



Australian Government
Bureau of Rural Sciences



**NATIONAL
FOREST INVENTORY**

A Commonwealth, States and
Territories Co-operative Project

Australia's forests at a glance

2005

DEPARTMENT OF AGRICULTURE,
FISHERIES AND FORESTRY

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Australia's Forests at a Glance provides facts at your fingertips about Australian forests. For more detail refer to *Australia's State of the Forests Report 2003* (www.daff.gov.au/stateoftheforests).

Copies available from:

National Forest Inventory Project

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Foreword



Forests hold many values. They supply the resource base for one of Australia's largest manufacturing industries and are important for biodiversity conservation, water quality and carbon storage. They also provide a magnificent setting for a host of recreational activities. Our forests provide housing, furniture, paper and food, as well as employment for tens of thousands of Australians. In this edition of *Australia's Forests at a Glance* you will find updated information on a range of these forest uses and values.

The recently announced Tasmanian Community Forest Agreement builds on the existing Regional Forest Agreement, not only protects valuable conservation areas, but also provides support for industry restructuring to adapt to their changing commercial environment. It ensures resource supply, provides job security and protects communities, guaranteeing the long-term competitiveness of the wood and timber industries.

Australia's forest policy aims to ensure forests are managed to maintain and enhance their environmental, social and economic values for current and future generations. I am confident that through effective communication in products such as this booklet, we can contribute to the goal of sustainable forest management in Australia.

Senator Ian Macdonald
Minister for Fisheries, Forestry and Conservation

Australia's forests in summary

National statistics

Total land area	768 million hectares
Total population	20 million
Forest as % of land area	21%
Total forest area	164.4 million hectares
Forest per person	8.2 hectares
Native forest area	162.7 million hectares
Plantation forest area	1.7 million hectares
New area of plantation planted (average 2000-2004)	74 000 hectares/year
Average area of native forest conversion to agriculture (2000-2003)	~187 000 hectares/year
Forest area in nature conservation reserves	21.5 million hectares
Forest area covered by Regional Forest Agreements	23.2 million hectares

Area of native forest harvested annually	< 1%
Total carbon in forests	10 500 million tonnes
Total timber removal (2003-2004) (Roundwood equivalent)	25.7 million m ³
Total exports of wood products (2003-2004)	A\$2.06 billion
Major exports % by value	Japan (38%) New Zealand (19%) Hong Kong and China (13%) United States (4%)
Total imports of wood products (2003-2004)	A\$3.9 billion
Major imports % by value	New Zealand (20%) Indonesia (10%) United States (6%) Finland (6%)
Number of people employed in timber production and forest product industries (2003-2004)	> 91 400 Approx 1% of total employment
Value of turnover in forest product industries (2002-2003)	A\$18 billion
Forestry contribution to GDP	1%



Contents

• Foreword	1
• Australia's forests in summary	2
• National Forest Inventory	7
• What is a forest?	9
• Forest area	10
• Australia's climate	11
• Types of forest	12
• Native forest ownership and tenure	17
• Forest biodiversity	20
• Forest in protected areas	21
• Contribution to global carbon	22
• Recreational use of forests	23
• Forest harvesting	24
• Australia's plantation forests	25
• Farm forestry	34
• Australia's forest industry	35
• State and Territory summary	47
• International comparison	64
• More information	68



National Forest Inventory

Since 1998, the National Forest Inventory Project has been collecting and communicating information on Australia's forests. Its mission is to be the authoritative source of information for national and regional monitoring and reporting and to support decision making on all of Australia's forests. It is a collaborative partnership between the Australian and State and Territory governments and is the body responsible for undertaking national forest assessments and reporting.



State and Territory and private forest owners and managers collect primary forest data, and the National Forest Inventory is responsible for collating and translating these into national datasets. The majority of inventory and monitoring activities in native forests have focused on areas managed for commercial wood production. Australia's largest gaps in forest information are in privately managed forests and for non-wood attributes.



What is a forest?

The definition of a forest agreed between Australian governments is:

'An area, incorporating all living and non-living components, that is dominated by trees having usually a single stem and a mature or potentially mature stand height exceeding 2 metres and with existing or potential crown cover of overstorey strata equal to or greater than 20%.'

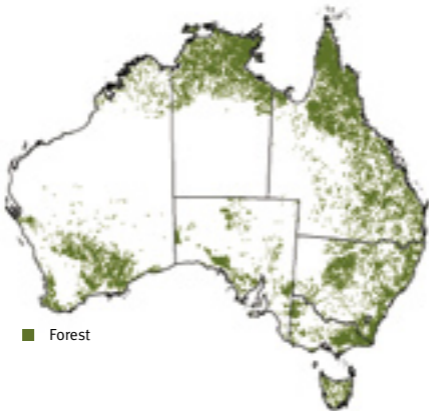
This is consistent with international definitions.

This definition includes Australia's diverse native forests and plantations, regardless of age, and encompasses areas of trees that are sometimes described as woodlands.

Forest area

- There are 164 million hectares of forest in Australia – covering 21% of the continent. This is about 12 rugby fields (8.2 hectares) of forest for each Australian, one of the highest areas per person in the world (the world average is 0.6 hectares).
- Australia has 4% of the world's 3.9 billion hectares of forests and 5% of the world's land mass.

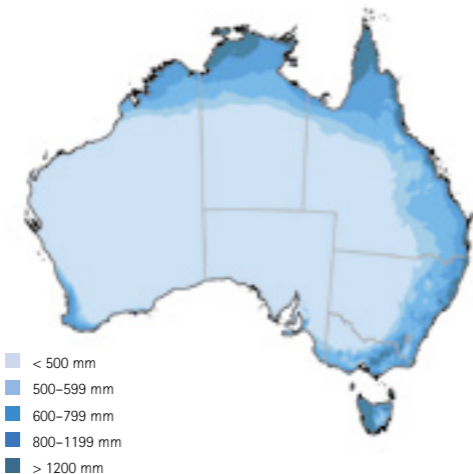
Forest area



Australia's climate

Rainfall in Australia

Forests in Australia are generally located in areas of >500mm of rainfall.



Source: National Forest Inventory (2003)

Types of forest

- Forests can be classified by their dominant genus and structure (height and crown cover).
- Australia has few native conifers, therefore 99% of our native forest area is broadleaf. In contrast, about 60% of plantations are exotic conifers. The largest areas of native forests are dominated by eucalypt species (78%), followed by acacia species (10%) and melaleuca species (4%).
- Climate and soil properties broadly determine the distribution of different forest types across Australia, although other factors, such as fire, are also important.
- With the exception of mallee eucalypt, forest distribution is mainly confined to regions where average rainfall exceeds 500 mm per year. Plantations are mostly found in areas where average rainfall exceeds 700 mm per year.

Forest types (hectares)

Acacia 16 488 000

Callitris 2 330 000

Casuarina 2 039 000

Eucalypt 127 025 000

Mangrove 749 000

Melaleuca 7 056 000

Other 2 780 000

Rainforest 4 214 000

Total native forest 162 680 000

Hardwood plantation 715 000

Softwood plantation 1 001 000

Total plantation 1 716 000

Total forest 164 396 000

■ Old growth forests

- Old growth forests are ecologically mature forests where the effects of disturbances are now negligible.
- The total area of old growth forest in Australia is unknown.
- In Regional Forest Agreement (RFA) areas where assessments of old growth were undertaken:
 - more than 5.2 million hectares, or 22%, are classified as old growth
 - about 70% of these old growth forests are protected in nature conservation reserves, with some of the remaining 30% available for timber production.

Area of old growth forest in areas surveyed for RFAs (hectares)

	Area of forest surveyed	Old growth forest	Old growth forest in reserves	Old growth reserved
South-East Queensland	3 230 000	270 000	196 000	73%
South-West Western Australia	2 121 000	331 000	331 000	100%
Victoria	5 744 000	841 000	571 000	68%
New South Wales	8 989 000	2 536 000	1 742 000	69%
Tasmania	3 169 000	1 239 000	851 000	69%
Total	23 253 000	5 217 000	3 691 000	71%

Does not include new reserves to be established under the Tasmanian Community Forest Agreement.

■ Forest crown cover

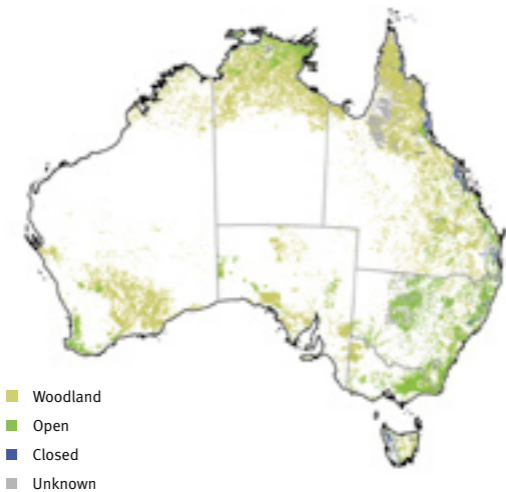
Crown cover is determined by measuring the area of ground covered by tree canopies. A line around the outer edge defines the limits of an individual canopy, and all the area within is treated as ‘canopy’ irrespective of gaps and overlaps.

Native forest area by crown cover (hectares)

	Total
Woodland forest (20-50% crown cover)	102 526 000
Open forest (51-80% crown cover)	45 603 000
Closed forest (81-100% crown cover)	4 644 000
Unknown	9 907 000
Total native forest	162 680 000



Forest crown cover



Native forest ownership and tenure

Multiple-use forests – managed for a range of values including timber harvesting, water supply, conservation, recreation and environmental protection. This can include informal reserves where timber harvesting is prohibited.

Nature conservation reserves – crown lands that are formally reserved for environmental conservation and recreation.

Private land – held under freehold title and under private ownership.

Leasehold land – crown land held under leasehold title and generally regarded as ‘privately managed’.

Other crown land – crown land held for a variety of purposes.

Unresolved tenure – where tenure is unknown or difficult to classify.

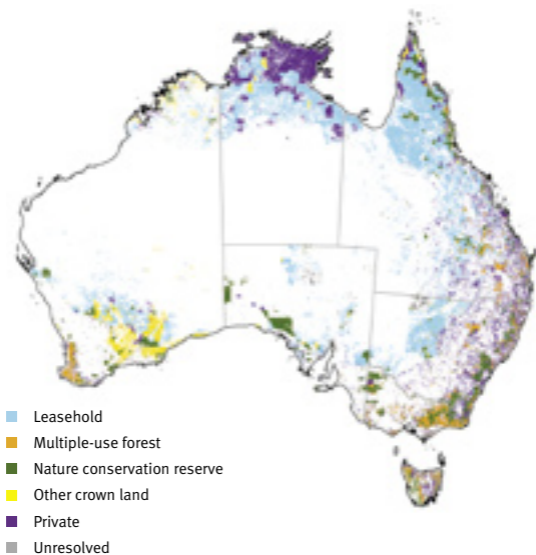
13% of forested land is under Indigenous ownership, mostly in the Northern Territory, South Australia and Western Australia.

Native forest area by tenure category (hectares)

Tenure

Leasehold land	75 596 000	46%
Multiple-use forest	11 395 000	7%
Nature conservation reserves	21 491 000	13%
Other crown land	13 143 000	8%
Private land	38 928 000	24%
Unresolved tenure	2 127 000	1%
Total	162 680 000	100%

Forest tenure



Forest biodiversity

- Australia is one of the world's 17 most biologically diverse countries. Most of Australia's flowering plants, mammals, reptiles, frog and fish species, and about half the bird species are found nowhere else. There are internationally recognised areas of high and significant biodiversity in south west Australia, in the Queensland wet tropics, in some Tasmanian forests and some regions of eucalypt forest. Some, but not all, of these areas include forests with noted high flora and fauna species richness.
- There are 16 532 plants and 3 817 animal species that are forest-dependent. The number of recognised species is increasing over time due to more comprehensive research and reporting.
- It is estimated that over half of Australia's mammal species, including many forest-dwelling species, have been lost since European settlement. Principal threats include forest clearing, salinity, altered fire regimes, climate change, diseases and invasive species.

Forest in protected areas

- Nearly 21.5 million hectares or 13% of Australia's forest estate is formally protected in nature conservation reserves. This is an increase in the area of forest in nature conservation reserves of 22% since the last national assessment in 1998. Forests are also conserved within leasehold land, multiple-use forest or private land (via covenants or other management arrangements).
- 15% of Australia's native forests are reserved under the International Union for the Conservation of Nature and Natural Resources (IUCN) conservation reserve categories.
- In RFA regions, 34% of forest is in nature conservation reserves.
- Codes of forest practice and other regulatory mechanisms also provide for conservation of forest biodiversity.



Contribution to global carbon

- Carbon exists in the atmosphere and on land in vegetation and soil.
- Forests take up carbon from the atmosphere during photosynthesis and release it during respiration or when harvested, burnt or cleared.
- Forests can be managed to increase carbon stocks and offset emissions from burning fossil fuels.
- In 2000, the total carbon stock in forests was estimated to be 10 500 million tonnes (Mt). Forests took up 21 Mt in growth, released 15 Mt in harvest (including fuel wood), resulting in a net carbon uptake of 6 Mt. However, forest clearing released 18 Mt of carbon that year, giving an overall release to the atmosphere for land use change and forests of 12 Mt. This represented 7% of greenhouse gas emissions from all sources.
- From 1990 to 2000, carbon uptake in forests increased by 9%, harvest emissions increased by 18% and land clearing emissions decreased by 63%.

Recreational use of forests

Most public forest is available for recreation and tourism, regardless of whether it's primarily managed for conservation, environmental protection or wood production. Both native and plantation forests provide a wide range of recreational opportunities:

- Walking and running
- Fishing
- Picnicking and playing
- Swimming and water sports
- Riding and walking animals
- Cultural heritage appreciation
- Camping
- Cycling
- Climbing
- Motor vehicle use
- Caving
- Nature study sites

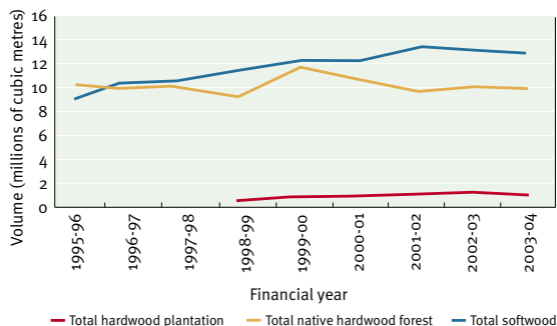


Forest harvesting

About 25.4 million cubic metres of logs were harvested in 2003-04, of which about 40% were from native forests and the remainder from plantations.

The National Forest Inventory estimates that less than 1% of native forests are harvested for timber products annually. In addition, a range of non-wood forest products (e.g. berries, mushrooms, game, honey, wildflowers and tree ferns) is harvested for commercial purposes in increasing quantities.

Volume of logs harvested annually



Note: 2002-03 and 2003-04 includes a small amount of native cypress

Australia's plantation forests

Australia has over 1.7 million hectares of plantations. Governments and industry share a goal of expanding this to 3 million hectares by the year 2020 through the 'Plantations for Australia: The 2020 Vision' strategy (www.plantations2020.com.au).

Plantation forests developed rapidly between 1950 and 1980 as a result of government investment in softwood plantations. Since 1990, our plantation estate has increased by nearly 60%, largely through private investment in hardwood plantations.

Softwood plantations provide timber for building and construction and pulp for a wide range of paper products such as tissue and newsprint. Hardwood plantations are primarily comprised of fast-growing eucalypt species harvested after 10-15 years for pulpwood. This is used for a range of paper products in Australia and overseas. A proportion of hardwood plantations has been established to produce sawn timber and other solid wood products.

As well as wood products, plantations provide a range of environmental values including water quality improvement, biofuel, dryland salinity mitigation, carbon sequestration, and habitat for native plants and animals.

■ What is a plantation?

Plantations are:

'intensively managed stands of trees of either native or exotic species, created by the regular placement of seedlings or seeds'.

Plantation species fall into two main groups:

- Softwood, mainly *Pinus* (pine) species
- Hardwood, mainly *Eucalyptus* (eucalypt) species

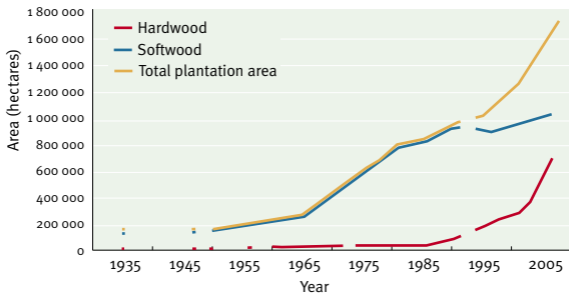
■ Area of plantation

- There were 1.72 million hectares of plantation in Australia in December 2004. Of this total, 715 531 hectares (40%) were hardwood species and 1 000 642 hectares (60%) were softwood species.
- Plantations provide over 70% of the sawnwood produced in Australia, yet comprise 1% of the forest area.

Plantation area by State and species group at December 2004



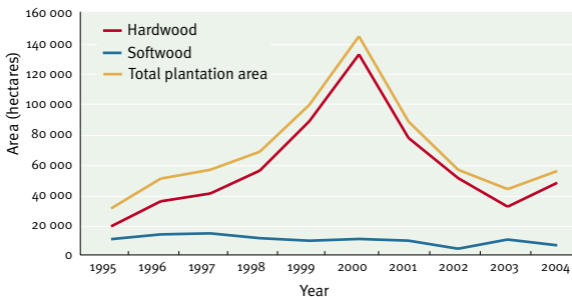
Plantation area by year and species group



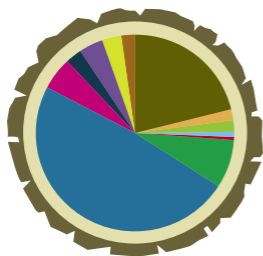
■ Plantation expansion

Commercial plantation establishment has averaged 74 000 hectares/year from 2000 to 2004. Most recent plantation expansion has been hardwood species for short rotation (10-15 years) pulpwood production.

New areas of plantation by species group



■ Common plantation species



Hardwood

- *E. globulus* 21%
- *E. globulus* and *E. grandis* 2%
- *E. nitens* 2%
- *E. regnans* 1%
- *E. dunnii* 1%
- Minor and unidentified 8% hardwood

Softwood

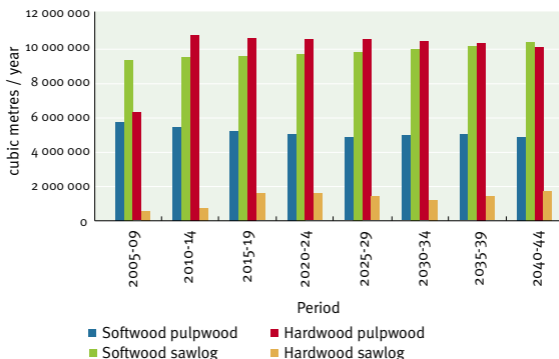
- *P. radiata* 49%
- *P. elliotii* 5%
- *P. pinaster* 3%
- *P. caribaea* 4%
- Araucaria species 3%
- Other softwood species 2%



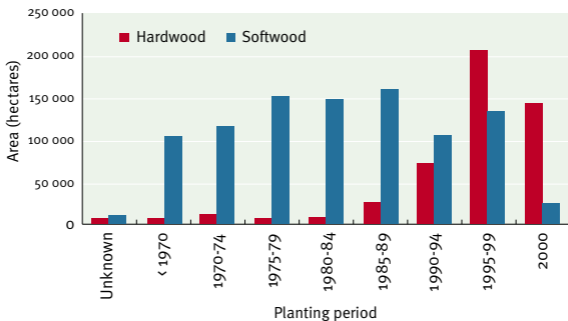
■ Future wood availability from plantations

Australia will experience substantial increases in the availability of hardwood pulpwood over the next 40 years, together with significant increases in both softwood and hardwood sawlogs.

National forecast of plantation wood availability



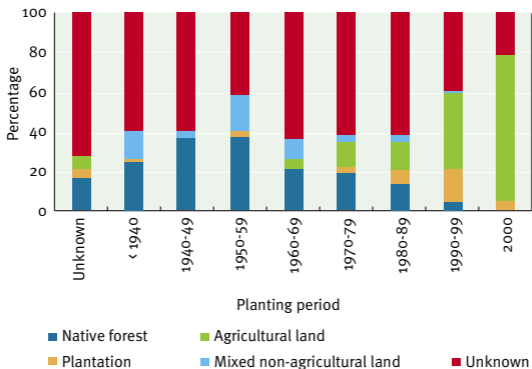
■ Plantation age class



■ Previous land use of plantations

There has been a marked decline in the establishment of plantations on native forest land, and a marked increase in plantation establishment on agricultural land.

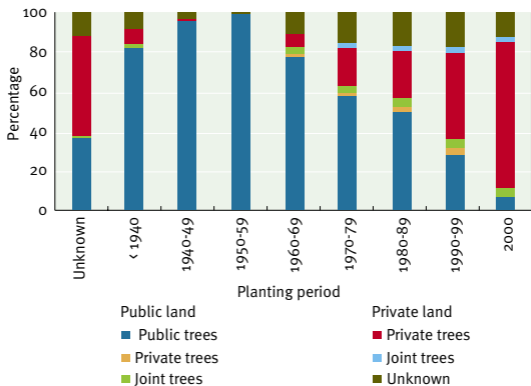
Land use prior to plantation



■ Plantation forest ownership

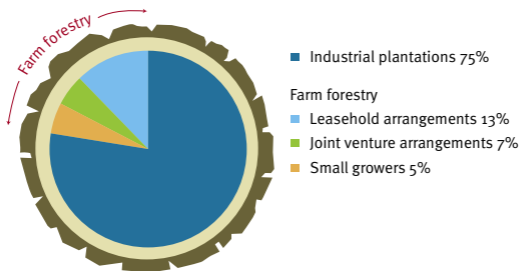
- There is a range of plantation ownership arrangements in Australia, and these are reported using a set of categories that acknowledge both tree and land ownership.
- Plantation ownership has undergone a transition from predominately publicly owned to predominately privately-owned.

Plantation ownership



Farm forestry

- The National Plantation Inventory makes the distinction between ‘industrial’ plantations, those greater than 1 000 hectares under a single ownership, and ‘farm forestry’ plantations, those less than 1 000 hectares.
- Farm forestry is a growing sector in plantation establishment. About 20% of plantations can be considered farm forestry, including leasehold and joint venture arrangements between farmers and large companies.
- More than a third of the farm forest resource has been planted since 1995.



Australia's forest industry

As one of the country's largest manufacturing industries, employing more than 91 000 people, the forest and wood products industry contributes significantly to the economic and social wellbeing of rural and regional Australia.

Forest-based industries are well placed for growth into expanding wood and fibre markets of the Asia–Pacific region. Australia's growing plantation forest resource base and buoyant domestic timber market provide a solid platform for import replacement and the development of export opportunities.

Australian governments and industry are working toward sustainable management of the forest estate by providing for an appropriate balance of commercial, environmental and community values in forests. The 1992 National Forest Policy Statement and subsequent initiatives have resulted in a range of actions to achieve sustainable management objectives, these include:

- Regional Forest Agreements – 20-year plans for the conservation and sustainable management of our native forests

- The Australian Forestry Standard – an objective accreditation of sustainable forest management to demonstrate timber producers’ sustainable management credentials in the international market
- Codes of practice and management plans – which govern planning for soil and water quality, harvesting, access to forests, conservation of natural and cultural heritage, fire management, and pest, disease and weed control
- Private Forestry Development Committees, which are community-based groups that work to support sustainable and commercial private forestry activities and target important natural resource management issues, such as conserving biodiversity and reducing salinity.
- The Tasmanian Community Forest Agreement (TCFA) was announced on 13 May 2005. The TCFA is a joint commitment of the Australian and Tasmanian Governments to provide over \$250 million to achieve enhanced protection of Tasmania’s forest environment and promote growth in the Tasmanian forest industry and forestry jobs. The Agreement significantly adds to the current reserve system including protection for iconic areas such as the Styx and Tarkine, addresses concerns over native vegetation management, enhances growth in the local timber industry and associated jobs, improves workplace skills and training and promotes multiple-use of the forest resources.



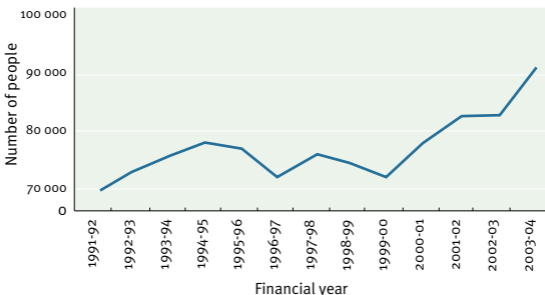
■ Contribution of the forest industry to the economy

- The value of primary forest production was \$1.5 billion in 2004. The value added contribution of the wood and paper manufacturing industry amounted to \$6.3 billion in 2002-03 which was approximately 1% of GDP. The value of turnover in forest product industries in 2002-03 was \$18.1 billion.

Investment

- Since the early 1990s, the forest sector has attracted over \$6.5 billion in domestic and foreign investment.

Employment



- It is estimated that 66 of 1 353 Australian Bureau of Statistics 'statistical local areas' are economically dependent on forestry and logging.

Forest products production

	2001-02	2002-03	2003-04
Sawnwood (cubic metres)			
Coniferous	2 529 000	2 669 000	3 012 000
Broadleaved	1 108 000	1 063 000	1 026 000
Total	3 637 000	3 732 000	4 037 000
Wood based panels (cubic metres)			
Plywood boards	192 000	219 000	239 000
Particleboard	965 000	1 025 000	1 048 000
Medium density fibreboard	732 000	786 000	795 000
Total	1 890 000	2 030 000	2 081 000
Paper and paperboard (tonnes)			
Newsprint	395 000	412 000	422 000
Printing and writing	624 000	564 000	585 000
Household and sanitary	198 000	194 000	200 000
Packaging and industrial	1 679 000	1 892 000	1 956 000
Total	2 897 000	3 061 000	3 164 000

Source: ABARE

Forest products trade summary

	2000-01	2001-02	2002-03	2003-04
Exports	\$m	\$m	\$m	\$m
Roundwood	67	89	107	114
Sawnwood	59	66	69	72
Railway sleepers	9	7	4	4
Miscellaneous forest products	71	55	53	49
Wood based panels	205	214	183	147
Paper and paperboard	529	699	718	713
Paper manufactures	84	115	120	106
Wastepaper	40	55	50	53
Pulp	5	3	2	1
Woodchips	744	712	808	794
Total	1 812	2 014	2 114	2 054

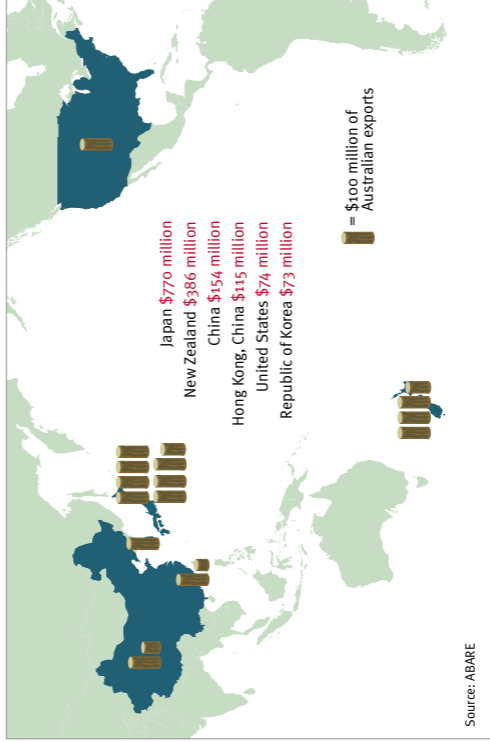
Source: ABARE

Imports

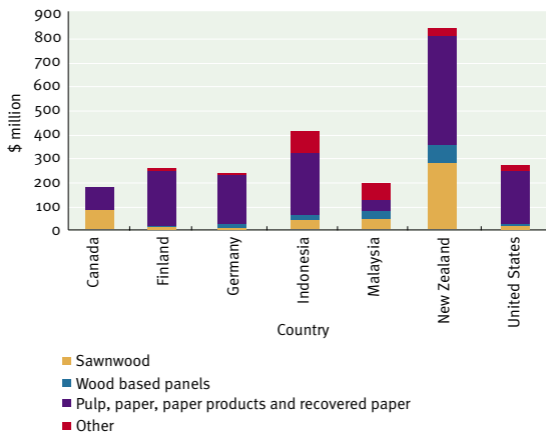
	2000-01	2001-02	2002-03	2003-04
	\$m	\$m	\$m	\$m
Roundwood	1	1	2	1
Sawnwood	428	443	505	502
Miscellaneous forest products	462	528	589	583
Wood based panels	152	165	200	191
Paper and paperboard	2 088	1 991	2 001	2 014
Paper manufactures	378	372	405	369
Wastepaper	9	5	8	5
Pulp	317	221	254	235
Woodchips	1	1	2	1
Total	3 834	3 727	3 965	3 902

Source: ABARE





Top import countries – 2003-04



Source: ABARE

■ Number of wood processing facilities

There are an estimated 1 140 sawmills currently operating in Australia, with 75% producing high-value, small volume hardwood products. The remaining 25% are softwood sawmills, many at world-scale levels of production, producing timber mainly for structural manufacturing.

A breakdown of other wood processing facilities producing other products include:

Product	No. facilities
Chip	24
Pulp	1
Pulp/paper	7
Paper	15
Hardboard	2
Log export	8
Laminated veneer lumber	1
Medium density fibreboard	7
Particleboard	9
Plywood/veneer	12
Posts/poles	27
Value added	7
Total	120

■ Proportion of sawmills by State or Territory
(with wood input of greater than 20 000 m³)



- New South Wales 23%
- Northern Territory 0%
- Queensland 30%
- South Australia 4%
- Tasmania 15%
- Victoria 17%
- Western Australia 10%
- Australian Capital Territory 1%





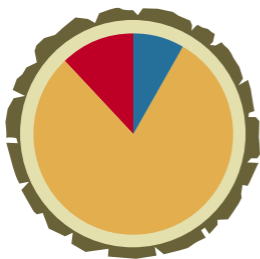
State and Territory summary



Australian Capital Territory

Population	322 900
Forest cover	55%
Australia's native forest	0.1%
Australia's plantation forest	1.0%
Australia's land area	0.03%
Land area	240 000 hectares

Australian Capital Territory forest area by tenure (hectares)

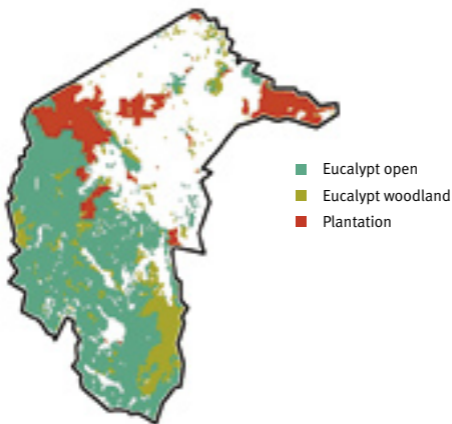


■ Leasehold land	11 000
■ Multiple-use forests	0
■ Nature conservation reserves	106 000
■ Unresolved tenure	0
■ Other crown land	0
■ Private land	0
Total native forest	117 000
■ Plantations – all tenures	5 000
Total forest	123 000

→ Did you know that:

Bush fires in January 2003 burnt approximately 88% of the Australian Capital Territory's native forest estate and 63% of its plantation estate.

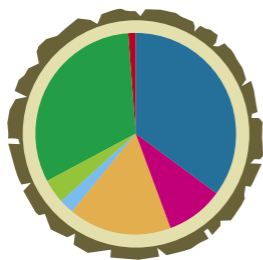
Australian Capital Territory forests by type



New South Wales

Population	6 686 600
Forest cover	34%
Australia's native forest	16.4%
Australia's plantation forest	19.8%
Australia's land area	10.4%
Land area	80 160 000 hectares

New South Wales forest area by tenure (hectares)

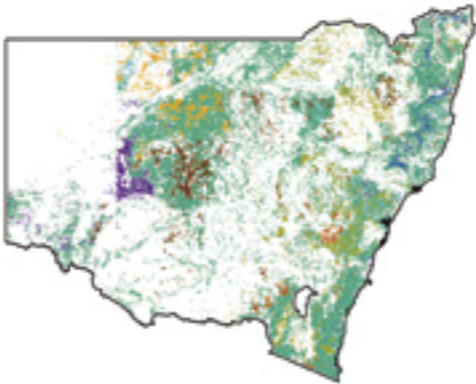


■ Leasehold land	9 470 000
■ Multiple-use forests	2 496 000
■ Nature conservation reserves	4 471 000
■ Unresolved tenure	643 000
■ Other crown land	1 055 000
■ Private land	8 523 000
■ Total native forest	26 658 000
■ Plantations – all tenures	341 000
■ Total forest	26 999 000

→ Did you know that:

Forests NSW is the largest plantation owner in Australia.

New South Wales forests by type

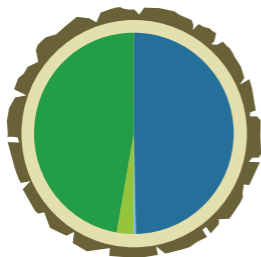


- | | |
|----------------------------|--------------------|
| ■ Acacia forest | ■ Plantation |
| ■ Callitris forest | ■ Mangrove forest |
| ■ Casuarina forest | ■ Melaleuca forest |
| ■ Eucalypt open forest | ■ Other forests |
| ■ Eucalypt woodland forest | ■ Rainforest |
| ■ Eucalypt mallee forest | |

Northern Territory

Population	198 400
Forest cover	24%
Australia's native forest	20.2%
Australia's plantation forest	0.4%
Australia's land area	17.5%
Land area	134 620 000 hectares

Northern Territory forest area by tenure (hectares)

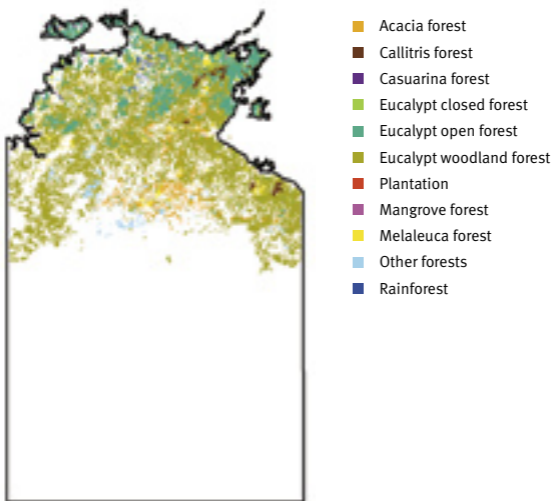


■ Leasehold land	16 313 000
■ Multiple-use forests	0
■ Nature conservation reserves	12 000
■ Unresolved tenure	110 000
■ Other crown land	890 000
■ Private land	15 511 000
Total native forest	32 836 000
■ Plantations – all tenures	12 000
Total forest	32 848 000

→ Did you know that:

Approximately 47% of forests in the Northern Territory are under Indigenous management – the highest proportion in Australia.

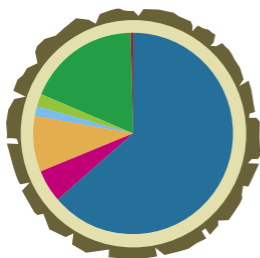
Northern Territory forests by type



Queensland

Population	3 796 800
Forest cover	32%
Australia's native forest	34.3%
Australia's plantation forest	12.8%
Australia's land area	22.5%
Land area	172 720 000 hectares

Queensland forest area by tenure (hectares)

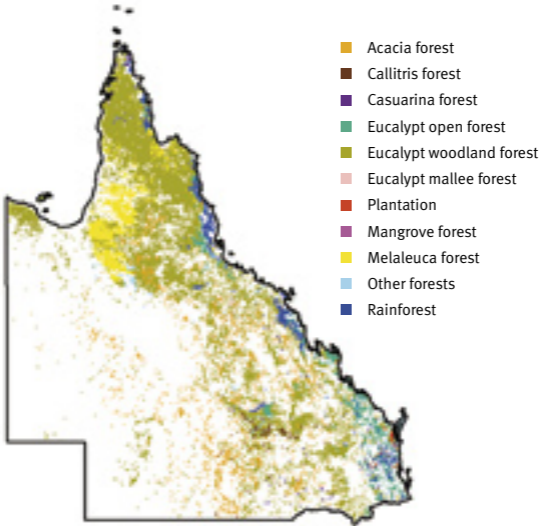


■ Leasehold land	35 581 000
■ Multiple-use forests	2 925 000
■ Nature conservation reserves	5 000 000
■ Unresolved tenure	883 000
■ Other crown land	1 131 000
■ Private land	10 213 000
■ Plantations – all tenures	215 000
Total native forest	55 734 000
Total forest	55 949 000

→ Did you know that:

66% of Australia's World Heritage rainforest is in Queensland.

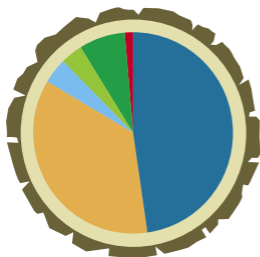
Queensland forests by type



South Australia

Population	1 527 400
Forest cover	11%
Australia's native forest	6.7%
Australia's plantation forest	9.2%
Australia's land area	12.7%
Land area	98 400 000 hectares

South Australia forest area by tenure (hectares)

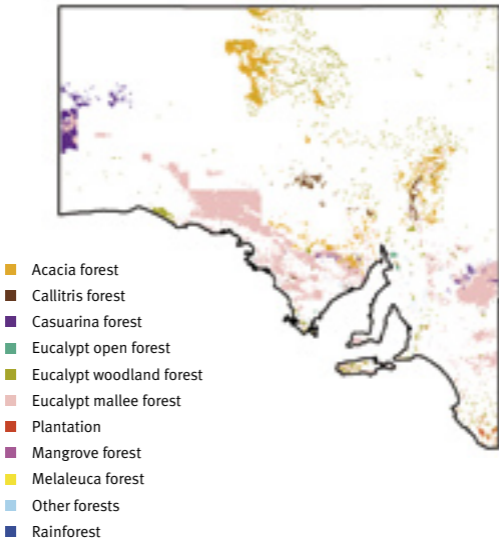


■ Leasehold land	5 255 000
■ Multiple-use forests	0
■ Nature conservation reserves	3 943 000
■ Unresolved tenure	454 000
■ Other crown land	392 000
■ Private land	822 000
Total native forest	10 866 000
■ Plantations – all tenures	164 000
Total forest	11 029 000

→ Did you know that:

All South Australian wood production is from plantations.

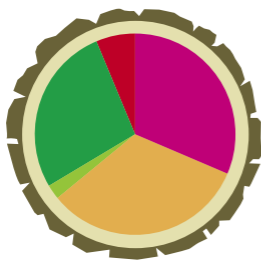
South Australia forests by type



Tasmania

Population	477 100
Forest cover	50%
Australia's native forest	2.0%
Australia's plantation forest	13.1%
Australia's land area	0.9%
Land area	6 780 000 hectares

Tasmania forest area by tenure (hectares)¹



Leasehold land	0
Multiple-use forests	1 062 000
Nature conservation reserves	1 105 000
Unresolved tenure	0
Other crown land	80 000
Private land	922 000
Total native forest	3 169 000
Plantations – all tenures	226 000
Total forest	3 395 000

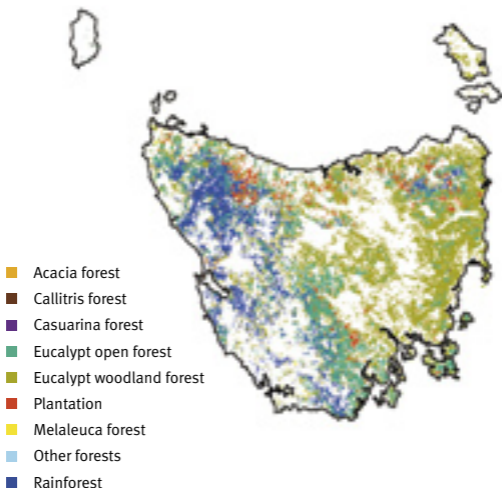
1 Native forest areas as at 30 June 2001 and Plantation areas as at 31 December 2004.

Total area is a small overestimate due to conversion of some native forest to plantation since 2001. Areas shown do not include new reserves to be established under the Tasmanian Community Forest Agreement.

→ Did you know that:

Thirty five percent of Tasmanian native forests are in formal conservation reserves. A further 148 000 hectares of public land and 48 000 hectares of private land will be added to reserves as a result of the Tasmanian Community Forest Agreement between the Australian and Tasmanian Governments signed in May 2005.

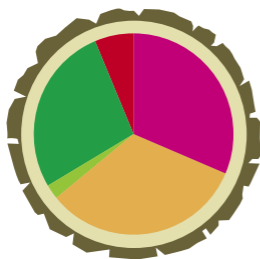
Tasmania forests by type



Victoria

Population	4 917 400
Forest cover	36%
Australia's native forest	4.9%
Australia's plantation forest	22.1%
Australia's land area	3.0%
Land area	22 760 000 hectares

Victoria forest area by tenure (hectares)

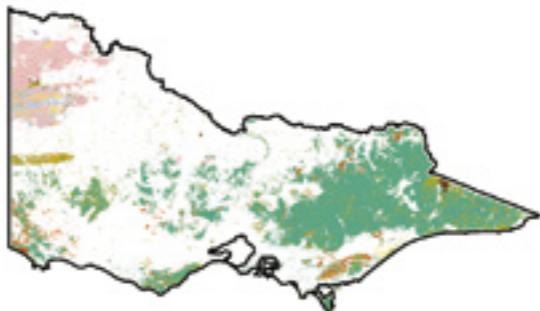


Leasehold land	46 000
Multiple-use forests	3 312 000
Nature conservation reserves	3 050 000
Unresolved tenure	23 000
Other crown land	207 000
Private land	1 298 000
Plantations – all tenures	383 000
Total native forest	7 935 000
Total forest	8 318 000

→ Did you know that:

Victoria has the largest plantation forest area of any State or Territory (383 000 hectares).

Victoria forests by type

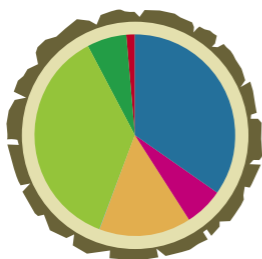


- | | |
|----------------------------|--------------------|
| ■ Acacia forest | ■ Plantation |
| ■ Callitris forest | ■ Mangrove forest |
| ■ Casuarina forest | ■ Melaleuca forest |
| ■ Eucalypt open forest | ■ Other forests |
| ■ Eucalypt woodland forest | ■ Rainforest |
| ■ Eucalypt mallee forest | |

Western Australia

Population	1 952 300
Forest cover	10%
Australia's native forest	15.6%
Australia's plantation forest	21.6%
Australia's land area	33.0%
Land area	252 550 000 hectares

Western Australia forest area by tenure (hectares)



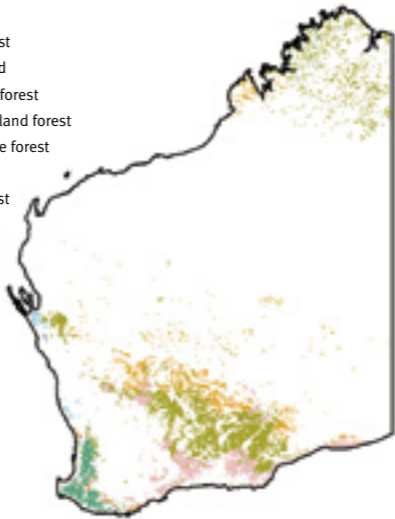
Leasehold land	8 920 000
Multiple-use forests	1 600 000
Nature conservation reserves	3 805 000
Unresolved tenure	14 000
Other crown land	9 387 000
Private land	1 639 000
Total native forest	25 365 000
Plantations – all tenures	370 000
Total forest	25 734 000

→ Did you know that:

The forests of Western Australia evolved in geographic isolation and therefore contain many species unique to this State, such as the jarrah, karri, marri, tingle and tuart.

Western Australia forests by type

- Acacia forest
- Casuarina forest
- Eucalypt closed
- Eucalypt open forest
- Eucalypt woodland forest
- Eucalypt mallee forest
- Plantation
- Mangrove forest
- Other forests
- Rainforest



International comparison

→ Did you know that:

Australia has 4% of the world's forests and of the ten most forested countries in the world Australia has the highest forest area per capita (8.3 hectares per person).

Forest area 2000

Country	Forest area (hectares)	Area/person
Russian Federation	851 392 000	5.8
Brazil	543 905 000	3.2
Canada	244 571 000	7.9
United States	225 993 000	0.8
China	163 480 000	0.1
Australia¹	154 539 000	8.3
Dem. Rep. of the Congo	135 207 000	2.7
Indonesia	104 986 000	0.5
Angola	69 756 000	5.6
Peru	65 215 000	2.6

Source: FAO *Global Forest Resources Assessment 2000*

1 Australia's total forest area is currently estimated to be 164.4 million hectares as a result of improved mapping

➔ Did you know that:

Australia had 0.6% of the world's plantation forests in 2000.

Plantation forest area 2000

Country	Plantation area (hectares)
1 China	45 083 000
2 India	32 577 001
3 Russian Federation	17 340 000
4 United States	16 238 000
5 Japan	10 682 000
6 Indonesia	9 870 001
7 Brazil	4 981 001
8 Thailand	4 920 000
9 Ukraine	4 425 000
10 Iran, Islamic Rep.	2 284 000
11 Chile	2 017 000
12 United Kingdom	1 928 000
13 Spain	1 904 000
14 Turkey	1 854 000
15 Malaysia	1 750 000
16 Viet Nam	1 711 000
17 South Africa	1 554 000
18 New Zealand	1 542 000
19 Australia¹	1 043 000
20 Pakistan	980 000

Source: FAO *Global Forest Resources Assessment 2000*

1 Australia's plantation area in 2005 is 1.7 million hectares

→ Did you know that:

Australia is the twelfth largest producer of industrial roundwood, with 1.7% of the global total.

Industrial roundwood production 2003 (cubic metres)

Country	2003
United States of America	405 159 000
Canada	191 714 100
Russian Federation	121 800 000
Brazil	102 994 000
China	95 061 000
Sweden	61 400 000
Finland	49 246 000
Germany	45 415 000
France	33 950 000
Indonesia	32 496 500
Chile	27 491 000
Australia	26 734 000
Poland	26 485 000
New Zealand	21 399 000
India	18 828 100
South Africa	18 616 000
Malaysia	18 165 000
Japan	15 171 000
Spain	14 075 000
Austria	13 719 000

Source: FAO Statistics 2005

➔ Did you know that:

Australia has the third largest area of forest in high-level protected areas where human disturbances, such as harvesting, are excluded with 15% of its forest area protected.

Forest in protected area¹

Country	Area (hectares)	
United States	66 668 000	30%
Russian Federation	25 541 000	3%
Australia²	23 335 000	15%
Canada	19 321 000	8%
Kazakhstan	12 148 000	100%
Germany	7 206 000	67%
Spain	3 420 000	24%
Yugoslavia	2 887 000	100%
France	2 746 000	18%
Finland	2 391 000	11%
Norway	2 297 000	26%
Uzbekistan	1 888 000	96%
Italy	1 880 000	19%
Japan	1 758 000	7%
New Zealand	1 661 000	21%

Source: FAO *Global Forest Resources Assessment 2000*

1 Note: areas as reported by countries. The nature of protection is not equivalent in all countries.

2 Australia's estimated forest in protected area in 2005 is 21.5 million hectares

More information

More information is available from the National Forest Inventory Project, Bureau of Rural Sciences, GPO Box 858, Canberra ACT 2601

Phone: (02) 6271 6627

Fax: (02) 6272 3882

Email: nfi.info@brs.gov.au

Internet: www.daff.gov.au/nfi

Further data is available from:

Australia's State of the Forests Report 2003, which is available to download free from the internet at

www.daff.gov.au/stateoftheforests

and *Australian forests and wood product statistics September and December quarters 2004*

from the Australian Bureau of Agricultural and Resource Economics (www.abareconomics.com)

For additional copies of this booklet:

Phone: 1 800 020 157 or

Email: salesbrs@brs.gov.au

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