

AS/NZS 4708:2021



Australian/New Zealand Standard™

Sustainable forest management -requirements



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Australian Association of Accredited Certification Bodies
 Australian Forest Growers
 Australian Forest Products Association
 Construction, Forestry, Maritime, Mining and Energy Union
 CSIRO
 Environmental Farmers Network
 Federation of Māori Authorities
 First Union
 Independent Biodiversity Expert
 Institute of Foresters of Australia
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 New Zealand Forest Owners Association
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 University of the Sunshine Coast
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 Wood Processors and Manufacturers Association of New Zealand

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Responsible Wood wishes to acknowledge the participation of the expert individuals that contributed to the development of this Standard through their representation on the Committee and through the public comment period.

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Australian/New Zealand Standard™

Sustainable forest management — requirements

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Preface

This joint Australian/New Zealand Standard was prepared by the Standard Reference Committee (SRC AS/NZS 4708), a technical committee established for this purpose under the accredited Standards Development Organisation — Responsible Wood.

The objective of this Standard is to provide forest managers with cultural, economic, environmental and social requirements that support the sustainable management of forests. This Standard, formerly known as the Australian Forestry Standard, was first published as an interim Australian Standard® in 2003, a full Australian Standard® in 2007 and a second edition published in 2013. The Australian Standard was adopted with amendments in New Zealand as NZ AS 4708 in 2014. This edition has been developed as a joint Australian and New Zealand Standard and has been reviewed considering stakeholder expectations in both Australia and New Zealand, new scientific and technological information, and changes to international norms for sustainable forest management. It has been published as the Australian and New Zealand Standard® for Sustainable Forest Management.

This Standard replaces AS 4708:2013 and NZ AS 4708:2014.

This major revision has been aligned with the benchmarks for sustainable forest management provided in the Programme for the Endorsement Standard PEFC ST 1003:2018 Sustainable Forest Management Requirements. In addition, it includes new appendices for the sustainable management of trees outside forests and farm forest areas, and requirements for group certification.

Use of the Standard

The Standard recognises that native forests and plantations are managed for a variety of objectives. It sets out specific forest management performance requirements for the defined forest area. It establishes a systematic approach to forest management, including requirements for stakeholder engagement. Independent, accredited third-party certification against the Standard provides a clear and unambiguous statement that a certified forest product was grown and harvested at a location that was managed in accordance with a set of predetermined and clearly defined cultural, economic, environmental, and social requirements that support the sustainable management of forests.

The Standard is intended for voluntary application to any forest area being managed in Australia or New Zealand, regardless of size or ownership, to produce forest products and forest services, whether from native or planted forests. It can be utilised by forest managers who are seeking independent, accredited third-party certification of their forest management system and practices.

Certification to the Standard is a response to market demands that forest products and forest services come from well-managed forests. It aims to support and strengthen processes that deliver improved cultural, economic, environmental, and social outcomes. It is intended to be compatible with relevant international and national policy instruments and has been developed with national and international audiences in mind, as well as for implementation by forest managers in a local or regional setting. The Standard also recognises the importance of meeting both national and international sustainable wood production and marketing requirements, the resource management needs of the industry, as well as promoting voluntary adoption by producers.

In developing the Standard, the AS/NZS 4708 Standards Reference Committee acknowledges the current, future, and potential impacts of climate change on Australian and New Zealand forest landscapes, the risks that climate change poses, and the impacts on sustainable forest management. This Standard provides a framework that supports efforts to mitigate climate

change by reducing emissions, acknowledging and adopting the contribution of science, allowing the timely implementation of improved and better practices and promoting adaptations to change. This is reflected in a range of performance requirements listed in Sections 10.3, 11.1, 11.2, 11.3 and 11.4.

Forest owners or managers can form group forest certification schemes that can be certified to this Standard. Appendix B provides requirements for group forest management system management and certification.

The Standard relates to forest management operations and activities within the defined forest area and to forest products while under the control of the forest manager's chain of custody. Also, some off-site effects of forest management, including impacts on stakeholders and adjacent environments, are addressed under the Standard.

The Standard provides a framework for the site-specific requirements for forest types, communities or individual operations. The Standard requires research, monitoring and evaluation of the outcomes of forest management and the review and continual improvement of the management system.

Certification to the Standard is voluntary, and only achieved and retained based on audits undertaken by an independent third-party audit team from an accredited certification body, where their outcomes conclude a demonstration that the assessed management system is capable of achieving the requirements of the Standard across the defined forest area.

The Standard is intended to support the regulatory framework within which a forest manager operates. Audits to the Standard assess conformance to a suite of requirements that support the achievement of sustainable forest management. A forest manager must comply with all legal requirements and demonstrate conformance with the Standard to gain benefits from certification.

Note: In this context, conformance is the voluntary adherence to the actions that the forest manager adopts to meet the Standard's performance requirements and that certification audits will assess. Compliance applies to laws and regulations that the forest manager has no option but to follow or to face penalties that are outside of the control of the certification audit processes.

Process of development and revision

This Standard has been prepared by the Standard Reference Committee formed for this purpose (SRC AS/NZS 4708). The Standard Reference Committee is made up of representatives of a broad range of stakeholders covering cultural, economic, environmental, and social interests from Australia and New Zealand.

The requirements of the Standard are consistent with the International Organization for Standardization (ISO) environmental management system (EMS) Standard AS/NZS ISO 14001:2016, the Montreal Process criteria and indicators for temperate and boreal forests, the Programme for the Endorsement of Forest Certification Schemes' (PEFC) standard for sustainable forest management (PEFC ST 1003:2018), and Joint Accreditation System of Australia and New Zealand (JAS-ANZ) Requirements for Bodies Certifying Forest Management Systems. This Standard may be applied as the forest management standard of the Responsible Wood Certification Scheme.

These processes provide a basis for the development of the Standard that is compatible with other national and international schemes and standards that aim to support and achieve sustainable forest management.

Structure of Standard

The Standard consists of:

- (a) an introduction that describes the rationale for a forest management standard; the process for its development, including its structure, content, and use; and

- (b) normative requirements and definitions. The Standard is made up of criteria that specify the principles required for sustainable forest management and normative requirements that are audited to demonstrate conformance. Each criterion and requirement are named with a heading and number.

Introduction

Sustainable forest management is the management of forest areas according to the principles of sustainable development. Sustainable development is resource use that aims to meet human needs while conserving cultural and environmental values, so that these needs can be met not only in the present, but also for generations to come.

There are four elements of sustainable forest management that are embraced by this Standard:

- (a) cultural sustainability;
- (b) economic sustainability;
- (c) environmental sustainability; and
- (d) social sustainability.

Cultural sustainability entails maintaining or enhancing the cultural capital of the community. Cultural capital refers to the collective wisdom of knowledge holders, cultural practices and related environmental assets valued by communities and handed down from generation to generation by various means.

Economic sustainability entails optimising the economic benefits for income, employment, and goods and services from the mixture of forest uses within ecological constraints. It requires that benefits to the forest manager, workers and the communities where they live exceed the costs incurred, and that some form of equivalent capital is handed down from one generation to the next so that use of the forest does not preclude utilisation options for future generations.

Environmental sustainability entails maintaining, enhancing or restoring:

- (a) the ecological processes within forest ecosystems;
- (b) the forest soil and geological features;
- (c) food chains and energy flows;
- (d) carbon, nutrient and water cycles; and
- (e) the biodiversity of forest ecosystems.

Social sustainability entails maintaining or enhancing the net social benefit derived from the mixture of forest uses while maintaining options for the future. An activity is socially sustainable if it conforms to ethical values, community social norms and upholds human rights' standards.

This Standard also incorporates forest certification principles, which are based on the following factors underlying the three principles of:

Governance:

- (a) being independent and impartial, including a clear separation between development of standards and accreditation of certification bodies;
- (b) complying with, and where reasonable, exceeding legal and other requirements; and
- (c) involving competent national accreditation bodies and independent, accredited third-party certification bodies.

Quality:

- (a) being scientifically based;
- (b) incorporating Indigenous peoples' traditional values, knowledge, practice and aspirations;

- (c) incorporating performance levels at appropriate scales through an open process involving all interested stakeholders;
- (d) being based on the principles of sustainability;
- (e) being compatible with internationally recognised management systems;
- (f) being easily understood and leading to the same results when used by different certification bodies; and
- (g) being regularly assessed, revised and updated in the light of new knowledge as part of a continual improvement process.

Inclusiveness and transparency:

- (a) having transparent, inclusive and understandable processes that are accessible to all stakeholders;
- (b) being accessible to stakeholders with a balance of interests;
- (c) being voluntary and including the participation of forest managers;
- (d) accommodating all forest types, scales and ownership structures; and
- (e) enabling affordability of certification while not adversely affecting the competitiveness of forest products in comparison to other materials.

Section 1 Scope and general

1.1 Scope

This Standard specifies cultural, economic, environmental and social criteria and system performance requirements for the production of forest products and forest services that support continual improvement towards sustainable forest management.

This Standard can be applied to any defined forest area irrespective of scale or type of ownership, or whether native forest or plantation. A forest manager seeking independent, third-party certification, shall demonstrate conformance with the requirements of each criterion.

1.2 Application

The requirements are applicable only where relevant to the actual operations of the forest manager, scope and to their defined forest area. The scale and intensity of activity within the defined forest area, organisation and impacts on the identified aspects of forest management can be considered in the application of the requirements. The Standard promotes a precautionary approach and incorporates its application to sustainable forest management.

The Standard applies to the activities of the forest manager relevant to the scope of certification. It encompasses the management of forests within the defined forest area and includes performance standards and requirements in relation to the harvest and sale of certified forest products. It provides the first link in the 'Chain of custody' supply chain.

The requirements within this Standard can be separated into five main sections:

- The Plan-Do-Check-Act model (Sections 1–10)
- Sustainability Criteria (Section 11)
- Requirements for group certification schemes (Appendix B)
- Normative appendices (Appendices B and D)
- Informative appendices (Appendices A and C)

1.2.1 The Plan-Do-Check-Act model

Sections 4 to 10 of the Standard outline the underpinning system requirements that forest managers are required to implement to manage and improve performance. The system requirements should be applied to the management of sustainability criteria outlined in Section 11.

The basis for the approach underlying a sustainable forest management system outlined in this Standard is founded on the concept of adaptive management and the Plan-Do-Check-Act model (PDCA). The PDCA model provides an iterative process used by organisations to achieve continual improvement. It can be applied to a forest management system and to each of its individual elements, including the sustainability criteria outlined in Section 11. It can be briefly described as follows:

- a) Plan: establish objectives and processes necessary to deliver results in accordance with the organisation's sustainable forest management policy.
- b) Do: implement the processes as planned.
- c) Check: monitor and measure processes against the sustainable forest management policy, including its commitments, sustainability objectives and operating criteria, and report the results.
- d) Act: take actions to continually improve.

Figure 1 shows how the framework introduced in this Standard could be integrated into a PDCA model, which can help new and existing users to understand the importance of a systems approach.

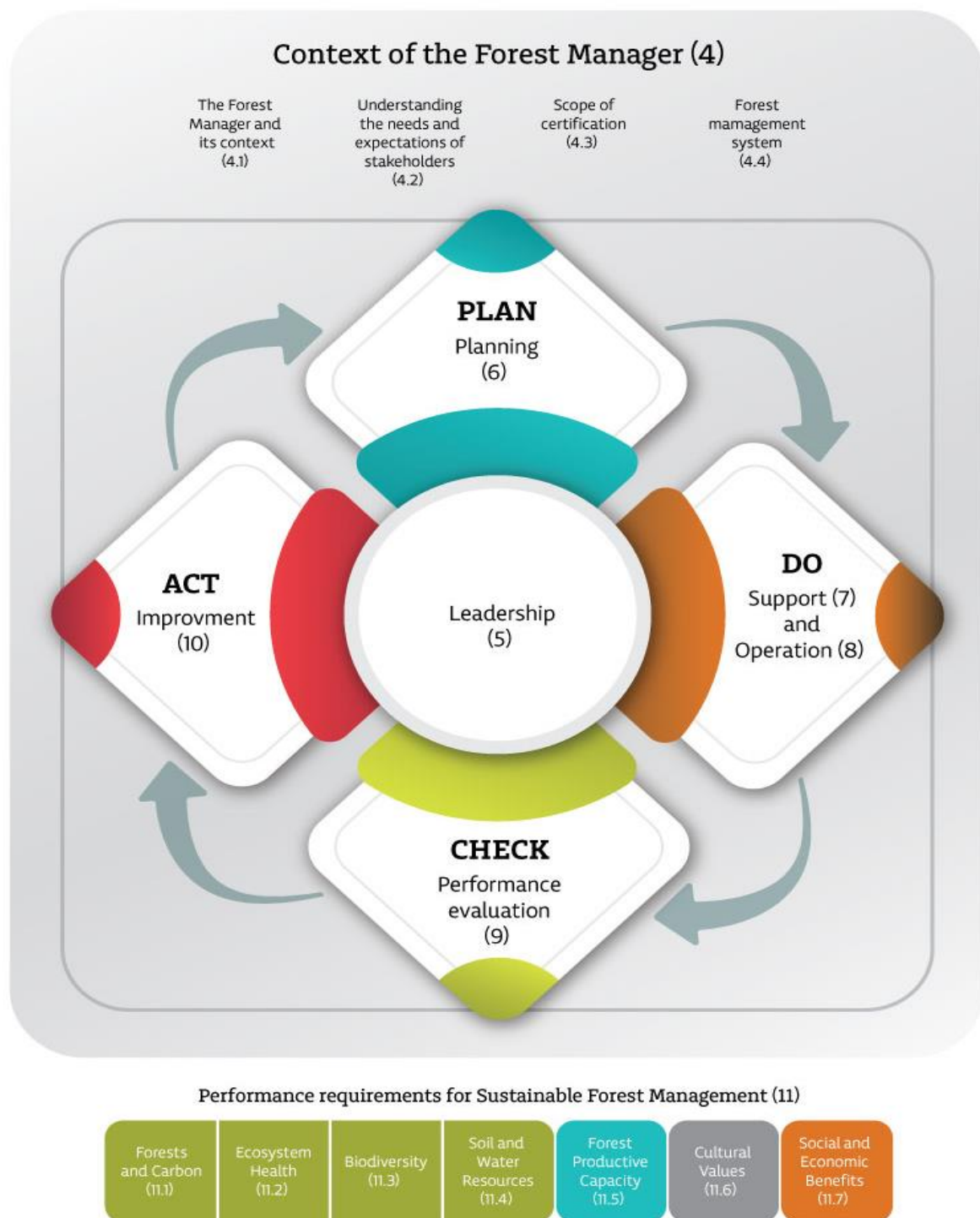


Figure 1: Overview of the Forest Management System

In this Standard, the following verbal forms are used:

- ‘shall’ indicates a requirement;
- ‘should’ indicates a recommendation;
- ‘may’ indicates a permission;
- ‘can’ indicates a possibility or a capability.

Information marked as ‘Note’ is intended to assist the understanding or use of the Standard.

Interpretations for trees outside forests and farm forests

Guidance to interpret this Standard for trees outside forests (TOF) and farm forests are outlined in Appendix A to this document. All requirements within this Standard referring to ‘forest/s’ are in principle applicable to trees outside forests and farm forests. Appendix A provides guidance to the interpretation of specific requirements that may not be applicable in some justified circumstances.

Group forest management requirements

Requirements for group sustainable forest management are provided in Appendix B.

Section 2 Normative references

The following documents are referred to in the text in such a way that some or all of their content constitutes requirements of this document:

Note: Documents for informative purposes are listed in the Bibliography.

Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES) 1973, as amended, UNTS 993, entered into force July 1, 1975

The International Labour Organization (ILO) Fundamental Conventions:

- (a) Freedom of Association and Protection of the Right to Organise Convention, 1948 (No. 87)
- (b) Right to Organise and Collective Bargaining Convention, 1949 (No. 98)
- (c) Forced Labour Convention, 1930 (No. 29) (and its 2014 Protocol)
- (d) Abolition of Forced Labour Convention, 1957 (No. 105)
- (e) Minimum Age Convention, 1973 (No. 138)
- (f) Worst Forms of Child Labour Convention, 1999 (No. 182)
- (g) Equal Remuneration Convention, 1951 (No. 100)
- (h) Discrimination (Employment and Occupation) Convention, 1958 (No. 111)

Note 1: See <https://www.ilo.org>.

Note 2: For conventions No 87 and 98 refer to jurisprudence of the Committee on Freedom of Association, to the extent allowed by law.

Note 3: In Australia, further information may be found in the report: CREIGHTON, B. The ILO Declaration on Fundamental Principles and Rights at Work 1998: A report of the Australian Compliance Prepared for the Forest Stewardship Council of Australia, September 2015.

The International Labour Organization (ILO) Indigenous and Tribal Peoples Convention, 1989 (No. 169)

Treaty of Waitangi

United Nations Declaration on the Rights of Indigenous Peoples, A/61/L.67, adopted by the General Assembly 13 September 2007

Universal Declaration on Human Rights 1948, as amended, G.A. res. 217A (III), U.N. Doc A/810 at 71, entered into force 10 December 1948

Section 3 Terms and definitions

For the purposes of this document, the following terms and definitions apply.

ISO and IEC maintain terminological databases for use in standardisation at the following addresses:

IEC Electropedia: available at <http://www.electropedia.org/>

ISO Online browsing platform: available at <http://www.iso.org/obp>

3.1

audit

systematic, independent and documented process for obtaining audit evidence and evaluating it objectively to determine the extent to which the audit criteria are fulfilled.

Note 1: An internal audit is conducted by the forest manager itself, or by an external party on its behalf.

Note 2: An audit can be a combined audit (combining two or more disciplines).

Note 3: Independence can be demonstrated by the freedom from responsibility for the activity being audited or freedom from bias and conflict of interest.

Note 4: 'Audit evidence' consists of records, statements of fact or other information which are relevant to the audit criteria and are verifiable; and 'audit criteria' are the set of policies, procedures, requirements or sustainability requirements used as a reference against which audit evidence is compared, as defined in ISO 19011:2011, Clause 3.3 and Clause 3.2 respectively.

3.2

biodiversity

diversity of native plants, animals and other living organisms in all their forms and levels of organisation, including the diversity of genes (or units of heredity), species and ecosystems. It also includes the composition, structure and function of ecosystems and the evolutionary and functional processes that link them.

3.3

chain of custody

process of tracking wood and forest products originating in sustainably managed forests through all phases of ownership, transportation and manufacturing from the defined forest area to the final product and delivery to the end consumer.

3.4

competence

ability to apply knowledge and skills to achieve intended results.

3.5

competent worker

person who is not under training or supervision and can safely and productively perform the tasks assigned to them.

3.6

compliance obligations

legal requirements a forest manager has to comply with, normative documents identified in this Standard, and other requirements that an organisation has to or chooses to comply with.

Note 1: Compliance obligations are related to the scope of the forest management system.

Note 2: Compliance obligations can arise from mandatory requirements, such as applicable laws and regulations, or voluntary commitments, such as organisational and industry standards, contractual relationships, codes of practice and agreements with Indigenous peoples, community groups or non-governmental organisations.

This includes local, state and national legislation applicable to forest management practices; environmental protection; health, safety and labour; and payment of applicable royalties and taxes. Compliance obligations also include the fundamental ILO conventions.

3.7

confidential information

private facts, data and content that, if made publicly available, might put at risk forest values of the organisation, its business interests or its relationships with stakeholders, clients and competitors.

3.8

conformity

fulfilment of a requirement.

3.9

continual improvement

recurring activity to enhance performance.

Note 1: Enhancing performance relates to the use of the forest management system to enhance sustainability performance consistent with the forest manager's sustainable forest management policy.

Note 2: The activity need not take place in all areas simultaneously, or without interruption.

3.10

conversion

direct human-induced change of natural ecosystems to other land use.

EXAMPLE: Native forest to plantation, native grasslands to forest, native forest to agricultural uses.

Note: Regeneration by planting or direct seeding and/or the human-induced promotion of natural seed sources to the same dominant species as was harvested or other species that were present in the historical species mix is not considered a conversion.

3.11

corrective action

action to eliminate the cause of a nonconformity and to prevent recurrence.

Note: There can be more than one cause for a nonconformity.

3.12

cultural sustainability

cultural sustainability entails maintaining or enhancing the cultural capital of the community. Cultural capital refers to the collective wisdom of knowledge holders, cultural practices and

related environmental assets valued by communities and handed down from generation to generation by various means.

3.13

culturally appropriate

approaches for outreach to target groups that are in harmony with the customs, values, sensitivities and ways of life of the target audience.

3.14

damage agent

factor that can cause a reduction to forest values or impact on forest ecosystem health and vitality, including endemic or exotic pest species, and physical processes like climatic events, earthquakes and bushfires/wildfires.

3.15

defined forest area

area (including land and water) to which the requirements of this Standard are applied and over which the forest manager demonstrates control.

Note: Including productive and non-productive forest areas, waterbody reserves, conservation areas, roads, key facilities and infrastructure required to deliver sustainable forest management.

3.16

degraded native vegetation

vegetation that has reduced capacity to provide goods and services because it has lost structure, function, species composition and or productivity normally associated with the vegetation type on that site.

Note 1: A degraded forest requires silvicultural intervention to restore its productivity.

Note 2: In determining 'degraded forest' status the 'vegetation integrity' should be assessed, being the degree to which the composition, structure and function of vegetation at a particular site and the surrounding landscape has been altered from a near natural state. Where native vegetation is present but:

- (i) native understorey has been cleared and/or replaced with exotic species, and/or
- (ii) where the cover of exotic species exceeds 50% of the dominant stratum, and
- (iii) evidence of native species regeneration is sparse or absent.

Native vegetation with low 'vegetation integrity' may still have some biodiversity value in some situations. Also note that in some situations plantations that are deemed 'degraded' or 'failed' may still have value to biodiversity.

3.17

direct dealing

conduct that has the effect of undermining, or is likely to undermine, the authority of the representative organisation of workers which occurs when the forest manager bypasses the representative organisation of workers in order to engage in discussions, bargaining or negotiations with represented workers in relation to matters that fall within the scope of collective bargaining without the participation of the representative organisation of workers.

3.18

documented information

information required to be controlled and maintained by a forest manager (and the medium on which it is contained).

Note 1: Documented information can be in any format and media, and from any source. This will include spatial information.

Note 2: Documented information can refer to:

- (a) the forest management system, including related processes;
- (b) information created in order for the organisation to operate (can be referred to as documentation); or
- (c) evidence of results achieved (can be referred to as records).

3.19

drainage lines

areas of slope convergence where water naturally concentrates and flows.

Note: Drainage lines have an incised channel with defined bed and banks or evidence of active erosion or deposition e.g. gravel, pebble, rock bed or scour.

3.20

economic sustainability

economic sustainability entails optimising the economic benefits for income, employment, and goods and services from the mixture of forest uses within ecological constraints. It requires that benefits to the forest manager, workers and the communities where they live exceed the costs incurred, and that some form of equivalent capital is handed down from one generation to the next so that use of the forest does not preclude utilisation options for future generations.

3.21

effectiveness

extent to which planned activities are realised and planned results achieved.

3.22

environment

surroundings in which a forest manager operates, including air, water, land, natural resources, flora, fauna, humans and their interrelationships.

Note 1: Surroundings can extend from within an organisation to the local, regional and global system.

Note 2: Surroundings can be described in terms of biodiversity, ecosystems, climate or other characteristics.

3.23

equal treatment

acceptable standards of behaviour towards workers regardless of race, colour, sex, gender orientation, age, physical or mental disability, marital status, family or carers' responsibilities, pregnancy, religion, political opinion, union membership, national extraction or social origin.

3.24

establishment

creation of a new forest or plantation arising from the treatment, seeding or planting of a site with trees.

3.25

fair contract

contract that is written and contains no unfair terms.

3.26**fertiliser**

organic or inorganic substances containing chemical elements that are applied in order to improve the growth of plants and the fertility of the soil.

3.27**forest**

an area of land, 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 m and crown cover or potential crown cover of overstorey strata about equal to or greater than 20%.

Note: This definition includes Australia's and New Zealand'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.

3.28**forest management unit**

an aggregation of blocks with a relatively uniform forest type, for example, species composition, geographical location and silvicultural management regime.

3.29**forest manager**

See 3.54 Organisation

3.30**forest products**

the physical goods derived from the defined forest area, including all wood and non-wood products.

3.31**forest type**

a classification of forests according to their life form, height of the tallest stratum and the projected foliage cover of the tallest stratum.

3.32**fundamental ILO conventions**

eight conventions (ILO 29, 87, 98, 100, 105, 111, 138 and 182) identified by the ILO's Governing Body as 'fundamental' in terms of principles and rights at work: freedom of association and the effective recognition of the right to collective bargaining; the elimination of all forms of forced or compulsory labour; the effective abolition of child labour; and the elimination of discrimination in respect of employment and occupation.

3.33**genetically modified trees (organisms)**

trees in which the genetic material has been altered in a way that does not occur naturally by mating and/or natural recombination, taking into account applicable legislation providing a specific definition of genetically modified organisms.

Note: The following techniques are considered as genetic modification resulting in genetically modified trees (EU Directive 2001/18/EC):

- (a) recombinant nucleic acid techniques involving the formation of new combinations of genetic material by the insertion of nucleic acid molecules produced by whatever means outside an organism, into any virus, bacterial plasmid or other vector system and their incorporation into a host organism in which they do not naturally occur, but in which they are capable of continued propagation;
- (b) techniques involving the direct introduction into an organism of heritable material prepared outside the organism, including micro-injection, macro-injection and micro-encapsulation; or
- (c) cell fusion (including protoplast fusion) or hybridisation techniques where live cells with new combinations of heritable genetic material are formed through the fusion of two or more cells by means of methods that do not occur naturally.

Note 2: The following techniques are not considered as genetic modification resulting in genetically modified trees (EU Directive 2001/18/EC):

- (a) in vitro fertilisation;
- (b) natural processes such as conjugation, transduction, transformation; or
- (c) polyploidy induction.

3.34

group entity

legal entity that represents the participants, with overall responsibility for ensuring the conformity of forest management in the certified area to the sustainable forest management standard and other applicable requirements of the forest certification system.

Note 1: For this purpose, the group entity is using a group management system.

Note 2: The structure of the group entity should follow the operations, number of participants and other basic conditions for the group organisation. It may be represented by one person.

3.35

group forest certification

certification of the group organisation under one group forest certificate.

Note: Group certification is an alternative approach to individual certification for relatively small forest holdings of Group Members in order to share the financial obligations arising from forest certification and should not be open to larger forest owners or managers.'

3.36

group organisation

participants represented by the group entity for the purposes of implementation of the sustainable forest management standard and its certification.

Note: The term 'group organisation' is equivalent to the term 'regional organisation' if the group is defined by regional boundaries or other terms chosen by the relevant forest certification scheme and complying with the content of this definition.

3.37

harvest rate

rate of harvest that does not exceed levels that can be permanently sustained without negatively impacting the long-term productive capacity of the forest ecosystem.

3.38**hazardous activities**

any activity that can pose a high/unreasonable risk of harm to persons or property, including but not limited to:

- (a) driving heavy plant or log trucks; or
- (b) using hand-held motorised equipment; or
- (c) ground-based workers working near heavy plant and tree falling operations; or
- (d) transport, handling and application of pesticides.

3.39**highly hazardous pesticides**

chemical pesticides that:

- (a) are acknowledged to present particularly high levels of acute or chronic hazards to health and environment by exhibiting one or more of the following attributes according to internationally accepted classification systems, or

Where:

Acute toxicity to mammals and birds:

a substance causes harmful or lethal effects following oral, dermal or inhalation exposure in a short space of time.

Chronic toxicity:

substances that cause harmful effects (carcinogenicity, mutagenicity, developmental and reproductive toxicity and endocrine disruptors) over an extended period, usually following repeated or continuous exposure to very low doses.

Carcinogenicity:

the ability of a substance to induce cancer or increase its incidence in humans.

Mutagenicity:

the ability of a substance to induce an increased occurrence of mutations in cells and/or organisms.

Developmental and reproductive toxicity:

the ability of a substance to cause adverse effects on unborn children and induce adverse effects on sexual function and fertility in adults.

Endocrine disruptors:

substances that interfere at very low concentrations with hormones and hormonal balance.

Environmental toxicity:

substances that have harmful effects (aquatic toxicity, persistence in soil or water, soil sorption potential, bioaccumulation and biomagnification) on the environment, threatening ecosystems and/or accumulating in water and soil.

Aquatic toxicity:

the toxic effect of a substance to organisms — vertebrates, invertebrates and plants — living in the aquatic environment.

Persistence in soil or water:

the ability of a substance to resist environmental degradation and accumulate in soil, sediment and aquatic environments.

Soil sorption potential:

a characteristic based on the combination of the persistence and the water solubility of a chemical substance, and its soil sorption coefficient (K_{oc}), which measures the mobility of a substance in soil.

Bioaccumulation:

the increase in the concentration of a substance in a biological organism over time, as the organism absorbs the toxic substance at a rate greater than that at which the substance is eliminated from its body.

Biomagnification:

the increase of the concentration of a substance in the tissues of organisms as it travels up the food chain.

- (b) are listed in relevant binding international agreements or conventions,

Where:

relevant international agreements or conventions:

legally binding international instruments put in place by the United Nations to lead to gradual decrease of the presence and trade of hazardous chemicals in the signatory Parties.

This Policy considers:

Stockholm Convention on Persistent Organic Pollutants (Stockholm Convention).

Rotterdam Convention on the Prior Informed Consent Procedure. (Annexe III Rotterdam convention)

Montreal Protocol on Substances that Deplete the Ozone Layer (Montreal Protocol).

- (c) contain dioxins,

Where:

Dioxins (residues or emissions):

persistent organic pollutants (POPs), that are highly toxic and can cause reproductive and developmental problems, damage the immune system, interfere with hormones and cause cancer,

- (d) heavy metals,

Where:

Heavy metals (arsenic, cadmium, lead and mercury):

Systemic toxicants known to induce multiple organ damage, even at lower levels of exposure.

3.40**Indigenous people**

people who are:

- (a) in Australia, individuals of Australian Aboriginal or Torres Strait Islander descent who identify as being of Aboriginal or Torres Strait Islander origin; or
- (b) in New Zealand individuals of Māori and or Moriori descent who identify as being of Māori and or Moriori origin'

3.41**Indigenous rights**

Indigenous peoples and individuals are free and equal to all other peoples and individuals and have the right to be free from any kind of discrimination, in the exercise of their rights, in particular that based on their Indigenous origin or identity.

[SOURCE: Declaration on the Rights of Indigenous Peoples, Article 2]

3.42**infrastructure**

any fixed location asset that a forest manager uses in order to carry out its activities.

EXAMPLE: Building, communication network/facility/easement, depot, energy supply with associated easement, fence, fire tower, nursery, product storage area, quarry, transport network (including roads, bridges, culverts, landing strips) and water storage facilities.

3.43

integrated pest management

an ecosystem approach to forest production and protection that combines different management strategies and practices e.g. silvicultural alternatives and other biological measures, to grow healthy forests and minimise the use of pesticides.

Note: Integrated pest management control methods include, but are not limited to:

- (a) plant resistance;
- (b) plant choice for refuge or trap crops;
- (c) biological control, including predators, beneficial pests and pathogens;
- (d) pheromone control;
- (e) physical barriers and traps;
- (f) fallow management;
- (g) tolerance of non-economic damage; and
- (h) chemical control (as a last resort).

3.44

invasive species

species occurring, as a result of human activities, beyond its accepted normal distribution and/or abundance which threatens valued environmental, agricultural or other social resources by the damage it causes.

Note 1: Invasive species may have a major impact on biodiversity and reducing overall species abundance and diversity.

Note 2: CBD (Convention on Biological Diversity) Guiding Principles for the Prevention, Introduction and Mitigation of Impacts of Alien Species that Threaten Ecosystems, Habitats or Species are recognised as guidance for avoidance of invasive species.

3.45

inventory

systematic collection of data and forest information for assessment or analysis.

3.46

living wage

remuneration received for a standard work week by a worker in a particular place sufficient to afford a decent standard of living for the worker and her or his family.

Note 1: Elements of a decent standard of living include food, water, housing, education, health care, transport, clothing, and other essential needs, including provision for unexpected events.

Note 2: In New Zealand the living wage can be obtained from the independently calculated national living wage produced by the New Zealand Family Centre Social Policy Unit at <http://www.livingwage.org.nz/>

[SOURCE: ISEAL ALLIANCE. A Shared Approach to a Living Wage. ISEAL Living Wage Group, November 2013]

3.47**management system**

set of interrelated or interacting elements adopted by a forest manager to establish policies and objectives, and processes to achieve those objectives.

Note 1: A management system can address a single discipline or several disciplines (e.g. quality, environment, occupational health and safety, energy and financial management).

Note 2: The system elements include the organisation's structure, roles and responsibilities, planning and operation, and performance evaluation and improvement.

Note 3: The scope of a management system can include the whole of the organisation, specific and identified functions of the organisation, specific and identified sections of the organisation, or one or more functions across a group of organisations.

3.48**monitoring**

determining the implementation and effectiveness of a system, a process or an activity.

Note 1: To determine the effectiveness, there might be a need to check, supervise or critically observe.

Note 2: Monitoring may involve a temporal component.

3.49**native vegetation**

any locally indigenous vegetation community containing species and habitats normally associated with that vegetation type.

3.50**nonconformity**

non-fulfilment of a requirement.

Note: Nonconformity relates to requirements in this Standard and additional forest management system requirements that a forest manager establishes for itself.

3.51**non-wood products**

products consisting of goods of biological origin other than wood, derived from forests and trees outside forest areas.

[SOURCE: following SORRENTI S. 'Non-Wood Forest Products in International Statistical Systems']

3.52**objective**

result to be achieved, set by the forest manager consistent with its sustainable forest management policy and the requirements of this Standard.

Note 1: An objective can be strategic, tactical or operational.

Note 2: Objectives can relate to different disciplines (such as financial, health and safety, and environmental goals) and can apply at different levels (such as strategic, organisation-wide, project, product, service and process).

Note 3: An objective can be expressed in other ways e.g. as an intended outcome, a purpose, an operational criterion, a sustainability objective, or by the use of other words with similar meaning (e.g. aim, goal or target).

3.53

old-growth forest

ecologically mature forest in which the effects of disturbances are now negligible.

Note 1: Forest that is ecologically mature and has been subjected to negligible unnatural disturbance, such as logging, roading and clearing.

Note 2: Any method used for identifying ecologically mature forest and disturbance should be appropriate for the forest type. Any mapping should have been validated using field data.

Note 3: The definition of old-growth may be adapted or modified to remain applicable to forest types in a particular jurisdiction. Consideration will be given to such definitions adopted in the relevant jurisdiction.

3.54

organisation

person or group of people that has its own functions with responsibilities, authorities and relationships to achieve its objectives.

Note: The concept includes, but is not limited to, sole trader, company, corporation, firm, enterprise, authority, partnership, charity or institution, or part or combination thereof, whether incorporated or not, public or private.

3.55

outsource

make an arrangement where an external organisation performs part of an organisation's function or process.

Note: An external organisation is outside the scope of the management system, although the outsourced function or process is within the scope.

3.56

performance

measurable result.

Note 1: Performance can relate either to quantitative or qualitative findings.

Note 2: Performance can relate to the management of activities, processes, products (including services), systems or organisations.

3.57

pesticides

chemicals (including herbicides, insecticides and fungicides) used to control biological damage agents.

3.58

pest species

organism detrimental to cultural, economic, environmental and/or social values.