils for productive plantations include:

- Cooler climate southerly areas suitable for species such as blue gum (Eucalyptus globulus), radiata pine (Pinus radiata) and maritime pine (P. pinaster).
- Sub-tropical areas
 flooded gum (E. grandis), slash pine
 (P. elliottii) and other species.
- Sub-tropical and tropical areas
 Acacia mangium and a wide range
 of special-purpose hardwood species.

Identifying land suitable for commercial timber plantations is facilitated by the Plantation Information Network, an online tool developed by the Australian Government Bureau of Rural Sciences www.brs.gov.au/plantations

TABLE 1: INDICATIVE LAND PRICES PER HECTARE (AUSTRALIAN DOLLARS), MARCH 2004

Average annual rainfall (mm)	Queensland	New South Wales	Western Australia	South Australia
less than 600	\$400 - \$1,000	N/A	\$500 - \$1,600	\$1,000 - \$2,000
600 - 800	\$800 - \$1,500	\$1,190 - \$1,750	\$850 - \$1,750	\$1,500 - \$8,000
800 - 1000	\$900 - \$6,000	\$1,400 - \$3,000	\$1,500 - \$8,000	N/A
more than 1,000	\$3,000 - \$15,000	\$2,100 - \$5,000	\$4,000 - \$10,000	N/A

SOURCE: AUSTRALIAN STATE GOVERNMENTS

TABLE 2: GROWTH RATES IN AUSTRALIAN PLANTATIONS

Species and product	Usual production period (years)	Indicative growth rate (m3/ha/year)
Hardwoods:		
E. globulus pulpwood	10 - 15	15 - 25
E. grandis pulpwood	12	15 - 20
A. mangium pulpwood	8	15 - 25
Softwoods:		
P. radiata sawlogs	28 - 35	14 - 21
P. pinaster sawlogs	30 - 45	8 - 10
P. elliottii sawlogs	30	12 - 15

SOURCE: NATIONAL FOREST INVENTORY, BUREAU OF RURAL SCIENCES

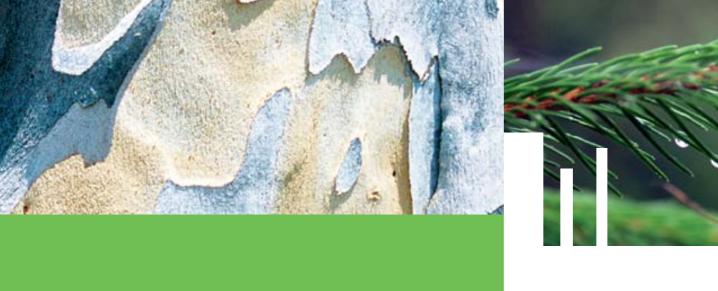
mature industry

Australia's timber industry is internationally cost-competitive, with strengths in plantation management, transport infrastructure and power generation.

Most resources are located within 100 kilometres of processing facilities with easy access to major ports. Australia has restructured its shipping and transport industry, resulting in a competitive service with international standards of port loading and unloading rates.

Overseas investors are supported by an established and professional forestry service industry that employs more than 130,000 workers for end-to-end planning, planting, silvicultural and harvesting services.

Recognising Australia's competitive strengths, international forestry and wood products companies from Asia, Europe, New Zealand and the United States have established large forestry operations in Australia. These include Carter Holt Harvey, Hancock Timber Resource Group, Hansol, Marubeni, Nippon Unipac, Norske Skog and Weyerhaeuser World Timberfund.



sustainability that pays

In times when environmental issues have a growing impact on returns, Australian forestry plantations provide a competitive advantage for investors.

Australia's forward-looking forestry regime safeguards high plantation yields and provides assurance of sustainable practices to end-consumers.

Australian plantations can receive certification under internationally recognised standards that confirm they have been grown and harvested sustainably and responsibly. Local, voluntary certification under the Australian Forest Standard is recognised by the world's leading certification body, the Programme for the Endorsement of Forest Certification Schemes – a system supported by 149 governments, covering 85 per cent of the world's forest area. See www.forestrystandard.org.au

In Australia, the quest for higher yields is supported by stringent

government bio-security policies and sophisticated R&D.

A strict quarantine and pest incursion regime helps ensure the long-term health of plantations in Australia, protects trees from pests and disease and ensures high yields are maintained. Plantation owners looking to improve productivity or develop new products can access a closely-linked network of industry, government and university research institutes that are acclaimed internationally for their work.

The country's leadership in forestry is reflected in innovations such as:

- International award-winning SilviScan technology from the Commonwealth Scientific and Industrial Research Organisation (CSIRO), which can rapidly measure wood-fibre properties in plantation timber.
- Microwave wood-modification technology from the Cooperative Research Centre for Wood Innovation that could revolutionise timber processing.
- New species of salt- and drought-tolerant hybrid trees, allowing plantations to be established in areas of Australia not previously considered practicable.

touch wood

Established domestic and export markets consumed 27 million m³ of Australian log products in 2002-03 with a stumpage value of A\$1.4 billion. This includes 18 million m³ from plantations worth A\$840 million.

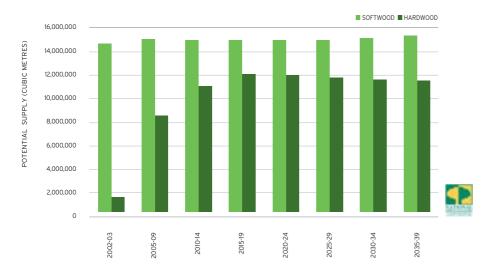
Demand from Australia's large and growing wood products industry provides a long-term domestic market for sawn-wood, round-logs and other wood fibre from plantations. Clusters of regional forestry processors located around the country turn each year's local A\$1.4 billion log harvest into forest products valued at more than A\$18 billion. Expanding hardwood supply will create new opportunities for expanded manufacturing of pulp, paper and reconstituted timber products (refer figure 3).

Australian forestry products also earn high returns overseas with exports of more than A\$2.1 billion a year. This includes huge markets for Australian-grown plantation timber in Asia, where consumption of wood products is out-stripping production capacity, to the tune of some 200 million m³ annually.





FIGURE 3: FORECAST LOG SUPPLY FROM EXISTING PLANTATIONS



SOURCE: NATIONAL FOREST INVENTORY, BUREAU OF RURAL SCIENCES, *REFER www.brs.gov.au/plantations FOR THE FULL REPORT

new value in timber for environmental services

Plantations offer new potential as a source of environmental credits as government regulation develops in this area.

Plantations generate more value than just wood-fibre. There is growing recognition of the environmental benefits provided by plantations, including carbon dioxide sequestration, salinity reversal and biodiversity development.

Australian state government laws allow plantation owners to treat carbon credits as separate property rights from wood fibre. Some plantation owners have already sold the rights or are holding them in anticipation of future carbon-credit trading systems. Others are keeping them to demonstrate concern for environmentally responsible corporate practices.

For more information on the status of carbon trading in Australia, refer www.daff.gov.au/forestry/investment

government support

Investors enjoy a high level of confidence due to Australia's robust commercial legal framework, encouragement for ecologically sustainable development and government facilitation of market access and trade.

The first port of call for plantation investors is Invest Australia, the government agency that helps international companies build their businesses in Australia.

Investment processes for plantations require only limited Commonwealth approvals, and are transparent with clear rules and timeframes. This includes the Foreign Investment Review Board www.firb.gov.au and the Environment Protection and Biodiversity Conservation Act www.deh.gov.au/epbc/index.html





Australian Government

Department of Agriculture, Fisheries and Forestry

www.daff.gov.au



Australian Government

Department of the **Environment and Heritage**

For further information visit: www.deh.gov.au



Australian Government

Bureau of Rural Sciences

The bureau operates the Plantation timber plantations in Australia.

www.brs.gov.au/plantations

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