



1. Executive summary

A review was carried out of the continued relevance of FSC-STD-AUS-01-2018 EN and changes in the external circumstances of the standard since it was approved on 10 November 2018. We have identified the two cross-cutting priority issues the Board should consider including in the scope of the revision. The two suggested priority issues are:

- ❖ Climate change adaptation strategies
- ❖ Bushfire adaption strategies and post-disturbance options

2. Approach

FSC-STD-60-006 V1-2 EN [Process Requirements for the Development and Maintenance of National Forest Stewardship Standards](#) calls for

A review report of all the comments on the standard; changes to associated elements of the FSC system; as well as external circumstances and the continued relevance of the standard shall be compiled within three (3) years of the standard's approval.

This document represents input to FSC ANZ's review report regarding changes in the external circumstances and the continued relevance of the FSC-STD-AUS-01-2018 EN.

Climate change and bushfires have been identified as issues that have risen to further prominence since FSC-STD-AUS-01-2018 EN was approved and should be included the scope of the revision to ensure the standard remains fit for purpose.

FSC-STD-AUS-01-2018 EN and FSC-STD-01-001 V5-2 EN *FSC Principles and Criteria for Forest Stewardship* were reviewed to understand how these two topics are currently addressed across the normative framework.

To understand how other National Forest Stewardship Standards include climate change measures, the draft National Forest Stewardship Standards for the US was reviewed on the basis that it represents what is probably the most comprehensive attempt to find solutions to how climate change adaptation can be supported by the existing framework for National Forest Stewardship Standards.

Recommendations to the Board are highlighted in bold throughout this document.

3. Priority Issues

Climate change

Background

An ever-growing body of scientific research indicates that forest ecosystems are reacting variably now and into the future due to changing climatic conditions. The implication is that for the foreseeable future, forest managers will need to incorporate a changing climate into management planning. This revision signifies an opportunity to provide mechanisms to help managers prepare their forests for climate change.

Climate change in the normative framework

Climate change is currently not featured explicitly in FSC-STD-01-001 V5-2 EN [FSC Principles and Criteria for Forest Stewardship](#). FSC-STD-AUS-01-2018 EN includes these elements concerning climate change:

- Indicator 5.2.1: timber harvest levels should be based on best available information including impacts of climate change.
- HCV1-Refugia (page 60) - a heightened obligation to maintain species during periods of climate variability and weather extremes.
- Guidance under Criterion 10.2: justification for non-local genotypes may include climate change adaptation.
- Glossary of terms:
 - 'Ecosystem services' (page 86) - climate is defined as a "regulating service", a subset of "ecosystem services".
 - 'Restore/restoration' (page 95) - the FME ("Organisation") is not necessarily obliged to restore those environmental values affected by factors beyond control such as natural disasters and climate change.

Not all of the above components are explicitly normative.

Elements that indirectly relate to climate includes elements regarding fire (see below) and resilience, restoration and regeneration (see Annex A)

Lessons from the ongoing revision the US NFSS

Climate change has been identified as a priority issue for the ongoing revision of the US NFSS. This section examines how the US Standards Development Group has incorporated climate change adaptation strategies into the [draft US NFSS](#).

Like FSC-STD-AUS-01-2018 EN, FSC-STD-USA-1.1-2018 EN [FSC Forest Stewardship Standard for the United States of America](#) does not currently explicitly incorporate climate change.

The purpose of the US Standards Development Group's focus on climate change in the revision is to create mechanisms to help managers prepare their forests for climate change by providing the tools to apply the best-available information when considering their own forest management.

In the US's draft standard forest managers are required to consider the specific ways a management unit is exposed to climate change and the impacts of current management activities as they relate to achieving future objectives in a changed climate.

A requirement to consider the potential future impacts of climate change and catastrophic disturbances has been added to the assessment of environmental values that may be affected by management activities in Indicator 6.1.1.

Indicator 7.2.4 requires that the management plan consider impacts of climate change on achievement of management objectives and desired future conditions, and also that the management plan describes any climate change adaptation strategies that are being implemented. Organisations' monitoring protocols will therefore be expected to address changes in assessments of potential climate change impacts and the effectiveness of implemented climate change adaptation strategies.

Indicator 7.2.6 requires that the management plan includes a description of the carbon resources and outlines activities to conserve them.

Indicator 10.2.2 provides situational flexibility for organisations to adapt to a changing climate by developing plans to allow for the use of non-native species for regeneration as part of a climate change adaptation strategy.

Recognising that many of the climate change adaptation concepts may be new to some certificate holders, and to facilitate implementation of the new requirements, the SDG has provided a Climate Change Toolkit in an annex. The toolkit provides background information on adaptation planning, guidance on how to achieve compliance with the climate change requirements, and sources of best-available information.

Climate change in the revision of FSC-STD-AUS-01-2018 EN

Climate change adaptation strategies associated with ecosystems and biodiversity are generally categorised into three types: resistance, resilience and facilitated transformation. Resistance strategies maintain the current system for as long as possible even as changes occur. Resilience strategies help a system cope with a changing climate, particularly through maintenance of critical ecological processes. Facilitated transformation strategies facilitate transitions within a system to better align the system with anticipated future climate conditions. When applied to forest ecosystems, each of these categories of adaptation strategies reflects an element of responsible forest management and therefore are closely aligned with the existing framework of FSC-STD-AUS-01-2018 EN.

The revision process should include an evaluation of how climate change adaptation strategies can be supported by the existing framework of FSC-STD-AUS-01-2018 to help promote responsible forest management in the face of a changing climate.

Examples of revisions to the standard that the Standard Development Group could propose include:

- Inclusion of climate refugia as a consideration in the identification and/or management of representative sample areas and/or HCV areas.
- Inclusion of guidance that encourages management plans to incorporate available climate projections and associated information, consider available vulnerability assessments for ecosystems, species and local communities, or assess trade-offs of particular management objectives to promote a more climate-resilient forest.
- Building flexibility into specific indicators when it will support facilitated transformation adaptation strategies.

This priority issue is not intended to address carbon sequestration, or how certification to the standard could lead to climate change credits or to 'high carbon stock.' It is also not intended to represent or replace the FSC ecosystem services initiative.

However, it is intended to promote forests as natural climate solutions. As such, the revision should recognise carbon sequestration and storage as important ecosystem services and make it clear that management activities may have impacts on these services.

Recommendations

In considering whether FSC-STD-AUS-01-2018 EN adequately addresses climate change, the Board should:

- Be aware that FSC-STD-01-001 V5-2 EN currently includes very modest requirements regarding climate change.
- Be aware that focus should be on how climate change adaptation strategies can be supported by the existing framework.
- Be aware that a mix of resistance, resilience and facilitated transformation climate change adaptation strategies are required to enable certificate holders to conserve important environmental values and to achieve management objectives in the face of a changing climate.
- Be aware that climate change adaptation concepts introduced in the revision may be new to some Certificate Holders, and to facilitate navigating the new requirements, it may be necessary to include a Climate Change Toolkit in an annex.
- Be aware that this priority issue is not intended to address carbon sequestration, or how certification to the standard could lead to climate change credits or to 'high carbon stock.' It is also not intended to represent or replace the FSC ecosystem services initiative.

Bushfires

Background

The Black Summer bushfires burned far more temperate forest than any other fire season recorded in Australia and propelled bushfires and their effect on forests into the public consciousness while also spurring intense debates concerning silvicultural practices pre- and post-catastrophic disturbance events.

As the climate changes, bushfires are expected to become more frequent and more intense. The implication for forest management enterprises is that bushfire considerations will continue to signify a considerable consideration in management planning. The revision signifies an opportunity to provide mechanisms to help certificate holders prepare their forests for future fires and to employ appropriate post-catastrophic disturbance options.

Bushfires and climate change are of course inextricably linked with one being fuelled by the other, but for the revision they should, at least to some degree, be considered separately as forest management responses to these two challenges do differ. While climate change largely relates to adaptation and mitigation strategies, provisions regarding bushfires will also have to address post-catastrophic disturbance options like salvage harvesting.

Bushfires in the normative framework

Like climate change, fire is currently not featured explicitly in FSC's Principles or Criteria. FSC-STD-AUS-01-2018 EN includes these elements concerning fire:

- Annex F (page 52): Monitoring requirements: Monitoring is sufficient to identify and describe the impacts from natural hazards including areas burnt, by forest type and fire intensity
- HCV4 (page 68) values to be assessed include: (HCV4.3) areas that provide barriers to the spread of destructive fires (not required for Low SIR FMUs)
- HCV4 - best available information for HCV4 includes fire risk and behaviour in the landscape
- Glossary of Terms:
 - 'Thresholds and guidelines' (page 93 under 'native/natural forest'): Areas where deforestation and forest degradation have been so severe that they are no longer "dominated by trees" may be considered as non-forest.
 - 'Natural Hazards' (page 93) - risks to social and environmental values but that may also comprise important ecosystem functions - fire is listed as an example
 - 'Regeneration' (page 95) - renewal or re-establishment of native forest flora by natural or artificial means following disturbance such as harvesting or fire.

Not all of the above components are explicitly normative.

Elements that indirectly relate to fire includes elements regarding climate change (see above) and resilience, restoration and regeneration (see Annex A).

The revision process should include an evaluation of how pre- and post-catastrophic disturbance events can be supported by the existing framework of FSC-STD-AUS-01-2018 to help promote responsible forest management in the face of more frequent and more intense bushfires in the future.

Disturbance options could also be expanded to encompass post-disturbance activities following floods, wind events and similar.

Bushfires in the revision of FSC-STD-AUS-01-2018 EN

Bushfire adaptation strategies associated with ecosystems and biodiversity can be categorised into four types: resistance, resilience, facilitated transformation and post-disturbance activities with each category reflecting an element of responsible forest management.

Examples of revisions to the standard that the Standard Development Group could propose include:

- Guidance on how forest management activities can be used to reduce the risk of catastrophic bushfires (e.g. related to handling of fuel loads).
- Post-catastrophic disturbance considerations (e.g. regarding salvage harvesting).
- Clarify what is expected for planning (in advance) and is allowed in response to major disturbances.
- Building flexibility into specific indicators when it will support facilitated transformation adaptation strategies.

Annex A

Key word	FSC-STD-AUS-01-2018
Resilience	<ul style="list-style-type: none"> • Criterion 6.8 - The Organisation shall manage the landscape...for enhancing environmental and economic resilience. Is the FME enhancing environmental resilience in its pre- and post-bushfire actions? • Glossary definition for 'resilience' (page 95) - ability to maintain key functions and processes in the face of stresses or pressures by either resisting or adapting to change. Are the FME's actions contributing to enhanced resilience? • Glossary definition for watershed ecosystem services (page 98) - "ecosystem resilience" supports watershed ecosystem services.
Restoration	<ul style="list-style-type: none"> • SIR-designation as SIR includes the requirement to restore stands containing multi-age forest structure • Page 35 - carbon storage in the forest is to be restored through forest management, protection and reduced impacting harvesting methods • Restoration applies to biological diversity, watershed services, soil stability and fertility, recreational services • Principle 6 (page 37) - restoration of ecosystem services and environmental values; restore RSA's (representative sample areas) to more natural conditions • Indicator 6.6.3 - restore plant communities and habitat features • Criterion 6.7 - restore riparian zones • Criterion 6.8 - restore a varying mosaic of species, sizes, ages, spatial scales and regeneration cycles • Indicator 6.8.1 - restore connectivity between habitats • Indicator 6.8.2 - restore spatial diversity • Annex E (Management Plan Elements) (page 56) - restore: rare and threatened species and habitats, landscape connectivity, RSA's, HCV's • Indicator 9.3.3 - restore damaged HCV's; document restoration actions proportionate to the harm caused
Regeneration	<ul style="list-style-type: none"> • Criterion 6.8: the Organisation shall manage the landscape...to maintain and/or restore a varying mosaic of...regeneration cycles. • Indicator 6.8.2: management activities and measures are implemented that enhance and/or restore spatial diversity • Criterion 10.1: the Organisation shall regenerate forest cover in a timely fashion to pre-harvesting or more natural conditions • Criterion 10.9: the Organisation shall assess risk and implement activities that reduce potential negative impacts from natural hazards • Annex F (page 52): Monitoring in 8.2.1 is sufficient to identify and describe... the results of regeneration activities.

