



AUSTRALIA
sustainable forest management





INTRODUCTION

Australia has a unique place in the world, and is renowned worldwide for its distinctive and diverse natural environment which has evolved on this island continent isolated from its near neighbours for more than 15,000 years.

Australia's forests are an important part of that unique environment, and cover 21 per cent of the country's total land area.

They include wet tropical forests in the country's far north, sparse dry forests further inland, and forests in the south and west where some tree species grow to be among the world's largest flowering plants.

Most Australian forests are dominated by eucalypt trees, Australia's own tree. More than 700 species of these remarkable eucalypts are known, and more than 95 per cent are native to Australia.

Australia's scientists have worked for more than 200 years to understand the special attributes and requirements of these forests and the plants and animals they support.

They have built a heritage of forest science that contributes to expanding knowledge about Australian forests and how best to balance environmental, economic and social demands that contribute to sustainable forest management.

Probably nowhere in Australia are forests better understood, more appreciated, and more a part of the Australian mindset than on the island state of Tasmania, off the southern coast of the Australian mainland.

Here, native forests produce timbers for woodcraft and furniture production, sawn timbers for construction, and pulpwood for making fine papers.

Australia's native forests are well preserved and conserved. Timber production from native forests is governed by strict regulation and independent third party scrutiny. All forests are managed to ensure future generations have the same options and opportunities.



Enso (円相) is a Japanese word meaning "circle." The Enso is perhaps the most common subject of Japanese calligraphy. Enso symbolises enlightenment, strength, elegance and the universe, and is an "expression of the moment."

Some artists draw the Enso with an opening in the circle, while others complete the circle. For the former, the opening symbolises that the Enso is not separate, but is part of something greater.



Regenerated forest, 30 years after harvesting.



Australia boasts more than 700 species of eucalypt tree; about 80 percent of Australia's forests are classed as eucalypt forests.



A tapestry of regrowth and planted forest, formed after logging in a working forest.

AUSTRALIA home of the eucalypt

Australian eucalypt trees are like so many other natural features of Australia: absolutely unique.

Australian eucalypts have been exported around the world. They are grown in suburban gardens and on city streets in the United States, are used to arrest environmental degradation in Africa, are tapped for their aromatic oils in southern Europe, and more and more, they are being planted for large-scale paper and hardwood timber production.

The eucalypt has developed, diversified and adapted to the Australian environment in isolation from the rest of the world over thousands of years.

Eucalypt forests and the unique flora and fauna that flourish with them are diverse, robust and regenerate quickly after they are disturbed by natural or human change.

Many eucalypt forests have evolved over time to regenerate after wildfires.

Fire is essential for regeneration in such forest ecosystems, and modern forest management systems continue to use or mimic fire to replicate this natural process.

The products drawn from the trees of eucalypt forests are equally remarkable: foods like honey products that cannot be matched for taste, therapeutic and aromatic oils, and the finest durable timbers for structural work and for high-value, beautifully finished appearance grade timbers with rich colour and distinct markings.

Eucalypt fibre—short, flexible and durable compared with other tree species—is known around the world for the high-quality paper products it produces.

No matter where it grows, the evergreen eucalypt—in its variety of forms, with its flowers that often can't be seen, bark that falls in long and colourful strips, and with the distinctive scent of what Australians call their “gum trees”—always remains a symbol of its home, Australia.

A burnt eucalypt forest is not a dead forest. Australia's eucalypt forests are robust and diverse, adapted to fire, and quick to regenerate.



Australia has four per cent of the world's 3.9 billion hectares of forests, and five percent of the world's land mass.



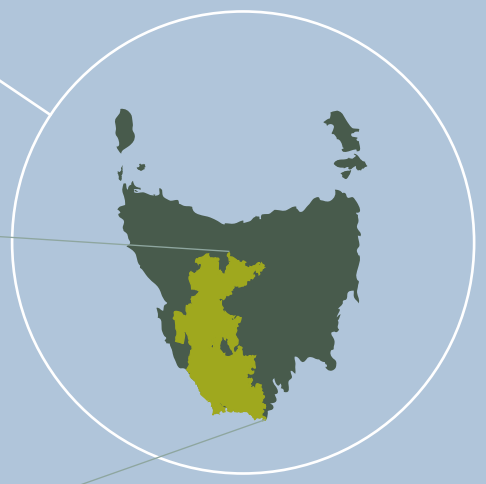


HOKKAIDO, JAPAN
 Total land area: 8.3 million hectares
 Population: 5.6 million people

With a total land mass of 6.8 million hectares, Tasmania is slightly smaller than the Japanese island of Hokkaido. It is similar in size to Ireland, and is more than twice the size of Belgium.

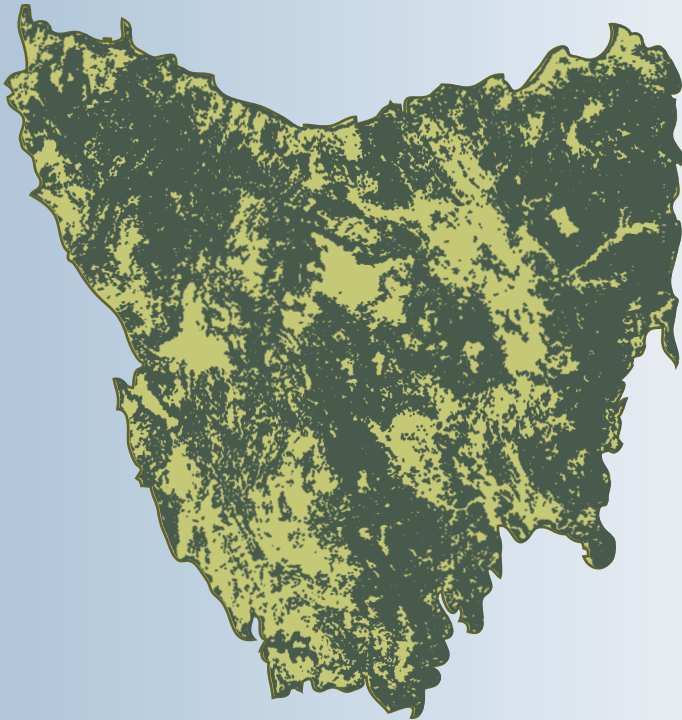


TASMANIA, AUSTRALIA
 Total land area: 6.8 million hectares
 Population: 485,000 people



Tasmania's Wilderness World Heritage Area is one of the largest conservation reserves in Australia, covering more than 20 per cent of Tasmania's land area.

NATIVE FOREST USE IN TASMANIA

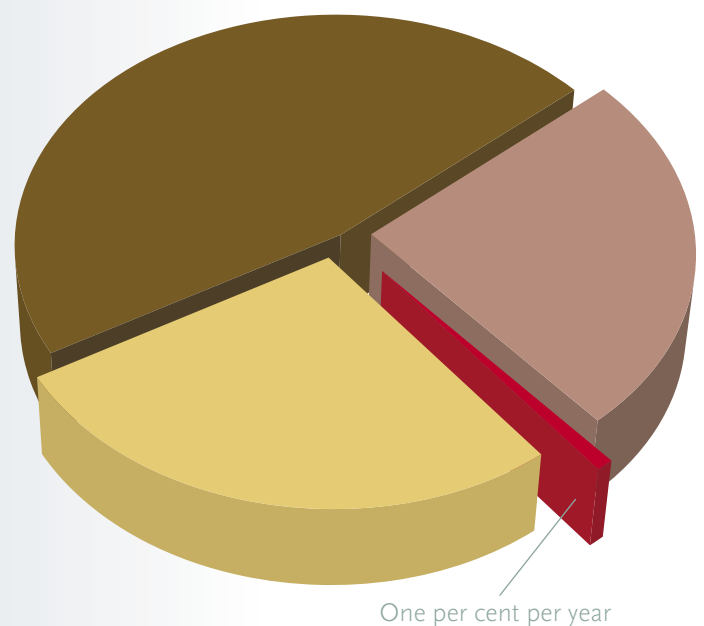


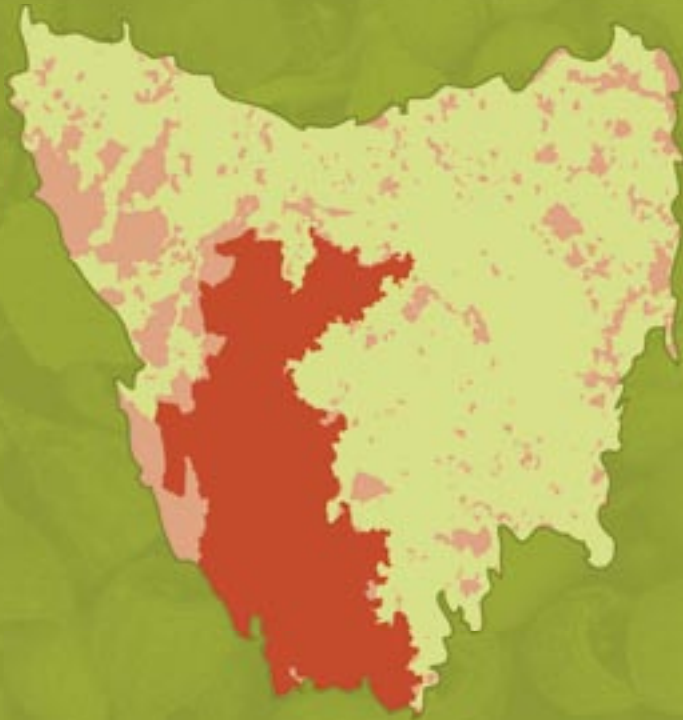
FOREST COVER IN TASMANIA



Any public forest harvested for timber production is regenerated—there is no net loss of forest area. As the forest returns, so do the animals.

NATIVE FOREST USE IN TASMANIA





TASMANIAN WORLD HERITAGE AREA



ADDITIONAL CONSERVATION RESERVES

In 1989 the Tasmanian Wilderness World Heritage Area—covering more than 20 per cent of the State—was inscribed on the World Heritage list for its outstanding natural and cultural universal values.

Australia is a proud signatory and a strong supporter of the World Heritage Convention. The Tasmanian Wilderness World Heritage Area was first inscribed on the World Heritage list in 1982 for its outstanding natural and cultural universal values, and was extended in 1989.

Tasmania's isolation, the rugged landforms and the diverse soils of the Tasmanian Wilderness have contributed to its unique flora and fauna. The area contains an exceptionally rich and important collection of Aboriginal sites, revealing the distinctive ways the Tasmanian Aboriginal community developed to survive climate change and Ice Age conditions.

A Management Plan guides the management of the World Heritage Area and more than 20,000 hectares of adjacent conservation reserves to ensure the property's outstanding universal values remain protected.

All forestry operations near the World Heritage Area are subject to comprehensive management arrangements.



AUSTRALIAN FORESTRY

a legal and democratic foundation

Australia is a Federal democracy with a national government constituted in 1901. It is a federation of six states and two territories, where the national government and each of the state and territory governments has the power to make laws.

Within each Australian state there is a third level of government—elected local councils responsible for local community issues.

Australian forest management is based on a combination of Australian, state, territory and local laws, all supported by extensive community consultation and scientific evidence.

Forested land in Australia may be owned by individuals or companies, or held by the Australian, state or territory governments. Land owned by governments is generally called crown land, and is managed on behalf of the Australian people by their governments.

In Australia, there are many types of land tenure: Australian forest areas may be preserved forever in national parks or wilderness areas, they may be accessible

for recreation or controlled commercial uses like timber production or cattle grazing, or they may be used as water catchments for towns and cities.

Under the Australian Constitution, state governments are responsible for everyday management of forest areas and commercial forest activities, which is governed by legislation and strict Codes of Practice.

The Australian Government ensures national laws comply with international obligations.

Australia takes its role as an international citizen very seriously. It is a signatory and gives leadership to international obligations and treaties relating to sustainable forest management.

The Australian Government is also responsible for implementing national policies, some of which relate to forest management.

This combination of law, science, tenure, and management planning that considers all environmental, economic and social values provides a rigorous foundation to support sustainable management of Australia's forests.

“Australian society lives under the rule of law. That means it complies not only with Australian law but also international law. Under the Australian Constitution the Australian Government has the power to implement international law, and does so regularly, for example, in an environmental context, through implementation of the World Heritage Convention.”

PROF. GREG CRAVEN
DEPUTY-VICE CHANCELLOR,
CURTIN UNIVERSITY
OF TECHNOLOGY



Parliament House—Canberra.

THE COMMONWEALTH OF AUSTRALIA STATES AND TERRITORIES



Native forest covers more than 3.3 million hectares of Tasmania, of which almost half (47 per cent) is protected in nature conservation reserves.



RIGHT: Following a fire event, ash beds create an ideal setting for eucalypt growth, replicating how regeneration occurs naturally.

BELOW: Seed collection is a critical step in the forest regeneration process.



FOREST MANAGEMENT

achieving sustainability

The Australian Government's National Forest Policy Statement, which has the support of all states and territories, sets three basic principles for sustainable forest management in Australia:

1. maintaining ecological processes within forests, including the formation of soil, energy flows, and the cycles of carbon, water and nutrients
2. maintaining the biological diversity of forests
3. optimising the full range of environmental, economic and social benefits provided to the community

The management of all Australian forests must reflect these three principles.

Australia has more than 162 million hectares of forests, with nearly one quarter of this held in private ownership.

The remaining 122 million hectares are owned by state and territory governments and are managed on behalf of the Australian people for different purposes:

- 21 million hectares of forest are preserved in nature conservation areas, including national parks
- 11.4 million hectares are classed as multiple use forests

Multiple-use forests include the production of timber and other forest products. However, in any one year, less than one per cent of this forest is harvested for timber products—and every harvested area must be regenerated so it can continue to provide sustainable forest products into the future.

Australia also produces forest products from nearly two million hectares of plantations or planted forests owned by private investors and state and territory governments. These plantations are a mix of imported tree species and trees native to Australia.

Tasmania is almost half covered in native forest, and half of that is reserved for nature conservation.

This includes national parks, wilderness areas and vast World Heritage areas.

The Australian and Tasmanian Governments have, for many years, paid close attention to forest management in Tasmania, a reflection of the close interest the Tasmanian community has in ensuring the sustainable future of its forests.

The Australian Government presented a major policy position on sustainable forest management before the 2004 national election. This position was endorsed by the majority of voters, and in 2005 the Australian Government and Tasmanian Government finalised a landmark accord—the Tasmanian Community Forest Agreement—a major investment in further enhancing Tasmania's sustainable forest management.

Tasmania has 1.2 million hectares of old growth forest. Of this, 80 per cent is protected and reserved from timber production.



More than 20 per cent of Australia is covered in forest—and two-thirds of the country is desert.



ANDY PADGETT

FORESTRY WORKER, BUSINESS OWNER

“You can’t help but feel humble when you’re in the middle of the explosion of life in these regrowth forests. The thing that makes me very proud is the fact that this is a totally renewable, sustainable resource, and we’re learning to manage forests better every day.” *(top left)*

Andy Padgett has lived and worked in Tasmania’s forests for more than 50 years. He was a forest industry pioneer and innovator. Now aged more than 80 years, he continues to work to ensure forest management can be sustainable for generations to come. Andy’s children also operate successful forestry businesses, having taken the lead and lessons from their father’s experience and his passion for the native forest environment.



KEN PADGETT

SECOND GENERATION FORESTRY BUSINESS OWNER

“One photo doesn’t tell the story—it’s very easy to look at one photo of a blackened landscape, but that’s only one part of the story of the forest - in fact it is just the start of the story. Wherever I go in these regrowth forests, I am absolutely astounded at the growth rate of these trees. Managed properly, these trees will continue to supply our own and world markets for many years to come, and I have the absolute confidence in the experts who advise us on forest management.” *(right)*

ROSS PADGETT

SECOND GENERATION FORESTRY BUSINESS OWNER

“Unless you’ve been out in the forests, lived around them and spent your life in them and in the forest industry, then I really don’t expect you to understand. But every time you come out to the mountains and the forests you’ll see something different, it surprises me every day. I love our forest and we’re working as hard as we can to maintain a sustainable future for Tasmania.” *(left)*



PETER PARTRIDGE

MAYOR, DORSET COUNCIL, TASMANIA

“Forest management has been questioned in some areas, but the community is becoming much more involved. This allows members of the community to have greater input to help ensure we have a sustainable industry going forward—which is important to us, because forestry is a major industry in our community.”

VOICES OF EXPERIENCE



PROFESSOR GREG CRAVEN
DEPUTY-VICE CHANCELLOR,
CURTIN UNIVERSITY OF TECHNOLOGY

“One of the most important political issues in Australia is the environment. Australians place a great value on their natural landscape, and have a great sense of their own country and they will not lightly allow environmental damage to be done. Any decision made by any Australian Government about forestry practices is going to be made after that Government has been freely elected and has received the confidence of the people.”



PROFESSOR IAN FERGUSON
PROFESSOR EMERITUS, UNIVERSITY OF MELBOURNE

“Eucalypts are adapted to fire naturally because they’ve been part of the landscape of Australia for a very long time. They’re also unique in the way they regenerate. The fire ensures there’s a massive release of seed and it also ensures there’s a seed bed that is relatively free from other species for the seed to germinate and flourish in the early stages of growth.”

Australia has four per cent of the world’s 3.9 billion hectares of forests, and five percent of the world’s land mass. Australia has the world’s fourth largest area of forest in conservation reserves—more than 21.5 million hectares



HAMISH CRAWFORD
FOREST ECONOMIST

“Certification schemes were developed as a way of providing an independent recognition of good forest management practice, something that went beyond the claims of forest growers or the counter claims of those opposed to forestry. I think that Australia is in the fortunate position of having very strong regulatory systems...and providing that base framework for good forest management.”



AUSTRALIAN FORESTRY STANDARD

AFS is the leading management standard of the Australian Forest Certification Scheme, which certifies native forests as well as plantations in Australia.

AFS is a world-class forestry standard, developed through a rigorous three-year process with people representing the community, industry, expert scientists and government co-operating to draft the Standard.

The AFS was developed in Australia, by Australians and for Australians, and is endorsed by the world's largest assessor of sustainable forest management, the Programme for the Endorsement of Forest Certification.



THE PROGRAMME FOR THE ENDORSEMENT OF FOREST CERTIFICATION

The PEFC is an independent non-government organisation that promotes sustainably managed forests through independent third-party certification. It is the world's largest certification programme, supported by nearly 150 national Governments.

FOREST STEWARDSHIP COUNCIL

FSC is an international network promoting responsible management of the world's forests.



FSC sets international standards for responsible forest management, and accredits third party organisations that can certify forest managers and forest product producers to FSC standards.

Paper made from the pulp of Australia's eucalypt trees is prized around the world for its smoothness, opacity and ability to hold ink on the surface—qualities necessary for fine writing and printing paper.



CERTIFICATION

independent global standards

More and more consumers and corporations around the world want to be assured that the paper, timber and other forest products they purchase and use are drawn from legally and sustainably managed forests and plantations.

Independent, transparent, agreed third party standards are the best way to give this confidence, under schemes that provide certification of products.

Because forest types and forest industries vary so much from country to country, a number of forest certification schemes have been developed over the last 20 years.

In the case of Australian forests and plantations, the peak scheme is the Australian Forestry Standard, a scientifically-founded program of the Australian Forest Certification Scheme.

As of January 2007, 13 major forest managers have this AFS certification in Australia, covering more than nine million hectares of native forests and plantations on both public and privately-owned land.

The scheme recognises the unique attributes of Australia's natural forests, and provides for Chain of Custody Certification, a standard that allows tracking of forest and wood products from their origins in a certified forest through to their end use by consumers.

The Australian Forest Certification Scheme is endorsed by the world's largest assessor of sustainable forest management, the Programme for the Endorsement of Forest Certification, PEFC.

The PEFC is a global umbrella organisation promoting sustainable forest management.

Forest Stewardship Council, or FSC, certification is the other main certification programme used in Australia, and is based on the Forest Stewardship Council's Principles and Criteria.

Despite some differences in the content and application of these two forest certification schemes, both provide assurance that certified forest products have been sourced from legally and sustainably managed sources.



MORE ABOUT AUSTRALIA'S FORESTS

ARE TASMANIA'S NATIVE FORESTS BEING CONVERTED TO PLANTATIONS?

No. All public forest harvested will be regenerated back to its original natural state.

ARE TASMANIA'S OLD GROWTH FORESTS BEING DESTROYED?

No. Nearly 80 per cent of Tasmania's recognised old growth forest areas are in reserves and are not available for timber production. In addition, a Giant Trees Policy protects all trees more than 85 metres tall. Timber cutting that is allowed in Tasmania's old growth forest areas provides some of the highest value furniture and house fittings, plus unique timbers found only in Tasmania.

ARE NATIVE FOREST AREAS CUT FOR WOODCHIPS?

No. Australian native forests available for timber production are harvested to produce a range of forest products. All native production forests are managed to produce sawlogs as the preferred product. Trees that cannot be used for high value sawn timber, or smaller trees taken when thinning out production forests to give bigger trees more room to grow, are likely to be used to produce woodchips for paper production. In sawmills the process of converting round trees into square wood products also produces residue timber that can be converted into woodchips.

IS 1080 USED TO KILL ENDANGERED NATIVE ANIMALS IN TASMANIA'S FORESTS?

No. Sodium monofluoroacetate, or 1080 as it is commonly known, is a chemical previously used in Tasmania's public forests to reduce the number of browsing animals that can eat much of the new growth in a regenerating forest. In December 2005, 1080 was banned for use against browsing animals on public land in Tasmania. It may still be used by private farmers to control browsing animals. Use of 1080 in Tasmania has fallen dramatically from 15 kilograms total in 1995 to less than two kilograms in 2007.

HAS AUSTRALIAN FOREST MANAGEMENT MADE ANY NATIVE PLANTS OR ANIMALS EXTINCT?

No. Australia's sustainable forest management systems, scientific research and strict regulation are designed to ensure all plants and animals are able to continue to thrive across the landscape, so future generations have the same options as current generations.

DO ENVIRONMENTAL REGULATIONS PROTECT AUSTRALIA'S FORESTS?

Yes. Australia's environmental laws are developed and applied by national, state, territory and local governments, each elected by the people to implement policies demanded by the majority of voters. Forest management is one of Australia's most highly regulated and closely scrutinised industries, accountable to the community now and to future generations. Regulations range from national law relating to international treaties and agreements, to state laws, policies, Codes of Practice and local government planning.

ARE TASMANIA'S FOREST PRACTICES LEGAL?

Yes. A recent court case tested this question. The court found that the regulatory framework for timber production in Tasmania was legal. However, the court found that in one instance in a specific area in Tasmania's Wielangta forest, the planned timber harvest would not meet these requirements. While this finding relates to one small area of Tasmanian forest, it is being tested to ensure absolute clarity over the original ruling.

GLOSSARY common terms

AUSTRALIAN GOVERNMENT DEPARTMENT OF AGRICULTURE, FISHERIES AND FORESTRY

Australian Government agency that works to ensure sustainable, competitive and profitable Australian agriculture, food, fisheries and forestry industries.

CLEARFELLING

Australian forest management system that mimics how natural regeneration occurs in many Australian eucalypt forests. Clearfelling removes all large standing trees, and the area is then burned to mimic the natural process of wildfires. Scientific research in certain forest types has led to the clearfell, burn and sow techniques to produce timber and allow forests to regenerate completely.

EUCALYPT

Species of evergreen tree, mostly native to Australia.

FOREST

Area dominated by trees, usually with a single stem and a mature height of more than five metres.

FORESTRY TASMANIA

Tasmanian Government business responsible for 1.4 million hectares of Tasmania's native forests and plantations, managed on behalf of the Tasmanian people. About 706 000 hectares of forest managed by Forestry Tasmania is available for wood production.

NATIONAL PARK

Area set aside for features of predominantly unspoiled landscape, flora and fauna, permanently dedicated for public enjoyment, education and inspiration and protected from all interferences other

than essential management practices, so that its natural attributes are preserved.

NATIVE FOREST

Any local indigenous forest community, the dominant species of which is trees, containing the complement of native species and habitats normally associated with that forest type. This includes forests that have been regenerated with human assistance following disturbance. It excludes plantations of native species and previously logged native forest regenerated with non-endemic native species.

NATURE CONSERVATION RESERVE

Area of publicly owned land managed primarily for nature conservation, and providing other benefits and uses, but not wood production.

OLD GROWTH

Forest that is ecologically mature and has been subjected to negligible unnatural disturbance such as logging, roading and clearing. The definition focuses on forest in which the upper stratum or overstorey is in the late-mature to over-mature growth phases. For Tasmanian forests, the agreed definition is ecologically mature forest where the effects of disturbance are now negligible.

PLANTATION FOREST, PLANTED FOREST

Intensively managed stands of trees of either native or exotic species, created by the regular placement of seedlings or seed.

PULP, PULPWOOD

Timber stocks cut for paper production. Australian native forests' better, stronger trees are used for lumber production, while lesser trees are harvested for pulpwood production.

REGENERATION

Re-establishment of a forest following disturbance, such as a bushfire or forest harvesting. Forests regenerate either naturally or from prepared seedbeds. Regeneration can occur after the removal of selected trees. In other cases, nearly all trees may be felled to expose seedlings to sunlight to assist regeneration (see "Clearfelling", above).

REGROWTH FOREST

Plants, particularly trees of similar age, that grow in an area following disturbance. Forests create different fauna and flora habitats as they grow and develop. Each stage of forest growth, including regrowth, provides a suite of conservation values. A range of forest growth stages is essential to maintain the full set of values that they provide.

RESERVED FOREST

See "Nature Conservation Reserve," above.

SAWLOG

Log large enough to be carved or sawed into high-value lumber or other sawn or carved products.

SUSTAINABILITY

Ability to provide for current needs without damaging the ability of future generations to provide for themselves. A sustainable action can be carried out over and over without negative environmental effects or impossibly high costs to anyone involved.

SUSTAINABLE FOREST MANAGEMENT

Process of managing forests to ensure they meet present needs without affecting options for future generations and, at the same time, maintaining and protecting other forest values. Three principles guide the concept of Ecologically Sustainable Forest Management: maintain the ecological process within forests; preserve biological diversity; and obtain for the community the full range of environmental, economic and social benefits from all forest uses within ecological limits.

WILDERNESS

Land that, together with its plant and animal communities, is in a state that has not been substantially modified by, and is remote from, the influences of European settlement, or is capable of being restored to such a state.

WOODCHIP

Small shredded particles of pulpwood (see above) used in the production of paper and other wood-fibre products.

WORLD HERITAGE CONVENTION

International agreement under the United Nations Educational, Scientific and Cultural Organisation (UNESCO) to promote cooperation among nations to protect heritage around the world that is of such outstanding universal value that its conservation is important for current and future generations. It is intended that, unlike the seven wonders of the ancient world, properties on the World Heritage List are conserved for all time.

USEFUL SOURCES AND CONTACTS

Australia's Forests at a Glance 2007

Australian Government
Department of Agriculture,
Fisheries and Forestry

Available to download at:
www.daff.gov.au/brs/forest-veg/nfi/products

Forests for the Future: Tasmanian Community Forest Agreement —Second Anniversary Implementation Update

Australian Government
Department of Agriculture,
Fisheries and Forestry

Available to download at:
www.daff.gov.au/___data/assets/pdf_file/0015/236121/tcfa-report.pdf

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Website: www.daff.gov.au

FORESTRY TASMANIA

www.forestrytas.com.au

THE TASMANIAN GOVERNMENT

Website: www.tas.gov.au

THE NATIONAL ASSOCIATION OF FOREST INDUSTRIES

Website: www.nafi.com.au

JAPAN PAPER ASSOCIATION

Website: www.jpa.gr.jp/en/about/bus/index.html

AUSTRALIAN FORESTRY STANDARD

Website: www.forestrystandard.org.au

FORESTS AND FOREST INDUSTRY COUNCIL OF TASMANIA

Website: www.ffic.com.au

AUSTRALIAN FOREST GROWERS

Website: www.afg.asn.au

FOREST PRACTICES AUTHORITY, TASMANIA

Website: www.fpa.tas.gov.au



Australian Government



TASMANIA



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