**Proposed approach for Australia’s State of the Forests Report – 2023 and beyond**

Steve Read and Anthony Hunn

Australian Bureau of Agricultural and Resource Economics and Sciences

Position paper

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Australian Bureau of Agricultural and Resource Economics and Sciences (ABARES)

GPO Box 858 Canberra ACT 2601

Telephone 1800 900 090

Web [awe.gov.au](http://awe.gov.au/)

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## Executive summary

Demand for national data and information on Australia’s forests is largely met through five-yearly preparation of an *Australia’s State of the Forests Report* (SOFR) jointly by state, territory and the Commonwealth governments, and its publication by ABARES. The SOFR series meets legislative and policy obligations, and SOFR content and data are used widely across government, industry and the community.

A number of drivers for changes in SOFR reporting have been identified. These include the increasing frequency at which new data become available, and user expectations of access to current data, information and analysis in digital, online formats. In addition, it is increasingly difficult to assemble repeatedly the necessary resources for cyclical activities such as the five-yearly production of SOFR.

A review conducted by ABARES, in consultation with the Montreal Process Implementation Group for Australia and the National Forest Inventory Steering Committee, has articulated three major options for future national forest reporting: status quo five-yearly reporting, online-only five-yearly reporting, and online-first reporting with data updates at variable frequencies and a five-yearly ‘SOFR Synthesis Report’. This position paper examines the advantages and disadvantages of each approach.

The benefits and consequences of transitioning to an online-first presentation of data and information include the ability to focus on key metrics, improve flexibility in publishing data and information, address resource timing constraints, and highlight the release of updated data and analyses.

This paper is available on the Forests Australia website at [doi.org/10.25814/5e6w-dq70](https://doi.org/10.25814/5e6w-dq70), together with *Australia’s State of the Forests Report 2018*, associated data tables, figures and maps, and background papers on the mandate, drivers and benefits of national reporting on Australia’s forests.

## National forest reporting: the SOFR series

*Australia’s State of the Forests Report* is the mechanism by which Australia meets legislative and policy obligations under the National Forest Policy Statement (NFPS) (1992), the *Regional Forest Agreements Act 2002* (RFA Act), and the National Forest Industries Plan (2018) *Growing A Better Australia*.

The NFPS, agreed by state, territory and the Commonwealth governments, established a vision, goals, objectives and policies for Australia's forests. Commitments in the NFPS included that the governments publish a ‘state of the forests’ review every five years:

the Governments’ strategy will involve … provision to the community of information about forests and forest management … [including] … appropriate information from which to produce and publish a 'state of the forests' review every five years.

This commitment in the NFPS was enhanced in the RFA Act to ensure national and regional monitoring and reporting for all Australia’s forests:

the Minister must cause to be established a comprehensive and publicly available source of information for national and regional monitoring and reporting in relation to all of Australia’s forests.

Under the National Forest Industries Plan, the Australian Government further committed as follows:

The Australian Government will assist in growing community understanding of forest management by reporting on the management of Australia’s forests and forest industries through the State of the Forests reports.

### Requirement for national data and information

Since 1998, the need for national data and information has been largely met through the five-yearly preparation and publishing of an *Australia’s State of the Forests Report* (SOFR).

A paper titled *Benefits of producing Australia's State of the Forests Reports* ([Appendix A](#_Appendix_A:_Benefits)) was prepared for FFPC in 2015 during the review of SOFR 2013. Identifying the benefits of producing the *Australia's State of the Forests Report* series is an important element of such reviews, to ensure that the identified benefits are maintained through any change to how the reports are produced. This paper is still relevant now.

Comprehensive data and information collected for and published in the national SOFR series has been used nationally in response to frequent requests for forest-related information from a range of Commonwealth Government departments and ministers, as well as state and territory government agencies. SOFR also satisfies diverse needs for forest-related data and information from industry bodies, academics, researchers, educators, students, conservationists, and the wider community. Delivery of national forest-related data and information through SOFR has brought consistent, coherent and credible contributions to public debate.

The data and information in each SOFR also contribute directly to other national reporting processes, including Australia’s State of the Environment Reports, and the National Environmental Economic accounts.

Further, the SOFR series has been the main source of comprehensive data and information for preparation of Australia’s responses to the FAO’s five-yearly Global Forest Resources Assessments (GFRAs). These are used in turn by Australia to report against forest-related components of the United Nations Sustainable Development Goals (SDGs), including Goal 15 “Life on Land”. SOFR has also been the main source for responses to requests for national forest information from the United Nations Forum on Forests (UNFF), the Convention of Biological Diversity (CBD), and the FAO’s Forest Genetic Resources Assessment process.

In the absence of the coordinated collation of data and information for SOFR, meeting the ongoing needs for forest-related data and information from ministers, government agencies, industry bodies, conservation groups, academia, and the public, as well as for international forest reporting, would entail frequent and time-consuming ad hoc requests to state, territory and Commonwealth government agencies.

### Drivers for changing how national forest data and information are reported

Each SOFR report since 1998 has been published as a hardcopy book, with electronic versions available online. SOFR text and data have increasingly been made available in other formats (Table 1). In SOFR 2018, electronic versions of the data presented in all figures and tables were for the first time published online, hyperlinked from individual figures and tables in the SOFR pdfs. Four associated spatial datasets, and high-resolution versions of all maps, were also made available electronically, directly from the SOFR pdfs.

Table 2 Publication formats for Australia’s State of the Forest Report series, 1998 to 2018

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Item | SOFR publication | | | | |
| 1998 | 2003 | 2008 | 2013 | 2018 |
| Printed report | Y | Y | Y | Y | Y |
| Printed Executive Summary |  | Y | Y | Y | Y |
| Ordinary pdfs on website | Y | Y | Y | Y |  |
| Accessible MsWord files on website |  |  |  | Y |  |
| Accessible pdfs on website |  |  |  |  | Y |
| Spatial data on website |  |  |  | Y | Y |
| Maps on website |  |  |  |  | Y |
| MsExcel data for all figures and tables on website |  |  |  |  | Y |

An internal review conducted by ABARES, synthesis of feedback received over time, and discussions with state and territory colleagues and other stakeholders, identified a number of drivers for changes in SOFR reporting. These include:

* 1. the increasing frequency at which new data become available
  2. increasing user expectations of the availability of up-to-date data and information
  3. user expectations of access to data in digital, online formats
  4. decreasing likelihood of access to a five-yearly ‘surge capacity’ of resources for forest reporting
  5. increasing need for flexibility in reporting.

These drivers for change were an input to considerations of how the delivery of national ‘state of the forest’ reporting could be modernised.

## Options for future national forest reporting

Improving efficiencies in the collation and delivery of SOFR data and information, and better meeting user needs, were key considerations ahead of the publication of SOFR 2018. SOFR 2018 therefore used the SOFR 2013 indicators as a general template for developing the SOFR 2018 indicators. In addition, SOFR 2018 better met user needs by making all individual table and figure data available electronically.

Continuing to build greater efficiency and flexibility into the preparation and delivery of SOFR, and further improving the user experience, have continued to be key considerations since the publication of SOFR 2018. Importantly, an equal goal has been to maintain the utility of SOFR as an effective and high-quality mechanism for meeting diverse demands for comprehensive national forest data and information.

Following the decisions taken at the workshop held after publication of SOFR 2013, all models considered for modernising the national SOFR retained Australia’s criteria and indicator framework, as established under the Montreal Process. This framework allows substantial flexibility in the individual metrics that can be chosen for reporting, while maintaining compatibility with state and territory SOFR and RFA reporting processes and international reporting frameworks.

A number of options for ongoing national forest reporting through the SOFR process were considered. All options were designed to retain the availability of data and interpretative narrative. The three main options, with anticipated outcomes, are given in Table 3.

Table 4 Options for ongoing national forest reporting

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Option 1: Status quo five-yearly reporting | | | | |
| Five-yearly update of all data, indicators and explanatory narrative, full report published in hardcopy and pdf, with all data available online, as for SOFR 2018. | | | | |
| Advantages | Disadvantages | | | |
| No transaction costs for transfer to new medium or approach | Data still updated only every five years | | | |
| Only incremental improvements possible in presentation quality, preparation efficiency, flexibility of delivery, or user experience | | | |
| Significantly ‘lumpy’ preparation effort, requiring work to source additional resources every five years, with progressively reducing likelihood of full funding over time and associated likely decline in quality and comprehensiveness of reporting | | | |
| Option 2: Online-only five-yearly reporting | | | |
| Web-based reporting, with a web-page for each indicator containing static and interactive data tables, figures, maps and explanatory narrative. | | | |
| Advantages | | | Disadvantages |
| Improved user experience and immediacy of access to data and information | | |  |
| Potential for ongoing improvements in presentation due to flexibility of web-based delivery, and availability of updated software | | |  |
| Allows focus on key metrics for each indicator, with separate supporting information that users can choose whether or not to view | | | Data updated only every five years |
| Ability to report foundational data-rich indicators over several web-pages, or co-report related data-poor indicators on one web-page | | |  |
| Reduction in time and resource requirements from not producing a full hardcopy report | | | Initial increased level of effort in establishing web framework and content |
| Production of a five-yearly ‘SOFR Synthesis Report’ as online pdf and printed hardcopy, to meet mandate and provide data overview and interpretation | | | Significantly ‘lumpy’ preparation effort, requiring work to source additional resources every five years, with progressively reducing likelihood of full funding over time and associated likely decline in quality and comprehensiveness of reporting |
|  | | | |
| Option 3: Online-first reporting, data updates at variable frequencies, five-yearly ‘SOFR Synthesis Report’ | | | |
| Web-first reporting, with a web-page for each indicator containing static and interactive data tables, figures, maps and explanatory narrative. Data updated at variable frequencies based on availability and demand. | | | |
| Advantages | | Disadvantages | |
| Improved user experience and immediacy of access to data and information | |  | |
| Potential for ongoing improvements in preparation due to flexibility of web-based delivery, and availability of updated software | |  | |
| Allows focus on key metrics for each indicator, with separate supporting information that users to choose whether or not to view | |  | |
| Ability to report foundational data-rich indicators over several web-pages, or co-report related data-poor indicators on one web-page | |  | |
| Reduction in time and resource requirements from not producing a full hardcopy report | | Initial increased level of effort in establishing web framework and initial content | |
| Production of a five-yearly ‘SOFR Synthesis Report’ as online pdf and printed hardcopy, to meet mandate and provide data overview and interpretation | |  | |
| Effort spread more evenly over time. | |  | |
| Data updated more frequently for key indicators | | Need to coordinate updates with state and territory update schedules | |
| Ability to disseminate and discuss results from individual indicators as these are updated | |  | |

## Considerations for proposed modernised delivery of national forest reporting

### Online reporting

Separate ‘key’ (or ‘main’) webpages would be developed for each of the 44 indicators presented in SOFR, hosted on the Forests Australia website[[1]](#footnote-2). This provides a user-centered design allowing focus on key elements of content.

Key indicator webpages would present a brief rationale, context and definitions for each indicator, then key national metrics with sufficient explanatory narrative to satisfy the high-level needs of users to understand the origin and applicability of the data. Trends over time would be presented where available. Key metrics will correspond with individual ‘data tiles’ or ‘drop-downs’ on the key webpage for each indicator. A linked page or pages of supporting information would contain additional indicator detail, such as a compilation of underpinning state and territory data, a description of the methods, longer narrative treatment of issues where warranted, and for some indicators individual case studies. Drafts of a possible web-based format for Indicator 3.1b[[2]](#footnote-3) are presented at [Appendix B](#_Appendix_B:_Possible).

Some indicators that cover a range of important topics will need more than one key web page to present each important topic separately. An example is Indicator 7.1b, which could have three key web pages that separately report the institutional framework, forest certification, and forest-related education. The opportunity also exists to present related indicators that cover similar material on a single web-page, including for indicators where there is a paucity of data. Examples are Indicators 4.1b and 4.1c on soils, and 4.1d and 4.1e on water.

A hyperlink on the key webpage for each indicator would allow the material to be downloaded as a pdf. MsExcel datapacks will be available to download for each indicator, as for SOFR 2018.

ABARES is also developing capability in, and assessing the potential for, using Microsoft PowerBI and Tableau as tools for interactive data presentation. There are also plans to develop the Forests Australia website to contain interactive maps, displayed through mapping tools such as the ArcGIS Online portal.

### Five-yearly publication of a SOFR Synthesis Report

A national ‘SOFR Synthesis Report’ is proposed to be published every five years, similar to but more substantial than previous SOFR Executive Summaries. The first of these would be titled *Australia’s State of the Forests 2023 - Synthesis Report.*

These synthesis reports would be summaries of published indicator content as at a particular point in time, likely arranged thematically as for previous SOFR Executive Summaries. They would be prepared in a way that satisfies reporting obligations under the NFPS and the RFA Act.

A compilation of the key indicator webpages into a single pdf would be made available at time of publication of each SOFR Synthesis Report, to form the basis for five-yearly international reporting, including to the Montreal Process and the FAO Global Forest Resources Assessment.

### Assessment of tables and figures in SOFR 2018 for future reporting

Following the publication of SOFR 2018, ABARES assessed each of the 358 tables and figures presented in the 44 indicators, plus those presented in the Executive Summary, Introduction and Appendices, to determine which tables and figures represented metrics suitable for continued reporting on ‘key’ indicator webpages, which would be suited for ‘supporting information’ webpages, and which did not need to be maintained for a web-based SOFR (see [Appendix C](#_Appendix_C:_Assessment) for example assessments).

Approximately 30% of the tables and figures presented in SOFR 2018 were assessed as sufficiently important and informative nationally to continue be presented on the ‘key’ indicator webpages: these will comprise the ongoing SOFR data that can be reported consistently over time. A similar number of tables and figures were identified for reporting across the ‘supporting information’ indicator webpages.

The number of key tables and figures will vary between indicators. For some indicators, similar tables or figures may be combined into interactive PowerBI displays embedded in or linked to the webpage. For indicators where the main treatment is narrative, either due to insufficient data or because of the nature of the topic, the ‘key’ webpage content may be arranged across a series of topic-based ‘drop-downs’.

### Frequency of data updates

Separation of data reporting onto separate webpages for each indicator allows for different data update frequencies for each indicator. Optimal data update frequencies will vary from indicator to indicator, and over time with changing priorities. ABARES therefore assessed each table and figure from SOFR 2018 to establish appropriate update frequencies for each reported metric, and thus for each indicator, considering data availability, resourcing efficiencies and likely user needs ([Appendix C](#_Appendix_C:_Assessment)).

Some data can readily be updated annually (e.g. tabular updates of plantation area from the National Plantation Inventory, or tabular updates of forest area change from the National Greenhouse Gas Inventory Reports). Other data will continue to be acquired on a five-yearly basis (e.g. ABS Census employment data), or some other frequency (e.g. national species data). A significant subset of indicators would continue to report data for five-year periods, the ‘SOFR reporting period’, because of the effort required for regular updates. Some indicators may be updated less frequently than every five years.

Establishing proposed update frequencies for each indicator then led to the drafting of a year-by-year schedule for the update of data across the 44 indicators. Construction of this schedule considered how best to spread effort from year to year, while meeting all reporting obligations, and recognised the timing of data availability from national agencies and through existing state and territory reporting processes.

### Summary of proposed approach for national forest reporting for 2023 and beyond

Desired outcomes for future SOFR reporting include:

* continue to satisfy the mandate for a national SOFR
* continue reporting based on the Montreal Process criteria and indicator framework
* meet user needs for more up-to-date data delivered in a wider range of formats
* allow the effort of compiling and reporting data to be spread more evenly from year to year
* allow a greater focus on key metrics, and on individually updated indicators
* continue the narrative explanation of key metrics and trends.

The proposed approach comprises:

* an online-first format
* data updates at a frequency driven by the availability of data and by practicality, rather than data updates only at pre‑set five-yearly intervals
* key metrics presented on a ‘key’ webpage for each indicator, with background data available on pages of supporting information
* webpages with data visualisation tools (e.g. PowerBI, Tableau, ArcGIS Online) as appropriate
* downloadable products, including pdf versions of each indicator, MsExcel datapacks of the data underpinning each figure and table, high-resolution maps and spatial data
* retaining narrative explanations alongside data on webpages, to allow users to understand the origin and applicability of the data, and the major drivers of trends over time
* coordinated requests to states, territories and national agencies for only the data required for the tables and figures that continue to be reported
* publishing a five-yearly national ‘SOFR Synthesis Report’.

Earlier versions of this approach were outlined to the National Forest Inventory Steering Committee in July 2020, and the Montreal Process Implementation Group for Australia in June 2021. ABARES is grateful for these and other discussions with state and territory colleagues.

## Benefits and consequences of a web-first SOFR

Consideration of a move to online-first presentation of data and information concluded that other benefits would also accrue for the SOFR series. These include an increased ability to focus on key metrics, improve flexibility in publishing data and information, address resource timing constraints, and schedule appropriately the release of material highlighting insights from individual indicator updates.

The basis of SOFR reporting since 2003 has been the Montreal Process framework of criteria and indicators. The criteria represent broad forest values, while the indicators allow presentation of measures of change over time for elements of the criteria. Within individual indicators, the increasing consistency of reporting of individual metrics across the SOFR series has allowed greater focus on the attributes of those metrics. The review and assessment of each figure and table in SOFR 2018 continued this process, and articulated the goal that each figure or table retained for future reporting represent data that are important, available, national in scope, and capable of meaningful repeat measurement over time. Metrics with these attributes are referred to as the ‘key metrics’ for the national SOFR series.

Updates of web versions of the SOFR indicators will be scheduled to correspond to the availability of new data, as far as resources allow. This is anticipated to spread the effort of compiling and reporting data more evenly from year to year, thereby eliminating the large peaks in effort previously experienced in producing five-yearly SOFRs, and addressing the difficulty in managing the required significant surge in resources in ABARES to produce each SOFR. Users of SOFR data and information will thereby have access to more up-to-date data, rather than waiting five years for the next release of SOFR. Users may also have access to better visualisations of data through interactive PowerBI displays and mapping tools. The online format will also allow the continual refinement of content, including the correction of errors as these are identified.

The progressive update and release of indicators will also allow for targeted media releases relating to new data, and the publishing of supporting ‘insights’ papers explaining the meaning or importance of new data releases. The current approach in which updates to all indicators occur at one time has not allowed the new data, methodological advances and interpretations for some indicators to be highlighted.

### State and territory data supply

Indicators draw on a broad range of data sources, both from national agencies but also from within each state and territory government. Independent of changes in format and scheduling, the success of the national SOFR series against its mandates and drivers will continue to rely on this supply of relevant data. The proposed move to web-first delivery can be anticipated to lead to more efficient data supply through more manageable requests for data from ABARES. This should reduce time spent identifying data custodians and coordinating the supply of data, facilitated through a ‘SOFR data coordinator’ from each state and territory with knowledge of relevant data source areas across agencies in their jurisdiction.

The next set of requests for state and territory data will cover the ‘SOFR reporting period’ of 01 July 2016 to 30 June 2021, and cover only the key metrics for the sub-set of indicators to be updated before the publication of a SOFR Synthesis Report in 2023. A small subset of indicators will likely not be updated until after 2023, due to the lack of current data available for these indicators. This approach will allow the states and territories, and ABARES, to focus on sourcing and compiling data for indicators for which new data are known or likely to be available.

### Issues to resolve

A range of issues remain to be resolved with the shift of the national SOFR series to a web-first presentation, in addition to coordination of data supply with the states and territories.

A core goal of this modernisation is to reduce overall resourcing requirements and to smooth the temporal ‘lumpiness’ of effort. However, significant effort is required for the transformation process. ABARES staff are still evolving their understanding of the GovCMS web-platform available for their use, and how to make optimal use of PowerBI or Tableau active graphics. Lastly, the synchronisation of effort between indicators needs careful planning: for example, more frequent spatial updates to Australia’s forest extent could lead to consequential updates of at least 17 other indicators, so as to ensure consistency between underpinning spatial data and derived tabular data.

## Appendix A: Benefits of producing Australia’s State of the Forests Reports

Prepared by the *Australian Bureau of Agricultural and Resource Economics and Sciences* on behalf of the *National Forest Inventory Steering Committee* and the *Montréal Process Implementation Group for Australia*, and endorsed for publication by the *Forestry and Forest Products Committee* in November 2015

*Overview*

The Australia’s State of the Forests Report (SOFR) series is the mechanism by which the state of Australia’s forests, and changes over time in a range of social, economic and environmental forest-related indicators, are reported to government and industry stakeholders and the broader community. The SOFR series meets Australia’s formal national reporting requirements for forest information, and the data assembled for SOFR are also used to meet Australia’s international forest-related reporting requirements.

*Characteristics of the SOFR series*

1. Comprehensive

The SOFR series is based on a major national assembly of data on a wide range of indicators of sustainable forest management. SOFR is the only comprehensive compilation of national data and information on Australia’s forests, and as such is the best available snapshot of the state of Australia’s forests and the best presentation of trends over time.

1. Credible

The SOFR series is an authoritative and trusted source of information on Australia’s forests. It has gained this status by presenting the best available data and information from national and state and territory sources. SOFR is authored by two committees (the Montréal Process Implementation Group for Australia, and the National Forest Inventory Steering Committee) each containing national and state and territory representatives, and published by ABARES, the research bureau of the Australian Government Department of Agriculture. The framework of criteria and indicators used in the SOFR series was developed under the international Montréal Process.

1. Consistent

SOFR is structured according to a consistent and systematic format under seven separate criteria of sustainable forest management, covering the biophysical, social, economic and policy aspects of forests. Within each of the seven criteria, various indicators (44 in total) address specific forest parameters and values. This framework remained unchanged between SOFR 2008 and SOFR 2013, and gives a familiar and easily navigated layout for the complex range of information and data presented. Repeated reporting against this consistent structure enables patterns and trends over time to be revealed.

1. Accessible

Each SOFR indicator contains sufficient explanatory narrative to allow the reader to understand the data being presented. The data and narratives are also summarised and synthesised into Key Points (for each indicator), Key Findings (for each criterion), and an Executive Summary. References, a glossary and an index are included at the end of the report.

1. Available

SOFR 1998, SOFR 2003, SOFR 2008 and SOFR 2013 are available at the Forests Australia website ([www.daff.gov.au/forestsaustralia](http://www.daff.gov.au/forestsaustralia)[[3]](#footnote-4)) and the ABARES publications website ([www.daff.gov.au/abares/publications](http://www.daff.gov.au/abares/publications)[[4]](#footnote-5)). SOFR 2013 and a separate Executive Summary are available in both pdf and accessible MsWord formats, as individual chapters as well as single documents, and are also available in hard copy. Key spatial datasets, including forest cover, forest type, forest tenure and Indigenous managed forests, have also been published.

*Usage of the SOFR series*

The SOFR series is a widely used resource for understanding the multiple values of Australia’s forests, as well as the state of these values, and demonstrating progress in sustainable forest management. SOFR is of importance to, and serves the diverse purposes of, many different people and organisations throughout Australia and overseas, such as:

* Australian, state and territory government ministers
* Australian, state and territory government agencies, including regional development organisations
* parliamentary and other enquiries (SOFR 2008 was widely cited in a number of state and Australian Government parliamentary inquiries into forests and forest industries)
* policy-makers
* forest planners and natural resource management planners
* forest growers and managers
* forest industry and business managers, including in the processing, manufacturing and importing sectors, often during the preparation of proposals and business cases
* academia, researchers, consultants and forest industry analysts
* non-governmental organisations
* professional societies.

*Benefits of producing the SOFR series*

The comprehensive and consistent nature of the SOFR series described above, and the above wide range of users, leads to the following benefits of producing the SOFR series:

1. Informed policy and informed decision-making

SOFR directly assists policy-makers to develop sound future policies and programs in relation to sustainable forest management, access to forest resources, meeting market demand for forest products, effective forest conservation strategies, and community concerns with forest management.

1. Informed industry development and decision-making, regionally, nationally and internationally

The data and analyses presented in SOFR support the development of viable forest industries,and significantly improves the capacity to inform decision-makers about forest management in Australia.

1. Improved trade and market access

The publication of SOFR provides reassurance and confidence to local, national and international communities about the management of Australia’s forests, and so builds support for continued access to forest resources and continued active forest management.

1. Informed research and analysis by consultants and academics

SOFR provides a consistent, authoritative and comprehensive source of national forest-related data suitable for use in a wide variety of analyses for a wide range of purposes.

1. An informed community

Informing the broader community about the state of Australia’s forests is the main legislative driver for preparing SOFR. The publication of SOFR ensures that community debate about the role and management of Australia’s forests can be based on appropriate data, and raises community confidence in forest management. The general acceptance of the content of the SOFR series suggests that this has been achieved.

The broad range of forest values on which information is collected and reported in SOFR in an integrated fashion ensures that stakeholders, forest managers and decision-makers are aware of the connected nature of the ecological, biophysical, social and economic aspects of Australia’s forests. Building this awareness of the diversity of values of Australia’s forests improves the communication of the state of Australia’s forests to the broader community, and informs the wider community debate.

*Other outcomes from preparation and production of the SOFR series*

1. Fulfils national legislative and policy obligations

The five-yearly SOFR series fulfils commitments under the Commonwealth *Regional Forest Agreements Act 2002* (RFA Act) and the *National Forest Policy Statement* (NFPS).

The RFA Act commits the Commonwealth Minister for forestry “to establish a comprehensive and publicly available source of information for national and regional monitoring and reporting in relation to all of Australia’s forests; and to support decision-making in relation to all of Australia’s forests”.

The NFPS commits the nine signatory governments to provide through their forest management agencies “appropriate information from which to produce and publish a ‘state of the forests’ review every five years”. The ‘reviews’ are to provide accountability to the community on the stewardship of forests and demonstrate ecologically sustainable forest management.

1. Efficient compilation of data

The formal structure of the Montréal Process framework of criteria and indicators facilitates collection and supply of data by the Australian, state and territory government agencies. The resultant national compilation of data leads to a greater understanding within jurisdictions of the purpose and importance of forest monitoring and reporting.

1. Efficient input into national reporting

The data and information in each of SOFR 1998, 2003, 2008 and 2013 have underpinned a number of national reporting processes and products. These include Australia’s State of the Environment Reports, national environmental accounts, and other domestic reports. SOFR 2008 was widely cited in *Australia State of the Environment 2011*. SOFR is also the main source for non-economic forest-related data in the *Australia’s Forests at a Glance* booklet series.

1. Efficient state and regional reporting

In addition to SOFR, Australia’s Montréal Process criteria and indicator framework is adopted in several state reporting processes (Victoria’s State of the Forests Report, Tasmania’s State of the forests report, the New South Wales Seeing Reports, and the Western Australia Forest Management Plan) and for reporting against each Regional Forest Agreement. This alignment and common platform provides consistency in assembled information, and a shared approach for measuring and reporting forest attributes. The connection between the state, national and international levels of reporting aligns data requirements, and increases the efficiency of producing each report.

1. Compatible with certification frameworks

The criteria and requirements in the Australian Forestry Standard (AFS) for forest management are constructed around the Montréal Process criteria that are used for reporting in the SOFR series. This provides AFS certification with a high-level linkage to the sustainability criteria adopted by Australia’s states and territories, and allows consistent assessment and management of forest values.

1. Efficient international reporting

SOFR is Australia’s key source for international forest reporting processes. This includes Australia’s responses to the five-yearly Global Forest Resources Assessments led by the United Nations Food and Agriculture Organization for 2000, 2005, 2010 and 2015, which were based primarily on data and information from SOFR 1998, 2003, 2008 and 2013 respectively. Compilation of SOFR allows efficient responses to these international reporting requirements, as evidenced by no additional requests for data from state and territory governments being necessary to prepare these responses.

The preparation of SOFR using Australia’s Montréal Process criteria and indicator structure also enables SOFR to serve as Australia’s country report to the international *Montréal Process Working Group on Criteria and Indicators for the Conservation and Sustainable Management of Temperate and Boreal Forests*, of which Australia is a founding member.

The SOFR series has also been the source for responses to requests for national forest information from the United Nations Forum on Forests, the Convention of Biological Diversity, and other requesters.

*Recognition of benefits*

At its release the Hon. Richard Colbeck, Parliamentary Secretary to the Minister for Agriculture described SOFR 2013 as:

“a huge resource for people in the forestry industry”

“a message for the broader community”

and, in regard to sustainable forest management,

“a benchmark for what’s published around the world”.

A wide set of accolades have subsequently been documented from the SOFR user community. Examples include:

“Just wanted to say how great it’s been having the 2013 SOFR. I’ve referred to the report and the online version for various bits of research in the last month. A great reference all round” (from a Senior Planning Officer in a state Environmental Protection Agency),

“as comprehensive and informative a document as ever” (from a senior academic), and

“excellent report produced by your country” (from the National Sustainability Program Leader in an overseas Forest Service).

The national forest cover and forest type spatial datasets in the National Forest Inventory have been identified by the Australian Bureau of Statistics as an Essential Statistical Asset, and are foundation spatial datasets in the land cover component of ANZLIC – the Spatial Information Council.

## Appendix B: Possible web-based format for Indicator 3.1b

Graphical user interface, website

Description automatically generated

Website

Description automatically generated with low confidenceGraphical user interface, website

Description automatically generated

Graphical user interface, application

Description automatically generated with medium confidenceGraphical user interface, website

Description automatically generated

Graphical user interface

Description automatically generated

## Appendix C: Assessment for ongoing reporting of metrics in Indicator 3.1b of SOFR 2018

This table assesses the metrics (tables and figures) published in SOFR 2018 indicator 3.1b, in the context of planned ongoing web‑first reporting.

Each metric (table and figure) from SOFR 2018 was designated as key content, supporting information, may or may not be reported, or no longer to be reported.

Key content is proposed to be reported on a main indicator webpage, with supporting information on a secondary webpage. Case studies could have an individual webpage, and could be updated on a separate schedule.

Criteria used in the assessment of metrics were national relevance, availability of source data, and availability of data showing trends over time.

| SOFR 2018 metric (table or figure) | | Future reporting | Significant for national reporting? | Source of data | Data show trends over time? | Possible frequency of update | Comments |
| --- | --- | --- | --- | --- | --- | --- | --- |
| CRITERION 3: Maintenance of ecosystem health and vitality | | | | | | | |
| Indicator 3.1b Area of forest burnt by planned and unplanned fire | | | | | |  |  |
| Table 3.9 | Area of forest burnt, by jurisdiction and tenure, 2011–12 to 2015–16 | Key | Yes | States & Territories (S&T) plus ABARES Multiple Lines of Evidence (MLE) forest cover estimation | Yes – for fire areas now that these are collected consistently. No – for spatial forest area from MLE | 2-yearly | Key data or areas and frequencies |
| Figure 3.13 | Area of planned and unplanned forest fire (‘000 hectares) by year | Key | Yes |
| Figure 3.14 MAP | Forest burnt, by number of fires, 2011–12 to 2015‑16 | Key | Yes |
| Figure 3.15 MAP | Forest burnt, 2011–12 to 2015–16, by planned, unplanned, or both planned and unplanned fire | Key | Yes |
|  | | | | | | | |
| Table 3.6 | Area of forest fire, 2011–12 to 2015–16, by year and jurisdiction, separately for planned and unplanned fire (’000 hectares) | Supporting | Yes | S&T plus MLE | Yes – for fire areas. No –for spatial forest area from MLE | 2-yearly | Combine with Table 3.8 |
| Table 3.8 | Cumulative area of fire in forest, 2011–12 to 2015‑16, by tenure and jurisdiction, separately for planned and unplanned fire | Supporting | Yes |  | Combine with Table 3.6 |
| Table 3.7 | Area of forest burnt by number of times burnt, by jurisdiction, 2011–12 to 2015–16 (‘000 hectares) | Supporting | Yes | MLE | 2-yearly |  |
| Figure 3.12 | Distribution of bushfire seasonality across Australia | Yes  (image) | Yes, valuable context | Geoscience Australia | n/a | n/a | Retain but do not update |
|  | | | | | | | |
| Figure 3.16 | Cumulative area of planned and unplanned forest fire by tenure, 2011–12 to 2015–16 | No | Yes | MLE | No – not for MLE data | n/a | Represented in Table 3.8 |
| Figure 3.17 | Widespread mortality of the above-ground parts of mature *Eucalyptus megacarpa* and *E. patens* in severely burnt forest near Willowdale | No | No | n/a – image | n/a | n/a | Case study. Can replace with a new case study at an appropriate moment, independent from data updates |
| Figure 3.18 | Immediate impact of severe fire in young forest rehabilitated following bauxite mining near Mt William, Western Australia | No | No | n/a – image | n/a | n/a |
| Figure 3.19 | Plantation of *Pinus pinaster* burnt by high intensity crown fire | No | No | n/a – image | n/a | n/a |
| Figure 3.20 | Pyrocumulonimbus cloud above the Waroona fire | No | No | n/a – image | n/a | n/a |

1. [awe.gov.au/abares/forestsaustralia](https://awe.gov.au/abares/forestsaustralia) [↑](#footnote-ref-2)
2. Details of the indicator framework are given at [awe.gov.au/abares/forestsaustralia/framework](https://www.awe.gov.au/abares/forestsaustralia/framework) [↑](#footnote-ref-3)
3. Now [awe.gov.au/abares/forestsaustralia](http://www.awe.gov.au/abares/forestsaustralia) [↑](#footnote-ref-4)
4. Now [awe.gov.au/abares/publications](http://www.awe.gov.au/abares/publications) [↑](#footnote-ref-5)