



Australian Government

**Department of Agriculture,
Fisheries and Forestry**
Bureau of Rural Sciences

Australia's Forests

AT A GLANCE | **2007**

with data to 2005 - 06



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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) and *Australia's Plantations 2006* (www.brs.gov.au/plantations).

Copies available from:

National Forest Inventory

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Foreword



Australia's forests are highly valued for their wide range of environmental and production values. Our sustainable forest industries make an important contribution to the economy — with a combined annual turnover value of over \$18 billion. In addition to producing high quality forest products, our forests are managed through the protected area system and through rigorous and accepted Codes of Practice to maintain important conservation values.

Australia's forest industry provides jobs and contributes to reducing the significant trade deficit in forest products. Reducing the importation of illegally sourced timber is one way to help prevent unsustainable harvesting and protect Australia's sustainable timber industry. Illegal logging continues in many other parts of the world, with social, economic and environmental consequences.

This short report provides national information on both native forests and plantations. Significant investment from both private and government sources has enabled forest plantations to continue to expand over recent years and provides an increasing share of wood and wood products to meet both domestic and overseas demand.

Australia's forests at a glance provides you with important facts about our forests and their management. Australian forest management is delivering world class results. I trust that this booklet will be useful for everyone interested in sustainable forest management in Australia.

Senator the Hon. Eric Abetz
Minister for Fisheries, Forestry and Conservation

Australia's forests in summary

National statistics

Total land area	768 million hectares
Total population (2004)	20 million
Forest as % of land area	21%
Total forest area	164.4 million hectares
Forest per person	8 hectares
Native forest area	162.7 million hectares
Plantation forest area	1.74 million hectares
New area of plantation planted (average 1996-2005)	70 000 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	10.5 billion tonnes
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Total timber harvest (2004-2005) (Roundwood equivalent)	27.4 million m ³
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Total exports of wood products (2004-2005)	A\$2.09 billion
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Top export destinations by value (2004-2005)	Japan (47%)
	New Zealand (21%)
	Hong Kong and China (20%)
	Chinese Taipei (4%)

Major exports commodities by value (2005-2006)	Wood chips \$839 million
	Paper and paper products \$593 million
	Panel products \$151 million
	Sawn timber \$118 million

Total imports of wood products (2004-2005)	A\$4.1 billion
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Number of people employed in Australia's forestry and logging industries (2005-2006)	> 83 000
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Value of turnover in forest product industries (2003-2004)	A\$18 billion
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Forestry contribution to GDP	1%
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National Forest Inventory

Since 1998, the National Forest Inventory (NFI) 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. The NFI undertakes national forest assessments and reporting such as the *State of the Forests* report. It is a collaborative partnership between the Australian, State and Territory governments.

State, 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. The largest gaps in forest information are in privately managed forests and in areas managed for non-wood attributes.





What is a forest?

The definition of a forest agreed between Australian governments in the 1992 National Forest Policy is:

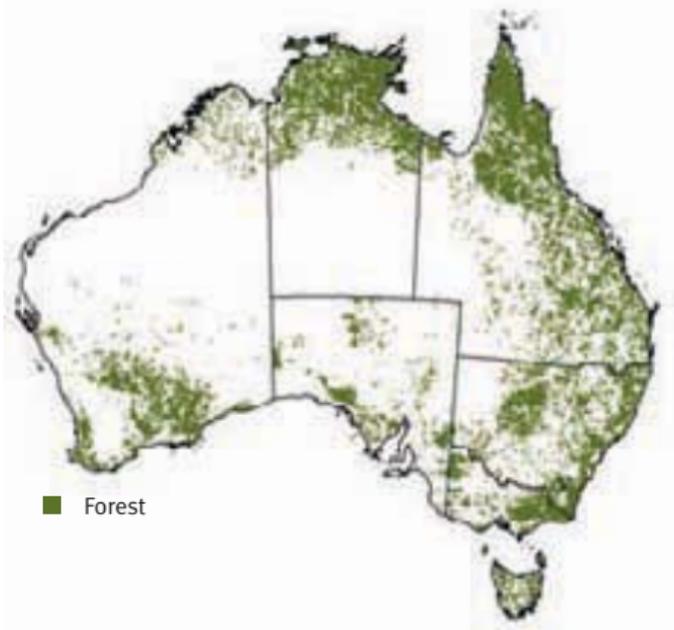
'An area, incorporating all living and non-living components, that is dominated by trees having usually a single stem and a mature or potentially mature stand height exceeding 2 metres and with existing or potential crown cover of overstorey strata equal to or greater than 20%.'

This 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 football fields (8 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 with an average of more than 500mm of rainfall per year.



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; 99% of our native forest area is broadleaf. In contrast, about 57% of plantations are exotic conifers. Most native forests are dominated by eucalypts (78%), followed by acacias (10%) and melaleucas (4%).
- Climate and soil properties broadly determine the distribution of different forest types across Australia, although other factors, such as fire, are also important.
- 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 (2003) 162 680 000

Hardwood plantation	740 000
Softwood plantation	990 000

Total plantation (2005) 1 740 000

Total forest 164 410 000

Old growth forests

- Old growth forests are ecologically mature forests where the effects of past disturbances are now negligible.
- Although well surveyed in regions where assessments were conducted for Regional Forest Agreements (RFA), there has been no comprehensive survey of old growth forests across Australia. In RFA areas:
 - more than 5.1 million hectares, or 22%, are classified as old growth.
 - 74% of these old growth forests are now protected in nature conservation reserves, with some of the remaining 26% 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
Queensland ¹	3 230 000	270 000	196 000	73%
Western Australia ¹	2 121 000	331 000	331 000	100%
Victoria	5 744 000	781 000	591 000	76%
New South Wales ¹	8 989 000	2 536 000	1 742 000	69%
Tasmania ²	3 169 000	1 229 000	973 000	79%
Total	23 253 000	5 147 000	3 833 000	74%

¹ Does not include new reserves established since 2003 in Qld, WA or NSW.

² Includes new reserves established under the Tasmanian Community Forest Agreement on public land but does not include the expected 45 000 hectares on private land.

Forest crown cover

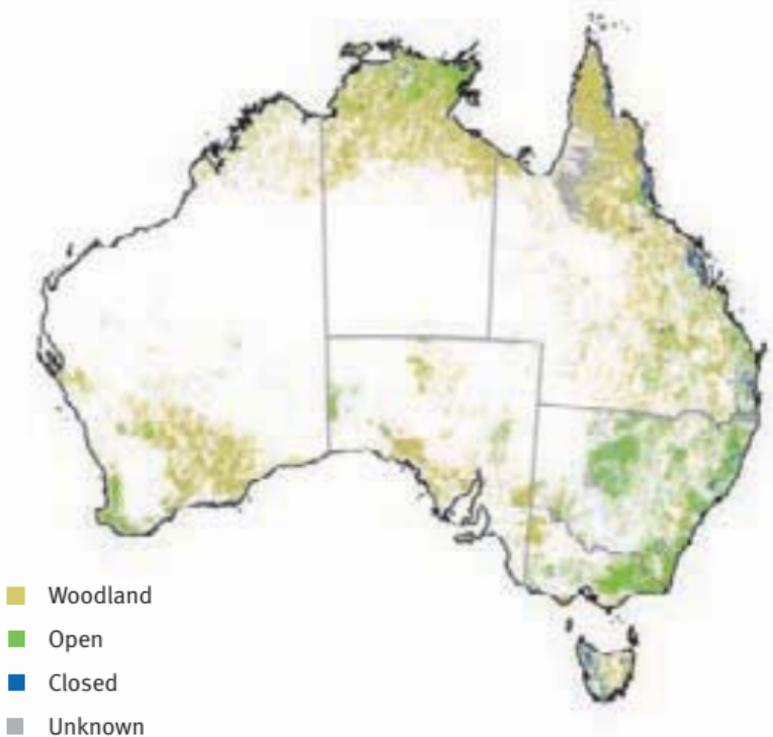
Crown cover is determined by measuring the area of ground covered by tree canopies. A line around the outer edge defines the limits of an individual canopy, and all the area within is treated as ‘canopy’ irrespective of gaps and overlaps.

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



Source: NFI 2003 State of the Forests report.

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.

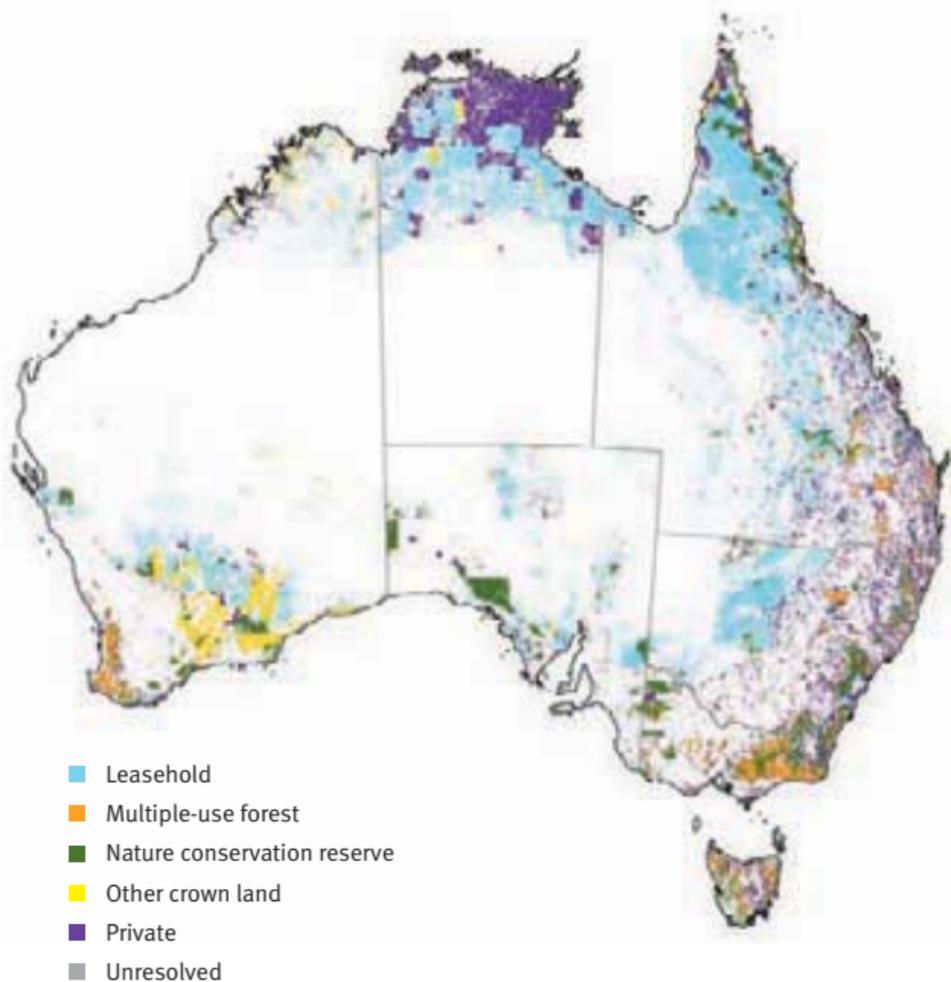
13% of forested land is under Indigenous ownership, mostly in the Northern Territory, South Australia and Western Australia.

Native forest area in 2003 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



Source: NFI 2003 State of the Forests report.

Forest biodiversity

- Australia is one of the world's 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 noted for high flora and fauna species richness.
- There are 16 532 plants and 3 817 animal species that have been identified as forest-dependent. The number of recognised species is increasing over time due to more comprehensive research and reporting.



Forest in protected areas

- In 2003 nearly 21.5 million hectares or 13% of Australia's forest estate was formally protected in Nature Conservation Reserves. The area of formal reserves increased from 10% in 1998 to 13% in 2003. Forests are also conserved within leasehold land, multiple-use forest and 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 forests were in Nature Conservation Reserves in 2003 and this has increased since then. The next national assessment will be in 2008.
- Codes of forest practice and other regulatory mechanisms also provide for conservation of forest biodiversity and protection of other values such as water quality.



Contribution to global carbon

- Carbon exists in the atmosphere, in oceans and on land in vegetation and soil.
- Forests take up carbon from the atmosphere during photosynthesis and release it during respiration or when 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%.
- Current projections are for approximately 21 Mt carbon per year to be taken up under afforestation and reforestation between 2008–12, and 20 Mt in 2020.

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

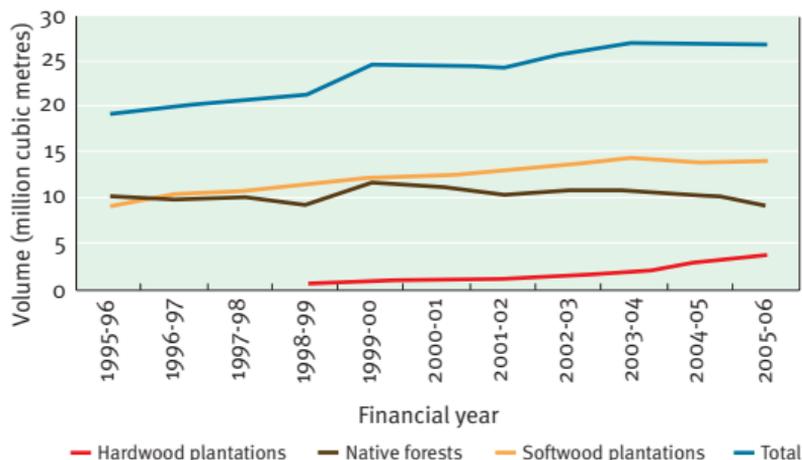


Forest products

About 27.4 million cubic metres of logs were harvested from Australia's forests and plantations in 2004-5. Of that total, 62% was harvested from plantations and 38% from native forests.

The National Forest Inventory estimates that timber products are harvested from less than 1% of native forests each year. In addition, non-wood products (for example, honey, wildflowers, tree ferns, game animals) are harvested for commercial use.

Volume of logs harvested annually



Australia's plantation forests

Australia has nearly 1.74 million hectares of commercial forest plantations. Governments and industry organisations share a goal of expanding this to three million hectares by 2020. Progress towards that goal is supported by the strategy “Plantations for Australia: The 2020 Vision” (www.plantations2020.com.au).

Plantation establishment began in Australia in the 1870s. About 200 000 hectares had been established by 1960 and over 90% of that was introduced pines. From the 1960s to the 1980s, the area of pine plantations increased rapidly due to government investment. The total area in 1990 was a little over one million hectares. Since 1990, the hardwood plantation area began to increase rapidly due to private investment while the rate of establishment of new pine plantations has been low.

Softwood plantations provide timber for building and construction and pulp for a wide range of paper products such as tissue and newsprint. Most hardwood plantations are 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. Some hardwood plantations have 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 groups:

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

Area of plantation

- There were 1.74 million hectares of plantation in Australia in 2005. Of this total, 740 000 hectares (42%) were hardwood species and 990 000 hectares (57%) were softwood species.

➔ Did you know that:

- Plantations provide over two thirds of the sawlogs produced in Australia, yet comprise 1% of the forest area.

Plantation area by State and species group, 2005



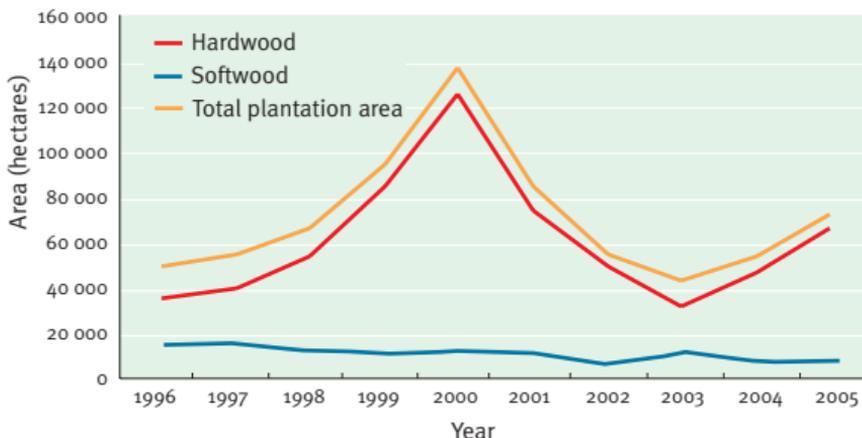
Plantation area by species group, 2005.

State	Hardwoods	Softwoods	Mixed or unknown	Total
Western Australia	270 813	104 480	2 305	377 598
Northern Territory	14 090	2 239	0	16 329
South Australia	42 341	124 163	457	166 962
Queensland	37 496	186 033	2 108	225 637
New South Wales	55 196	273 606	2 821	331 623
Australian Capital Territory		9 500	0	9 500
Victoria	164 724	218 412	1 463	384 599
Tasmania	155 500	71 600	100	227 200
Total	740 161	990 034	9 255	1 739 450

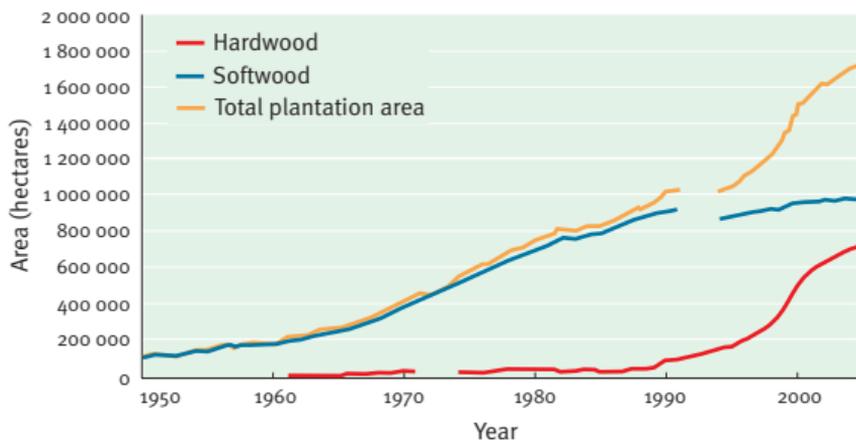
Plantation expansion

The plantation area has been expanding steadily for many years. An average of over 70,000 hectares per year of new plantations was established in the ten years to 2005.

New areas of plantation by species group



Australian plantation area by year and species group



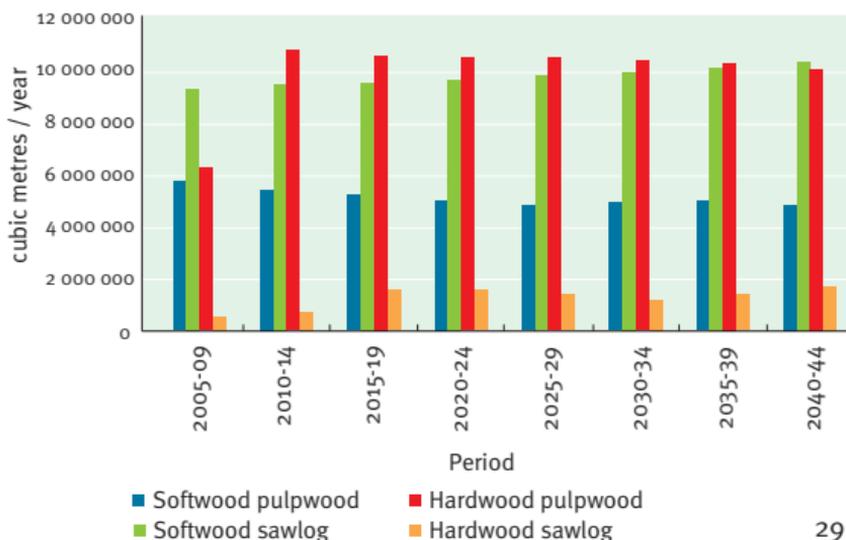
Future wood availability from plantations

Australia's plantations currently produce about 66% of logs used to make the 22 million cubic metres of timber and paper products consumed by Australians each year. The balance of the products comes from native forests and imports.

The potential supply of softwood plantation sawlogs and pulpwood is fairly stable, while consumption of products made from hardwood is expected to increase.

The potential log supply from hardwood plantations is increasing rapidly due to the large areas established from the mid 1990s. The vast majority of those plantations are managed to produce pulpwood for paper making.

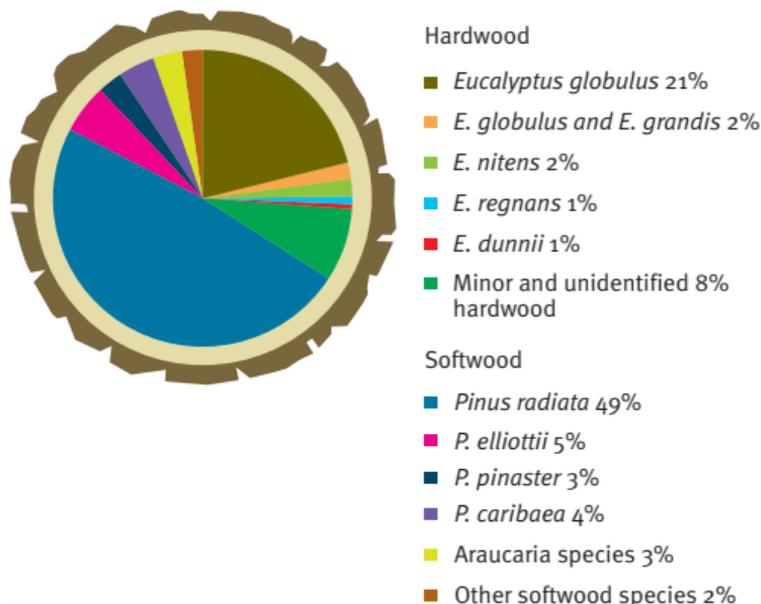
National forecast of plantation wood availability in 2002



Types of plantations

Most plantations established in Australia until the 1990s were softwoods selected to produce sawn timber. The softwood plantation area is now not increasing much except in Western Australia where maritime pine (*Pinus pinaster*) is being planted on farmland to help control salinity. In some regions the softwood area has declined in the past few years due to replanting with hardwood species or a change of land use. The emphasis since 1990 has been on eucalypts established on farmland and managed to produce woodchips for paper manufacture with a minor interest in sawlog production.

Common plantation species



Types of plantations

Region	Main species	Main uses
Tropical – high rainfall	Mangium	Paper products
Sub-tropical – medium rainfall	Flooded gum, Dunn’s white gum	Paper products
Temperate – medium to high rainfall	Blue gum, shining gum	Paper products
Tropical – high rainfall	African mahogany, teak, some native species	Sawn timber for furniture, flooring and other high value uses
Several regions	Various eucalypts	Sawn timber for building and furniture
Temperate – medium rainfall	Radiata pine	Sawn timber for building, joinery, furniture, plywood, other high value uses,
Tropical, sub-tropical – medium rainfall	Caribbean pine, slash pine and hybrids	posts and poles; residues are used for paper, particleboard and other panels
Temperate – low to medium rainfall	Maritime pine	
Tropical, sub-tropical – high rainfall	Hoop pine	

Plantation forest ownership

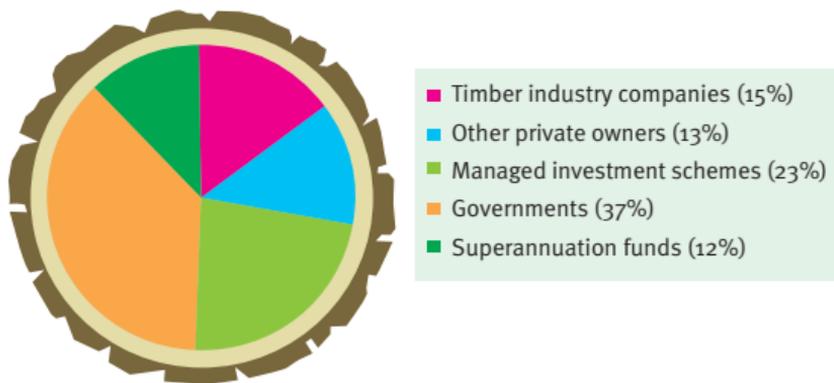
State governments were the major plantation owners in the early 1990s. Since then, most of the investment in new plantations has been by the private sector. The Victorian and Tasmanian Governments have sold plantations to private investors. Private ownership of plantations has therefore increased from about 30% in 1990 to 46% in 1999, when it was equal to public ownership, to over 57% in 2005. Public ownership is at 37% and about 6% is jointly owned.

The main groups of plantation owners are:

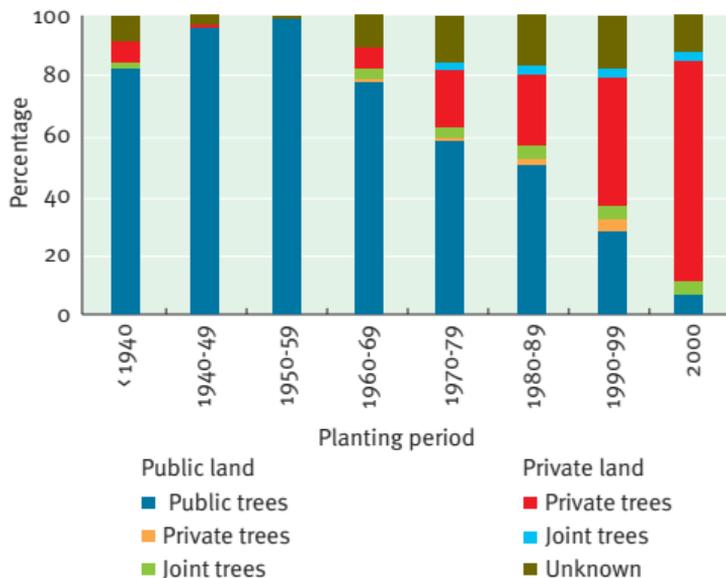
- Governments
- Managed investment schemes
- Superannuation funds
- Timber industry companies
- Farm foresters and other private owners

The approximate proportion owned by each of these groups is shown in the pie chart opposite.

Who owns the plantations

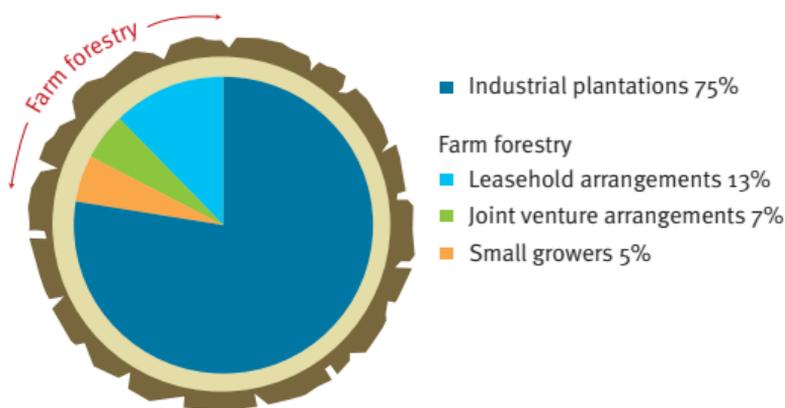


Past plantation ownership



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 83 000 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.
- 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 – 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) – announced in 2005, 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.



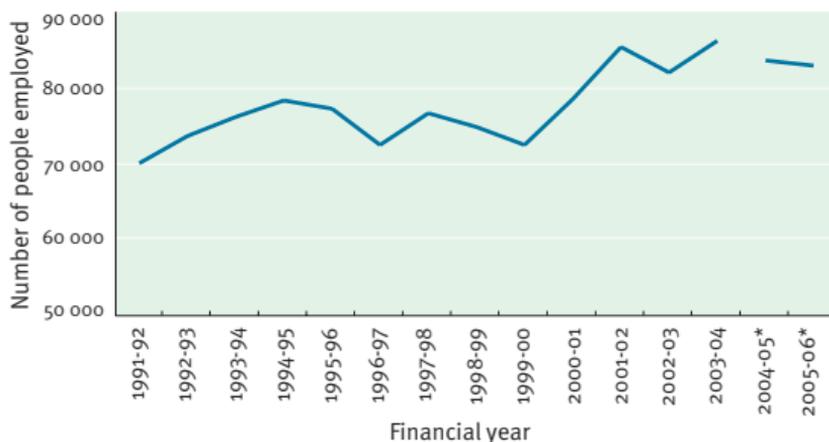
Contribution of the forest industry to the economy

- The value of primary forest production, such as logs delivered at the mill door, was \$1.7 billion in 2005-06. The value of turnover in forest product industries for 2003-04 was \$18.6 billion.

Investment

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

Employment



Source: ABS. Note - *different data collection methods were used before 2004 and so are not directly comparable with 2005-06.

- It is estimated that 66 of the 1 353 Australian Bureau of Statistics 'statistical local areas' are economically dependent on the timber industry.

Forest products production

	2002-03	2003-04	2004-05	2005-06
Sawnwood (cubic metres)				
Coniferous	3 088 000	3 415 000	3 456 000	3 596 000
Broadleaved	1 323 000	1 253 000	1 231 000	1 188 000
Total	4 411 000	4 668 000	4 687 000	4 784 000
Wood based panels (cubic metres)				
Plywood	219 300	145 900	156 000	145 000
Particleboard	1 024 700	1 048 000	943 800	1 001 700
Medium density fibreboard	786 200	794 900	794 200	797 800
Total	2 030 200	1 988 800	1 894 000	1 944 000
Paper and paperboard (tonnes)				
Newsprint	412 000	422 000	423 000	NA
Printing and writing papers	564 000	585 000	604 000	NA
Household and sanitary products	194 000	200 000	195 000	NA
Packaging and industrial products	1 892 000	1 956 000	1 885 000	NA
Total	3 061 000	3 164 000	3 107 000	NA

Source: ABARE

Forest products trade summary

	2002-03	2003-04	2004-05	2005-06
Exports	\$m	\$m	\$m	\$m
Roundwood	107	114	73	82
Sawnwood	69	72	99	119
Railway sleepers	4	4	4	4
Miscellaneous forest products	53	49	65	60
Wood based panels	185	149	150	151
Paper and paperboard	626	630	622	593
Manufactured paper products**	157	136	116	116
Wastepaper	50	53	97	140
Pulp	2	1	4	6
Woodchips	808	794	858	839
Total	2 060	2 002	2 089	2 110

Source: ABARE

→ Did you know that:

- Australia's trade deficit in forest products is around \$2 billion each year.

Imports

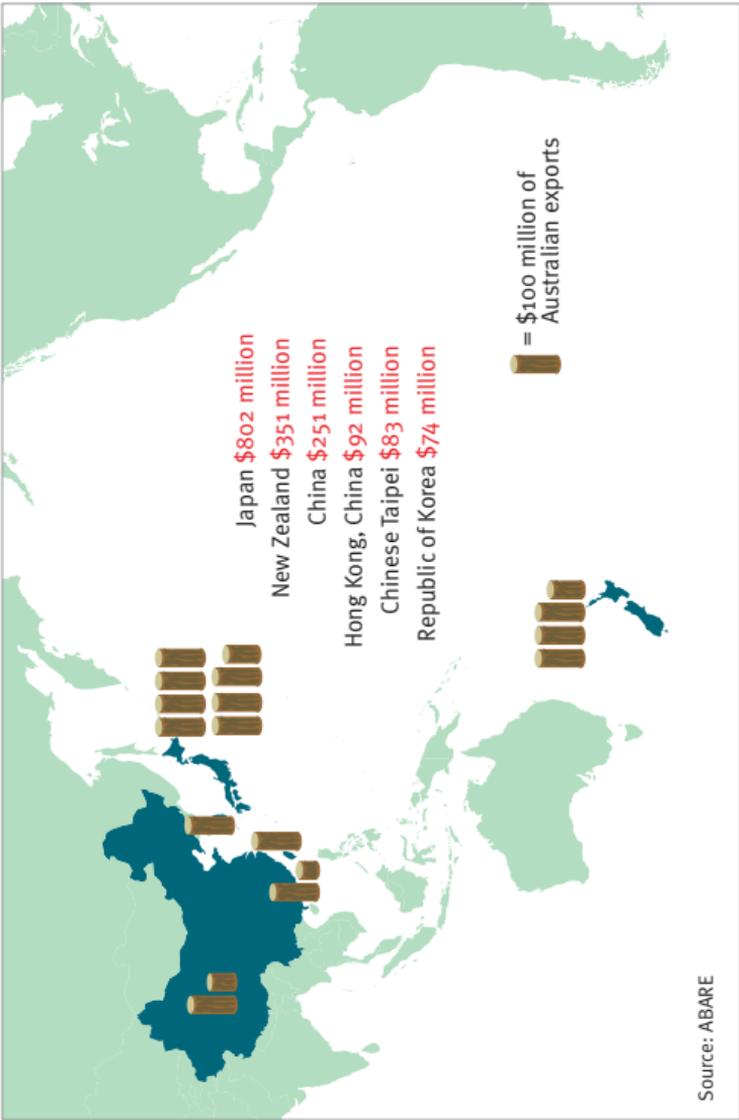
	2002-03	2003-04	2004-05	2005-06
	\$m	\$m	\$m	\$m
Roundwood	2	1	1	<1
Sawnwood	505	502	492	419
Miscellaneous products*	589	584	586	528
Wood based panels	206	193	219	232
Printing and writing papers	1 446	1 423	1 443	1 432
Other papers and paperboard	665	680	695	718
Manufactured paper products**	410	375	442	463
Paper pulp	254	235	225	225
Other products	10	6	4	4
Total	4 087	3 999	4 107	4 021

Source: ABARE

* Miscellaneous products include cork, doors, mouldings, carpentry products, wine barrels, parquet panels and household items.

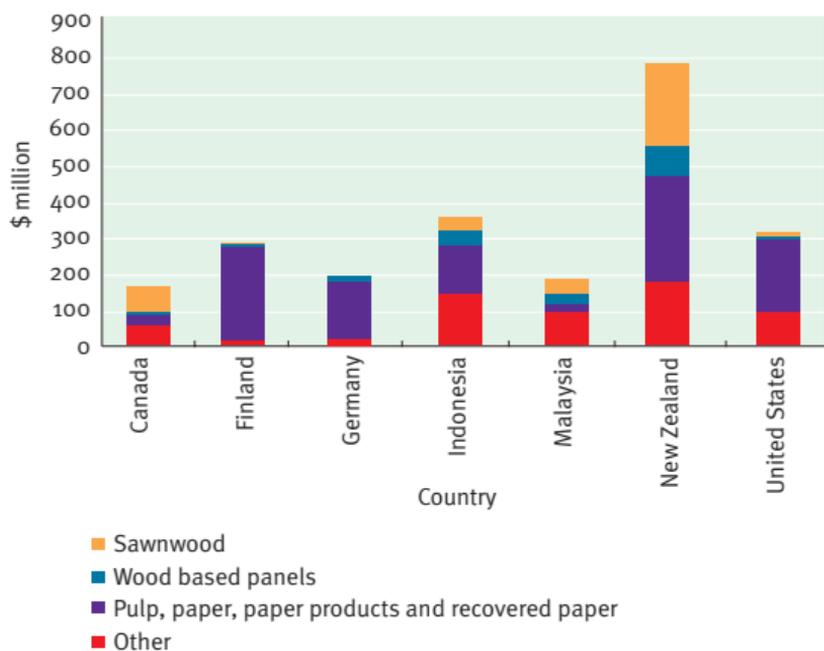
** Manufactured paper products include items such as paper bags, note books and pads.





Source: ABARE

Top import countries – 2004-05



Source: ABARE

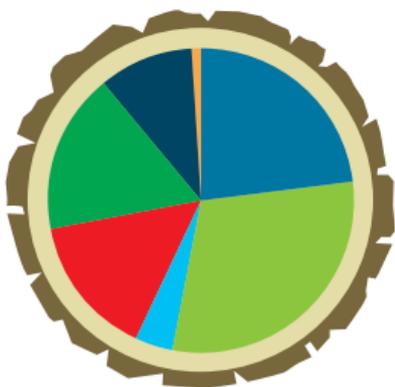
Number of major wood processing facilities

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	Approx No. facilities
Chip	23
Pulp	1
Pulp/paper	7
Paper	14
Hardboard	2
Log export	12
Medium density fibreboard	6
Particleboard	9
Plywood/veneer	13
Posts/poles	27

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%





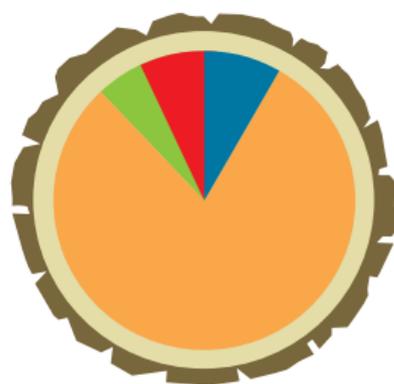
State and Territory summary



Australian Capital Territory

Population	322 900
Total forest cover	55%
Australia's native forest	0.1%
Australia's plantation forest	0.5%
Australia's land area	0.03%
Total land area	240 000 hectares

Australian Capital Territory forest area by tenure (hectares)

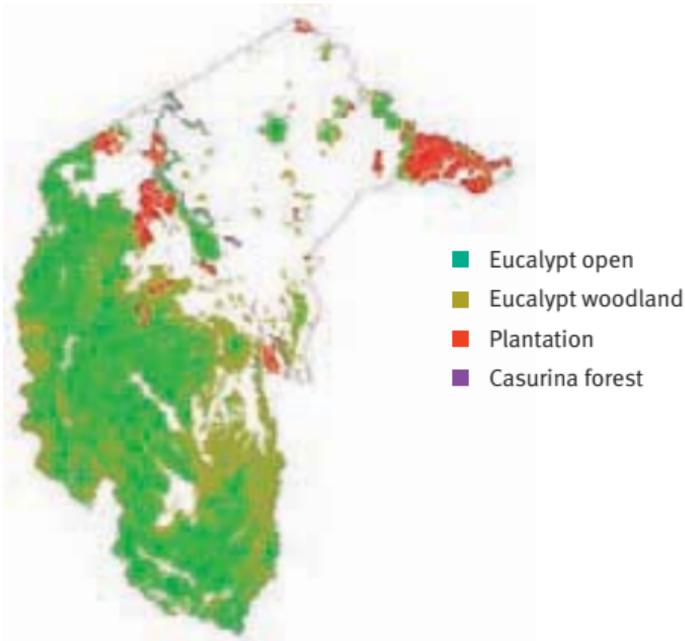


■ Leasehold land	8 000
■ Multiple-use forests	0
■ Nature conservation reserves	108 300
■ Unresolved tenure	0
■ Other crown land	6 500
■ Private land	0
Total native forest	122 800
■ Plantations – all tenures	9 500
Total forest	132 300

→ Did you know that:

In 2006 the ACT embarked on a strategy to convert burnt pine plantations to native vegetation in the catchments of the Cotter dam, one of Canberra's main water supplies.

Australian Capital Territory forests by type

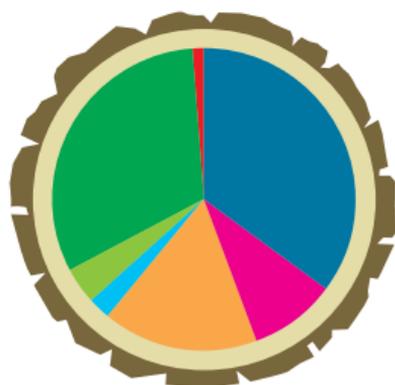


Source: NVIS, 2005.

New South Wales

Population	6 686 600
Total forest cover	34%
Australia's native forest	16.4%
Australia's plantation forest	19.1%
Australia's land area	10.4%
Total land area	80 160 000 hectares

New South Wales forest area by tenure (hectares)

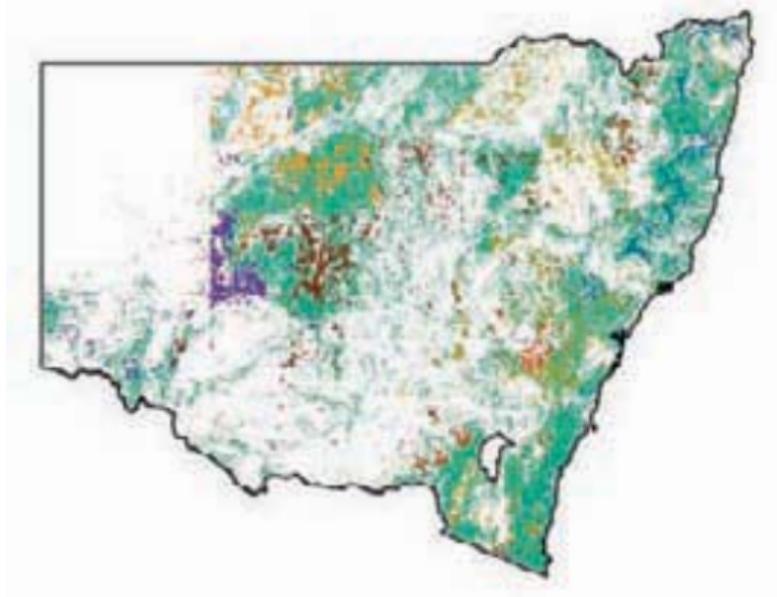


■ Leasehold land	9 470 000
■ Multiple-use forests	2 496 000
■ Nature conservation reserves	4 471 000
■ Unresolved tenure	643 000
■ Other crown land	1 055 000
■ Private land	8 523 000
Total native forest	26 658 000
■ Plantations – all tenures	332 000
Total forest	26 990 000

→ Did you know that:

Forests NSW is the largest plantation owner in Australia.

New South Wales forests by type



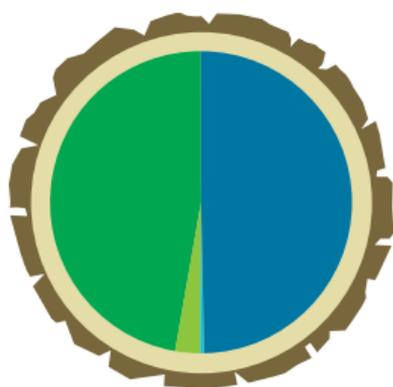
- | | |
|----------------------------|--------------------|
| ■ Acacia forest | ■ Plantation |
| ■ Callitris forest | ■ Mangrove forest |
| ■ Casuarina forest | ■ Melaleuca forest |
| ■ Eucalypt open forest | ■ Other forests |
| ■ Eucalypt woodland forest | ■ Rainforest |
| ■ Eucalypt mallee forest |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

Source: NFI 2003 State of the Forests report.

Northern Territory

Population	198 400
Total forest cover	24%
Australia's native forest	20.2%
Australia's plantation forest	0.9%
Australia's land area	17.5%
Total land area	134 620 000 hectares

Northern Territory forest area by tenure (hectares)

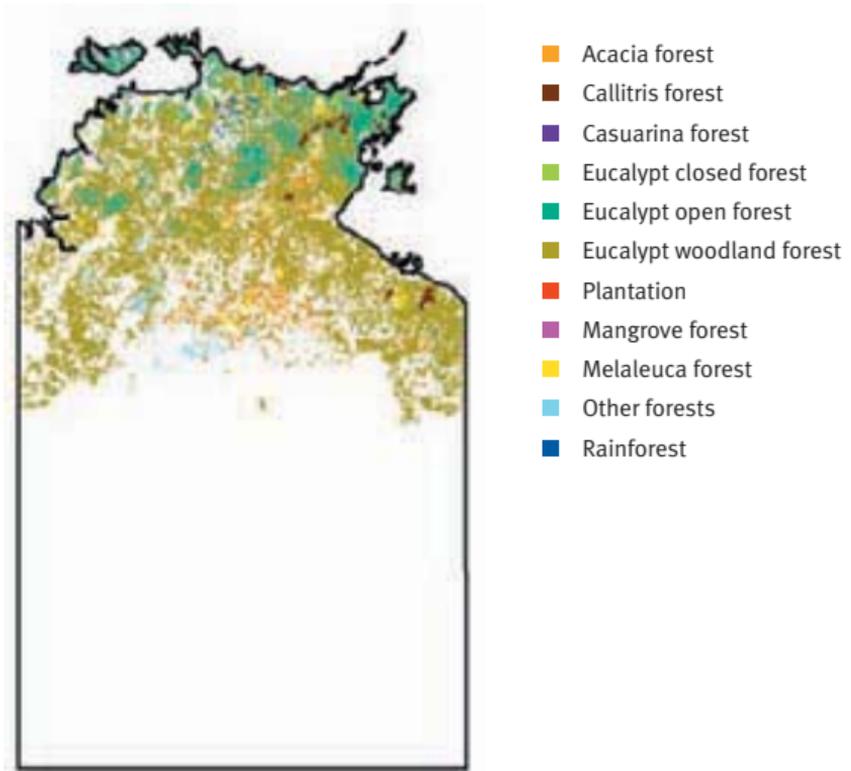


■ Leasehold land	16 313 000
■ Multiple-use forests	0
■ Nature conservation reserves	12 000
■ Unresolved tenure	110 000
■ Other crown land	890 000
■ Private land	15 511 000
Total native forest	32 836 000
■ Plantations – all tenures	16 000
Total forest	32 852 000

→ 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

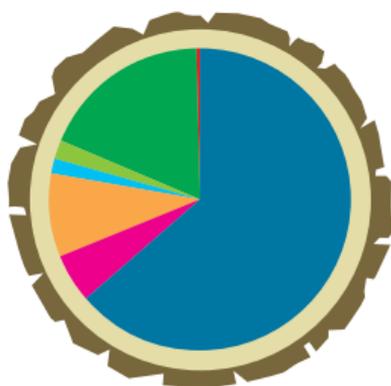


Source: NFI 2003 State of the Forests report.

Queensland

Population	3 796 800
Total forest cover	32%
Australia's native forest	34.3%
Australia's plantation forest	13%
Australia's land area	22.5%
Total land area	172 720 000 hectares

Queensland forest area by tenure (hectares)

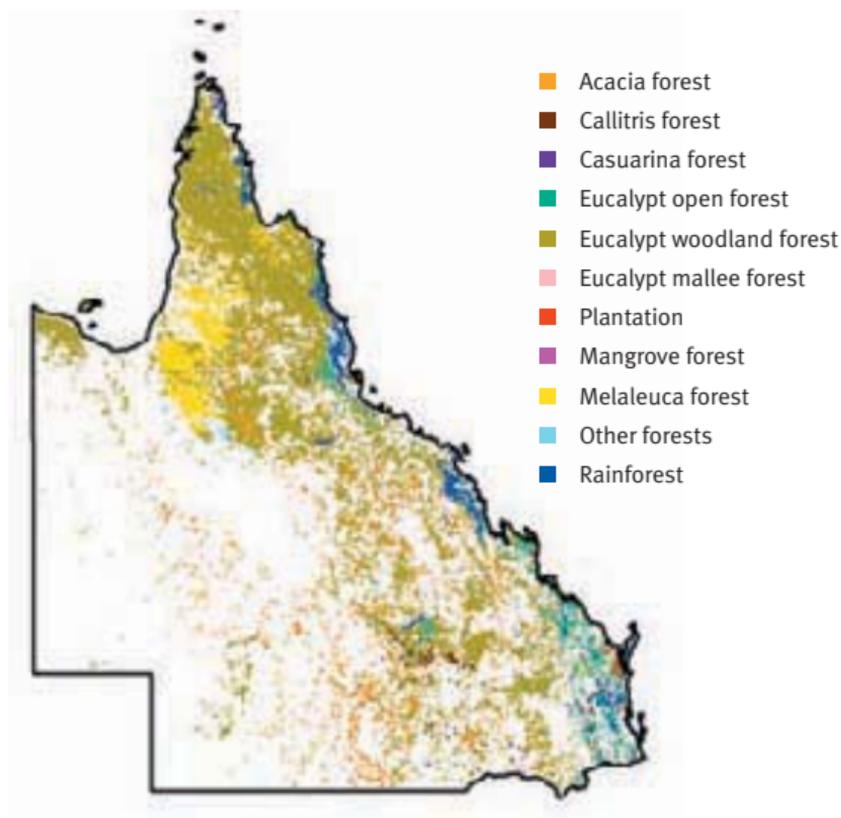


■ Leasehold land	35 581 000
■ Multiple-use forests	2 925 000
■ Nature conservation reserves	5 000 000
■ Unresolved tenure	883 000
■ Other crown land	1 131 000
■ Private land	10 213 000
■ Total native forest	55 733 000
■ Plantations – all tenures	225 000
■ Total forest	55 958 000

→ Did you know that:

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

Queensland forests by type

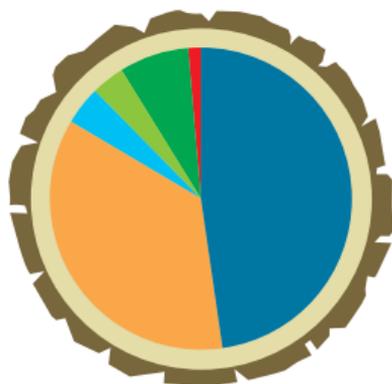


Source: NFI 2003 State of the Forests report.

South Australia

Population	1 527 400
Total forest cover	11%
Australia's native forest	6.6%
Australia's plantation forest	9.2%
Australia's land area	12.7%
Total land area	98 400 000 hectares

South Australia forest area by tenure (hectares)

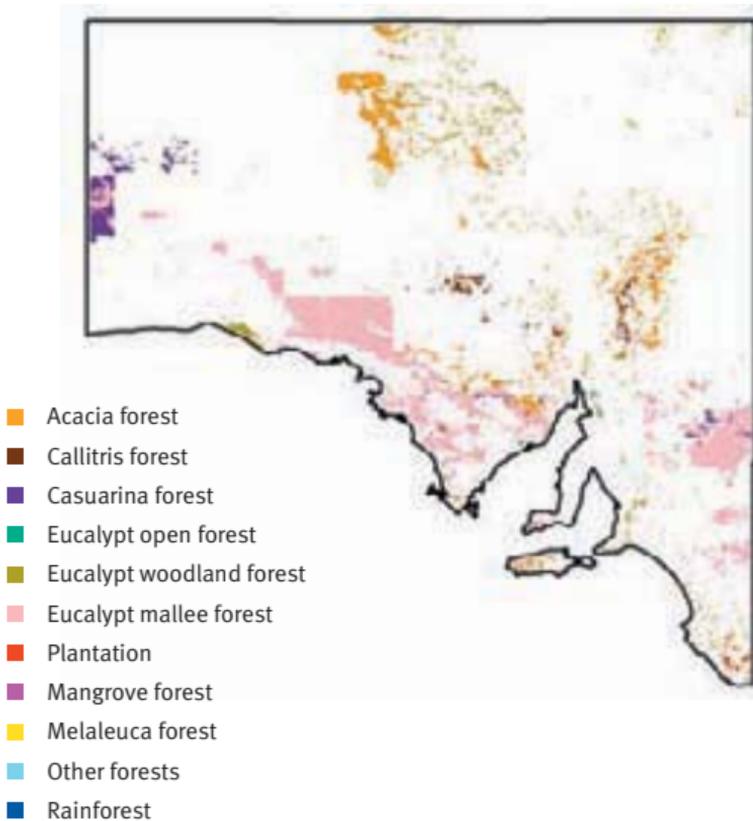


■ Leasehold land	5 255 000
■ Multiple-use forests	0
■ Nature conservation reserves	3 943 000
■ Unresolved tenure	454 000
■ Other crown land	392 000
■ Private land	822 000
■ Total native forest	10 866 000
■ Plantations – all tenures	167 000
■ Total forest	11 033 000

→ Did you know that:

All South Australian wood production is from plantations.

South Australia forests by type

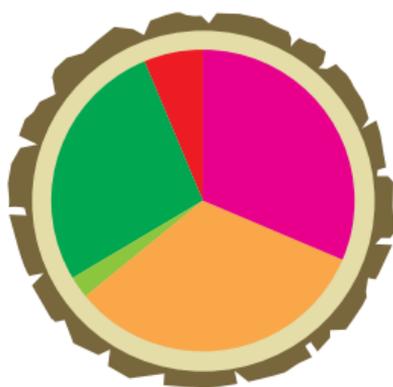


Sources: Plantation areas from NPI 2006, and native forest data and map from NFI 2003 State of the Forests report.

Tasmania

Population	482 100
Total forest cover	50%
Australia's native forest	2.0%
Australia's plantation forest	13.1%
Australia's land area	0.9%
Total land area	6 780 000 hectares

Tasmania forest area by tenure (hectares)¹



■ Leasehold land	0
■ Multiple-use forests	1 128 000
■ Nature conservation reserves ²	1 122 000
■ Unresolved tenure	0
■ Other crown land	85 000
■ Private land	885 000
■ Plantations – all tenures	237 000
Total native forest	3 116 000
Total forest	3 353 000

1 Forest extent as at the first quarter of 2005 and tenure is as 30 June 2006.

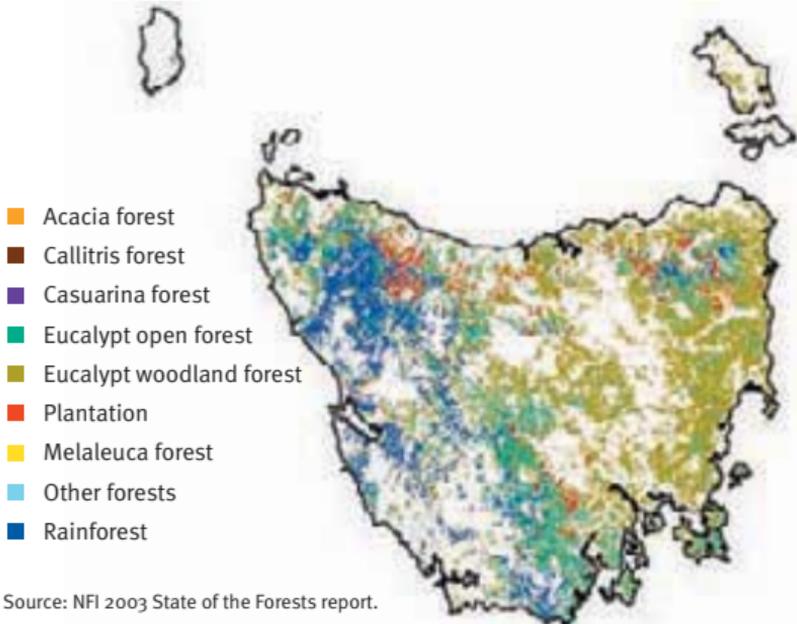
2 Includes new reserves estimated under the Tasmanian Community Forest Agreement.

Source: Tasmanian Forest Practices Authority 2007.

➔ Did you know that:

47% of Tasmania's native forests are protected in the Comprehensive, Adequate and Representative (CAR) Reserve System. As a result of the Tasmanian Community Forest Agreement between the Australian and Tasmanian Governments signed in May 2005, 147 000 hectares of public land has been added to the reserve system and up to 45 000 hectares of private land is expected to be added when fully implemented. This will bring the total of old growth reserved to almost 1 000 000 hectares, with 44% of Tasmania's land protected in conservation reserves.

Tasmania forests by type

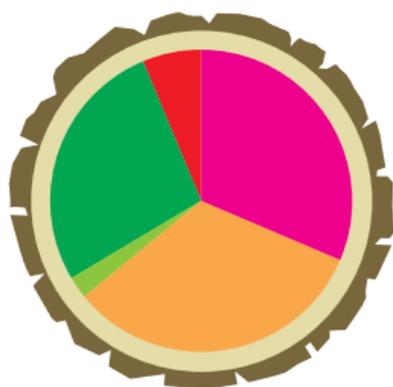


Source: NFI 2003 State of the Forests report.

Victoria

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

Victoria forest area by tenure (hectares)

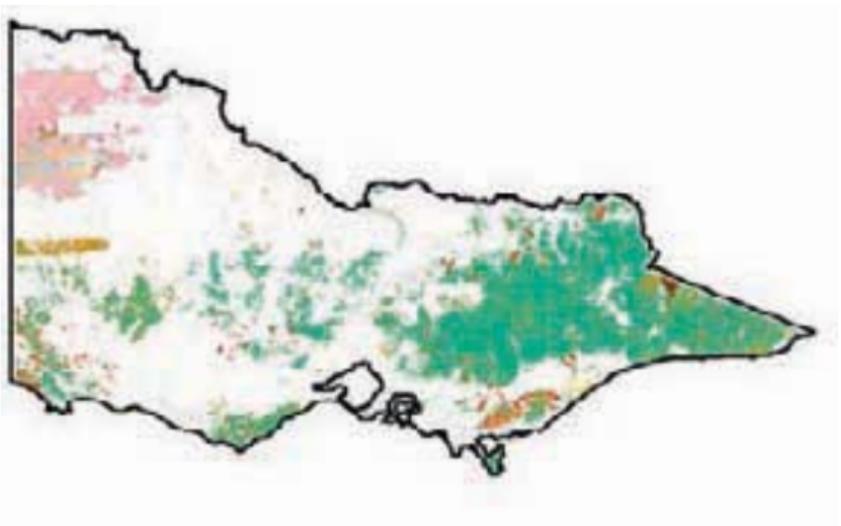


■ Leasehold land	46 000
■ Multiple-use forests	3 163 000
■ Nature conservation reserves	3 202 000
■ Unresolved tenure	20 000
■ Other crown land	207 000
■ Private land	1 298 000
■ Total native forest	7 936 000
■ Plantations – all tenures	385 000
■ Total forest	8 321 000

➔ Did you know that:

Victoria has the largest plantation forest area of any state or territory (385 000 hectares).

Victoria forests by type



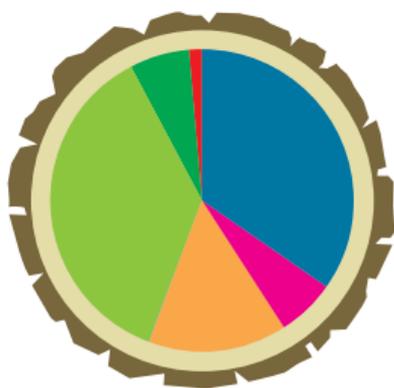
- | | |
|----------------------------|--------------------|
| ■ Acacia forest | ■ Plantation |
| ■ Callitris forest | ■ Mangrove forest |
| ■ Casuarina forest | ■ Melaleuca forest |
| ■ Eucalypt open forest | ■ Other forests |
| ■ Eucalypt woodland forest | ■ Rainforest |
| ■ Eucalypt mallee forest |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

Source: NFI 2003 State of the Forests report.

Western Australia

Population	1 952 300
Total forest cover	10%
Australia's native forest	15.6%
Australia's plantation forest	21.7%
Australia's land area	33.0%
Total land area	252 550 000 hectares

Western Australia forest area by tenure (hectares)



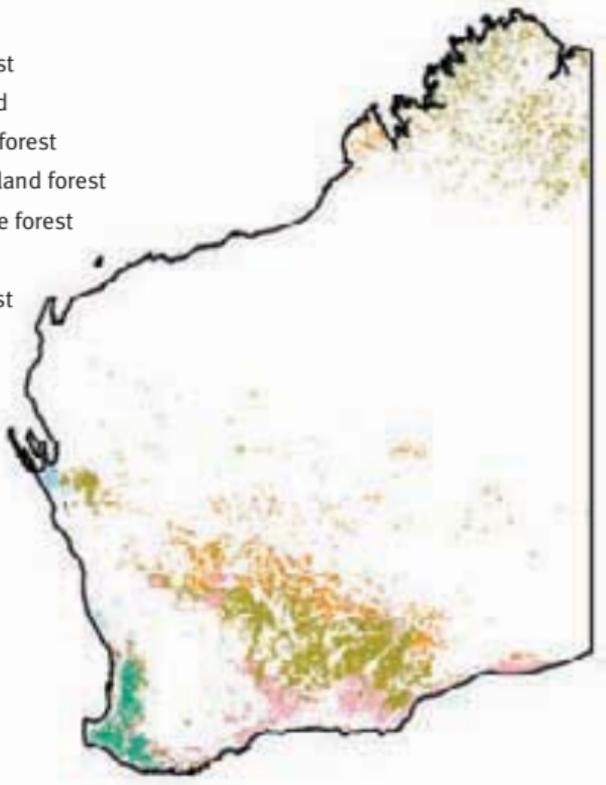
■ Leasehold land	8 920 000
■ Multiple-use forests	1 600 000
■ Nature conservation reserves	3 805 000
■ Unresolved tenure	14 000
■ Other crown land	9 387 000
■ Private land	1 639 000
■ Total native forest	25 365 000
■ Plantations – all tenures	378 000
■ Total forest	25 734 000

→ 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



Source: NFI 2003 State of the Forests report.

International comparison

→ Did you know that:

Australia has 4% of the world's forests and is the country with the sixth largest forest area.

Forest area 2005

Country	Forest area (hectares)	Area/person
Russian Federation	808 790 000	5.7
Brazil	477 698 000	2.5
Canada	310 134 000	9.5
United States of America	303 089 000	1.0
China	197 290 000	0.2
Australia¹	163 678 000	7.9
Dem. Rep. of the Congo	133 610 000	2.3
Indonesia	88 495 000	0.4
Peru	68 742 000	2.4
India	67 701 000	0.1
Others	1 333 000 000	2.6

Source: FAO *Global Forest Resources Assessment 2005*

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 2% of the world's plantation forests in 2005.

Plantation forest area 2005

Country	Plantation area (hectares)
1 China	28 530 000
2 United States of America	17 061 000
3 Russian Federation	11 888 000
4 Brazil	5 384 000
5 Sudan	4 728 000
6 Indonesia	3 399 000
7 Chile	2 661 000
8 Thailand	1 997 000
9 France	1 968 000
10 Turkey	1 916 000
11 United Kingdom	1 902 000
12 New Zealand	1 832 000
13 Viet Nam	1 792 000
14 Australia¹	1 766 000
15 Malaysia	1 573 000
16 Spain	1 471 000
17 South Africa	1 426 000
18 Republic of Korea	1 364 000
19 Argentina	1 229 000
20 Portugal	1 067 000

Source: FAO *Global Forest Resources Assessment 2005*

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 2005 (cubic metres)

Country

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 fourth largest area of forest in conservation reserves with over 21.5 million ha in reserves in 2003. The area of forest reserved in Australia has increased since then but global figures have not been compiled.

Forest in conservation areas¹

Country	Total forest area	Total forest conservation area (ha)	Conservation as % of total forest
United States of America	303 089 000	60 012 000	20%
Brazil	477 698 000	38 694 000	8%
Venezuela	47 713 000	29 534 000	62%
Australia	163 678 000	21 491 000	13%
Peru	68 742 000	18 492 000	27%
Central African Republic	22 755 000	17 931 000	79%
Indonesia	88 495 000	16 460 000	19%
Russian Federation	808 790 000	16 176 000	2%
Canada	310 134 000	15 197 000	5%
India	67 701 000	14 691 000	22%
Bolivia	58 740 000	11 748 000	20%
Cameroon	21 245 000	10 325 000	49%
Sudan	67 546 000	8 578 000	13%
Colombia	60 728 000	8 563 000	14%

Source: FAO *Global Forest Resources Assessment 2005*

- 1 Note: areas as reported by countries. The nature of protection is not equivalent in all countries.
- 2 Australia's figures include formal conservation tenures. There is a larger area of forest in IUCN categories V and VI and informal reserves that cover 215% of Australia's forests.

More information

More information is available from the National Forest Inventory,
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:

www.daff.gov.au/forests_veg

www.brs.gov.au/plantations

and *Australian forests and wood product statistics
March and June quarters 2006*

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

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Photos throughout by Michael F. Ryan





Australia's Forests

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