

Appendix A

Comparison of international Montreal Process indicators with Australia's national indicators

In reporting on the state of its forests, Australia uses the seven criteria developed in 1995 by the international-level Montreal Process Working Group on Criteria and Indicators for the Conservation and Sustainable Management of Temperate and Boreal Forests (Montreal Process Working Group 2009a, 2009b). Indicators are nested under each of these criteria.

In 1998, the national-level Montreal Process Implementation Group for Australia (MIG), which comprises representatives of the Australian Government and state and territory governments, adapted the Montreal Process set of indicators to better suit reporting on Australia's unique forests. However, some of Australia's original set of indicators proved difficult to measure, and some overlapped. In 2006, MIG reviewed the indicators and reduced the list used in Australia to 44 (Commonwealth of Australia 2008). This set of 44 national indicators underpinned SOFR 2008 and again underpins SOFR 2013.

Table A1 shows the alignment of Australia's 44 national indicators with the 54 international indicators of the Montreal Process.

Table A1: Alignment of the international Montreal Process indicators with Australia's national indicators used in SOFR 2013

International Montreal Process criteria and indicators		Australian indicator(s) with which each Montreal Process indicator aligns		Australia's criteria and indicators		Montreal Process indicator(s) with which each Australian indicator aligns	
Indicator number	Indicator name	Strong alignment	Partial alignment	Indicator number	Indicator name	Strong alignment	Partial alignment
Criterion 1 Conservation of biological diversity							
1.1	Ecosystem diversity			1.1	Ecosystem diversity		
1.1.a	Area and percent of forest by forest ecosystem type, successional stage, age class, and forest ownership or tenure	1.1a	1.1b	1.1.a	Area of forest by forest type and tenure	1.1.a	–
1.1.b	Area and percent of forest in protected areas by forest ecosystem type, and by age class or successional stage	1.1c	1.1b	1.1.b	Area of forest by growth stage	–	1.1.a 1.1.b
1.1.c	Fragmentation of forests	1.1d	–	1.1.c	Area of forest in protected area categories	1.1.b	–
				1.1.d	Fragmentation of forest cover	1.1.c	–
1.2	Species diversity			1.2	Species diversity		
1.2.a	Number of native forest associated species	–	1.2a	1.2.a	Forest dwelling species for which ecological information is available	–	1.2.a
1.2.b	Number and status of native forest associated species at risk, as determined by legislation or scientific assessment	1.2b	–	1.2.b	The status of forest dwelling species at risk of not maintaining viable breeding populations, as determined by legislation or scientific assessment	1.2.b	–
1.2.c	Status of on site and off site efforts focused on conservation of species diversity	–	–	1.2.c	Representative species from a range of habitats monitored at scales relevant to regional forest management	–	1.3.b
1.3	Genetic diversity			1.3	Genetic diversity		
1.3.a	Number and geographic distribution of forest associated species at risk of losing genetic variation and locally adapted genotypes	1.3a	–	1.3.a	Forest associated species at risk from isolation and the loss of genetic variation, and conservation efforts for those species	1.3.a	1.3.c
1.3.b	Population levels of selected representative forest associated species to describe genetic diversity	–	1.2c	1.3.b	Native forest and plantations of indigenous timber species which have genetic resource conservation mechanisms in place	–	1.3.c
1.3.c	Status of on site and off site efforts focused on conservation of genetic diversity	–	1.3a 1.3b				

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International Montreal Process criteria and indicators		Australian indicator(s) with which each Montreal Process indicator aligns		Australia's criteria and indicators		Montreal Process indicator(s) with which each Australian indicator aligns	
Indicator number	Indicator name	Strong alignment	Partial alignment	Indicator number	Indicator name	Strong alignment	Partial alignment
Criterion 2 Maintenance of productive capacity of forest ecosystems							
2.a	Area and percent of forest land and net areas of forest land available for wood production	2.1a	–	2.1a	Native forest available for wood production, area harvested, and growing stock of merchantable and non-merchantable tree species	2.a 2.b	–
2.b	Total growing stock and annual increment of both merchantable and non-merchantable tree species in forests available for wood production	2.1a	–	2.1b	Age class and growing stock of plantations	2.c	–
2.c	Area, percent, and growing stock of plantations of native and exotic species	2.1b	–	2.1c	Annual removal of wood products compared to the volume determined to be sustainable for native forests and future yields for plantations	2.d	–
2.d	Annual harvest of wood products by volume and as a percentage of net growth or sustained yield	2.1c	–	2.1d	Annual removal of non-wood forest products compared to the level determined to be sustainable	2.e	–
2.e	Annual harvest of non-wood forest products	2.1d	–	2.1e	The area of native forest harvested and the proportion of that effectively regenerated, and the area of plantation harvested and the proportion of that effectively re-established	–	–
Criterion 3 Maintenance of ecosystem health and vitality							
3.a	Area and percent of forest affected by biotic processes and agents (e.g. disease, insects, invasive species) beyond reference conditions	3.1a	–	3.1a	Scale and impact of agents and processes affecting forest health and vitality	3.a 3.b	–
3.b	Area and percent of forest affected by abiotic agents (e.g. fire, storm, land clearance) beyond reference conditions	3.1a 3.1b	–	3.1b	Area of forest burnt by planned and unplanned fire	3.b	–
Criterion 4 Conservation and maintenance of soil and water resources							
4.1	Protective function						
4.1.a	Area and percent of forest whose designation or land management focus is the protection of soil or water resources	4.1a	–	4.1a	Area of forest land managed primarily for protective functions	4.1.a	–
4.2	Soil						
4.2.a	Proportion of forest management activities that meet best management practices or other relevant legislation to protect soil resources	4.1b 4.1c	–	4.1b	Management of the risk of soil erosion in forests	4.2.a	–
4.2.b	Area and percent of forest land with significant soil degradation	–	–	4.1c	Management of the risks to soil physical properties in forests	4.2.a	–
4.3	Water						
4.3.a	Proportion of forest management activities that meet best management practices, or other relevant legislation, to protect water related resources	4.1d 4.1e	–	4.1d	Management of the risks to water quantity from forests	4.3.a	–
4.3.b	Area and percent of water bodies, or stream length, in forest areas with significant change in physical, chemical or biological properties from reference conditions	–	–	4.1e	Management of the risks to water quality in forests	4.3.a	–
Criterion 5 Maintenance of forest contribution to global carbon cycles							
5.a	Total forest ecosystem carbon pools and fluxes	5.1a	–	5.1a	Contribution of forest ecosystems and forest industries to the global greenhouse gas balance	5.a 5.b	5.c
5.b	Total forest product carbon pools and fluxes	5.1a	–				
5.c	Avoided fossil fuel carbon emissions by using forest biomass for energy	–	5.1a				

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Indicator number	Indicator name	Strong alignment	Partial alignment	Indicator number	Indicator name	Strong alignment	Partial alignment
Criterion 6 Maintenance and enhancement of long-term multiple socio-economic benefits to meet the needs of societies							
6.1	Production and consumption			6.1	Production and consumption		
6.1.a	Value and volume of wood and wood products production, including primary and secondary processing	6.1a	–	6.1a	Value and volume of wood and wood products	6.1.a	–
6.1.b	Value of non-wood forest products produced or collected	6.1b	–	6.1b	Values, quantities and use of non-wood forest products	6.1.b	–
6.1.c	Revenue from forest based environmental services	6.1c	–	6.1c	Value of forest based services	6.1.c	–
6.1.d	Total and per capita consumption of wood and wood products in round wood equivalents	6.1d	–	6.1d	Production and consumption and import/export of wood, wood products and non-wood products	6.1.d 6.1.e 6.1.f 6.1.g	6.1.h
6.1.e	Total and per capita consumption of non-wood products	6.1d	–	6.1e	Degree of recycling of forest products	6.1.i	–
6.1.f	Value and volume in round wood equivalents of exports and imports of wood products	6.1d	–				
6.1.g	Value of exports and imports of non-wood products	6.1d	–				
6.1.h	Exports as a share of wood and wood products production and imports as a share of wood and wood products consumption	–	6.1d				
6.1.i	Recovery or recycling of forest products as a percent of total forest products consumption	6.1e	–				
6.2	Investment in the forest sector			6.2	Investment in the forest sector		
6.2.a	Value of capital investment and annual expenditure in forest management, wood and non-wood product industries, forest-based environmental services, recreation and tourism	6.2a	–	6.2a	Investment and expenditure in forest management	6.2.a	–
6.2.b	Annual investment and expenditure in forest-related research, extension and development, and education	6.2b	–	6.2b	Investment in research, development, extension and use of new and improved technologies	6.2.b	–
6.3	Employment and community needs			6.5	Employment and community needs		
6.3.a	Employment in the forest sector	6.5a	–	6.5a	Direct and indirect employment in the forest sector	6.3.a	–
6.3.b	Average wage rates, annual average income and annual injury rates in major forest employment categories	6.5b	–	6.5b	Wage rates and injury rates within the forest sector	6.3.b	–
6.3.c	Resilience of forest-dependent communities	6.5c	–	6.5c	Resilience of forest dependent communities to changing social and economic conditions	6.3.c	–
6.3.d	Area and percent of forests used for subsistence purposes	–	6.5d	6.5d	Resilience of forest dependent Indigenous communities to changing social and economic conditions	–	6.3.d
6.3.e	Distribution of revenues derived from forest management	–	–				
6.4	Recreation and tourism			6.3	Recreation and tourism		
6.4.a	Area and percent of forests available and/or managed for public recreation and tourism	6.3a	–	6.3a	Area of forest available for public recreation/ tourism	6.4.a	–
6.4.b	Number, type, and geographic distribution of visits attributed to recreation and tourism and related to facilities available	6.3b	–	6.3b	Range and use of recreation/ tourism activities available	6.4.b	–

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Criterion 6 Maintenance and enhancement of long-term multiple socio-economic benefits to meet the needs of societies continued							
6.5	Cultural, social and spiritual needs and values			6.4	Cultural, social and spiritual needs and values		
6.5.a	Area and percent of forests managed primarily to protect the range of cultural, social and spiritual needs and values	6.4a 6.4b 6.4c	–	6.4a	Area of forest to which Indigenous people have use and rights that protect their special values and are recognised through formal and informal management regimes	6.5.a	–
6.5.b	The importance of forests to people	6.4d	–	6.4b	Registered places of non-Indigenous cultural value in forests that are formally managed to protect those values	6.5.a	–
				6.4c	The extent to which Indigenous values are protected, maintained and enhanced through Indigenous participation in forest management	6.5.a	–
				6.4d	The importance of forests to people	6.5.b	–
Criterion 7 Legal, institutional and economic framework for forest conservation and sustainable management							
7.1.a	Legislation and policies supporting the sustainable management of forests	7.1a	7.1b	7.1a	Extent to which the legal framework supports the conservation and sustainable management of forests	7.1.a	7.3.a 7.3.b
7.1.b	Cross-sectoral policy and programme coordination	–	7.1a 7.1b	7.1b	Extent to which the institutional framework supports the conservation and sustainable management of forests	–	7.1.a 7.4.a 7.5.b
7.2.a	Taxation and other economic strategies that affect the sustainable management of forests	7.1c	–	7.1c	Extent to which the economic framework supports the conservation and sustainable management of forests	7.2.a	–
7.3.a	Clarity and security of land and resource tenure and property rights	–	7.1a	7.1d	Capacity to measure and monitor changes in the conservation and sustainable management of forests	7.5.c	–
7.3b	Enforcement of laws related to forests	–	7.1a	7.1e	Capacity to conduct and apply research and development aimed at improving forest management and delivery of forest goods and services	7.4.b	–
7.4.a	Programmes, services and other resources supporting the sustainable management of forests	–	7.1b				
7.4.b	Development and application of research and technologies for the sustainable management of forests	7.1e	–				
7.5.a	Partnerships to support the sustainable management of forests	–	–				
7.5.b	Public participation and conflict resolution in forest-related decision making	–	7.1b				
7.5.c	Monitoring, assessment and reporting on progress towards sustainable management of forests	7.1d	–				

– = no such alignment

Glossary

Numbers separate alternative definitions or uses.

Term	Definition and use in SOFR 2013
Abiotic	Used in reference to the non-biological components of the environment (e.g. climate, soil and water).
Above-ground biomass	All living biomass above the soil, including stump, stem, bark, branches, foliage and seeds, and attached material such as dead branches. <i>See Below ground biomass, Biomass.</i>
Acacia	As a national forest type, forest dominated by trees of the genus <i>Acacia</i> .
Acidification	Increasing levels of acidity—for example, in soil—that can damage soil and vegetation.
Adaptive capacity (human)	Ability, or potential, of a community or individual to modify or change their characteristics or behaviour to cope better with change or stresses.
Afforestation	Establishment of forest on land not previously forested. The Kyoto Protocol and initiatives such as the Carbon Farming Initiative use specific definitions of afforestation. <i>See Deforestation, Forest, Reforestation.</i>
Age class	Group of trees of a similar age; for example, plantations established between 1990 and 1994 are in a five-year age class.
Aggregated retention	A silvicultural system in which clumps or clusters of trees are retained in forest stands harvested for wood. A form of variable retention. <i>See Silvicultural practices / systems, Variable retention.</i>
Agroforestry	<i>See Farm forestry.</i>
Amortisation	Allocation of the cost of an intangible asset (such as goodwill) over its service life.
Apical dominance	Growth habit of a shoot whereby growth and development of lateral buds are suppressed.
Arboretum	A collection of living trees brought together at a single site at least partly for observation and scientific study. Plural: arboreta.
Below-ground biomass	All biomass of live roots in the soil. (Fine roots are often excluded from measurement because it is difficult to separate these from soil organic matter.) <i>See Above ground biomass, Biomass.</i>
Biodiversity; Biological diversity	The variety of all life forms, plants, animals and microorganisms, their genes and the ecosystems they inhabit. <i>See Ecosystem diversity, Genetic diversity, Species diversity.</i>
Bioenergy	A form of energy derived from biomass, when biomass is used to generate electricity or heat or to produce liquid fuels for transport. <i>See Biofuel, Biomass.</i>
Biofuel	An energy source based on organisms and their products such as wood and plant matter, algae, or animal fats. <i>See Bioenergy.</i>
Biogeographic	Relating to the study of the distribution of living things.
Biological diversity	<i>See Biodiversity.</i>
Biomass	1. Material of biological origin (plant and other). 2. Organic material located both above-ground and below-ground, and both living and dead—for example, trees, grasses, litter, roots and soil organic matter (for purposes of carbon accounting).
Biome	A large, regional ecological unit, usually defined by some dominant vegetative pattern.
Bioregion	A large, geographically distinct area that has a common climate, geology, landform, and vegetation and animal communities. <i>See IBRA.</i>
Biotic	Used in reference to the biological components of the environment (e.g. plants, animals and other organisms).

Term	Definition and use in SOFR 2013
Broadscale clearing	Clearing of large tracts of native vegetation. <i>See Forest clearing, Land clearing.</i>
Bushfire	Fire started naturally (such as by lightning), accidentally or deliberately (such as by arson), but not in accordance with planned fire management prescriptions. <i>See Unplanned fire, Wildfire</i>
Bushland	A general term in Australia for natural vegetation, covering any kind of habitat from open, shrubby country with scattered trees, to tall, closed forests.
Callitris	As a national forest type, forest dominated by trees of the genus <i>Callitris</i> .
Canopy	Uppermost layer of a forest comprising tree crowns, branches and leaves.
CAR reserve system	A reserve system based on the three principles of Comprehensiveness, Adequacy and Representativeness, and which include: the full range of vegetation communities (comprehensive); ensuring that the level of reservation is large enough to maintain species diversity, as well as community interaction and evolution (adequate); and conserving the diversity within each vegetation community, including genetic diversity (representative). The CAR reserve system is made up of dedicated reserves, informal reserves and areas where values are protected by prescription. Dedicated, or formal, reserves are set aside for conservation through areas such as national parks. Informal forest reserves are areas set aside for conservation purposes in forests that are otherwise production forests, such as special protection zones in state forests. Areas where values are protected by prescription within production forests are those that cannot be practically protected by formal or informal reservation (e.g. riparian vegetation or rare and dispersed values). <i>See Vegetation community.</i>
Carbon accounting	Estimation of the amount of carbon stored in an ecosystem and changes in this amount.
Carbon credit	A tradable certificate, permit or legal instrument, deriving from a verified reduction of one unit (one tonne) of carbon dioxide emissions (or equivalent), and tradable to offset one unit (one tonne) of carbon dioxide emissions (or equivalent).
Carbon sequestration	Removal of carbon from the atmosphere and its storage in vegetation, soils or elsewhere.
Carbon sink	A carbon reservoir or pool that has the capacity to accumulate carbon.
Carbon source	A carbon reservoir or pool that has the capacity to release carbon.
Carbon stock	Quantity of carbon in a carbon reservoir or pool.
Carbon store	A carbon reservoir or pool.
Casuarina	As a national forest type, forest dominated by any of four genera in the family Casuarinaceae; in practice, forest dominated by trees of the genera <i>Allocasuarina</i> or <i>Casuarina</i> .
Certification	<i>See Forest certification.</i>
Certified forest	A forest that has been certified by a third party to comply with the requirements of a credible and recognised forest management standard. <i>See Forest certification.</i>
Chain of custody	A process of verifying the origin and supply of wood or timber product through the supply chain to a point of market. Generally, this applies to products from forests with forest certification or where products are legally harvested. <i>See Forest certification.</i>
Chlorosis	Yellowing or whitening of leaf tissue due to a lack of chlorophyll, typically caused by disease, changed drainage, plant nutrient deficiencies, or damage to or compaction of roots.
Clearfelling	A silvicultural system in which all (or nearly all) trees in an area are harvested in one operation, such that more than half of the harvested area is greater than one tree height from a retained forest edge. <i>See Silvicultural practices / systems.</i>
Clone	Identical copies of a plant produced by tissue culture or vegetative reproduction.
Closed forest	Forest in which the tree crown cover ranges from 80% to 100%. <i>See Crown cover.</i>
CO ₂ -equivalent (CO ₂ -e)	Measurement unit for the effect in the atmosphere of greenhouse gases relative to the effect of a unit of carbon dioxide (CO ₂).
Code of forest practice	A set of principles, procedures, guidelines and standards that defines and prescribes minimum acceptable practices in harvesting and associated forestry operations.
Commerciality	The expected volume yield of commercial sawlog or veneer log (or high-value equivalents) that is available over the long term, based on good silvicultural practices. Derives from the combination of merchantability and productivity.

Term	Definition and use in SOFR 2013
Community	<ol style="list-style-type: none"> 1. Biological: a naturally occurring group of species inhabiting a particular area and interacting with each other, especially through biological relationships, relatively independently of other communities. 2. Human: a group of people associated with a particular place.
Community adaptive capacity (human)	See <i>Adaptive capacity, Community (definition 2)</i> .
Community resilience (human)	<p>The capacity of an individual, community or human system to absorb and respond to shocks while sustaining an acceptable level of function, structure, and identity.</p> <p>See <i>Community (definition 2)</i>.</p>
Compaction	See <i>Soil compaction</i> .
Compliance audit	<p>An audit of compliance to an environmental standard, silvicultural practice, or code of practice prescriptions.</p> <p>See <i>Code of forest practice, Forest certification</i>.</p>
Conifer	<p>Taxon in the order Pinales (formerly Coniferales), a group of gymnosperms with characteristic reproductive structures called cones; includes Araucariaceae (araucaria family), Cupressaceae (cypress family), Pinaceae (pine family) and Podocarpaceae (podocarp family).</p> <p>See <i>Pine, Softwood</i>.</p>
Connectivity	The degree of vegetation structural links between forest patches in a landscape, which facilitate or impede species movement across habitat within the landscape context.
Conservation reserve	<p>Area of land specially set aside to protect some inherent environmental value. Development in, and use of, conservation reserves is usually restricted to activities that are compatible with conservation of the environmental values for which the reserve was declared. Conservation reserves include national parks, conservation parks and nature reserves, and informal reserves.</p> <p>See <i>Nature conservation reserve (Public)</i>.</p>
Consumer Price Index (CPI)	Index that measures changes in the price of a 'basket' of goods and services that account for a high proportion of expenditure by a CPI population group (e.g. metropolitan households).
Consumption	Production plus imports minus exports of a commodity or group of commodities.
Cording	<p>The practice of placing large (5–30 centimetre diameter) woody material on extraction tracks before harvesting, to minimise soil erosion.</p> <p>See <i>Matting</i>.</p>
Criterion	<p>A category of conditions or processes by which sustainable forest management may be assessed. A criterion is characterised by a set of related indicators that are monitored periodically to assess change. Plural: criteria.</p> <p>See <i>Indicator, Montreal Process</i>.</p>
Critically endangered species / ecological community	<p>Native species / ecological community facing an extremely high risk of extinction in the wild in the immediate future. One of the categories of threatened species / ecological communities defined in sections 179 and 182 of the <i>Environment Protection and Biological Conservation Act 1999</i>.</p> <p>See <i>Ecological community, Endangered species / ecological community, Extinct, Extinct in the wild, Threatened ecological community, Threatened species, Vulnerable species / ecological community</i>.</p>
Crown cover	The area of ground covered by tree canopies, ignoring overlaps and gaps within individual canopies.
Crown density	Measure of crown cover.
Crown land	<p>Land belonging to the Crown, being a national, state or territory government, including Crown land under private leasehold title.</p> <p>See <i>Leasehold land, Other Crown land, Public land</i>.</p>
Deforestation	<ol style="list-style-type: none"> 1. A type of land clearing involving the permanent removal of tree cover. 2. The direct, human-induced removal of forest cover and replacement with pasture, crops or other uses on land that was forest on 01 January 1990 (relates to the Kyoto Protocol).
Degradation	<ol style="list-style-type: none"> 1. Destruction of specific aspects of a forest ecosystem, such as a decrease in tree cover, changes in structure, a reduction in the number of species, or the loss of habitat characteristics that support the requirements of species or communities, short of being defined as deforestation. 2. Reduction in the capacity of a forest to provide a range of goods and services.
Dieback	A symptom of disease agents or environmental factors in which foliage dies progressively from the extremities and trees exhibit loss of vigour; commonly used in reference to native forests affected by cinnamon fungus (<i>Phytophthora cinnamomi</i>), woodland forests affected by salinity, forest affected by drought or changed nutrient or water regimes or fire regimes, or trees subjected to overgrazing.

Term	Definition and use in SOFR 2013
Direct employment	The number of jobs in public and private agencies and firms relating to the process of producing a good or service. Any secondary economic activity resulting from the primary activity is included in indirect employment. <i>See Indirect employment.</i>
Dry forest / dry sclerophyll forest	Typically, eucalypt-dominated sclerophyll forest associated with water-limited or nutrient-limited conditions, and with an understorey (if present) of sclerophyll trees or shrubs. Ground cover can be bare, litter, grassy or heathy. <i>See Eucalypt, Sclerophyll, Wet forest / wet sclerophyll forest.</i>
Ecological community	A group of plants, animals and other organisms that are interacting in a habitat. <i>See Community (definition 1).</i>
Ecological and/or ecosystem resilience	<i>See Resilience.</i>
Ecologically mature	Displaying a range of structural, function and compositional attributes associated with the ecological processes characteristic of forests in their mature or senescent growth stages. <i>See Mature, Old-growth.</i>
Ecologically sustainable forest management	The integration of commercial and non-commercial values of forests so that the welfare of society (both material and non-material) is improved, while ensuring that the values of forests, both as a resource for commercial use and for conservation, are not lost or degraded for current and future generations. <i>See Sustainable forest management.</i>
Ecologically sustainable use	Use of natural resources within their capacity to sustain natural processes, while maintaining the life-support systems of nature and ensuring that the benefit of the use to the present generation does not diminish the potential to meet the needs and aspirations of future generations.
Ecosystem	A dynamic complex of plant, animal and microorganism communities and their non-living environment, interacting as a functional unit.
Ecosystem diversity	The diversity of different ecological communities formed by living organisms and the relations among them. <i>See Biodiversity, Genetic diversity, Species diversity.</i>
Ecosystem services	The provision of benefits (goods and services) that society obtains from ecosystems, and the contributions that ecosystems make to human well being, arising from both biotic and abiotic processes and their interaction.
Ecotourism	Tourism that features places of ecological interest, such as forests, and experience of the environment.
Edge effect	1. The effect of non-forest environmental influences on adjoining forest land. 2. The effect of forest environmental influences on adjoining non-forested land.
Endangered species / ecological community	Native species / ecological community facing a very high risk of extinction in the wild in the near future. One of the categories of threatened species/ ecological communities defined in sections 179 and 182 of the <i>Environment Protection and Biological Conservation Act 1999</i> . <i>See Critically endangered species / ecological community, Ecological community, Extinct, Extinct in the wild, Threatened ecological community, Threatened species, Vulnerable species / ecological community.</i>
Endemic	Species of plant or animal that occurs naturally only in a specified region or country. <i>See Exotic, Indigenous (of species), Introduced species.</i>
End-use market	The final market in which a product or service is ultimately consumed.
Environmental asset	1. A part or feature of the natural environment that provides environmental or ecosystem functions or services. 2. In Australia's System of National Accounts, one of four environmental assets (land, significant subsoil assets, plantation timber, or native standing timber available for exploitation) that are under the control of an economic agent, and measurable (valued in monetary terms). <i>See Ecosystem services.</i>
Environmental compliance	Conforming to specified requirements in environmental laws, regulations, environmental management systems, management plans, planning specifications, codes of practice, standards and prescription guidelines. <i>See Code of forest practice, Environmental management system.</i>
Environmental management system	A framework for the systematic management of an organisation's environmental obligations and objectives.

Term	Definition and use in SOFR 2013
Environmental planting	In a forest context, trees established for environmental benefit (not industrial benefit) by direct seeding or planting that have the potential to attain a crown cover of at least 20% and a height of at least 2 metres. <i>See Industrial plantation, Other forest, Plantation.</i>
Environmental service	<i>See Ecosystem services.</i>
Eucalypt	1. Any member of three genera (<i>Angophora</i> , <i>Corymbia</i> and <i>Eucalyptus</i>) of trees or large shrubs in the family Myrtaceae, mostly native to Australia. 2. As a national forest type, forest dominated by any of the three genera <i>Angophora</i> , <i>Corymbia</i> and <i>Eucalyptus</i> .
Even-aged forest	Forest in which all trees are about the same age or of the same age class, even though they may vary in size because of their different rates of growth. <i>See Uneven-aged forest.</i>
Exclusion zone	Forest excluded from harvest or management operations as a result of the application of a prescription in a code of practice (for fire, forest or reserve management).
Exotic	Species of plant or animal that does not occur naturally in a region or country. <i>See Indigenous (of species), Introduced species.</i>
Ex-situ conservation	The conservation of species and genetic components of biological diversity outside their natural habitats. <i>See In-situ conservation.</i>
Extinct	A species for which there is no reasonable doubt that the last individual has died, or for which exhaustive surveys in known or expected habitats throughout its historical range have failed to record an individual over a timeframe appropriate to its lifecycle and form. One of the categories of threatened species defined by sections 179 of the <i>Environment Protection and Biological Conservation Act 1999</i> .
Extinct in the wild	A species known to survive in only cultivation, in captivity or as a naturalised population well outside its past range, and that has not been recorded in its known and/or expected habitat, at appropriate seasons, anywhere in its past range, despite exhaustive surveys over a time frame appropriate to its life cycle and form. One of the categories of threatened species defined by sections 179 of the <i>Environment Protection and Biological Conservation Act 1999</i> .
Farm forestry	Establishment and/or management of trees or forests on agricultural landscapes for commercial, aesthetic and/or environmental reasons. Also known as agroforestry.
Fibreboard	A category of reconstituted wood-panel products made from pulpwood and/or wood-processing residues such as woodchips, sawmill shavings and sawdust plus a resin or binder, pressed into panels. Types of fibreboard (in order of increasing density) include particleboard, medium-density fibreboard (MDF), high-density fibreboard and hardboard.
Fire regime	The frequency, intensity, seasonality and scale of burning of an area or vegetation type over a period of time. The history or forecast of fire events or fire use in a particular area or vegetation type.
Firewood	Wood used for residential heating. <i>See Fuelwood.</i>
Floriculture	Cultivation of flowering and ornamental plants.
Floristics	Study of the distribution and relationships of plants over a geographic area.
Forest	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 about equal to or greater than 20%. This includes Australia's diverse native forests and plantations, regardless of age. It is also sufficiently broad to encompass areas of trees that are sometimes described as woodlands.
Forest certification	A process whereby the quality of sustainable forest management is assessed and certified by a third party, against the criteria of a credible and recognised forest management standard. <i>See Certified forest.</i>
Forest clearing	Conversion of forested land to agricultural, urban or other non-forest land uses. <i>See Broad-scale clearing, Land clearing.</i>
Forest-dependent community (human)	A community having an identified dependence on the forest and wood products industries. <i>See Community (definition 2).</i>
Forest-dependent species	A species that requires a forest habitat for at least part of its lifecycle, and that could not survive or reproduce in the absence of this habitat.
Forest-dwelling species	A species that may use a forest habitat for at least part of its lifecycle.
Forest health	The sum of the ecosystem processes (energy, nutrient, hydrological and biological processes) that together maintain the vitality of a forest ecosystem.

Term	Definition and use in SOFR 2013
Forest land	Land carrying forest. See <i>Forest</i> .
Forest management	A system of practices for conservation, stewardship and productive use of forest land, aimed at fulfilling relevant ecological, economic and social functions and objectives of the forest.
Forest management plan	A long-term, documented plan for a forest area that contains defined management goals, objectives and outcomes, which are monitored and periodically reviewed, and that expressly includes the management of forest. Management plans can take many forms, including forest management plans; natural resource, environment and water catchment management plans that cover and include a focus on forests; and strategic management planning systems required for forest certification.
Forest operations	Operational forest management activities, independent of forest type or tenure.
Forestry operations	Operational forest management activities related to wood production.
Formal reserve	See <i>CAR reserve system</i> .
Fragmentation	1. The degree of loss of spatial connectivity between forest areas. 2. The process of loss of spatial connectivity between forest areas. See <i>Connectivity</i> .
Free-on-board value	The value of goods to the seller at the point of loading goods onto transport to overseas markets, excluding transport and insurance costs.
Fuel load	The total amount of combustible material in a defined area.
Fuelwood	Wood or wood products used as industrial fuel or for bioenergy production. See <i>Bioenergy</i> , <i>Firewood</i> .
Gall	A proliferation of modified plant tissue caused by various parasites, from fungi and bacteria to insects and mites.
Genetic diversity	The diversity of genetic information within and between individual species. See <i>Biodiversity</i> , <i>Ecosystem diversity</i> , <i>Species diversity</i> .
Genetic resources	Material of plant, animal, microbial or other origin that contains functional units of heredity and that has actual or potential value for humanity.
Genotype	The genetic constitution or makeup of an organism.
Geographic information system (GIS)	A system for capturing, storing, analysing and managing data and associated attributes that are spatially referenced to the surface of the Earth.
Geospatial	Relating to the relative position of features on the surface of the Earth.
Girder	A specialised, large-dimensioned timber product, usually in squared-end form, that is used in building bridges, wharves and the framework of large buildings.
Global carbon cycle	The movement of carbon between different parts of the Earth and its atmosphere, including the storage of carbon in those parts.
Graft	A method of plant propagation, whereby a bud, shoot or tissue of one plant is joined with another plant.
Greenhouse gas	Gas that affects the temperature of the Earth's surface and climate, including water vapour, ozone, chlorofluorocarbons, carbon dioxide, methane and nitrous oxide. National inventories report anthropogenic emissions and removals of greenhouse gases not controlled by the Montreal Protocol on Substances that Deplete the Ozone Layer.
Green Triangle	A region comprising in whole or in part 17 local government areas straddling the state border in south-west Victoria and south-east South Australia, and containing significant areas of plantation and dependent wood-processing facilities.
Greenwood	1. Wood freshly harvested that has not been dried. 2. Wood from live sandalwood that meets a specified quality standard and size.
Gross domestic product	The total market value of goods and services produced in a country in a given period, after deducting the cost of intermediate goods and services used in production (but not deducting allowances for the consumption of fixed capital, or depreciation). 'Gross domestic product' is the sum of the value added by each industry across the economy. 'Industry value added' is the value added by a particular sector. See <i>Industry value added</i> .
Gross value of production	Value placed on production at the wholesale prices realised in the marketplace (where the marketplace refers to local consumption, export, or a point before value-adding by a secondary industry). Gross value of production provides a value for products that do not have a final market price.

Term	Definition and use in SOFR 2013
Group selection	A silvicultural system in which groups (small patches or stands) of trees are harvested, allowing for subsequent regeneration and leading to a forest comprising patches of differently aged trees. <i>See Selection logging, Silvicultural practices / systems.</i>
Growing stock	The living tree component of the standing volume in a forest at a given time. <i>See Standing volume.</i>
Gymnosperm	A plant, such as a cycad or conifer, the seeds of which are not enclosed within an ovary. <i>See Conifer.</i>
Habitat	The environment where a plant, animal or ecological community normally lives or occurs. <i>See Ecological community.</i>
Hardwood	Wood or wood products from flowering trees (broadleaved tree species), such as eucalypts, irrespective of the physical hardness of the wood; also used to refer to the trees that have such wood, and plantations of such trees.
Harvested wood products	Wood products originating from harvested trees and removed from harvest areas for use or further processing.
Harvesting	1. As part of forest management, cutting (felling) of trees to produce wood products. 2. Collection (gathering) of non-wood forest products.
Heathland	A shrubland habitat found mainly on low-quality acidic soils and characterised by open low-growing woody vegetation. It forms extensive and highly diverse communities across Australia in humid and sub-humid areas. Heathland above 2 metres tall can also be classified as other woody vegetation. <i>See Other woody vegetation, Shrubland.</i>
Hybridisation	The process of crossing different breeds or cultivars of a single plant species, or crossing plants of different taxa (subspecies, species or genera). Hybridisation can occur naturally between closely related species.
IBRA (Interim Biogeographic Regionalisation for Australia)	A set of 85 bioregions within the Australian landmass, used as the basis for the National Reserve System's planning framework and some state-based reporting.
Indicator	A measure or measurement of an aspect of a criterion. A quantitative or qualitative variable that can be measured or described and that, when observed periodically, demonstrates trends. <i>See Criterion, Montreal Process.</i>
Indigenous (of people)	Of Aboriginal or Torres Strait Islander descent.
Indigenous (of species)	Species of plant or animal that occurs naturally in a specified region or country. <i>See Endemic, Exotic.</i>
Indigenous co-managed (of lands)	Lands that are owned and managed by non-Indigenous parties, but have formal, legally binding agreements in place to include Indigenous people in the process of developing and implementing management plans. <i>See Indigenous managed (of lands), Indigenous owned and managed (of lands), Other special rights (of lands).</i>
Indigenous estate (land or forest)	Land or forest that is Indigenous owned and managed, Indigenous managed, Indigenous co-managed, or subject to Other special rights.
Indigenous Land Use Agreement	A voluntary agreement between Native Title parties and other people.
Indigenous managed (of lands)	Lands that are managed but not owned by Indigenous communities (e.g. Crown reserves and leases), and lands that are owned by Indigenous people, but have formal shared management agreements with Australian or state and territory government agencies. <i>See Indigenous co-managed (of lands), Indigenous owned and managed (of lands), Other special rights (of lands).</i>
Indigenous owned and managed (of lands)	Freehold lands that are both owned and managed by Indigenous communities. <i>See Indigenous co-managed (of lands), Indigenous managed (of lands), Other special rights (of lands).</i>
Indigenous Protected Area	An area of Indigenous-owned land or sea where traditional owners have entered into an agreement with the Australian Government to promote biodiversity and cultural resource conservation. <i>See Protected area.</i>
Indirect employment	The number of jobs in secondary economic activity resulting directly from a primary economic activity, in provision of materials, supplies, goods and services to support the primary activity, and generated or supported in retail and service sectors by the spending of salaries and wages of individuals and families included in direct employment. <i>See Direct employment.</i>
Industrial plantation	Hardwood or softwood plantation supplying log resources to the wood-processing industries as reported through the National Plantation Inventory. <i>See Other forest, Plantation.</i>

Term	Definition and use in SOFR 2013
Industry value added	The value added by an industry to the inputs used by that industry; the contribution of that industry to Gross domestic product. For SOFR 2013, 'Industry value added' excludes some downstream parts of the forestry, wood and paper products industries, particularly wholesaling, retailing and value-adding (including the manufacturing of some commodities). <i>See Gross domestic product.</i>
Informal reserve	Reserve on public land protected through an administrative instrument by a public agency. <i>See CAR reserve system.</i>
In-situ conservation	The conservation of species and genetic components of biological diversity in their natural habitats. <i>See Ex-situ conservation.</i>
Integrated pest management	A pest control strategy that uses an array of complementary methods, such as natural predators and parasites, pest-resistant varieties, cultural practices, biological controls, various physical techniques and chemicals.
Introduced species	A species of plant or animal occurring outside its natural range (past or present) and dispersal potential—that is, outside the range it occupies naturally or could occupy without direct or indirect introduction or care by humans. <i>See Exotic, Indigenous (of species)</i>
Introgression	The movement of a gene or genes from the gene pool of one species into the gene pool of another by hybridisation or cross-breeding. <i>See Hybridisation.</i>
Jurisdictions	The Commonwealth, states and territories of Australia, in each of which its own system of laws has authority.
Key threatening process	A threatening process listed under the <i>Environment Protection and Biodiversity Conservation Act 1999</i> . <i>See Threatening process.</i>
Land clearing	Removal of vegetation to convert land to another land use. <i>See Broadscale clearing, Forest clearing.</i>
Land tenure	Formal title, ownership or occupancy of land. <i>See Crown land, Leasehold forest, Multiple-use public forest, Nature conservation reserve, Other Crown land, Private forest, Unresolved tenure.</i>
Leasehold forest	Forest on Crown land held under leasehold title for a specific term and purpose and generally regarded as privately managed, including land held under leasehold title with special conditions attached for designated Indigenous communities. <i>See Crown land, Leasehold land, Leasehold title.</i>
Leasehold land	Crown land held under leasehold title for a specific term and purpose and generally regarded as privately managed, including land held under leasehold title with special conditions attached for designated Indigenous communities. <i>See Crown land, Leasehold title.</i>
Leasehold title	Land title held under a contract by which one party conveys the land to another for a specified time and purpose, usually in return for a periodic payment.
LiDAR (Light Detection and Ranging)	A technology that uses laser (light) pulses from (most commonly) an aircraft to collect information on terrain and vegetation features (such as tree height), based on the return time of pulses back to the sensor.
Litter	The uppermost layer of the forest floor consisting chiefly of fallen leaves, wooden debris and other decaying organic matter.
Log landing	A cleared area where harvested logs are laid or piled in stacks after being gathered from the site or sites of felling, and before transport to the wood processing facility.
Mallee	1. A woody plant, usually a eucalypt, that is multi-stemmed from ground level, and without a prescribed upper or lower height limit. 2. A forest dominated by mallee species.
Managed investment scheme (MIS)	Scheme associated with primary production (e.g. plantation forestry) that satisfies the definition of 'managed investment scheme' in s. 9 of the Corporations Act 2001 and fulfils associated regulatory requirements.
Managed losses	Losses of carbon directly from forests to the atmosphere that are associated with the management of forests—for example, prescribed burns, post-harvest burnings, and burning of debris associated with land-clearing.
Management effectiveness	A measure of how well a protected area, or system of protected areas, is being managed in terms of protecting values and achieving goals and objectives, based on an audit process or evaluation.

Term	Definition and use in SOFR 2013
Mangrove	<ol style="list-style-type: none"> 1. A tree, shrub, palm or ground fern that normally grows above mean sea level in the intertidal zone of coastal environments and estuarine margins. 2. The tidal habitat comprising mangrove trees and shrubs. 3. A national forest type comprising mangroves.
Matting	<p>The practice of placing small (less than 5 centimetre diameter) woody material on extraction tracks before harvesting to protect soil against heavy vehicle traffic and minimise soil erosion.</p> <p>See <i>Cording</i>.</p>
Mature	<ol style="list-style-type: none"> 1. A native forest growth stage in which trees are at maximum height and the crowns at full lateral development. 2. A native forest growth stage, generally taken as 80 or more years since disturbance. One of four growth stages used at the national level to describe the age of trees and stands of trees. <p>See <i>Apical dominance</i>, <i>Ecologically mature</i>, <i>Regrowth</i>, <i>Senescent</i>.</p>
Medium-density fibreboard (MDF)	See <i>Fibreboard</i> .
Melaleuca	As a national forest type, forest dominated by trees of the genus <i>Melaleuca</i> .
Merchantability	The suitability of a tree species for pulp, sawlog, or speciality wood products. An emphasis is placed on commercial production of sawlogs or high-value equivalents.
Merchantable tree species	<p>A tree species or provenance with known commercial uses for wood products, based on standards, technology or market conditions.</p> <p>See <i>Non-merchantable tree species</i>.</p>
MODIS (Moderate-resolution Imaging Spectroradiometer)	A remote-sensing technology carried on two Earth Observing System satellites, capturing data covering the visual and infrared spectrum and imaging the entire Earth every 1–2 days.
Monitoring	The periodic and systematic measurement and assessment of a value, attribute or indicator.
Montane	Ecosystems associated with mountain landscapes, alpine environments or higher elevations.
Montreal Process (the Montreal Process Working Group on Criteria and Indicators for the Conservation and Sustainable Management of Temperate and Boreal Forests)	<p>An initiative by the Montreal Process Working Group of (currently 12) countries, which has developed and is implementing a comprehensive set of criteria and indicators for the conservation and sustainable management of temperate and boreal forests. Australia is a member of the working group.</p> <p>See <i>Criterion</i>, <i>Indicator</i>.</p>
Mosaic (of vegetation)	Vegetation composed of patches of different types, perhaps arising from periodic disturbance (such as fire or wood harvesting) or related to differences in soil or landform.
Multi-leaders (of trees)	<p>A condition in trees where the apical dominance of the shoot at the top of the plant is lost, allowing lateral buds to grow into two or more stems or leaders.</p> <p>See <i>Apical dominance</i>.</p>
Multiple Lines of Evidence approach	Compilation of data from a range of different sources, followed by assessment and validation to arrive at a best-possible dataset.
Multiple-use public forest	Publicly owned state forest, timber reserves and other forest areas on which a range of forest values—including provision of wood for harvest, water supply, conservation of biodiversity, recreation and environmental protection—are managed by state and territory government agencies in accordance with relevant Acts and regulations.
National forest type	Any one of eight broad forest types in which Australia's forests are categorised in the National Forest Inventory for the purpose of reporting and analysis (Acacia, Callitris, Casuarina, Eucalypt, Mangrove, Melaleuca, Rainforest, and Other native forest).
Native	<p>Of a species, located within its natural range.</p> <p>See <i>Non-native</i>.</p>
Native forest	Forest that is dominated by the suite of native tree species naturally associated with forest in that location and located within their natural range, and that is not a plantation.
Nature conservation reserve (Public)	<p>Crown land that is formally reserved for environmental, conservation and recreational purposes, including national parks, nature reserves, state and territory recreation and conservation areas, and formal reserves in state forests. It does not include informal reserves and those pending gazettal. The commercial harvesting of wood and non-wood forest products is generally not permitted.</p> <p>See <i>Conservation reserve</i>, <i>Crown land</i>.</p>
Non-forest	<p>Vegetation communities and habitats that are not forest, including marine environments, alpine meadows, other woody vegetation (including open woodland, heathland and shrubland), grassland, non-forest waterways and wetlands, rock outcrops, mudflats and farmland.</p> <p>See <i>Forest</i>, <i>Habitat</i>, <i>Other woody vegetation</i>, <i>Vegetation community</i>.</p>

Term	Definition and use in SOFR 2013
Non-forest land	Land that does not carry forest. <i>See Forest land.</i>
Non-merchantable tree species	A tree species or provenance with no currently known commercial uses for wood products, based on standards, technology or market conditions. <i>See Merchantable tree species.</i>
Non-native	Of a species, located outside its natural range. <i>See Native.</i>
Non-production native forest	Native forest that is not managed for commercial wood production.
Non-vascular plant	A plant without a water-conducting system, including algae, liverworts and mosses.
Non-wood forest product	A product of biological origin, other than wood, derived from forests, including game animals, seeds, berries, chemical products, mushrooms, oils, foliage, medicinal plants, flowers, fodder, and wood and non-wood Indigenous artefacts.
Old-growth forest	Ecologically mature forest where the effects of disturbances are now negligible. <i>See Ecologically mature, Mature.</i>
Open forest	Forest in which tree crown cover ranges from 50% to less than 80%. <i>See Crown cover.</i>
Other Crown land	Crown land reserved for a variety of purposes, including utilities, scientific research, education, stock routes, mining, water-supply catchments, and use by Indigenous communities. Excludes Leasehold Forest, Nature Conservation Reserve, and Multiple-Use Forest. <i>See Crown land.</i>
Other forest	Non-industrial plantations and planted forests that are not reported through the National Plantation Inventory but satisfy the definition of forest; it includes farm forestry and agroforestry plantations, sandalwood plantations, environmental plantings, plantations within the reserve system, and plantations regarded as not commercially viable. Non-planted forests dominated by introduced species are also included in this category. <i>See Forest, Industrial plantation, Plantation.</i>
Other native forest	A national native forest type comprising forest types of minor extent such as Agonis, Atalaya, Banksia, Hakea, Grevillea, Heterodendron, Leptospermum, Lophostemon and Syncarpia (named after their dominant genera), as well as native forests where the type is unknown. <i>See Forest, Native forest.</i>
Other special rights (of lands)	Lands subject to Native Title determinations and active Indigenous Land Use Agreements. These are independent of tenure and, in most cases, do not grant ownership or management rights of land to Indigenous communities. They can provide for the right to access areas of cultural significance, or a legal requirement for consultation with the local Indigenous community before any major development activities take place. <i>See Indigenous co-managed (of lands), Indigenous managed (of lands), Indigenous owned and managed (of lands).</i>
Other woody vegetation	A non-forest vegetation type: open woodland, heathland or shrubland generally containing a tree component with actual or potential tree height greater than 2 metres, but <i>either</i> actual or potential tree canopy crown cover of 5–20% <i>or</i> combined cover of shrubs and trees greater than 10% but cover of trees less than 20%. <i>See Crown cover, Heathland, Shrubland.</i>
Overstorey	1. The uppermost layer of foliage in a forest. 2. Trees occupying the uppermost layer in a forest of more than one layer (storey).
Parasitoid	An organism that spends a significant proportion of its life attached to or within a single host organism, which it ultimately kills (and often consumes).
Particleboard	A panel product made by compressing wood particles (usually from softwood) and resin under heat and pressure, commonly used in flooring and joinery. <i>See Fibreboard.</i>
Patch	Basic unit of a landscape mosaic.
Pattern	The spatial arrangement or configuration of forest across the landscape.
Peeler log	A pulpwood or low-quality sawlog meeting specifications for peeling—that is, suitable for rotary peeling to produce veneer for structural-grade plywood.
Photosynthesis	A process in plants in which energy from sunlight and carbon dioxide from the air are used to produce plant matter, releasing oxygen.
Pile	A specialised round wood product that meets specified durability requirements and is used principally for wharves and to support the framework of buildings in a marine environment.

Term	Definition and use in SOFR 2013
Pine	<ol style="list-style-type: none"> 1. A tree of the genus <i>Pinus</i> in the family Pinaceae. 2. Also refers to a tree of other conifer families, e.g. Araucariaceae, Cupressaceae and Podocarpaceae. <p>See <i>Conifer</i>, <i>Softwood</i>.</p>
Planned fire	<p>Fire started in accordance with a fire management plan or planned burning program, such as fuel-reduction burning.</p> <p>See <i>Prescribed burn</i>.</p>
Plantation	<p>Intensively managed stand of trees of either native or exotic species, created by the regular placement of seedlings or seeds.</p> <p>See <i>Environmental planting</i>, <i>Industrial plantation</i>, <i>Other forest</i>.</p>
Plant community	See <i>Community (definition 1)</i> , <i>Vegetation community</i> .
Planted forest	Forest comprising planted trees. The 'Industrial plantation' and 'Other forest' categories (excluding forests of naturalised exotic species) comprise Australian 'planted forest'.
Plywood	<p>A panel product made by gluing together veneers of wood under heat and pressure, commonly used in construction and joinery.</p> <p>See <i>Veneer</i>.</p>
Pole	A specialised round wood product generally treated with preservatives that is used to support transmission lines or as structural members in pole-frame building construction.
Post	A specialised wood product from durable hardwood or treated softwood species that is used in an upright support role and meeting specifications for a range of functions.
Prescribed burn	<p>Fire started in accordance with a fire management plan or planned burning program, such as fuel-reduction burning.</p> <p>See <i>Planned fire</i>.</p>
Private forest	Forest on land held under freehold title and typically under private ownership. It excludes leased Crown land, and includes land held under freehold title with special conditions attached for designated Indigenous communities.
Privately managed forest	Forest that is managed under private ownership (including private land managed by the Crown), as well as privately managed leasehold forest and Indigenous managed forests.
Productivity	<ol style="list-style-type: none"> 1. Capacity of an ecosystem to grow, produce or yield products. 2. Amount of growth or product yield per unit area per unit time. 3. Potential annual volume growth of trees per unit area at peak mean annual increment in fully stocked forest stands.
Protected area	<ol style="list-style-type: none"> 1. General definition: a geographically defined area that is designated or regulated and managed to achieve specific conservation objectives (Article 2, Convention on Biological Diversity). 2. Specific definitions for reserve system: an area of land and/or sea especially dedicated to the protection and maintenance of biological diversity, and of natural and associated cultural resources, and managed through legal or other effective means (IUCN definition); a clearly defined geographical space, recognised, dedicated and managed, through legal or other effective means, to achieve the long-term conservation of nature with associated ecosystem services and cultural values (revised IUCN definition). <p>See <i>Indigenous Protected Area</i>.</p>
Provenance	<ol style="list-style-type: none"> 1. The place of origin of a plant or animal. 2. A set of individuals of a plant or animal species that originate from a particular location.
Public forest	See <i>Publicly managed forest</i> .
Public land	<p>Land belonging to the Crown, i.e. a government, but excluding leasehold Crown land.</p> <p>See <i>Crown land</i>, <i>Leasehold land</i>.</p>
Publicly managed forest	<ol style="list-style-type: none"> 1. Forest on public land for which management responsibility has generally been delegated to government agencies, including multiple-use forests, nature conservation reserves and other Crown land, but excluding leasehold forest. 2. Any forest on Crown land for which management responsibility has been delegated to government agencies, local governments or other instrumentalities. <p>See <i>Crown land</i>, <i>Public land</i>.</p>
Pulplog	A log harvested from a plantation or native forest stand that does not meet sawlog quality specifications and is designated to produce pulpwood.
Pulpwood	Wood used to manufacture pulp or paper products.
Rainforest	A national forest type that is dominated by rainforest species, typically in moist to wet or sheltered environments, and with broad-leaved species. Can include areas with up to 30% cover of non-rainforest species, typically as emergents, but where rainforest species dominate the character of the site.

Term	Definition and use in SOFR 2013
Reconstituted wood products	Products manufactured from reconstituted wood fibres or flakes, originating from sources such as woodchips, sawdust, wood shavings or sawmill off-cuts. Includes fibreboard (particleboard, medium-density fibreboard, high-density fibreboard and hardboard) and laminated products (but not laminated veneer).
Recycling	The collection, separation and processing of previously used and recovered wood fibre and wood and paper products for manufacture into raw materials or new products.
Reforestation	Establishment of forest on land that historically contained forest but was converted to some other use, such as agriculture. The Kyoto Protocol and initiatives such as the Carbon Farming Initiative use specific definitions of reforestation. See <i>Forest</i> .
Regeneration	<ol style="list-style-type: none"> 1. A native forest growth stage that includes juvenile and sapling stages, where trees are very small and crowns exhibit apical dominance. 2. A native forest growth stage generally taken as less than 20 years since disturbance. One of four growth stages used at the national level to describe the age of trees and stands of trees. 3. New trees arising naturally or with human assistance after harvesting, fire or other causes have removed all or some of the overstorey. See <i>Apical dominance</i> , <i>Mature</i> , <i>Regrowth</i> , <i>Senescent</i> .
Regional Forest Agreement	An agreement between the Australian Government and a state government about the long-term management and use of forests in a region that meets the requirements now listed in the <i>Regional Forest Agreements Act 2002</i> .
Regrowth	<ol style="list-style-type: none"> 1. A native forest growth stage in which trees generally have well-developed stems with crowns of small branches and are actively growing in height and diameter, but are below mature stand height. Apical dominance is apparent in vigorous trees. 2. A native forest growth stage generally taken as 20–80 years since disturbance. One of four growth stages used at the national level to describe the age of trees and stands of trees. See <i>Apical dominance</i> , <i>Mature</i> , <i>Regeneration</i> , <i>Senescent</i> .
Remote sensing	Practice of acquiring and using data from satellites or aircraft to infer or measure land cover, land use and vegetation parameters. May be used in combination with ground surveys to check the accuracy of interpretation.
Re-sawing	Cutting timber along the grain to reduce larger boards into smaller sections.
Research and development	Investigative work conducted to acquire knowledge, apply knowledge, develop or implement new products or procedures, or make significant improvements to existing products or procedures.
Resilience (ecological and ecosystem)	The capacity of an ecological system to absorb and respond to shocks while retaining essentially the same function, structure and feedbacks, and therefore identity.
Resilience (human-community)	See <i>Community resilience (human)</i> .
Resolution (image)	Measurement of the output quality or detail of an image, usually given as pixel size (the size of the square areas recorded). Higher resolution means more image detail and smaller pixels; for example, an image with 1 m × 1 m pixels is of higher resolution than an image with 1,000 m × 1,000 m pixels.
Riparian zone	The interface between land and a flowing water body such as a stream or river. Plant communities along perennial watercourses are called ‘riparian vegetation’. See <i>Community (definition 1)</i> , <i>Vegetation community</i> .
River regulation	The control or modification of the natural flow of a river or stream, most commonly by the use of dams.
Rotation	The planned number of years between regeneration or establishment of a stand of trees, and final harvesting. Rotation length is used in forest management planning to determine sustainable yield. See <i>Harvesting</i> , <i>Regeneration</i> .
Roundwood	Wood in round form, e.g. sawlogs, pulplogs, poles, piles, girders and posts.
Rural dieback	See <i>Dieback</i> .
Rut	A depression or groove worn into a snig track, path or road by machinery or erosion by water. Typically, rutting is reported in terms of rut depth. See <i>Snig Track</i> .
Salinity / salinisation	The amount of salt in water or soil. Salinisation is the process of increasing salinity levels, such as occurs in soils and streams when saline groundwater rises towards the surface following clearing of forests for farmland.
Salvage harvesting	The harvest of trees that are dead or dying as a result of insect attack, disease, drought, fire or other factors.
Sandalwood	A native tree (e.g. <i>Santalum spicatum</i> , <i>S. lanceolatum</i>) or exotic tree (e.g. <i>S. album</i>) in the family Santalaceae, which yields fragrant timber and oil.

Term	Definition and use in SOFR 2013
Sawlog	Log used to manufacture sawn timber. High-quality sawlogs are sawlogs meeting specified size and grade specifications (including amount of permissible defect). Low-quality sawlogs are sawlogs not meeting high-quality sawlog specifications.
Sawmill	A wood-processing facility in which logs are sawn by specialised machinery into timber such as boards.
Sawn timber	Timber produced by sawing logs into particular sizes; also called 'sawn wood'.
Sawn wood	See <i>Sawn timber</i> .
Sclerophyll	A description of plants or vegetation that have tough leaves, such as eucalypts and acacias, adapted to dry or nutrient-poor conditions.
Seed orchard	A stand planted and managed especially for the production of abundant superior seeds.
Seed tree	A tree left standing in a harvested area for the purpose of providing seed for regeneration.
Seed-tree silviculture	A silvicultural system in which trees are retained in a harvested area to provide seed for natural regeneration. See <i>Silvicultural practices / systems</i> .
Selection logging	A silvicultural system in which trees, typically above a certain specified size or growth stage, are removed singly or in groups, while regrowth, pole timber or habitat trees are retained to maintain an uneven-aged forest. See <i>Group selection, Silvicultural practices / systems, Single-tree/small group selection</i> .
Senescent	1. A native forest growth stage older than mature, when irregular crowns form. 2. A native forest growth stage at various ages after 80 years since disturbance. One of four growth stages used at the national level to describe the age of trees and stands of trees. See <i>Apical dominance, Mature, Regeneration, Regrowth</i> .
Sensu lato (s.l.)	In the broad sense (of a taxon). See <i>Taxon</i> .
Shelterwood	A silvicultural system of securing natural tree regeneration under a partially harvested overstorey, which is subsequently removed by successive harvest(s) to allow seedlings and young regeneration to occupy the site. See <i>Silvicultural practices / systems</i> .
Shrubland	A non-forest vegetation type dominated by woody plants that are multi-stemmed or single-stemmed. Shrubland above 2 metres tall can also be classified as 'other woody vegetation'. See <i>Heathland, Other woody vegetation</i> .
Siltation	Deposition of silt (fine soil and mineral matter), usually related to the degradation of watercourses due to soil erosion.
Silvicultural practices / systems	Methods used in managing forest establishment, composition and growth. See <i>Aggregated retention, Clearfelling, Group selection, Seed-tree silviculture, Selection logging, Shelterwood, Silviculture, Single tree / small group selection, Variable retention</i> .
Silviculture	The art, science and technology of managing forest establishment, composition, health, wood quality and growth, wildlife habitat and water quantity to achieve specified forest management objectives.
Single tree/small group selection	A silvicultural system in which single trees or small groups of trees of various ages are harvested; a method suitable for promoting regeneration of shade-tolerant species, or growth of preferred species or individual trees. See <i>Selection logging, Silvicultural practices / systems</i> .
Skeletal soils	Shallow soils, usually on ridges or steep slopes.
Slash	Tree debris left on site following harvesting events.
Snig track	A track along which logs are pulled or conveyed from the felling point (place where the tree is felled) to a nearby log landing or point of loading. Also known as an extraction track.
Softwood	Wood or wood products from conifers, irrespective of the physical softness of the timber; also used to refer to the trees that have such wood, and plantations of such trees. See <i>Conifer</i> .
Soil compaction	A reduction in soil volume without loss of soil, leading to poor soil aeration, reduced drainage and root deformation.
Soil degradation	Any phenomenon that lowers the current and/or future capacity of the soil to support existing forest vegetation and ecosystems.
Soil erosion hazard	The susceptibility of soil to erosion, combining soil properties, site and climate factors, and management practices. Site factors can include slope, aspect, vegetation and drainage.
Soil moisture regime	The spatial distribution and annual variation in water availability in a soil profile..

Term	Definition and use in SOFR 2013
Species diversity	The variety of species in an ecosystem. <i>See Biodiversity, Ecosystem diversity, Genetic diversity.</i>
Standing volume	The volume (excluding branches) above stump height of living or dead standing trees.
Statistical local area (SLA)	Base spatial unit at which the Australian Bureau of Statistics collects statistics across Australia.
Stocking	Stand density measured in a number of ways: number of trees, basal area, volume, or percentage of crown closure. Can apply to stocking of retained trees after harvest, or to adequacy of seedlings, regeneration or planted stock to establish stands of trees.
Streamflow	Movement of water along streams, rivers and other watercourses, especially expressed as volume of flow.
Subspecies	A taxonomically recognised subdivision of a species.
Sustainable development	Development that meets current needs without compromising the ability of future generations to meet their own needs.
Sustainable forest management	<ol style="list-style-type: none"> 1. A set of objectives, activities and outcomes consistent with maintaining or improving the forest's ecological integrity and contributing to people's wellbeing now and in the future. 2. The practice of stewardship and use of forests and forest lands in such a way, and at a rate, that maintains their biodiversity, productivity, regeneration capacity and vitality, and their potential to fulfil, now and in the future, relevant ecological, economic and social functions at local, national and global levels, and that does not cause damage to other ecosystems. <i>See Ecologically sustainable forest management.</i>
Sustainable yield	Yield of forest products (e.g. wood, water) that ensures that the functioning of the forest ecosystem as a whole is maintained and the flow of products continues indefinitely under a given management strategy and suite of sustainable-use objectives.
Taxon	A taxonomic unit in the classification of plants or animals (e.g. a subspecies, species or genus). Plural: taxa.
Tenure	Title to land as controlled by legislation. <i>See Land tenure.</i>
Threat	A natural, human-induced or human-exacerbated factor or process that increases the risk to a species of population reduction or extinction, or that creates a significant risk to the persistence or integrity of an ecological community. <i>See Ecological community, Threatening process.</i>
Threatened ecological community	An ecological community listed in any one of the following categories defined in section 182 of the <i>Environment Protection and Biodiversity Conservation Act 1999</i> : critically endangered, endangered or vulnerable. <i>See Critically endangered species / ecological community, Ecological community, Endangered species / ecological community, Vulnerable species / ecological community.</i>
Threatened species	A species of native flora or fauna that is listed in any one of the following categories defined in section 179 of the <i>Environment Protection and Biodiversity Conservation Act 1999</i> : extinct, extinct in the wild, critically endangered, endangered or vulnerable. <i>See Critically endangered species / ecological community, Endangered species / ecological community, Extinct, Extinct in the wild, Vulnerable species / ecological community.</i>
Threatening process	<ol style="list-style-type: none"> 1. A process that threatens, or may threaten, the survival, abundance or evolutionary development of a native species or ecological community (section 188 of the <i>Environment Protection and Biodiversity Conservation Act 1999</i>). 2. A natural, human-induced or human-exacerbated process that increases the risk to a species of population reduction or extinction, or is a significant risk to the persistence or integrity of an ecological community. 3. A process identified as a historical, current or future threat in listing or conservation advice of a threatened ecological community or species. <i>See Ecological community, Key threatening process, Threat.</i>
Timber	Products square or rectangular in cross-section that are sawn from logs of variable lengths, and conform to industry grades, standards or specifications.
Translocation	The deliberate transfer of plant material from one area to another for the purpose of conservation. The plant material may be in the form of plants, seeds, cuttings or propagated seedlings.
Turbidity	The degree to which the clarity of water is reduced by suspended solids, silt, sediments or organic matter.
Turnover	Sales and service income: the total value of sales of all goods and services, whether or not manufactured by the business (exclusive of goods and services tax, and not deducting the costs of inputs or intermediate goods and services).
Understorey	Layer or layers of vegetation beneath the main canopy of a forest.

Term	Definition and use in SOFR 2013
Uneven-aged forest	Forest with trees of more than one age or age class present on the same site. <i>See Even-aged forest.</i>
Unplanned fire	Fire started naturally (such as by lightning), accidentally or deliberately (such as by arson), but not in accordance with planned fire management prescriptions. <i>See Bushfire, Wildfire.</i>
Unresolved tenure	Areas where tenure is unknown or for which there are no tenure data.
Value-adding	The process of converting timber or forest products into one or more higher-valued products.
Variable retention	Retention of trees in a harvested area in forests harvested for wood, with the amount and configuration of retention dependent upon silvicultural objectives; an alternative to clearfelling. <i>See Aggregated retention, Clearfelling, Silvicultural practices / systems.</i>
Vascular plant	A plant with conducting tissue that transports water, mineral salts and sugars; includes clubmosses, horsetails, ferns, gymnosperms (including conifers) and angiosperms (flowering plants).
Vegetation community	A naturally occurring group of plant species inhabiting a particular area and interacting with each other, especially through biotic relationships, relatively independently of other plant communities. <i>See Community (definition 1).</i>
Veneer	Thin slices of wood, usually thinner than 3 millimetres, which can be glued and pressed to make plywood, or glued and pressed onto core panels (typically wood, particleboard or medium-density fibreboard) to produce flat panels.
Veneer logs	Logs used to produce sliced veneers or plywood. Excludes peeler logs used to produce rotary-peeled veneer.
Vulnerable species / ecological community	Native species / ecological community facing a high risk of extinction in the wild in the medium-term future. One of the categories of threatened species / ecological communities defined in sections 179 and 182 of the <i>Environment Protection and Biological Conservation Act 1999</i> . <i>See Critically endangered species / ecological community, Ecological community, Endangered species / ecological community, Extinct, Extinct in the wild, Threatened ecological community, Threatened species.</i>
Water yield	The amount of water that flows out of a catchment (drainage basin).
Watershed	The dividing line between two catchments (drainage basins).
Watertable	The underground level at which the ground is saturated with water, where the water pressure is equal to atmospheric pressure.
Wet forest / wet sclerophyll forest	Typically, eucalypt-dominated forest (not dry forest or rainforest) associated with moist conditions, and with an understorey (if present) dominated or co-dominated by rainforest species or non-sclerophyll shrubs. <i>See Dry forest / dry sclerophyll forest, Eucalypt, Rainforest, Sclerophyll.</i>
Wetland	Land consisting of swamps, marshes or mangroves. Forest wetlands are wetland ecosystems where forests are present. <i>See Mangroves.</i>
Wild harvest	Commodity harvested from the wild, including farming of wildlife and feral animals.
Wilderness	Land that, together with its plant and animal communities, 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; is of sufficient size to make its maintenance in such a state feasible; and can provide opportunities for solitude and self-reliant recreation.
Wildfire	1. A large destructive forest fire that spreads rapidly. 2. Fire started naturally (such as by lightning), accidentally or deliberately (such as by arson), but not in accordance with planned fire management prescriptions. <i>See Bushfire, Unplanned fire.</i>
Wildlife corridor	An area or strip of suitable habitat design to connect or reconnect wildlife populations that have been separated by human activities.
Wildling	A wild plant of a tree species that has escaped from plantations.
Windthrow	Trees uprooted or broken as a result of severe wind associated with storms.
Wood	The hard, fibrous, underbark component of the stem and/or branches of a tree, often suitable for conversion into products.
Woodchips	Wood converted from logs into small chips for use in fibre products or conversion to pulp for paper manufacture.
Woodland forest	Forest in which the tree crown cover ranges from 20% to less than 50%. <i>See Crown cover, Other woody vegetation.</i>

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Isaac photo

Above: View of the Atherton Tablelands, Queensland.



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