



**Australian Government**

**Department of Agriculture**

**ABARES**

# Australia's forests at a glance 2014

with data to 2012–13



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### Australia's forests in summary

Total land area	769.2 million hectares
Total forest area	124.7 million hectares
Forest area as a proportion of land area	16 per cent
Native forest area	122.6 million hectares
Forest area in nature conservation reserves	21.5 million hectares
Forest area protected for biodiversity conservation on public and private land	39.2 million hectares
Native forests available and suitable for commercial wood production	36.6 million hectares
Public native forests available and suitable for commercial wood production	7.5 million hectares
Leasehold and private native forests available and suitable for commercial wood production	29.1 million hectares
Area of industrial plantation forest	2.0 million hectares
Total log volume harvested	22.8 million m <sup>3</sup>
Total industrial plantation log volume harvested	18.9 million m <sup>3</sup>
Total native forest log volume harvested (including cypress pine)	3.9 million m <sup>3</sup>

Total value of imports of wood products	\$4.1 billion
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Total value of exports of wood products	\$2.0 billion
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### Major wood product imports (value)

Paper and paperboard	\$2 043 million
Manufactured paper products	\$446 million
Sawnwood	\$423 million
Wood-based panels	\$311 million

### Major wood product exports (value)

Paper and paperboard	\$712 million
Woodchips	\$611 million
Sawnwood	\$90 million
Wood-based panels	\$51 million

Number of people employed in ABS categories of forestry, logging and wood manufacturing	61 400 people
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Forest product manufacturing sales and service income	\$20.1 billion
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Forestry and forest product manufacturing industries contribution to GDP	0.5 per cent
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**ABS** Australian Bureau of Statistics. **GDP** Gross domestic product. Note: Area data are as at 2011 except for industrial plantation area, which is as at 2012–13. Harvest, economic and trade data are as at 2012–13.



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# National overview





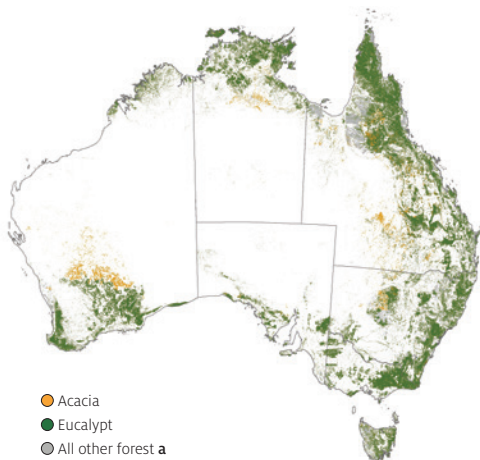
# Forest area

Australia's 124.7 million hectares of forest cover about 16 per cent of the continent. This represents about 3 per cent of the world's forest area on 5 per cent of the world's land area.

Queensland has 41 per cent of Australia's forest (51.0 million hectares), New South Wales has 18 per cent (22.7 million hectares), Western Australia 15 per cent (19.2 million hectares) and the Northern Territory 12 per cent (15.2 million hectares).

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

## Australia's forest cover, by main types, 2011



a Forest classified as 'All other forest' comprises: native forest types Callitris, Casuarina, Mangrove, Melaleuca, Rainforest and 'Other native forest', and the forest categories 'Industrial plantations' and 'Other forest'.  
Source: Forests of Australia 2013

## Australia's forest area, by jurisdiction, 2012–13

Jurisdiction	Total forest area ('000 hectares)	Proportion of national forest area (%)
New South Wales	22 681	18
Victoria	8 191	7
Queensland	51 037	41
South Australia	4 565	4
Western Australia	19 212	15
Tasmania	3 706	3
Northern Territory	15 218	12
Australian Capital Territory	138	0.1
<b>Australia</b>	<b>124 747</b>	<b>100</b>

Note: Totals may not tally because of rounding. Calculations assume that changes in the area of 'Industrial plantations' since 2010–11 have not involved changes in the areas of forest classified as 'Native forest' or 'Other forest'.

Sources: *Australian plantation statistics 2014 update*; *Australia's state of the forests report 2013*

## Change in reported forest area

Australia's forest area is 124.7 million hectares. In contrast, Australia's forest area was reported in *Australia's state of the forests report 2008* (MIG 2008) as 149.2 million hectares. The current, more accurate measure of forest area is the result of:

- better quality data on Australia's forests
- improved resolution of forest mapping data
- improved integration of forest cover data provided by state and territory land management agencies with data sourced from a variety of remote sensing methods.

In some cases, improved resolution resulted in a reduction of reported area. Much of the less dense woodland forest on private or leasehold land is now classified as other woody non-forest vegetation because its canopy cover is less than 20 per cent. Reduction in reported area has not occurred for rainforest, multiple-use public forest or forest in any of the Regional Forest Agreement regions.

## Change in forest area over time

The best estimate of actual change in forest cover over time is derived from the annual forest area data published in the *National Inventory Report 2012* (Department of the Environment 2014a). Based on these data, the net gain in forest cover from 2005 to 2012 was estimated at 1.6 million hectares.

# Type and class of forest

Australia's forests are classified nationally into three categories: 'Native forest', 'Industrial plantations' and 'Other forest'.

Australia's 'Native forest' category is dominated by the following forest types: Eucalypt (74 per cent of the total forest area), Acacia (8 per cent) and Melaleuca (5 per cent), while only a small area is Rainforest (3 per cent). The primary determinants of forest type distribution are climate and soil properties, followed by fire frequency and intensity.

About half Australia's 'Industrial plantation' area is exotic softwood species (predominantly radiata pine); the other half is mostly native hardwood species (predominantly eucalypts).

The 'Other forest' category comprises a small area of mostly non-industrial plantations and planted forests of various types.

## Australia's forest area, by forest type, 2012–13

Forest type	Area ('000 hectares)	Proportion of national forest area (%)
Acacia	9 807	8
Callitris	2 136	2
Casuarina	1 288	1
Eucalypt	91 989	74
Mangrove	913	1
Melaleuca	6 302	5
Rainforest	3 598	3
Other native forest	6 547	5
<b>Native forest total</b>	<b>122 581</b>	<b>98</b>
Softwood	1 024	1
Hardwood	976	1
Other	12	0.01
<b>Industrial plantations total</b>	<b>2 013</b>	<b>2</b>
<b>Other forest</b>	<b>153</b>	<b>0.1</b>
<b>Total forest</b>	<b>124 747</b>	<b>100</b>

Note: Totals may not tally because of rounding. Calculations assume that changes in the area of 'Industrial plantations' since 2010–11 have not involved changes in the areas of forest classified as 'Native forest' or 'Other forest'.

Sources: *Australian plantation statistics 2014 update*; *Australia's state of the forests report 2013*

## Native forest crown cover

Australia's native forests are classified nationally into three crown cover classes, woodland forest, open forest and closed forest, according to existing or potential crown cover. Crown cover is the proportion of ground area covered by tree canopies.

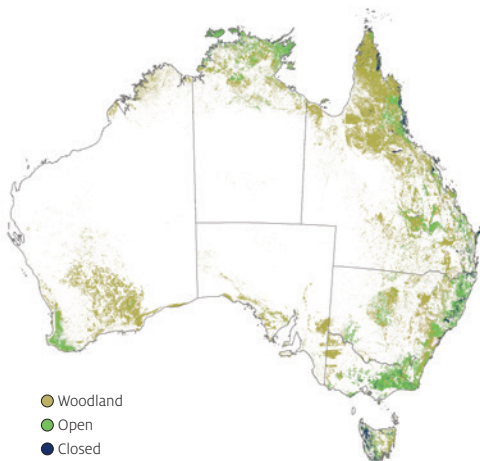
Eucalypt forest types are the largest component of both woodland forest and open forest. The Rainforest forest type is the largest component of closed forest.

### Native forest areas, by crown cover class, Australia, 2011

Crown cover class	Total ('000 hectares)
Woodland (20–50 per cent crown cover)	81 688
Open (>50–80 per cent crown cover)	33 927
Closed (>80–100 per cent crown cover)	3 810
Unknown	3 158
<b>Total native forest</b>	<b>122 581</b>

Note: Totals may not tally because of rounding.  
Source: *Australia's state of the forests report 2013*

## Australia's native forest cover, by crown cover class, 2011



Note: Forest classified in the 'Unknown' forest crown cover class is not visible at this scale and is therefore not included in the legend.

Source: Forests of Australia 2013



## Native forest height

Australia's native forests are classified nationally into three height classes, low forest, medium forest and tall forest, according to existing or potential mature stand height. Most forest height data are collected in forests where wood is harvested.

### Native forest area, by height class, Australia, 2011

Height class	Total ('000 hectares)
Low (2–10 metres)	33 487
Medium (>10–30 metres)	79 992
Tall (>30 metres)	5 944
Unknown	3 158
<b>Total native forest</b>	<b>122 581</b>

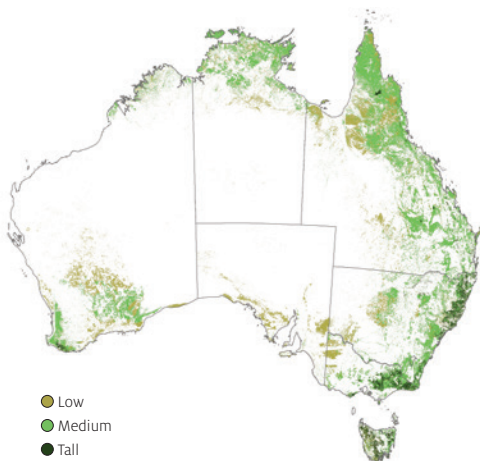
Source: Forests of Australia 2013



#### Did you know?

Medium woodland forest is the largest forest class in all jurisdictions except the Australian Capital Territory, South Australia and Victoria.

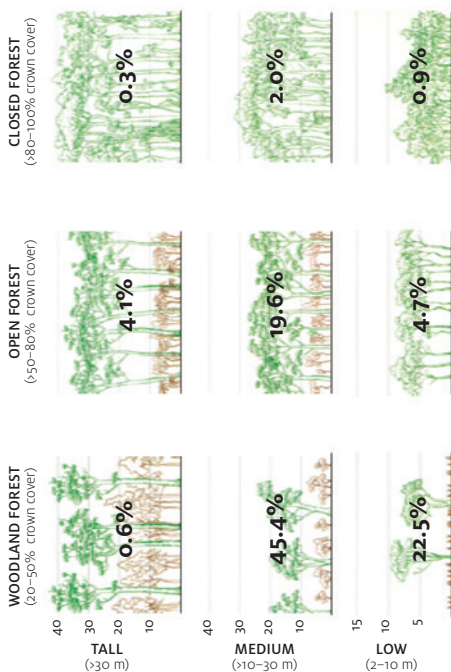
## Australia's native forest cover, by height class, 2011



Note: Forest classified in the 'Unknown' forest height class is not visible at this scale and is therefore not included in the legend.

Source: Forests of Australia 2013

## Native forest crown cover and height classes, and area proportions, Australia, 2011



Note: Percentages are area proportions of each cover class/height class combination in Australia's native forest area excluding that area for which height and cover class is unknown.

Source: Australia's state of the forests report 2013

## Eucalypt mallee forest

Mallee eucalypts are multi-stemmed, with stems arising from a woody base (lignotuber or mallee root). Their deep, extensive root systems can access groundwater.

Mallee forests generally do not exceed six metres in height and have a flattened open or woodland canopy. Most mallee forests are found in drier inland regions of southern Australia, where annual rainfall averages 250–400 millimetres.

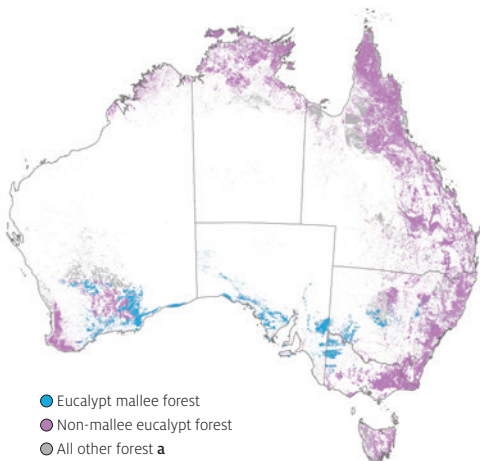
The total area of mallee forest in Australia is 12.1 million hectares. Most mallee forests are in Western Australia (46 per cent of all mallee forests) and South Australia (30 per cent).



### Did you know?

Some eucalypt species can grow in either a mallee formation or a tree formation, depending on environmental conditions.

## Australia's eucalypt mallee and non-mallee forest, 2011



<sup>a</sup> Forest classified as 'All other forest' comprises: native forest types *Acacia*, *Callitris*, *Casuarina*, *Mangrove*, *Melaleuca*, *Rainforest* and 'Other native forest', and the forest categories 'Industrial plantations' and 'Other forest'.  
 Source: Forests of Australia 2013

## Old-growth forests

Of the 23 million hectares of forest in Australia assessed for old-growth status in the 10 Regional Forest Agreement regions, 5 million hectares (22 per cent) was classified as old-growth. In 2011 more than 73 per cent of forest classified as old-growth was in formal or informal nature conservation reserves.

Old-growth forests are ecologically mature forests where the effects of past disturbances are now negligible. These forests generally have a layered structure, with large (diameter and height) overstorey trees, a well-developed understorey of other tree species and shrubs and ecological features such as dead standing trees and large decaying and hollow logs on the forest floor.



### Did you know?

One hundred per cent of old-growth forest managed under Western Australia's Forest Management Plan is protected in either formal or informal reserves.

# Native forest tenure and ownership

Tenure is important in forest management. The owner of the land (and in most cases the forest) has primary responsibility for its management. Six tenure categories are recognised nationally:

- **Multiple-use public forest**—publicly owned state forest on which state and territory government agencies manage a range of forest values including timber harvesting, water supply, conservation, recreation and environmental protection.
- **Nature conservation reserve**—Crown land formally reserved for conservation and recreational purposes including national parks, nature reserves, and state and territory recreation and conservation areas.
- **Other Crown land**—reserved for purposes including utilities, mining, water catchments and use by Indigenous communities.
- **Private land (including Indigenous)**—held under freehold title and typically under private ownership.
- **Leasehold forest**—Crown land held under leasehold title and generally regarded as privately managed, including land with special conditions for designated Indigenous communities.
- **Unresolved tenure**—areas of unknown tenure.

### Native forest area, by tenure type, Australia, 2011

Tenure	Area ('000 hectares)	Proportion of total (%)
Multiple-use public forest	10 159	8
Nature conservation reserve	21 478	18
Other Crown land	8 146	7
Private land (including Indigenous)	33 394	27
Leasehold forest	48 533	40
Unresolved tenure	871	1
<b>Total forest</b>	<b>122 581</b>	<b>100</b>

Note: Totals may not tally because of rounding.

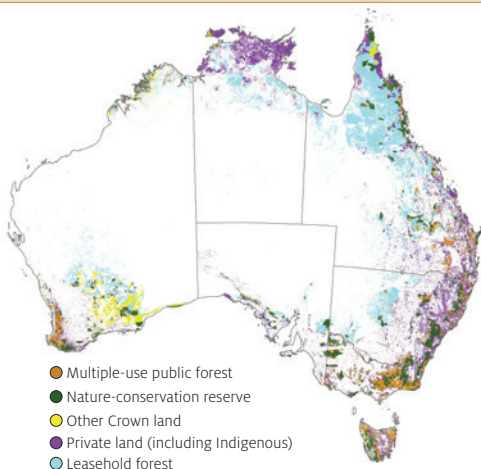
Source: *Australia's state of the forests report 2013*

Publicly managed forests (forests managed by government agencies) include forest on multiple-use public forest, nature conservation reserve and other Crown land tenures.

Privately managed forests include forest on private and leasehold tenures. Of the 124.7 million hectares of forest in Australia, about 67 per cent is privately managed.



## Australia's forest cover, by tenure, 2011



Note: Forest classified as 'Unresolved tenure' is not visible at this scale and is therefore not included in the legend.

Source: Tenure of Australia's forests 2013



### Did you know?

The highest proportion of native forest area under private management is in the Northern Territory (98 per cent) and Queensland (80 per cent), while the lowest proportion is in the Australian Capital Territory (8 per cent) and Victoria (15 per cent).

# Forests in reserves

Thirty-nine million hectares of Australia's native forest (32 per cent of the native forest area) is reported as protected for biodiversity conservation. This comprises areas protected in multiple-use public forests, legally covenanted private land, formal and informal nature conservation reserves and other protected areas on publicly managed land.

According to the National Reserve System—Australia's network of protected areas—nature conservation is the primary management intent in 26.4 million hectares (21 per cent of Australia's forests) (Department of the Environment 2014b).

All the national native forest types in Australia (except Acacia forest) are represented in the National Reserve System at levels above the 10 per cent area proportion target recommended by the International Union for Conservation of Nature.

A total of 21.5 million hectares of Australia's forest area is on nature conservation reserve tenure. This represents 18 per cent of Australia's native forest area. This figure is lower than that listed in the National Reserve System because some reserves are reported

under their formal tenure type, which can be either private, multiple-use public forest, leasehold or other Crown land.



# Indigenous owned or managed forests

The Indigenous forest estate comprises forests owned or managed by Aboriginal and/or Torres Strait Islander peoples.

Around one-third of Australia's forests (41.9 million hectares, 34 per cent by area) are under either 'Indigenous ownership and management', 'Indigenous management', 'Indigenous co-management' or 'Other special rights'.

## Indigenous owned or managed forests, Australia, 2011

Category	Area ('000 hectares)
Indigenous owned and managed	13 542
Indigenous managed	2 400
Indigenous co-managed	5 364
Other special rights <sup>a</sup>	20 622
<b>Total</b>	<b>41 928</b>

<sup>a</sup> Lands subject to native title determination and active Indigenous land use agreements.

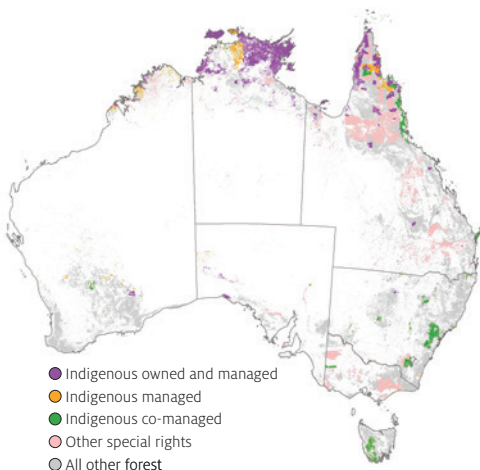
Source: *Australia's state of the forests report 2013*



### Did you know?

Of the 41.9 million hectares of forested land in the Indigenous estate, 31.7 million hectares (76 per cent) is in Queensland and the Northern Territory.

### Forests on the Indigenous estate, Australia, 2011



Source: Australia's Indigenous forest estate 2013

# Forest certification and codes of practice

Forest and chain-of-custody certification assures Australian and international buyers that the forest products they purchase originate from sustainably managed and legally harvested native forests and plantations.

Several private, accredited certification bodies conduct forest and chain-of-custody certification in Australia. They use standards developed under the Australian Forest Certification Scheme (AFCS) or the Forest Stewardship Council (FSC).

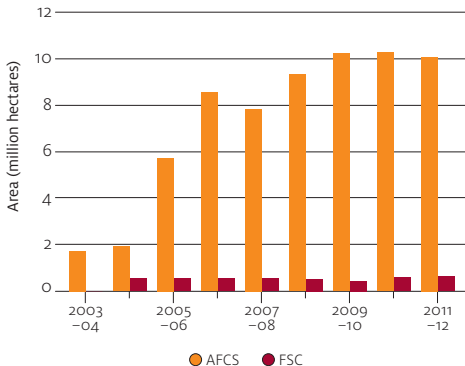
The AFCS uses the Australian Forestry Standard, which was developed by representatives of the Australian community, industry and government and is recognised under the Programme for the Endorsement of Forest Certification. The FSC uses regionally adapted interim standards that comply with its international Principles of Responsible Forest Management.

Both schemes also issue chain-of-custody certificates that identify and track certified wood and wood products through the supply chain. The number of chain-of-custody certificates issued under the AFCS has increased rapidly since 2004–05.

The area of certified native forest and 'Industrial plantation' in Australia is 10.7 million hectares. This includes most public native forests managed for wood production.

Multiple-use public forest and private forest are also managed in accordance with codes of practice. Many forest managers use environmental management systems that comply with and are independently certified to an International Organization for Standardization standard.

### Area of forest for which forest management is certified, Australia, 2003–04 to 2011–12



**AFCS** Australian Forest Certification Scheme. **FSC** Forest Stewardship Council. Note: FSC numbers are for March 2004, January 2005, February 2006, March 2007, January 2008, January 2009, January 2010, January 2011 and January 2012. Some areas of forest have both AFCS and FSC certification. Source: *Australia's state of the forests report 2013*

# Forests, wood products and carbon

During photosynthesis, forests absorb carbon dioxide from the atmosphere and store carbon in biomass, litter and soil organic matter. A significant amount of carbon is also stored in wood products.

At the end of 2010, 13 067 million tonnes of carbon was held in Australia's forests and harvested wood products in service and in landfill (DCCEE 2012). Almost all this carbon (12 841 million tonnes; 98 per cent) was stored in living forest. In 2010, 103 million tonnes of carbon was held in wood and wood products in service, which is an increase of 14 million tonnes from 2000. A total of 123 million tonnes of carbon was held in wood and wood products in landfill in 2010, which is an increase of 13 million tonnes from 2000.

Reductions in national forest carbon stocks are caused by forest clearing for agriculture, urban or industrial development, wood harvest from production forests, and natural disturbance events such as bushfires.

Large increases in carbon stocks occur in forests that are regrowing from past disturbance events such as fire or wood harvesting and following planting events, afforestation and reforestation.



## Carbon stored in Australia's forest lands and harvested wood products, 2010

Carbon pool	Carbon (million tonnes)
<b>Forests</b>	
Production native forests <sup>a</sup>	2 057
Non-production native forests <sup>a</sup>	10 613
Plantations	171
<b>Total</b>	<b>12 841</b>
<b>Harvested wood products</b>	
Wood and wood products in service	103
Wood and wood products in landfill	123
<b>Total</b>	<b>226</b>

<sup>a</sup> As defined for Australia's National Greenhouse Accounts (DCCEE 2012).

Source: *Australia's state of the forests report 2013*

# Fire

Between 2006–07 and 2010–11, the total area of forest burnt in Australia was 39.0 million hectares. Of this, unplanned fires burnt 31.6 million hectares of forest and planned fires burnt 7.4 million hectares of forest.

Fire is an important forest management tool in Australia. Planned fire is fire started in accordance with a fire management plan or planned burning programme. Planned fire is used in fire-adapted forest types for forest regeneration, to promote growth after harvest, to maintain forest health and ecological processes and to reduce fuel loads so subsequent unplanned fires can be more easily managed.

The extent and intensity of forest fires in Australia vary with latitude and with season of rainfall. In northern Australia, where conditions are generally humid, low-intensity fires often burn across large areas. In south-eastern Australia, hot, dry and windy summers often lead to high-intensity bushfires that are difficult to control. Such fires can cause loss of human life and destroy trees, livestock, buildings, fences, bridges and power lines. Bushfires can also lead to soil erosion and degrade stream water quality. The resulting natural regrowth can reduce water yields.

## Total forest area burnt, by jurisdiction, Australia, 2006–07 to 2010–11

Jurisdiction	Area burnt (’000 hectares)	Proportion of total area burnt (%)
New South Wales	1 035	2.7
Victoria	2 511	6.4
Queensland	14 325	37
South Australia	1 211	3
Western Australia	4 272	11
Tasmania	179	0.5
Northern Territory	15 448	40
Australian Capital Territory	5.6	0.01
<b>Australia</b>	<b>38 985</b>	<b>100</b>

Note: Totals may not tally because of rounding. Combined MODIS satellite and state and territory data. Data include some areas (especially in northern Australia) that were burnt more than once during the period. Source: *Australia’s state of the forests report 2013*



### Did you know?

From 2006–07 to 2010–11, the largest areas of forest fire were in the Northern Territory and Queensland, which combined represented 77 per cent of the total area of forest burnt.

# Plantation forests

Plantations are intensively managed stands of native (mainly hardwood) or exotic (mainly softwood) tree species created by regular placement of seeds or seedlings. The primary purpose of 'Industrial plantation' forestry is wood production.

## Area of plantations

Australia's 'Industrial plantations' cover around 2 million hectares, of which about half are softwood species (1 023 800 hectares) and half are hardwood species (976 400 hectares).

In 2012–13 Victoria had the largest area of plantations (433 500 hectares), followed by Western Australia (402 900 hectares) and New South Wales (392 200 hectares). Western Australia had the largest area of hardwood plantations and New South Wales the largest area of softwood plantations.



### Did you know?

In 2012–13 plantations produced 82.7 per cent of total wood supplied by Australia's forests.

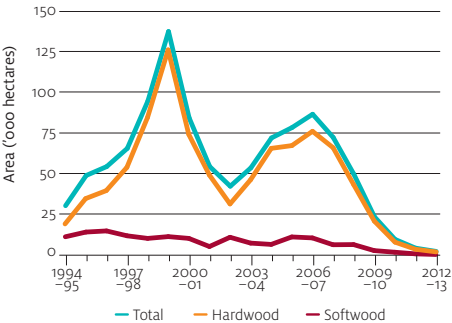
## New plantations

New plantations are those established on land not previously used for plantation forestry. About 2 200 hectares of new plantation area was established in 2012–13. This increase was offset by the removal of 2 300 hectares of existing plantation area that growers either deemed commercially unviable or did not replant at the end of their lease agreement. This resulted in a net decrease in plantation area of around 100 hectares in 2012–13.

The high rate of plantation expansion from 1995–96 to 2007–08 was financed mainly by the managed investment scheme (MIS) sector. The establishment of new plantations declined from a peak of around 137 000 hectares of new plantations established in 1999–2000, to 2 200 hectares in 2012–13.

Institutional investors funded 83 per cent of new plantations established in 2012–13, MIS funded 13 per cent, farm foresters and other private owners 3 per cent and timber industry companies 1 per cent.

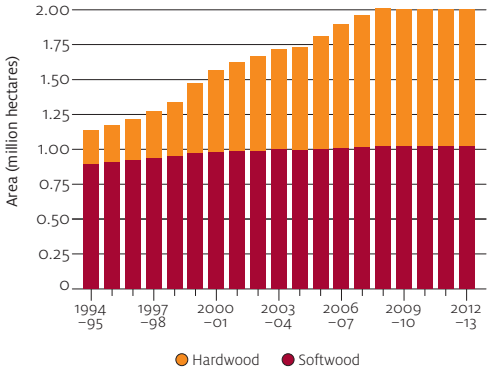
New plantation areas, Australia, 1994–95 to 2012–13



Note: 1994–95 to 2004–05 are calendar years (1994 to 2004) and 2005–06 to 2012–13 are financial years.

Source: *Australian plantation statistics 2014 update*

## Plantation area, by type, Australia, 1994–95 to 2012–13



Note: 1994–95 to 2004–05 are calendar years (1994 to 2004) and 2005–06 to 2012–13 are financial years.

Source: *Australian plantation statistics 2014 update*

## Wood supply from plantations

In 2012–13, 8.1 million cubic metres of sawlog and 4.8 million cubic metres of pulplog were harvested from Australia's softwood plantation estate.

In 2012–13, 69 000 cubic metres of sawlog and 5.4 million cubic metres of pulplog were harvested from Australia's hardwood plantation estate.

## Plantation ownership

Managed investment schemes (MIS) have been involved in the forest plantation industry since the 1980s.

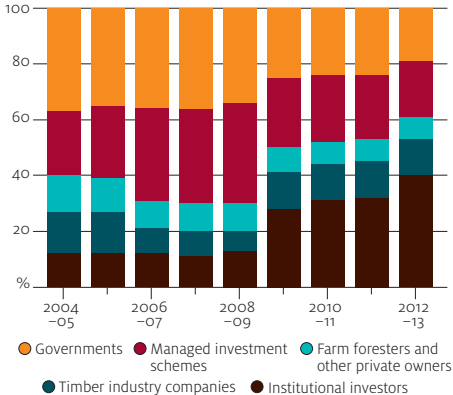
Most MIS plantations (by area) are blue gum grown for woodchips and are located in Western Australia, Victoria and Tasmania. More than 85 per cent (by area) of MIS plantations were established for pulp production.

Plantation ownership has changed substantially in the past 10 years, with private investment managers buying rights to manage and harvest MIS plantations and some public plantations.

In 2012–13 MIS managed around 400 000 hectares (20 per cent) of Australian plantations, compared with around 730 000 hectares (36 per cent) in 2008–09.



## Area proportion of plantation ownership, by owner type, Australia, 2004–05 to 2012–13



Note: 1994–95 to 2004–05 are calendar years (1994 to 2004) and 2005–06 to 2012–13 are financial years.

Source: *Australian plantation statistics 2014 update*

# Native forest wood production

The main source of Australia's native forest timber and wood-based products is multiple-use public native forest in New South Wales, Queensland, Tasmania, Victoria and Western Australia. Private and leasehold forests provide smaller quantities of these products, depending on markets and the objectives and goals of owners and managers.

Substantial areas of multiple-use public native forest are reserved or excluded from wood production. Other areas are not suitable for harvesting because of operational or merchantability constraints.

In 2010–11, 36.6 million hectares of native forest was both available and suitable for commercial wood production. This figure comprised 7.5 million hectares of multiple-use public forests and 29.1 million hectares of leasehold and private forests.

When additional local restrictions to maintain and manage non-wood values are taken into account, the net harvestable area of Australia's multiple-use public native forests was 5.5 million hectares in 2010–11 (14 per cent of public native forests). This is a decline of 4.6 million hectares from the net harvestable area of 10.1 million hectares in 1995–96.

Wood is only harvested from a small portion of the net harvestable area each year (1.4 per cent nationally in 2010–11).

### Net area available for harvesting and area harvested in multiple-use public native forests, by jurisdiction, Australia, 2010–11

State	Net harvestable area (hectares) a	Proportion of total public native forest available (%) b	Total harvest area (hectares)	Proportion of net harvestable area harvested (%)
New South Wales	1 229 000	16	27 484	2.2
Victoria	835 000	13	5 800	0.7
Queensland	2 030 000	22	28 200	1.4
Western Australia	848 000	7	7 390	0.9
Tasmania	563 000	23	10 490	1.9
<b>Total</b>	<b>5 505 000</b>	<b>14</b>	<b>79 364</b>	<b>1.4</b>

**a** Net area of multiple-use public native forest available for wood harvesting after excluding areas legally restricted from wood harvesting, unsuitable for wood harvesting or where wood harvesting is not commercially viable, and areas where additional local management plans or codes of practice do not permit wood harvesting. **b** Public native forest comprises the tenures multiple-use public forest, nature conservation reserve and other Crown land. Note: Harvesting of native forest is not permitted in multiple-use public native forest in the Australian Capital Territory or South Australia. The Northern Territory does not have multiple-use public native forest.

Source: *Australia's state of the forests report 2013*

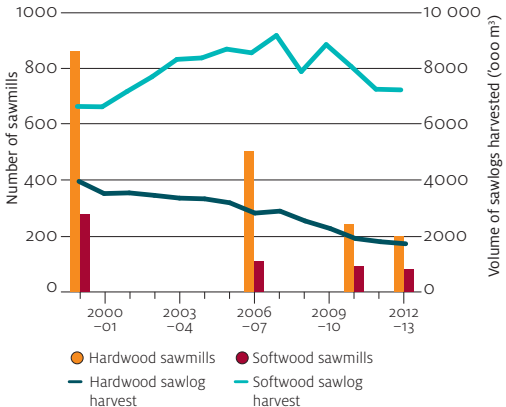
# Wood processing

The volume of hardwood sawlogs processed has declined by 56 per cent since 1999–2000. This is partly because log availability from public native forests (mainly hardwood logs) has declined over this period. Since 1999–2000 sawlog availability from softwood plantations has remained high and the volume of softwood logs processed has increased by 9 per cent.

Softwood mills are now on average larger than they were in 1999–2000: one-third of softwood sawmills have a log input capacity greater than 100 000 cubic metres a year and these mills currently account for 89 per cent of total national softwood sawnwood output.

More than three-quarters of hardwood sawmills have a log input capacity of less than 15 000 cubic metres a year, but these mills accounted for only one-quarter of total hardwood sawnwood output in 2012–13.

## Volume of sawlogs harvested and number of sawmills, Australia, 1999–2000 to 2012–13



Source: ABARES National Wood Processing Survey, 2012–13

In 2012–13 hardwood sawmills employed, on average, around 1.85 people per 1 000 cubic metres of logs processed. Softwood sawmills employed around 0.52 people per 1 000 cubic metres of logs processed. In both sectors, smaller sawmills employed more people per cubic metre processed than larger mills.

## Wood processing

Hardwood sawmills use logs from public native forests (84 per cent of logs), private native forests (13 per cent) and plantations (3 per cent). Smaller hardwood sawmills take a much larger proportion of their logs from private native forest than do larger hardwood sawmills, which usually have allocations from public native forest.

Softwood sawmills (excluding cypress pine mills) source almost all their logs from plantation forests.

Cypress pine mills, which operate only in New South Wales and Queensland, source virtually all their logs from public native forests.

Post and pole mills use logs from plantations (55 per cent), private native forests (37 per cent) and public native forests (8 per cent).

## Number of mills in Australia, by processing capacity and employment, 2012–13

Type	Log intake capacity (m <sup>3</sup> /yr)	Mills (no.)	Average log intake (m <sup>3</sup> /mill)	Recovery rate (%)	Share of national output (%)	Total employment (no.)	Employment per unit input (no./'000 m <sup>3</sup> )
Hardwood	Less than 3 000	81	928	45.3	4.6	350	4.66
	3 000 to less than 15 000	74	5 384	39.8	21.3	1 159	2.91
	15 000 to less than 45 000	38	23 024	38.6	45.3	1 420	1.62
	More than 45 000	7	72 029	42.5	28.8	493	0.98
	<b>Total hardwood</b>	<b>200</b>	<b>9 263</b>	<b>40.2</b>	<b>100</b>	<b>3 422</b>	<b>1.85</b>

continued...

## Number of mills in Australia, by processing capacity and employment, 2012–13

continued

Type	Log intake capacity (m <sup>3</sup> /yr)	Mills (no.)	Average log intake (m <sup>3</sup> /mill)	Recovery rate (%)	Share of national output (%)	Total employment (no.)	Employment per unit input (no./'000 m <sup>3</sup> )
Softwood	Less than 15 000	19	5 693	66.8	1.9	237	2.19
	15 000 to less than 45 000	13	20 866	48.4	3.5	204	0.75
	45 000 to less than 75 000	5	29 736	58.8	2.3	95	0.64
	75 000 to less than 100 000	4	54 904	53.9	3.1	184	0.84
	More than 100 000	20	346 333	48.5	89.1	3 285	0.47
<b>Total softwood</b>		<b>61</b>	<b>125 809</b>	<b>49.1</b>	<b>100</b>	<b>4 004</b>	<b>0.52</b>

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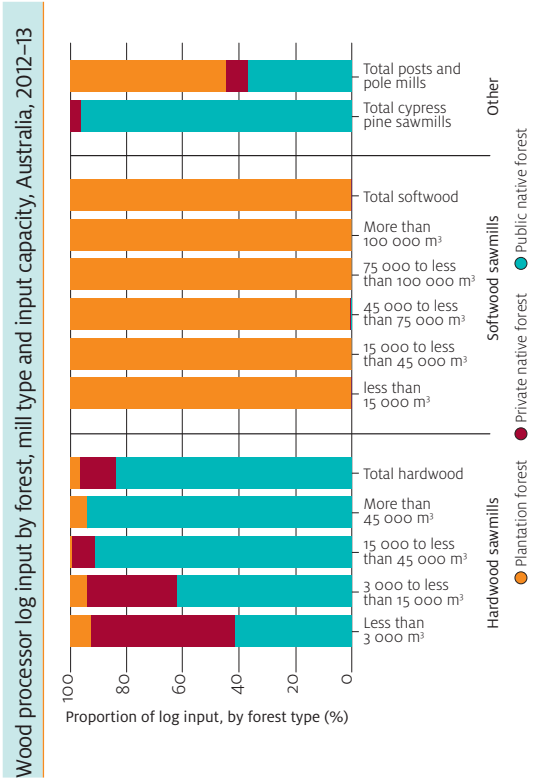


# Number of mills in Australia, by processing capacity and employment, 2012–13

continued

Type	Log intake capacity (m <sup>3</sup> /yr)	Mills (no.)	Average log intake (m <sup>3</sup> /mill)	Recovery rate (%)	Share of national output (%)	Total employment (no.)	Employment per unit input (no./ '000 m <sup>3</sup> )
Total cypress pine		20	9 368	41.8	100	345	1.84
Total post and pole		14	16 693	99.3	100	319	1.36

Source: ABARES National Wood Processing Survey, 2012–13



Source: ABARES National Wood Processing Survey, 2012–13

# Logs and wood products

## Log harvest and domestic production

Log harvest in Australia totalled 22.8 million cubic metres in 2012–13—an 11.6 per cent decline since 2002–03.

In the decade to 2012–13, structural change in the forestry sector led to a 63 per cent decline in harvest of hardwood native forest logs but a 246 per cent increase in harvest of hardwood plantation logs. Softwood plantations continue to provide most of Australia's total log supply—58.6 per cent of Australia's total log harvest in 2012–13 was from these forests.

Domestic sawnwood production showed the same trend as log harvest volumes: hardwood sawnwood production declined by 43.3 per cent in the decade to 2012–13, while softwood sawnwood production increased by 14.7 per cent.

Wood-based panel production has declined by 29.8 per cent over the decade to 2012–13. Wood-based panels include products such as medium-density fibreboard, particleboard and plywood.

Logs harvested, Australia, 2002-03, 2007-08 and 2012-13

Source of logs	2002-03 (‘000 m <sup>3</sup> )	2007-08 (‘000 m <sup>3</sup> )	2012-13 (‘000 m <sup>3</sup> )	10-year change (%)
<b>Native forests</b>				
Sawlogs and veneer logs (including cypress pine)	3 543	2 966	1 905	-46.2
Pulpwood and other logs	6 772	5 974	1 869	-72.4
<b>Total</b>	<b>10 314</b>	<b>8 940</b>	<b>3 774</b>	<b>-63.4</b>
<b>Hardwood plantations</b>				
Sawlogs and veneer logs	153	186	69	-54.8
Pulpwood and other logs	1 441	4 084	5 448	278.1
<b>Total</b>	<b>1 594</b>	<b>4 270</b>	<b>5 518</b>	<b>246.1</b>
<b>Softwood plantations</b>				
Sawlogs and veneer logs	8 557	9 631	8 302	-3.0
Pulpwood and other logs	5 354	5 526	5 234	-2.2
<b>Total</b>	<b>13 911</b>	<b>15 157</b>	<b>13 536</b>	<b>-2.7</b>
<b>Total log harvest</b>	<b>25 819</b>	<b>28 368</b>	<b>22 827</b>	<b>-11.6</b>

Note: Totals may not tally because of rounding.

Source: Australian forest and wood products statistics: September and December quarters 2013

Paper and paperboard production has declined by 1.5 per cent over the decade to 2012–13. Paper and paperboard includes products such as newsprint, printing and writing paper, household and sanitary, and packaging and industrial paper.

### Production of wood products, Australia, 2002–03, 2007–08 and 2012–13

Production	2002 –03	2007 –08	2012 –13	10-year change (%)
<b>Sawnwood production ('000 cubic metres)</b>				
Hardwood <b>a</b>	1 312	1 109	744	–43.3
Softwood <b>b</b>	3 355	4 263	3 849	14.7
<b>Total</b>	<b>4 668</b>	<b>5 372</b>	<b>4 593</b>	<b>–1.6</b>
<b>Wood-based panel production ('000 cubic metres) <b>c</b></b>				
Plywood	219	134	128	–41.4
Particleboard	1 025	957	837	–18.3
Medium-density fibreboard	786	710	460	–41.5
<b>Total</b>	<b>2 030</b>	<b>1 800</b>	<b>1 426</b>	<b>–29.8</b>

continued...

## Production of wood products, Australia, 2002–03, 2007–08 and 2012–13

continued

	2002 –03	2007 –08	2012 –13	10-year change (%)
<b>Production</b>				
<b>Paper and paperboard products production ('000 tonnes)</b>				
Newsprint	412	456	405	–1.7
Printing and writing	564	706	369	–34.6
Household and sanitary	194	183	188	–3.1
Packaging and industrial	1 892	1 933	2 054	8.6
<b>Total</b>	<b>3 061</b>	<b>3 278</b>	<b>3 016</b>	<b>–1.5</b>

a Mainly sawn from native forest eucalypt logs. b Includes cypress pine logs. c Excludes laminated veneer lumber, veneer and hardboard.

Note: Totals may not tally because of rounding.

Source: *Australian forest and wood products statistics: September and December quarters 2013*

## Wood product consumption and trade

Domestic consumption of hardwood sawnwood declined by 43.1 per cent between 2002–03 and 2012–13. Imports of hardwood sawnwood also decreased in this decade. The proportion of imports to consumption remained relatively stable at around 10 per cent.

Consumption of softwood sawnwood averaged 4.3 million cubic metres per year between 2002–03 and 2012–13 and was 4.3 million cubic metres in 2012–13. Domestic production of softwood sawnwood was 3.8 million cubic metres in 2012–13, representing an increase of 14.7 per cent over the decade to 2012–13. Imports of softwood sawnwood fluctuated around 0.65 million cubic metres per year during this period, accounting for 15.9 per cent of domestic consumption.

Overall trends in domestic consumption of panel products are closely linked to housing activity. The proportion of medium-density fibreboard manufactured in Australia that is exported decreased from 51.6 per cent in 2002–03 to 11.4 per cent in 2012–13.

Veneer manufacture has increased since 2007–08 with the construction of two veneer mills in Tasmania. Most domestically produced veneer is exported.

Australia's consumption of paper and paperboard decreased by 3 per cent between 2002–03 and 2012–13. During this 10-year period, the substantial decrease in consumption of newsprint was offset by an increase in consumption of household and sanitary paper. Over the decade, total consumption of paper products consistently exceeded total domestic production. The difference was made up by paper and paperboard imports averaging 1.7 million tonnes per year.

The total value of wood and paper product exports in 2012–13 was \$2.0 billion, while the total value of imports was \$4.1 billion.



## Consumption of wood products, Australia, 2002–03, 2007–08 and 2012–13

Consumption	2002 –03	2007 –08	2012 –13	10-year change (%)
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### Sawnwood consumption ('000 cubic metres)

Hardwood	1 369	1 164	779	–43.1
Softwood	4 008	4 643	4 328	8.0
<b>Total</b>	<b>5 378</b>	<b>5 807</b>	<b>5 107</b>	<b>–5.0</b>

### Wood-based panel consumption ('000 cubic metres) a

Plywood	379	355	370	–2.3
Particleboard	1 063	1 050	906	–14.8
Medium-density fibreboard	458	575	487	6.3
<b>Total</b>	<b>1 900</b>	<b>1 981</b>	<b>1 763</b>	<b>–7.2</b>

### Paper and paperboard products consumption ('000 tonnes)

Newsprint	682	679	418	–38.7
Printing and writing	1 337	1 822	1 385	3.6
Household and sanitary	206	227	335	63
Packaging and industrial	1 561	1 606	1 534	–1.8
<b>Total</b>	<b>3 784</b>	<b>4 335</b>	<b>3 672</b>	<b>–3.0</b>

a Excludes laminated veneer lumber, veneer and hardboard.

Note: Totals may not tally because of rounding.

Source: *Australian forest and wood products statistics: September and December quarters 2013*

Wood product exports, Australia, 2002–03, 2007–08 and 2012–13

Wood product	2002–03 (\$m)	2007–08 (\$m)	2012–13 (\$m)	10-year change (%)
Woodchips	808.0	1 072.2	611.0	–24.4
Paper and paperboard <b>a</b>	630.2	635.5	711.5	12.9
Recovered paper	49.9	251.7	230.0	360.9
Sawnwood <b>b</b>	70.4	120.4	89.9	27.6
Wood-based panels	187.8	108.7	50.8	–73.0
Other products	344.4	282.9	348.8	1.3
<b>Total wood product exports</b>	<b>2 090.7</b>	<b>2 471.4</b>	<b>2 041.9</b>	<b>–2.3</b>

**a** Mainly packaging and industrial papers. **b** Sawnwood represents a wide range of species and grades.

Note: Totals may not tally because of rounding.

Source: *Australian forest and wood products statistics: September and December quarters 2013*

## Wood product imports, Australia, 2002–03, 2007–08 and 2012–13

Wood product	2002–03 (\$m)	2007–08 (\$m)	2012–13 (\$m)	10-year change (%)
Paper and paperboard <b>a</b>	2 158.3	2 248.4	2 043.1	–5.3
Manufactured paper products	362.7	513.3	446.1	23.0
Sawnwood <b>b</b>	504.7	492.3	422.7	–16.2
Wood-based panels	206.1	284.2	311.5	51.1
Pulp	253.7	285.2	154.4	–39.1
Miscellaneous forest products	589.3	583.2	734.1	24.6
Other products	11.4	5.0	4.5	–60.9
<b>Total wood product imports</b>	<b>4 086.2</b>	<b>4 411.5</b>	<b>4 116.3</b>	<b>0.7</b>

**a** Mainly packaging and writing papers. **b** Sawnwood represents a wide range of species and grades.

Note: Totals may not tally because of rounding.

Source: *Australian forest and wood products statistics: September and December quarters 2013*



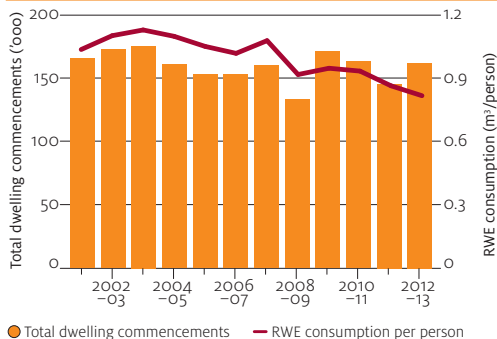
### Did you know?

Between 2002–03 and 2012–13, Australia's net trade deficit in wood products averaged around \$2 billion.

## Roundwood equivalent consumption and dwelling commencements

Year-on-year consumption of wood products is linked to rises and falls in housing activity; this is because a range of wood products are used in housing construction. The roundwood equivalent (RWE) consumption per person was around 0.81 cubic metres in 2012–13, down from 1.10 cubic metres in 2002–03 largely because of decreased RWE consumption of saw and veneer logs.

Dwelling commencements and roundwood equivalent consumption, Australia, 2001–02 to 2012–13

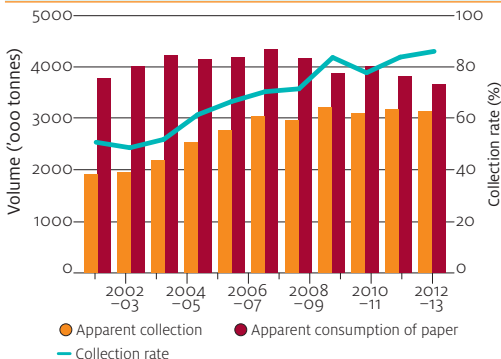


Source: Australian forest and wood products statistics: September and December quarters 2013

## Recycling

The collection rate of recovered paper (ratio of the volume of recovered paper to the volume of paper products consumed) grew from 51 per cent in 2002–03 to 86 per cent in 2012–13. This was driven primarily by an increase in the volume of recovered paper collected from 1.9 million tonnes in 2002–03 to 3.1 million tonnes in 2012–13. During this period, consumption of paper products declined slightly. Around half the recovered paper is used domestically for production of paper and paperboard products; 48 per cent of recovered paper was exported in 2012–13.

Consumption, collection and collection rate of paper products, Australia, 2002–03 to 2012–13



Source: Australian forest and wood products statistics: September and December quarters 2013

# Forestry and forest products manufacturing industry and employment

In 2012–13 the annual sales and service income of forest products manufacturing industries was \$20.1 billion, representing 5.1 per cent of sales and service income of total manufacturing industry in Australia. Together with the forestry sector, these industries contributed around 0.5 per cent to Australia's gross domestic product in 2012–13.

The Australian Bureau of Statistics labour force survey (ABS 2014) reported that, in 2012–13, 61 400 people were employed in the forestry and forest products manufacturing industries.



## Employment in the forestry and forest products manufacturing industries, Australia, 2012–13

Sector	No. of employees
Forestry, logging and support services	9 600
Sawmilling and timber dressing	11 300
Other wood product manufacturing	25 800
Pulp, paper and paperboard	3 500
Converted paper products	6 200
Other pulp, paper and converted paper	5 000
<b>Total</b>	<b>61 400</b>

Note: Total employment for the year is calculated as the average of the total employment (full-time and part-time) quarterly survey numbers.

Source: *Australian forest and wood products statistics: September and December quarters 2013*

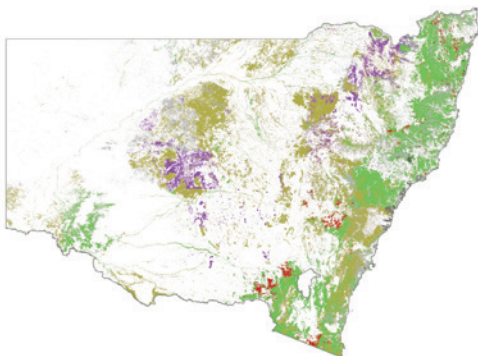
# State and territory summaries





# New South Wales

Forest cover by main category, type and cover class,  
New South Wales, 2011



- Eucalypt woodland 37%
- Eucalypt open 35%
- Eucalypt closed <1%
- Callitris 7%
- All other forest **a** 20%
- Industrial plantation **b** 2%

**a** Forest classified as 'All other forest' comprises: native forest types Acacia, Casuarina, Mangrove, Melaleuca, Rainforest and 'Other native forest'. **b** Includes the forest category 'Other forest' (non-industrial plantations and planted forest of various types). Note: Figures show the area proportion of each forest type compared with the total area of forest in New South Wales. Totals may not tally because of rounding.



## Did you know?

In 2012–13 New South Wales produced 32 per cent of Australia's softwood logs.

## Forest and land area, New South Wales, 2012–13

Forest category	Area ('000 hectares)	% of state land area	% of national forest category area
Native forest	22 281	28	18
Industrial plantations	392	<1	19
Other forest	8	<1	5
<b>Total forest</b>	<b>22 681</b>	<b>28</b>	<b>18</b>

## Native forest area, by tenure, New South Wales, 2011

Tenure type	Area ('000 hectares)	Area (%)
Leasehold forest	5 745	25.8
Multiple-use public forest	2 022	9.1
Nature conservation reserve	5 581	25.0
Other Crown land	79	0.4
Private land (incl. Indigenous)	8 852	39.7
Unresolved tenure	2	0.01
<b>Total native forest</b>	<b>22 281</b>	<b>100</b>

## New South Wales forestry and forest products manufacturing industries

According to the Australian Bureau of Statistics Census, NSW forestry and forest products manufacturing industries employed 22 247 people in 2011 (ABS 2011).

### Volume and value of logs harvested, New South Wales, 2012–13

Log type	Volume of logs harvested ('000 m <sup>3</sup> )	National total volume (%)	Value of logs harvested (\$m)	National total value (%)
Hardwood native	943	25.0	97	28.6
Hardwood plantation	98	1.8	12	3.6
Softwood (incl. cypress pine)	4 343	32.1	214	25.9
<b>Total</b>	<b>5 384</b>	<b>23.6</b>	<b>323</b>	<b>21.4</b>

Note: Value of logs harvested at mill door prices.

In 2012–13 New South Wales had 82 sawmills, 6 panel mills and 5 paper machines in operation. The state has the largest number of hardwood sawmills in Australia and the largest processing capacity for hardwood and softwood sawmills and paper mills. The average input capacity of these hardwood sawmills is 11 400 cubic

metres per year, while the average input capacity of softwood sawmills in the state is more than 200 000 cubic metres per year.

### Wood processing capacity, New South Wales, 2012–13

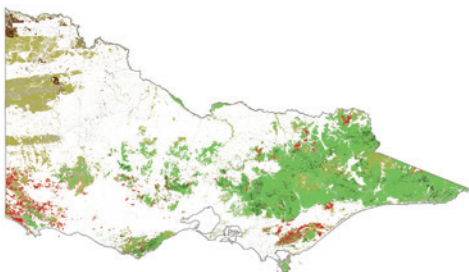
Type of facility	No. of facilities	Total capacity	Unit of capacity
Hardwood	63	720	'000 cubic metres per year log input
Softwood	14	2 870	'000 cubic metres per year log input
Cypress pine	5	70	'000 cubic metres per year log input
Post and pole	2	na	na
Wood-based panels	6	420	'000 cubic metres per year log and residue input
Pulp	3	na	na
Paper and paperboard	5	1 730	'000 tonnes per year product output
Log and woodchip export	3	na	na

na Not available.

Note: Some data not reported because of confidentiality restrictions.

# Victoria

## Forest cover by main category, type and cover class, Victoria, 2011



- Eucalypt woodland 29%
- Eucalypt open 56%
- Eucalypt closed 3%
- Casuarina 2%
- All other forest **a** 5%
- Industrial plantation **b** 6%

**a** Forest classified as 'All other forest' comprises: native forest types Acacia, Callitris, Mangrove, Melaleuca, Rainforest and 'Other native forest'. **b** Includes the forest category 'Other forest' (non-industrial plantations and planted forest of various types). Note: Figures show the area proportion of each forest type compared with the total area of forest in Victoria. Totals may not tally because of rounding.



### Did you know?

Seventy-five per cent of all forests in Victoria are in one of the state's five Regional Forest Agreement areas.

## Forest and land area, Victoria, 2012–13

Forest category	Area ('000 hectares)	% of state land area	% of national forest category area
Native forest	7 727	34	6
Industrial plantations	434	2	21
Other forest	30	<1	20
<b>Total forest</b>	<b>8 191</b>	<b>36</b>	<b>7</b>

## Native forest area, by tenure, Victoria, 2011

Tenure type	Area ('000 hectares)	Area (%)
Leasehold forest	2	0.03
Multiple-use public forest	2 994	38.7
Nature conservation reserve	3 313	42.9
Other Crown land	230	3.0
Private land (incl. Indigenous)	1 184	15.3
Unresolved tenure	5	0.06
<b>Total native forest</b>	<b>7 727</b>	<b>100</b>

## Victoria forestry and forest products manufacturing industries

According to the Australian Bureau of Statistics Census, Victorian forestry and forest products manufacturing industries employed 21 826 people in 2011 (ABS 2011).

### Volume and value of logs harvested, Victoria, 2012–13

Log type	Volume of logs harvested ('000 m <sup>3</sup> )	National total volume (%)	Value of logs harvested (\$m)	National total value (%)
Hardwood native	1 329	35.2	109	32.3
Hardwood plantation	2 025	36.7	115	33.2
Softwood	3 545	26.2	239	28.9
<b>Total</b>	<b>6 899</b>	<b>30.2</b>	<b>463</b>	<b>30.7</b>

Note: Value of logs harvested at mill door prices.

In 2012–13 Victoria had 40 sawmills, 5 post and pole mills, 2 panel mills and 5 paper machines in operation. The average input capacity of Victoria's hardwood mills is 15 500 cubic metres per year, the highest of any state. Victoria has the largest number of log and woodchip facilities and the largest log and woodchip export capacity in Australia.

## Wood processing capacity, Victoria, 2012–13

Type of facility	No. of facilities	Total capacity	Unit of capacity
Hardwood	29	450	'000 cubic metres per year log input
Softwood	11	930	'000 cubic metres per year log input
Post and pole	5	130	'000 cubic metres per year log input
Wood-based panels	2	na	na
Pulp	2	na	na
Paper and paperboard	5	1 080	'000 tonnes per year product output
Log and woodchip export	8	7 560	'000 cubic metres per year log and residue input

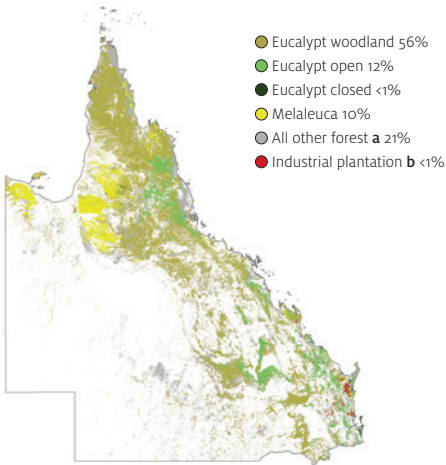
na Not available.

Note: Some data not reported because of confidentiality restrictions.



# Queensland

Forest cover by main category, type and cover class,  
Queensland, 2011



**a** Forest classified as 'All other forest' comprises: native forest types Acacia, Callitris, Casuarina, Mangrove, Rainforest and 'Other native forest'. **b** Includes the forest category 'Other forest' (non-industrial plantations and planted forest of various types). Note: Figures show the area proportion of each forest type compared with the total area of forest in Queensland. Totals may not tally because of rounding.



### Did you know?

Of the 1.8 million hectares of privately owned forests protected under National Conservation Lands programmes across Australia, 50 per cent are in Queensland.

## Forest and land area, Queensland, 2012–13

Forest category	Area (‘000 hectares)	% of state land area	% of national forest category area
Native forest	50 782	29	41
Industrial plantations	233	<1	12
Other forest	22	<1	14
<b>Total forest</b>	<b>51 037</b>	<b>29</b>	<b>41</b>

## Native forest area, by tenure, Queensland, 2011

Tenure type	Area (‘000 hectares)	Area (%)
Leasehold forest	30 656	60.4
Multiple-use public forest	2 905	5.7
Nature conservation reserve	5 098	10.0
Other Crown land	1 208	2.4
Private land (incl. Indigenous)	10 129	19.9
Unresolved tenure	785	1.5
<b>Total native forest</b>	<b>50 782</b>	<b>100</b>

## Queensland forestry and forest products manufacturing industries

According to the Australian Bureau of Statistics Census, Queensland forestry and forest products manufacturing industries employed 12 845 people in 2011 (ABS 2011).

### Volume and value of logs harvested, Queensland, 2012–13

Log type	Volume of logs harvested ('000 m <sup>3</sup> )	National total volume (%)	Value of logs harvested (\$m)	National total value (%)
Hardwood native	256	6.8	37	11.1
Hardwood plantation	3	<1	<1	0.1
Softwood (incl. cypress pine)	1 627	12.0	116	14.1
<b>Total</b>	<b>1 885</b>	<b>8.3</b>	<b>154</b>	<b>10.2</b>

Note: Value of logs harvested at mill door prices.

In 2012–13 Queensland had 74 sawmills, 3 panel mills and 3 paper machines in operation. Queensland has the largest number of cypress pine sawmills in Australia. These have an average log input capacity of 8 700 cubic metres per year.

Wood-based panel processors have an average annual input capacity of more than 71 000 cubic metres of log or sawmill residues.

### Wood processing capacity, Queensland, 2012–13

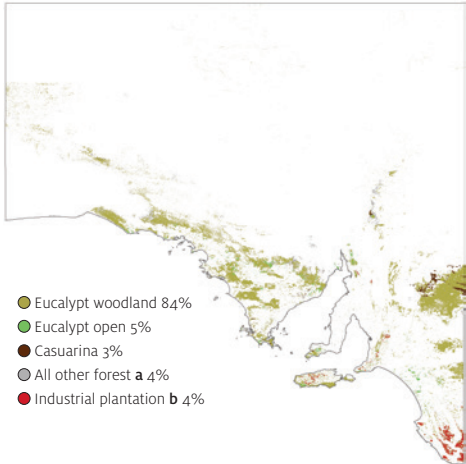
Type of facility	No. of facilities	Total capacity	Unit of capacity
Hardwood	43	290	'000 cubic metres per year log input
Softwood	16	1 630	'000 cubic metres per year log input
Cypress pine	15	130	'000 cubic metres per year log input
Post and pole	1	na	na
Wood-based panels	6	430	'000 cubic metres per year log and residue input
Pulp	1	na	na
Paper and paperboard	3	na	na
Log and woodchip export	3	na	na

na Not available.

Note: Some data not reported because of confidentiality restrictions.

# South Australia

Forest cover by main category, type and cover class,  
South Australia, 2011



**a** Forest classified as 'All other forest' comprises: native forest types Acacia, Callitris, Mangrove, Melaleuca, Rainforest and 'Other native forest'. **b** Includes the forest category 'Other forest' (non-industrial plantations and planted forest of various types). Note: Figures show the area proportion of each forest type compared with the total area of forest in South Australia. Totals may not tally because of rounding.



### Did you know?

Forty-five per cent of all forests in South Australia are in formal reserves reported in the National Reserve System.

## Forest and land area, South Australia, 2012–13

Forest category	Area (‘000 hectares)	% of state land area	% of national forest category area
Native forest	4 376	4	4
Industrial plantations	189	<1	9
Other forest	0	0	0
<b>Total forest</b>	<b>4 565</b>	<b>5</b>	<b>4</b>

## Native forest area, by tenure, South Australia, 2011

Tenure type	Area (‘000 hectares)	Area (%)
Leasehold land	1 318	30.1
Multiple-use public forest	20	0.5
Nature conservation reserve	1 509	34.5
Other crown land	52	1.2
Private land (incl. Indigenous)	1 455	33.2
Unresolved tenure	23	0.5
<b>Total native forest</b>	<b>4 376</b>	<b>100</b>

## South Australia forestry and forest products manufacturing industries

According to the Australian Bureau of Statistics Census, SA forestry and forest products manufacturing industries employed 6 498 people in 2011 (ABS 2011).

Timber harvesting in native forests in South Australia is not permitted; harvesting is only permitted in plantations.

### Volume and value of logs harvested, South Australia, 2012–13

Log type	Volume of logs harvested ('000 m <sup>3</sup> )	National total volume (%)	Value of logs harvested (\$m)	National total value (%)
Hardwood native	0	0.0	0	0.0
Hardwood plantation	481	8.7	28	8.1
Softwood	1 972	14.6	129	15.7
<b>Total</b>	<b>2 452</b>	<b>10.7</b>	<b>158</b>	<b>10.4</b>

Note: Value of logs harvested at mill door prices.

## South Australia

In 2012–13 South Australia had 14 softwood sawmills, with an average log input capacity of almost 150 000 cubic metres of sawlog per year. South Australia also has significant wood processing capacity in post and pole and wood-based panel mills.

### Wood processing capacity, South Australia, 2012–13

Type of facility	No. of facilities	Total capacity	Unit of capacity
Softwood sawmills	14	2070	'000 cubic metres per year log input
Post and pole	2	na	na
Wood-based panel	3	na	na
Paper and paperboard	1	na	na
Log and woodchip export	1	na	na

**na** Not available.

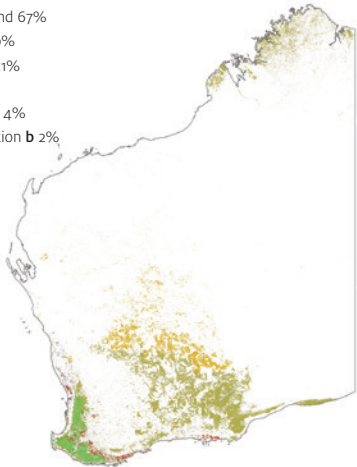
Note: Some data not reported as a result of confidentiality restrictions.



# Western Australia

## Forest cover by main category, type and cover class, Western Australia, 2011

- Eucalypt woodland 67%
- Eucalypt open 10%
- Eucalypt closed <1%
- Acacia 17%
- All other forest **a** 4%
- Industrial plantation **b** 2%



**a** Forest classified as 'All other forest' comprises: native forest types Callitris, Casuarina, Mangrove, Melaleuca, Rainforest and 'Other native forest'. **b** Includes the forest category 'Other forest' (non-industrial plantations and planted forest of various types). Note: Figures show the area proportion of each forest type compared with the total area of forest in Western Australia. Totals may not tally because of rounding.



### Did you know?

Half the total area of Australia's eucalypt mallee forests is in Western Australia. Approximately three-quarters of all eucalypt species in south-western Australia are mallee species.

## Forest and land area, Western Australia, 2012–13

Forest category	Area ('000 hectares)	% of state land area	% of national forest category area
Native forest	18 752	7	15
Industrial plantations	403	<1	20
Other forest	57	<1	37
<b>Total forest</b>	<b>19 212</b>	<b>8</b>	<b>15</b>

## Native forest area, by tenure, Western Australia, 2011

Tenure type	Area ('000 hectares)	Area (%)
Leasehold forest	5 559	29.6
Multiple-use public forest	1 291	6.9
Nature conservation reserve	4 610	24.6
Other Crown land	6 010	32.0
Private land (incl. Indigenous)	1 281	6.8
Unresolved tenure	1	0.0
<b>Total native forest</b>	<b>18 752</b>	<b>100</b>

## Western Australia forestry and forest products manufacturing industries

According to the Australian Bureau of Statistics Census, WA forestry and forest products manufacturing industries employed 5 580 people in 2011 (ABS 2011).

### Volume and value of logs harvested, Western Australia, 2012–13

Log type	Volume of logs harvested ('000 m <sup>3</sup> )	National total volume (%)	Value of logs harvested (\$m)	National total value (%)
Hardwood native	451	12.0	37	11.0
Hardwood plantation	2 557	46.3	168	48.4
Softwood	733	5.4	47	5.7
<b>Total</b>	<b>3 742</b>	<b>16.4</b>	<b>252</b>	<b>16.7</b>

Note: Value of logs harvested at mill door prices.

In 2012–13 Western Australia had 22 sawmills, including 3 softwood sawmills. The state has significant woodchip export capacity, at more than 4 million cubic metres of log and residue input per year.

## Wood processing capacity, Western Australia, 2012–13

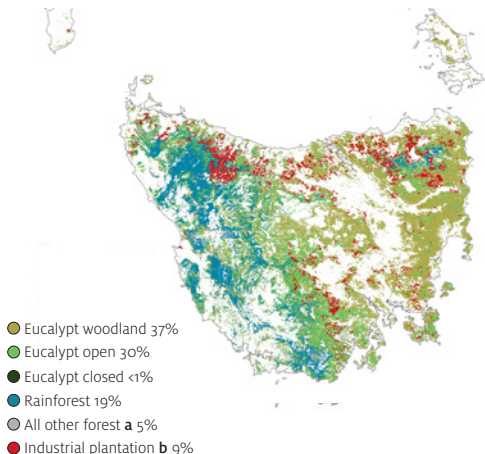
Type of facility	No. of facilities	Total capacity	Unit of capacity
			'000 cubic metres per year log input
Hardwood	19	240	
Softwood	3	na	na
Post and pole	3	na	na
Wood-based panels	2	na	na
Log and woodchip export	5	4 180	'000 cubic metres per year log and residue input

na Not available.

Note: Some data not reported because of confidentiality restrictions.

# Tasmania

## Forest cover by main category, type and cover class, Tasmania, 2011



**a** Forest classified as 'All other forest' comprises: native forest types *Acacia*, *Callitris*, *Casuarina*, *Mangrove*, *Melaleuca* and 'Other native forest'. **b** Includes the forest category 'Other forest' (non-industrial plantations and planted forest of various types). Note: Figures show the area proportion of each forest type compared with the total area of forest in Tasmania. Totals may not tally because of rounding.



### Did you know?

Sixty-seven per cent of all forests in Tasmania are eucalypt forest and 19 per cent are rainforest.

## Forest and land area, Tasmania, 2012–13

Forest category	Area (‘000 hectares)	% of state land area	% of national forest category area
Native forest	3 362	49	3
Industrial plantations	311	5	15
Other forest	33	<1	22
<b>Total forest</b>	<b>3 706</b>	<b>54</b>	<b>3</b>

## Native forest area, by tenure, Tasmania, 2011

Tenure type	Area (‘000 hectares)	Area (%)
Leasehold forest	16	0.5
Multiple-use public forest	923	27.5
Nature conservation reserve	1 240	36.9
Other Crown land	287	8.5
Private land (incl. Indigenous)	875	26.0
Unresolved tenure	19	0.6
<b>Total native forest</b>	<b>3 362</b>	<b>100</b>

## Tasmania forestry and forest products manufacturing industries

According to the Australian Bureau of Statistics Census, Tasmanian forestry and forest products manufacturing industries employed 3 526 people in 2011 (ABS 2011).

### Volume and value of logs harvested, Tasmania, 2012–13

Log type	Volume of logs harvested ('000 m <sup>3</sup> )	National total volume (%)	Value of logs harvested (\$m)	National total value (%)
Hardwood native	795	21.1	58	17.1
Hardwood plantation	353	6.4	23	6.5
Softwood	1 262	9.3	77	9.3
<b>Total</b>	<b>2 410</b>	<b>10.6</b>	<b>157</b>	<b>10.4</b>

Note: Value of logs harvested at mill door prices.

In 2012–13 Tasmania had 49 sawmills, including 3 softwood sawmills. Tasmania's hardwood sawmills are on average the smallest in Australia, with a mean log input capacity of only 5 700 cubic metres per year. Tasmania also has a large wood-based panel processing capacity and significant woodchip export facilities.

## Wood processing capacity, Tasmania, 2012–13

Type of facility	No. of facilities	Total capacity	Unit of capacity
			'000 cubic metres per year log input
Hardwood	46	260	
Softwood	3	na	na
Post and pole	1	na	na
Wood-based panels	5	420	'000 cubic metres per year log and residue input
Pulp	1	na	na
Paper and paperboard	1	na	na
Log and woodchip export	7	4 710	'000 cubic metres per year log and residue input

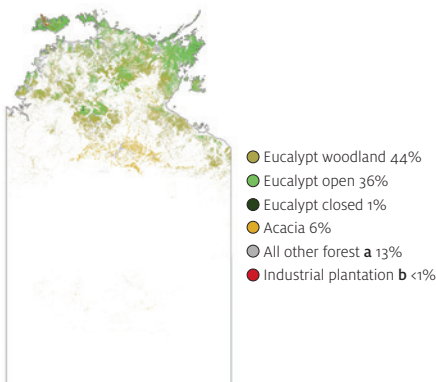
na Not available.

Note: Some data not reported because of confidentiality restrictions.



# Northern Territory

Forest cover by main category, type and cover class,  
Northern Territory, 2011



**a** Forest classified as 'All other forest' comprises: native forest types Callitris, Casuarina, Mangrove, Melaleuca, Rainforest and 'Other native' forest. **b** Includes the forest category 'Other forest' (non-industrial plantations and planted forest of various types). Note: Figures show the area proportion of each forest type compared with the total area of forest in Northern Territory. Totals may not tally because of rounding.



## Did you know?

Between 2006 and 2011, 15.4 million hectares of forest were burnt in planned and unplanned fires in the Northern Territory. Some areas of forest were burnt more than once during the period.

## Forest and land area, Northern Territory, 2012–13

Forest category	Area ('000 hectares)	% of territory land area	% of national forest category area
Native forest	15 169	11	12
Industrial plantations	44	<1	2
Other forest	5	<1	3
<b>Total forest</b>	<b>15 218</b>	<b>11</b>	<b>12</b>

## Native forest area, by tenure, Northern Territory, 2011

Tenure type	Area ('000 hectares)	Area (%)
Leasehold forest	5 228	34.5
Multiple-use public forest	0	0.0
Nature conservation reserve	13	0.1
Other Crown land	279	1.8
Private land (incl. Indigenous)	9 618	63.4
Unresolved tenure	31	0.2
<b>Total native forest</b>	<b>15 169</b>	<b>100</b>

Note: Kakadu National Park and some other national parks in the Northern Territory are Indigenous owned private tenure. The territory does not have multiple-use public forest.

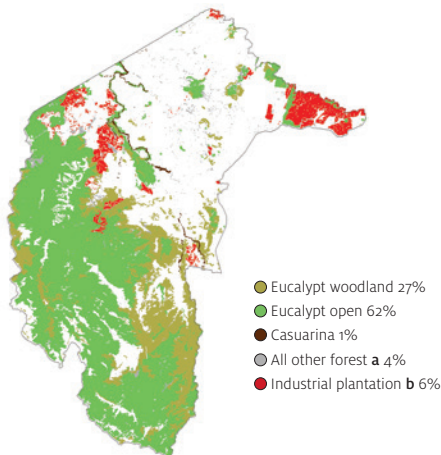
## **Northern Territory forestry and forest products manufacturing industries**

According to the Australian Bureau of Statistics Census, NT forestry and forest products manufacturing industries employed 244 people in 2011 (ABS 2011).

The Northern Territory forest industry is largely based on hardwood plantations and on the Indigenous arts and crafts industry, which uses material from native forests.

# Australian Capital Territory

Forest cover by main category, type and cover class,  
Australian Capital Territory, 2011



**a** Forest classified as 'All other forest' comprises: native forest types Acacia, Callitris, Mangrove, Melaleuca, Rainforest and 'Other native forest'. **b** Includes the forest category 'Other forest' (non-industrial plantations and planted forest of various types). Note: Figures show the area proportion of each forest type compared with the total area of forest in Australian Capital Territory. Totals may not tally because of rounding.

## Forest and land area, Australian Capital Territory, 2012–13

Forest category	Area ('000 hectares)	% of territory land area	% of national forest category area
Native forest	129	53	<1
Industrial plantations	8	3	<1
Other forest	1	<1	<1
<b>Total forest</b>	<b>138</b>	<b>57</b>	<b>&lt;1</b>

## Native forest area, by tenure, Australian Capital Territory, 2011

Tenure type	Area ('000 hectares)	Area (%)
Leasehold forest	9	7.0
Multiple-use public forest	4	3.1
Nature conservation reserve	115	89.1
Other Crown land	1	0.8
Private land (incl. Indigenous)	1	0.8
Unresolved tenure	0	0.0

Note: The Australian Capital Territory does not have any forest in the Unresolved tenure category.



**Did you know?**

Eighty-six per cent of forests in the Australian Capital Territory are listed on the ACT Heritage Register, the Commonwealth Heritage List or the National Heritage List.

## **Australian Capital Territory forestry and forest products manufacturing industries**

According to the Australian Bureau of Statistics Census, ACT forestry and forest products manufacturing industries employed 501 people in 2011 (ABS 2011).

Forestry and forest products manufacturing industries in the Australian Capital Territory have contracted substantially since 2003, when bushfires destroyed two-thirds (10 500 hectares) of ACT softwood plantations.

In the Australian Capital Territory, timber harvesting is only permitted in plantations.

# Sources

Unless otherwise stated, data in this booklet are drawn from Australian Bureau of Agricultural and Resource Economics and Sciences (ABARES) publications:

- native forests—*Australia's state of the forests report 2013* (MIG & NFISC 2013)
- plantations—*Australian plantation statistics 2014 update* (Gavran 2014)
- economics—*Australian forest and wood products statistics: September and December quarters 2013* (ABARES 2014)
- wood processing—*ABARES national wood processing survey, 2012–13* (Gavran et al. 2014).

ABARES publications are available at [agriculture.gov.au/abares/publications](http://agriculture.gov.au/abares/publications).

## National Forest Inventory and National Plantation Inventory

ABARES, under the auspices of the National Forest Inventory (NFI), collects and publishes information on Australia's forests. The NFI was established in 1988 and provides authoritative and comprehensive forest-related information for regional, national and international reporting.

The data support decision-making on Australia's forests. The NFI management team in ABARES—working with state, territory and private forest owners and managers—collects and collates data on Australia's forests for publications such as *Australia's state of the forests report 2013* (MIG & NFISC 2013).

The National Plantation Inventory (NPI) is an NFI programme that has been collecting data and reporting on Australia's forestry plantations since 1993. It supports strategic forest industry planning and decision-making by presenting information on total plantation area, new plantings and ownership. The NPI publishes comprehensive map-based reports every five years and tabular updates in other years.

## Australian forest and wood products statistics

ABARES compiles and publishes quarterly forest and wood products statistics from a range of sources. Production data are from ABARES and Australian Bureau of Statistics (ABS) surveys and datasets, state forest services and industry organisations. The ABS provides data on imports and exports of wood products.



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DCCEE 2012, *Australian National Greenhouse Accounts: National Inventory Report 2010*, vol. 2, Australian Government submission to the United Nations Framework Convention on Climate Change, Department of Climate Change and Energy Efficiency, Canberra, available at [environment.gov.au/climate-change/greenhouse-gas-measurement/publications/national-inventory-report-2010](http://environment.gov.au/climate-change/greenhouse-gas-measurement/publications/national-inventory-report-2010).

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Gavran, M, Burns, K, Hug, B, Frakes, I & Gupta, M 2014, *ABARES National Wood Processing Survey, 2012–13*, ABARES research report 14.6, Australian Bureau of Agricultural and Resource Economics and Sciences, Canberra, July.

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