



**ips**

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# **State of the Environment 2021 Report Evaluation**

## **Final Report**

IPS Management Consultants

# Acknowledgement

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This report was created on Wadjuk Noongar Country.

IPS Management Consultants acknowledges the Traditional Owners and Custodians of Country throughout Australia, and their continuing connection to land, water, and community. We pay our respects to Elders both past and present, and we extend that respect to all First Nations people.

We are grateful to the Aboriginal and Torres Strait Islander people and communities we have the privilege of working with, for sharing stories, values, beliefs, and culture.

# Working In Partnership

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# Section 1

Executive summary

## Executive summary

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The 2021 State of the Environment Report (the report) is a legislated document under the *Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act), which provides a review of Australia's natural environment every five years. By providing a review on the state of Australia's environment, the report is designed to help shape strategy, policy and action to influence behaviours and to assess the actions taken to prevent further environmental decline in Australia. The release of the 2021 report was delayed by the previous Australian Government but was released by the Minister for the Environment and Water the Honourable Tanya Plibersek MP on 19 July 2022 at the National Press Club of Australia.

Despite the initial delay, the release and subsequent media attention was beneficial for the effectiveness of the report's promotion. Stakeholders with previous engagement in former iterations of the report, noted that the promotion of the report was significantly enhanced by the Minister's address at the National Press Club and the subsequent media attention regarding the contents of the report. Other promotional channels noted as being effective include the author presentations and stakeholders sharing the report amongst their networks. Suggestions for improvement focused on the need for communications to be personalised and extend beyond the initial release of the report. This could help to build and strengthen relationships, particularly with First Nations and local government stakeholders.

Stakeholders approached for feedback into the evaluation of the report included representatives from the Department of Climate Change, Energy, the Environment and Water (the Department), academics, authors, the education sector, First Nations individuals, state/territory and local government, peak body/industry, Non-Government Organisations (NGOs), and others.

Responses to the report were generally positive among these stakeholder groups, as indicated by sentiment analysis. Sentiment analysis involves evaluating and categorizing the emotional tone or sentiment expressed by stakeholders to determine whether the text conveys a positive, neutral, or limited sentiment. This analysis revealed that the majority of stakeholders had a positive response to the report and its content, while a minority had a neutral response. Importantly, no stakeholders expressed a limited response in qualitative interviews.

One of the main drivers of the positive response to the report was its incorporation of First Nations knowledge throughout. As the traditional custodians of the Australian continent, First Nations people have a unique perspective to share knowledge about the conservation of the natural environment. This perspective is deeply rooted in their cultural, spiritual, and historical traditions, and it is intricately connected to their social and emotional well-being. Significantly, this report was the first to extensively integrate First Nations knowledge, which received overwhelmingly positive feedback from various stakeholder groups and played a crucial role in the report's positive reception.

Another positive aspect of the report from stakeholders was its comprehensive overview of the state of the environment, which illustrated stark findings of overall environmental decline. Stakeholders appreciated that this depiction accurately reflected the current circumstances. This aspect of the report was commended across stakeholder groups, as it highlighted the report's authority, independence, and its strong foundation in scientific evidence. However, a minority of stakeholders had a neutral response to the report due to its limited relevance to their work, especially among peak body/industry stakeholder groups. Nevertheless, they did acknowledge the report's value in providing a broad yet comprehensive overview of the state of Australia's environment. Other stakeholders with a neutral response felt that the report did not introduce significantly new insights to those already working in environmental conservation, advocacy, or with a general interest in environmental reporting.

The accessibility of the report refers to the degree to which the report, in its development and presentation, can be easily understood and used by a broad audience. Accessibility includes factors such as the availability of the report, its level of clarity and understandability, and the format in which it's presented. Accessibility is critical in ensuring that the report and its informative content can be accessed and utilised by everyone, regardless of their specific needs or circumstances. In addition to helping more people engage with and understand the report, the accessibility of the report can impact an individual's ability to identify a personal relevance on the need to preserve Australia's natural environment. As a result, accessibility can have positive impacts on behavioural change and informing policy.

Across stakeholder groups, there were varied perceptions towards the report's accessibility and the various elements of the report that sought to make it more accessible for a broader audience. The elements used to measure accessibility in this section include the level of complexity of the report's content, its website format, the accessibility of data within the report, and the report's layout, design and length. Overall, stakeholders mostly held positive views towards the report's accessibility and efforts to make the report more accessible, particularly the adaptation of the report's content to be more interactive through the website format. However, broad opportunities for improvement to the report's accessibility centre on the need to utilise more inclusive language within the report for individuals with a non-scientific background, as well as the need to make Portable Document Format (PDF) versions available of both the entire report and report chapters, which numerous stakeholders highlighted as being difficult to find. Practical recommendations to enhance the accessibility of the report, as informed by stakeholder engagements, are included throughout section 5 where there are opportunities for improvement.

The use and impact of the report refer to how the report is employed across stakeholder groups and the consequences or influence it has in a particular context. Stakeholders have employed the report in a variety of ways, often relying on the report's strong authority, independence, and extensive content for their own advocacy, research, and educational work. Stakeholders use the report in several ways, including engaging and promoting it to members and supporters, referencing it in research, informing government submissions, conducting parliamentary briefs, and shaping environmental and education policies and programs to enhance environmental reporting and influence behavioural change. Some of the report's most valuable components, as noted by stakeholders, make it suitable for multiple purposes and applications. These components include graphics, figures, maps, and data sets, key summaries, case studies, and reports on positive outcomes.

In addition to the immediate impacts of the report through its use and content by various stakeholders, the report has had broader impacts, including providing a comprehensive overview of the state of the environment, raising community awareness about Australia's natural environment, and offering positive affirmation for individuals and organisations working in the conservation and advocacy space.

However, despite the positive and diverse utility of the report, there are several opportunities for improvement that could encourage broader use of the report and maximise its impacts. These opportunities revolve around the need to implement recommendations within the report, which are not within its current scope, as well as the need to track and incorporate more stakeholders within the report's recommendations. Additional opportunities also include improved integration with the United Nations Sustainable Development Goals (SDGs), and a greater emphasis on emerging environmental trends, increased integration with state and territory reports, a greater emphasis on the broader cultural importance of the natural environment in Australia, and a more tailored approach to the report's content to better incorporate the importance and applicability of Australia's natural environment to the commercial sector.

Engaging with these diverse opportunities in future reports was recognized by individuals from various stakeholder groups as a means of enhancing the report's usefulness and relevance within their respective fields and industries. Fully embracing all of these opportunities to improve the report's utility might entail departing from its current purpose and format, a decision that rests with the Department and future report

authors. Nevertheless, it is crucial to acknowledge the significance of these opportunities to stakeholders and their potential to optimise the report's utilization. These factors should be thoroughly considered if future reports and their content are to effectively reach a wider audience.

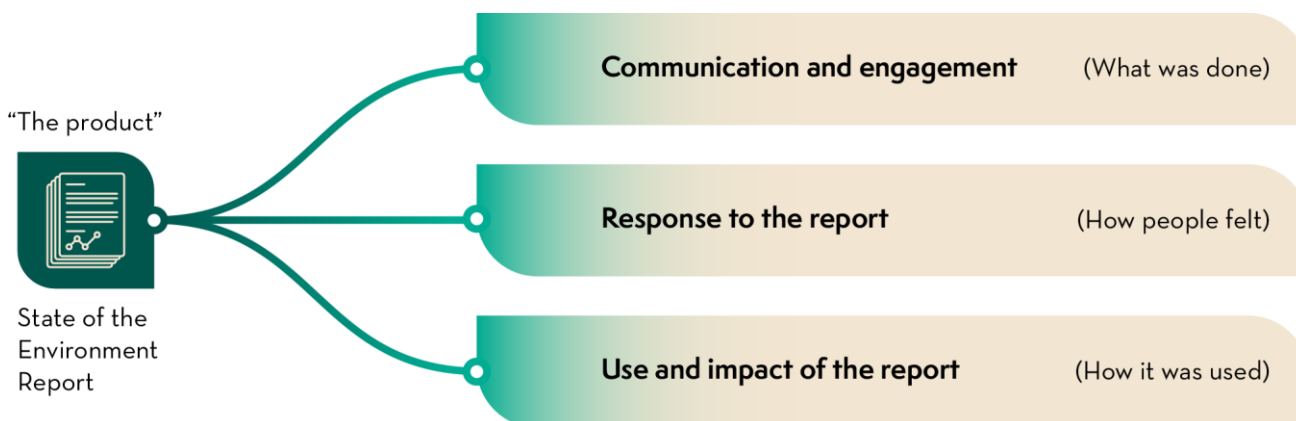
The timing of the report's release was also a significant focus of the evaluation. As outlined by the EPBC Act, the report's development and release must follow a five-year timeframe. Stakeholder opinions on the timeliness of the report varied. Most stakeholders highlighted that the current timeframe limited the report's overall utility and impact due to the long gaps between reports. Many stakeholders advocated for more frequent reporting to improve the report's timeliness and relevance in informing natural environment-related strategies and policies, given the rapid changes in Australia's natural environment. However, even among those who supported increased report frequency, some expressed caution, pointing out the significant efforts and resources required for report development. Authors particularly noted that altering the report's timeframes would necessitate a proportional increase in resources or a decrease in the report's overall length.

## Purpose of the evaluation

IPS was engaged by the Department to conduct an evaluation that focuses on the impact, utility and relevance of the report and the effectiveness of its promotion. To measure success and determine the extent to which the report is meeting the outcomes, the evaluation will need to consider the impact the report has had on various stakeholder groups, including representatives from the Department, academics, authors, the education sector, First Nations individuals, state/territory and local government, peak body/industry, NGOs, and others. The evaluation was informed by documents and data provided by the Department, and engagement with key stakeholders through one-on-one interviews, group interviews, and online surveys.

The evaluation was guided by a co-design workshop with the Department which revealed a set of themes and lines of enquiry, as illustrated below. This structure has been applied to the layout of the report.

Figure 1: Evaluation report layout



## Summary of recommendations

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The evaluation of the report has identified 25 recommendations to improve the communication and promotion, accessibility, and utility of the report. These recommendations are divided across each of the evaluation reports' sections, which relate to specific elements of the report.

### Communication and promotion of the report

**Recommendation 1:** Consider ways to leverage the appeal of author presentations including increased publicity and follow-up presentations that go into greater detail.

**Recommendation 2:** Consider strategies to encourage traffic to the state of the environment website beyond the initial release of the report.

**Recommendation 3:** Co-design communication and promotions with First Nations people and organisations to be culturally safe and engaging.

**Recommendation 4:** Implement communication strategies that build relationships and encourage wider engagement of First Nations people and organisations beyond the initial release of the report.

**Recommendation 5:** Re-initiate personalised correspondence with stakeholders, such as local government, to increase awareness of the report whilst generating good will between the Department and its stakeholders.

**Recommendation 6:** Assist stakeholder networks in sharing the report through the provision of accessible and regularly updated communication products that cater to specific audiences.

### Response to the report

**Recommendation 7:** Ensure an extensive engagement period with First Nations people, communities and organisations to maximise First Nations input into how traditional knowledge can be reflected throughout the report.

**Recommendation 8:** Explore opportunities for the further infusion of traditional knowledge in future reports and across each thematic chapter.

**Recommendation 9:** Ensure that future reports reflect the impact that environmental degradation has on First Nations people and communities.

**Recommendation 10:** Ensure that future reports include discussions on culturally significant threatened species.

**Recommendation 11:** Include demographic and social and emotional wellbeing indicators within future quantitative measurements to further reflect First Nations perspectives within the report.

### Accessibility of the report

**Recommendation 12:** Ensure that future reports maximise the use of inclusive language and content alterations so that the report's content can be understood by a broader audience.

**Recommendation 13:** Ensure that future web versions of the report include a readily available PDF format and download for readers that prefer engaging with PDF documents.

**Recommendation 14:** Increase the availability of raw data within the report and implement a data explorer tool to allow stakeholders to independently engage with the data.

**Recommendation 15:** Consider enhancement to the visual appeal of the report with a focus on the report's colour scheme and increased use of visual images.

## Use and impact of the report

**Recommendation 16:** Explore opportunities to conduct a national wilderness inventory in future reports.

**Recommendation 17:** Increase the number of case studies that report on successful outcomes.

**Recommendation 18:** Make recommendations more explicit within the report and ensure there are mechanisms to capture updated outcomes of the recommendations in future reports.

**Recommendation 19:** Encompass broader stakeholders within the report's recommendations beyond government stakeholders.

**Recommendation 20:** Implement a follow up statement through a published response upon the report's release.

**Recommendation 21:** Improve the integration and alignment with the SDGs throughout the report.

**Recommendation 22:** Explore future alignment between the report and state and territory government reports in full consultation with state and territory government representatives.

**Recommendation 23:** Consider incorporating the broader cultural significance of the natural environment within Australia in future reports.

**Recommendation 24:** Communicate the relevance and implications of the report's content to private and commercial sector entities and engage these sector stakeholders in the report's development.

**Recommendation 25:** Consider reporting more regularly to capture emerging trends and progress, with due consideration to the additional resources required and potential alterations to the report's length.



## Section 2

Background of the report

## Introduction

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This section provides an initial background of the report including its legislative purpose under the EPBC Act and its continued evolution since the first iteration of the report was released in 1996. Understanding the background of the report, including its development by the Department, provides added context to the evaluation and key findings by outlining the report's key strategic aims and analysing whether these aims align with the perceptions of stakeholders, as well as the report's impact and utility. This will be foundational in identifying the report's strengths and opportunities for improvement, according to stakeholders with a vested interest in the report's development and release.

Following on from this background context, the report will be analysed within the environmental reporting landscape in accordance with the initial stakeholder perceptions of the report in comparison to other major environmental reports that stakeholders engage with. According to most stakeholders, the report is positively perceived both at the individual and collective levels within broad sectors such as government, NGOs, education, and industry. The report's strong authority as a government-funded document that is independently authored is the primary driver for positive stakeholder perceptions of the report. This provides an initial and high-level outline of stakeholder perceptions of the report which are analysed in greater detail later within the evaluation.

## Purpose of the report

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The report is an assessment of the state of Australia's environment, including information on key environmental indicators and trends. The report is designed to help shape strategy, policy and action to influence behaviours and to assess the actions taken to protect the future of Australia's environment. Legislated under the EPBC Act, the report is released on a 5-year timeframe.

A group of impartial scientists and environmental specialists composed the thematic sections and had a hand in creating the Overview report, with leadership from co-chief authors Dr. Ian Cresswell, Dr. Terri Janke, and Professor Emma Johnston. The authors received support for their efforts from a taskforce within the Department as well as a project board consisting of senior departmental executives. The report benefitted from the valuable input of numerous partners and contributors, including data from Commonwealth and state and territory sources, case studies, and various other contributions acknowledged in the chapters' Acknowledgements sections. Furthermore, drafts of all the chapters were reviewed with the guidance of the Department's Indigenous Advisory Committee.

The report covers a wide range of environmental topics drawing on data from various sources, including scientific research, the public participation in environmental measurements known as citizen science, monitoring programs, and government agencies. The report assesses the changing condition of our natural environment across 12 themes: air quality, Antarctica, biodiversity, climate, coasts, extreme events, heritage, Indigenous, inland water, land, marine and urban. Citizen science is a collaborative approach to scientific research in which members of the public, who may not have formal scientific training, actively participate in the scientific process. Most notably, the report infused traditional knowledge from the First Nations experts within the report to better encompass conservation knowledge from Australia's traditional custodians who successfully and sustainably maintained the health of the environment before colonisation.

In Australia, the report provides a critical tool for assessing and addressing environmental challenges, promoting sustainable practices, and fostering greater public and governmental commitment to protecting and preserving the natural environment and heritage.

The report was produced by three chief authors including Dr Terri Janke, Professor Emma Johnston, and Dr Ian Cresswell, with various other authors tasked with developing and curating each of the thematic chapters. These authors received support from the Department as well as many other contributors and partners including state and territory governments.

## Evolution of the report

Since the report's first iteration in 1996, the report has undergone significant improvements and a positive evolution, according to stakeholders who have had extensive and prolonged engagement with the various entries of the report. For example, the 2011 report expanded its focus on the significance of climate change to the natural environment, while the 2016 report first introduced a more interactive and accessible online format to maximise the engagement of both policymakers and the general public.

Numerous stakeholders, particularly First Nations stakeholders, authors, and NGO representatives noted that the 2021 version of the report has continued this positive evolution from being a purely scientific analysis focusing only on several major issues, to instead incorporating a more holistic perspective of Australia's natural environment and its opportunities for improvement. Several major progressive steps of the 2021 report are the merging of traditional knowledge through the incorporation of First Nations perspectives and insights across the thematic chapters of the report.



"We've seen the State of Environment has now really worked away from purely being biophysically focused to a more understandable holistic analysis about the health of the environment." First Nations stakeholder

The incorporation of First Nations knowledge throughout the report was consistently raised across stakeholder groups as the most positive and progressive step of the report. The overall impact of First Nations perspectives is analysed further within the report. However, the overwhelmingly positive reception of this inclusion warrants repeated celebration.

## Authority and independence of the report

The independence of the report refers to the arrangements of the report's development which seek to mitigate the report's potential manipulation by undue influence or political bias. The report's independence originates from the EPBC Act which outlines that the report is to be funded by the federal government but produced by independent authors that provide an evidence-based point-in-time overview of the state of the environment. The independence of the report further enhances its status within the environmental reporting landscape and incentivises stakeholders to actively engage with the report due to the assurances that its content has been independently developed without interference by the federal government.



"The content is set by independent experts, and that is vital because that is what gives it credibility. It is the authoritative assessment of our natural world, and it's regarded so highly." Education sector stakeholder



"It's superior to a lot of government reports, because it does have that independence, it's very well-respected." NGO representative

The report is commonly referred to by most stakeholders as the preeminent guide for national environmental reporting within Australia due to the report's highly respected authors, and the subject matter expertise of the thematic chapter authors, which gives added weight to the strong authority of the report and its content.



## Section 3

Communication and engagement of  
the report

## Introduction

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The method by which the report has been communicated to stakeholders has changed over time. For the first time in 2016, the report was available through both an interactive digital website and downloadable thematic chapters. The latest report is also presented as an online resource with its content arranged across a dedicated website. It cannot be readily downloaded which precludes it from being printed as a hard copy resource. The report is no longer limited to text, figures and graphs. Video presentations are also included.

Over time, the methods for disseminating and promoting the report have undergone positive transformations, embracing electronic advancements. Initially, the report was promoted through direct distribution from the Department to stakeholders, featuring hard copies accompanied by a formal letter from the federal government. This approach has evolved into a more streamlined process, involving a reduced number of print runs focused on the report overview, exclusively provided to ministers and authors. Notably, the distribution method for hard copies to stakeholders has transitioned to a more efficient email-based system. Initially, the report was attached to the emails, and now stakeholders are directed to an online link for easy access. Throughout these changes, the report has consistently been complemented by a media release and, more recently, has been actively promoted on various social media platforms, contributing to an enhanced outreach strategy and reduced environmental impact.

Evaluating the report's communication is important to identify the ways in which stakeholders find out about the report and how they engage with its content. Decisions on how the report is circulated, accessed and promoted will have a significant impact on the breadth and depth of engagement. As such, this section will provide a brief background on the vision and plan for communications regarding the report. The execution of the communications will be evaluated from the perspective of stakeholders, with supporting evidence where possible.

The secondary transfer of the report, from stakeholders to their broader networks, is likely to be influenced by a range of factors including the ease of transmitting key message and content. It will also be influenced by the motivations of stakeholders, particularly in terms of how the report can be leveraged to meet the stakeholder's own communication and promotion goals. Commentary is provided on how stakeholders shared the report with others, however, unravelling these dynamics and pathways is complex and beyond the scope of work undertaken in this evaluation.

Overall, stakeholders highlighted that the report's communication was effective in generating attention towards the report and its contents. Despite the positive perceptions of the report's communication across stakeholder groups, several opportunities for improvement have been identified for improving engagement with the report.

## Planned communication

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### Background

A total of 23 background documents were reviewed to establish what communication and promotion was planned for the report (see appendix 6). There was a degree of complexity in navigating the document set due to unclear chronological order and accountabilities.

The review elicited evidence that suggested that communication and engagement activities from previous reporting cycles were viewed as "failings", and significant efforts were made to take learnings from the 2016 State of the Environment Report into the design of communication for the 2021 report. Key recommendations included:

- Early planning and dedicated communications resourcing for the duration of the project
- Maximise opportunities to communicate key messages
- Address various forums throughout the life of the report including events such as Minister and senior official's briefings, environmental conferences and sector conferences
- Respond to media events with material sourced from the report.

A key finding from the review of previous reports were the identification of key stakeholder groups. The different groups were likely to interact and use the report in different ways and as a result, should have communications and promotional products specifically tailored to their needs.

## 2021 report

Communications was assigned priority from the outset of the 2021 reporting cycle. The overarching SoE 2021 project plan also highlighted that there would be “communication and engagement activities, and post release activities for SoE 2021 – up to a year after release” (DCCEEW, date unknown). It also made provisions for a dedicated communication officer to work as part of the reporting team within the Department.

### Communications planning

The SOE 2021 Communications and Engagement Strategy (the Strategy) set out the overarching aim for efforts in this area, which was simply to improve the visibility and usability of the report. It divided efforts between a primary audience, being government, and intermediaries and influencers including advisory bodies, environmental groups, industry, research and education and the general public. It also divided activities across a timeline which included a pre-launch, launch and post-launch phase. The key features of the pre-launch phase were assessing risks and opportunities, articulating and refining audiences and building partnerships with stakeholders. The launch phase included tabling the report in Parliament as well as promoting the release and key findings. The post-launch phase included roadshows and briefings, promoting initiatives linked to the report, and evaluating and revising all communication activities.

The SOE 2021 Communication Implementation Plan built on the Strategy, clearly articulating a set of communication objectives, channels, outputs and outcomes (see table below). Communication channels were also aligned to a refined stakeholder listing which included: government, Indigenous, finance industry, extractive and resource industry, natural environment industry, NGOs, and education and research. It was determined that a supplementary communication plan be developed to meet the needs of the First Nations audience.

The Plan emphasised that the launch of the report “presents a significant opportunity for promotion and communication”. However, communication activities were planned outside the launch itself and included information sessions, factsheets, preparing toolkits for spokespeople for media engagements, and providing key materials to support authors and others in attending conferences to speak about the report.

Figure 2: Communication Implementation Plan

Communication objective	Communication Channels	Outputs	Quantitative outcomes	Qualitative outcomes
1. Increase report readership <b>by raising awareness</b> of the purpose and applications of the SoE 2021 amongst <b>relevant stakeholder groups</b> .	Website Social media Information sessions Media	Stakeholder PDF's Social media posts 12 industry information sessions	PDFs distributed Digital platform visits, bounce, dwell Special media engagement (likes, shares) Information session attendance Media coverage References and citing	Stakeholder feedback Engagement in Q&A at information sessions
2. Build <b>advocacy</b> for SoE 2021, leveraging stakeholder influence to <b>promote</b> the report amongst relevant audiences.	Social media User Reference Group Award events	One-on-one briefings and discussions Social media posts from stakeholders Stakeholders speak at events on behalf of SoE	Number of events Internal communication within industry bodies Social Media engagement (link clicks and referrals) Website visits from referrals	New enquiries from relevant stakeholders
3. Promote the expertise of the authors leading the work on SoE 2021 and build on the concept of a 'co-designed, independent and strategic report' to help <b>build trust</b> in government reporting and data.	Events and conferences Social media Media Information sessions	Event attendance Social media posts	Number of events Information session attendance Social media engagement (link clicks, shares, hashtags at events)	Stakeholder sentiment and feedback from events and information sessions
4. Contribute towards return on investment for SoE 2021 by positioning the document as an <b>independent and credible strategic input</b> into decision making by industry and policymakers.	Website Social media Information sessions Media	Stakeholder factsheets Trade media releases Placemat	Factsheet readership and downloads Data downloads from website Media coverage Placemat downloads References and citations	New enquires from relevant stakeholders
5. Highlight the <b>diversity of perspectives</b> that contribute to SoE 2021 and the significance this	Website Social media Information sessions Media	Stakeholder factsheets Placemat Themed social media posts Animation	Factsheet downloads Views of animation Report cards Evaluations (Peter Cochrane)	Feedback from relevant groups

A call to action was also built into the SOE 2021 Communication Implementation Plan, with the promotion of the following messages across all channels:

- Read the State of the Environment 2021 report
- Join a State of the Environment 2021 report information session
- Provide feedback on the State of the Environment 2021 report
- Please cite the State of the Environment 2021 report if used in further research, presentations, policy proposals, articles or papers.

## Communication and engagement

While communication plans were clearly documented, there were some unforeseen delays which impacted its delivery. The initial release of the report was set for 25 March 2022, but was delayed to 19 July 2022 due to the report being held by the previous government. The table below provides a summary of communications that did take place. It demonstrates that efforts were focused on the release of the report.

Figure 3: Communication channels and phases

Channel	Pre-Release	Day of Release 19 July 2020	Release period (1-2 weeks)	Post-Release (3-4 weeks)	Post-Release (up to 18 months)
Ministerial launch		X			
Media campaign	X	X	X		
Social media campaign		X	X	X	
Author presentations (theme briefings)		X	X	X	
Indigenous communications				X	
Internal communications		X	X		
Events and conferences					X

Comments made by stakeholders on communications, in an overall sense, were limited to several observations where they did not feel as though there was a dedicated promotional campaign for the report.



“... in terms of being impacted by some sort of promotional campaign, I can't really remember that being the case”. State/territory government stakeholder

Stakeholder feedback on the website was detailed and is included in a subsequent section of the report (see section 5). This is to be expected given the website is the primary point of contact with the report. Other communication efforts and how they were received by stakeholders is discussed in greater detail below.

### Minister's address at the National Press Club

The report was released by the Honourable Tanya Plibersek, Minister for the Environment and Water on 19 July 2022 at the National Press Club of Australia. The Minister highlighted that the report is “one of the most important documents in environmental science” and that “Australia's most respected scientists are given access to our best available tools” to “show us the full national picture of the health of our environment” (National Press Club, 2021).

Many stakeholders engaged in the evaluation felt that the National Press Club address by Minister Plibersek was an effective means of generating wider community interest in the report and some of its key findings.



“I like the fact that the minister did a Press Club speech relating to the report. I thought that was good to get the message out and make it a high-profile event.” Peak body/industry stakeholder

Several stakeholders noted that this publicised address and the ensuing media coverage was how they first heard about and engaged with the report. This high-profile channel of communicating the report was also noted as being an effective way to maximise engagement with the report, particularly those outside of the science community and government.



“It was a great way to introduce the report and in a very high-profile way which was picked up by the media in a big way I think afterwards and that was something we didn’t see as much in 2016.” Author



“I was really appreciative that they actually released it at the National Press Club and gave attention to the state of our environment.” Education sector stakeholder

Despite the positive impact of the Minister’s address on awareness of the report, several stakeholders who had longevity in state of the environment reporting were mindful that political events were highly unpredictable and could not be relied upon for promoting state of the environment reporting. They observed that it was a fortunate combination of events that resulted in the report being promoted at the National Press Club, which included a change of government and the release of its Nature Positive Plan, which was a response to the independent review of the EPBC Act.

## Author presentations

An online information session was coordinated to support the Ministerial release of the report. It was presented by the report’s independent co-chief authors, Professor Emma Johnston, Dr Terri Janke and Dr Ian Cresswell who gave an overview of the key findings and answered questions submitted by the audience. The overview session was followed by briefing sessions delivered by lead authors on each of the 12 chapters and took place in webinar format from 28 July to 8 August 2022. A total of 2,700 people joined the 12 briefing sessions, with the video recordings made available on the Department’s website.

The presentations were viewed positively, with stakeholders indicating that it was an effective tactic that should be retained. It specifically appealed to stakeholders who were time poor and wanted a broad overview of a particular theme. It also appealed to those who wanted the opportunity to ask questions of the authors.



“I went to a webinar and the passion just really shone through, and the urgency really shone through those presentations. It was fantastic.” NGO representative



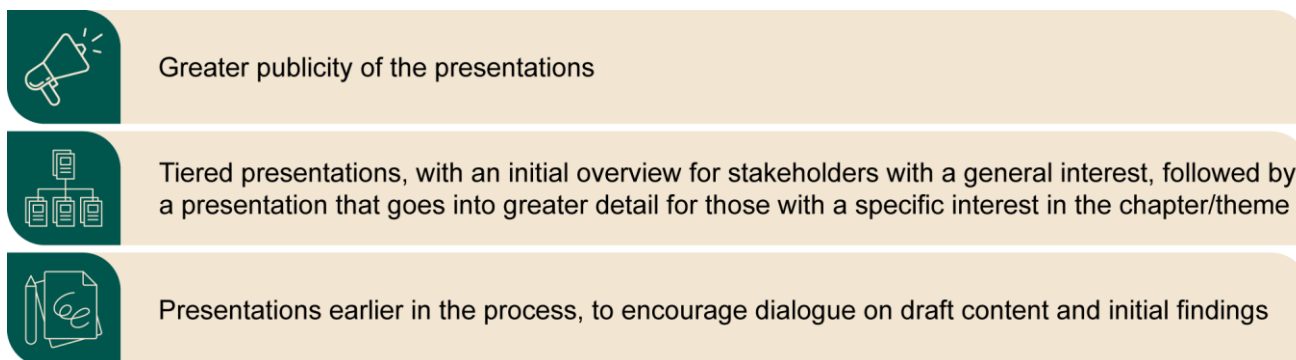
“I think that the series of lectures that were run around it were fantastic.” Peak body/industry stakeholder




“I thought the presentations were great because it saves you trying to wade through the report yourself and enables you to just listen and understand the report through the presenters.” Peak body/industry stakeholder


Several suggestions were made for future author presentations including:

Figure 4: Stakeholder suggestions for future report presentations



It was suggested that the popularity of the presentations could be further leveraged with additional and targeted promotion. Several stakeholders indicated that they would have done more to cross-promote the presentations if they had been provided with information ahead of the report's launch.

 "I think those webinars and stuff are a really good idea, the YouTube video's a great idea, but publicising it a little bit more I think would be good." Federal government stakeholder


 **Recommendation 1:** Consider ways to leverage the appeal of author presentations including increased publicity and follow-up presentations that go into greater detail.


## Media campaign

The media campaign began before the release to raise interest and awareness of the report and the National Press Club launch. To support the media campaign, the Department created a digital communication toolkit for distribution to assist with messaging.

The report featured on most news channels. The independence and credibility of the report was promoted, with the exception for Sky News who challenged the credibility of report as they perceived that only one of the authors was qualified as a "scientist" (Sky News, 2022). Print media, free to the public, was limited to less than twenty articles in total. Messages included the independence and credibility of the report, the critical condition of the environment and the inclusion of First Nations perspectives (see appendix 6).

Stakeholders observed initial media coverage which dropped away within several days. The messages that the media conveyed regarding the state of the environment were met with approval from stakeholders.

 "It was quite good. The report was certainly in a lot of the media for a few days which was quite effective in getting the report and its message out there." State/territory government stakeholder

 "I loved how it was picked up by the media, and that message was actually broadcast, because they couldn't just ignore that. That's really great." First Nations stakeholder

The report's coverage in online news forum The Conversation was specifically mentioned by several stakeholders as being their first point of contact with the report and being a reliable way to get the key points without having to read the entire report. The evidence-based format, with academics being the primary contributors, likely provides a good fit for some stakeholder groups. The Conversation could be used for greater promotional effect with future iterations of the report, with some stakeholder groups more likely to access this curated media channel for work purposes as compared to mainstream news channels. It could also be a place where dialogue is sustained, and approaches and methodologies are constructively debated.

For example, The Conversation has posted articles beyond the initial release period, including articles that have critiqued the way in which the report approached urban heritage and agricultural industries. This is a point of difference with mainstream media channels, where coverage was short-lived and did not support constructive dialogue.



“I remember reading a piece in The Conversation by one of the lead authors of the report. That sort of commentary ... by people involved in the report ... I tend to read more.” Education sector stakeholder

Stakeholders discussed the challenge of keeping a spotlight on the report beyond the initial launch. A number of state government representatives spoke of ways they had gone about overcoming this issue with their own reporting. Suggestions included:



Environmental scorecards issued on a more regular basis



Reports on specific or emerging issues released at multiple points during the state of the environment reporting cycle

Both options were seen as effective ways to direct traffic back to the landing page for the report, encouraging people to re-engage with its content.



**Recommendation 2:** Consider strategies to encourage traffic to the state of the environment website beyond the initial release of the report.

## Social media

A social media campaign was executed using Twitter (X), Facebook and LinkedIn, beginning on the day of the launch. The first week’s messaging was that the SoE 2021 report was now available. For the following three weeks following content was themed with each of the 12 chapters.

Most stakeholders could not recall any social media coverage on the report. Some thought that this avenue was underutilised and more could be done to generate engagement on social media platforms. One stakeholder provided a contrasting view on social media promotion, with coverage through this medium being the reason they found out about the report.



“I can’t remember social media, as much, though. Just the general media.” State/territory government stakeholder



“I found out about the report through social media that I saw it was being launched. I had a general knowledge that it was released but the social media messaging really popped out to me”. Education sector stakeholder


## Indigenous media channels

A document was prepared that outlined recommendations for Indigenous inclusion for the report. It suggested the development of factsheets summarising information in plain English with supporting graphics, coordinated social media campaigns targeted to Indigenous organisations as well as broadly promoting Indigenous content, presenting at forums for Indigenous people and digital formats that are small file sizes to cater for remote access.

The Indigenous Communications Plan appears to be a plan for the report release phase rather than a fully developed communications implementation plan and schedule. The planned activities were budgeted at

\$6,600 and are detailed in the table below. The targeted advertising campaign was contracted out and ran from 21 August to 17 September 2022.

Figure 5: Indigenous communication plan

Activity	Details
Advertisements to be placed in Indigenous print media	<p>Advert was in black and white with the following text and branding:</p> <p>The 2021 State of the Environment report was co-authored by Indigenous Australians to ensure Indigenous views, values and knowledge is used to inform decision making for better environmental outcomes in caring for Country.</p> <p>Read the report now at <a href="http://soe.gov.au">soe.gov.au</a></p>  <p>Advertisements were placed in the Mulga Mail, Torres News, and Koori Mail (rather than the National Indigenous Times as initially planned).</p>
Social media (Facebook)	<p>Sponsored image and video ads targeting people 18+ in Australia who have previously:</p> <ul style="list-style-type: none"> <li>• watched Department of Agriculture videos targeted to an Indigenous audience</li> <li>• engaged with content from Australian Government Indigenous Facebook.</li> </ul>
Digital display advertising	Geographical targeting of Indigenous postcodes and contextual targeting of Indigenous culture, news and services.
Digital kit (with third party voice) for release	To be sent directly to Indigenous organisations and influencers.

The delivery period of 21 August to 17 September 2022 is late in comparison to the report being spoken about in the media and news generally. This would have had the advantage of boosting the wider social media campaign but would have meant that the information in the digital kits would have been 'old news' if delivered to First Nations news outlets in this timeframe. Indeed, a First Nations news outlet and consultancy had already run articles on the report.

Some aspects of the media campaign may not have engaged the intended audience. For example, the wording 'read the report' could be off-putting for someone not comfortable with the written word. For those less confident with reading, 'learn about' or 'explore' would be more inviting. A link to the Indigenous chapter may have provided greater relevance. Similarly, promotional products that captured the experiences of Indigenous people involved in the report (authors, contributors, communities) could provide greater context and connection. For example, Murawin, an Indigenous-led consultancy involved in the report, shared their experience on their website which included the following quote:



"Prior to undertaking this project with the State of the Environment team, we were aware of the impacts happening on Country, but now we are even more acutely conscious of it. If we care for Country, Country will care for us, but Australia's environment is under extreme pressure, and I encourage all within our professional and personal networks to read the report. Do your part in healing Country because our future wellbeing and prosperity depends on it." (Murawin, 2022)

Products could include calls to action such as these, as well as video recordings, radio interviews and podcasts.



**Recommendation 3:** Co-design communication and promotions with First Nations people and organisations to be culturally safe and engaging.



**Recommendation 4:** Implement communication strategies that build relationships and encourage wider engagement of First Nations people and organisations beyond the initial release of the report.

## Sharing the report through networks

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### Local government

A local government representative recalled that prior releases of the report had been accompanied by a formal letter from the federal government (initially by mail, then by email). They considered this to be a highly effective form of communication for several reasons. Firstly, it demonstrated that the federal government respected and valued other levels of government. Secondly, it provided assurance that the report would be entered into the record systems of local governments through due diligence processes and distributed to local government representatives and staff.

The representative believed that the reinstatement of this communication strategy would increase the overall awareness of the report amongst the local government sector, with knowledge of the report being less reliant on the level of media coverage and informal communication channels. It was also noted that it is becoming increasingly difficult for local government to stay abreast of the high volume of information that is generated by federal and state governments. This was seen as being problematic given the information is generally relevant to strategic planning and/or the day-to-day operations of local government. For this reason, it was thought that peak bodies representing local government should be identified as a key audience and contact point for communications and promotion. These peak bodies could also function as translators of information and messages, with content reframed for local government application.



“We in government would officially receive a letter. Generally, electronic, or in the old days, it was printed... it gets put into our internal content manager system and it gets forwarded to the right staff ... [it's] a little disappointing that as a level of government, that respect or that communication or partnership has faded away.” State/territory government stakeholder



**Recommendation 5:** Re-initiate personalised correspondence with stakeholders, such as local government, to increase awareness of the report whilst generating good will between the Department and its stakeholders.

### Other sectors

Some representatives from industry groups and peak bodies played active roles in sharing and articulating the report's findings to their industry membership bases. This included mass email and text correspondence to members informing them about the report's release and a high-level summary of findings. Industry members also shared the link to the report with members via text, email, as well as through weekly and monthly newsletters. Industry stakeholders who shared the report in this manner noted that industry members responded positively to these promotional channels and were actively engaged in the report's findings, according to some of the feedback they had received from members.



“When the report came out we sent a note out to all our members to make sure they’re aware that the report has come out, and we shared links to the report to all of our members.” Peak body/industry stakeholder



“I was talking about it and sending to either clients or people that I work with just as a reminder that it’s out there and that it’s an important document.” Peak body/industry stakeholder

More recently, the report has been promoted through the education sector. This was achieved through the release of an animated video at the Australian Association for Environmental Education 2023 Conference. The animation was presented at the Conference alongside a recorded speech by the Minister and trade table discussion of the report which included business cards with a QR code link to the video. This was described as an opportunity where the Department supported an interest shown by a stakeholder, which fulfills the communication strategy of building relationships and partnerships.

## Communication driving website traffic

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Website traffic is crucial for driving awareness of the report, as the 2021 report can only be accessed digitally. Website analytics were utilised to get an understanding of the impact of communications. This was possible with a correlation drawn between specific dates for communication activities and website traffic (appendix 4). Website metrics showed similar patterns with the highest number of website hits, webpages viewed and longest viewing time being recorded between July 2022 and August 2022, before reaching a consistent average by October 2022. Higher traffic during July and August aligned with the release and post-release communication activities. Most users were referred to the website via organic and direct searches (43.6% of users), referring to opening a browser and directly requesting the report in the search engine. Links via emails or documents were the second highest number of referrals (29.2% of users). Referrals that were from other websites (26.8% of users) were typically educational/government websites where the report website link was placed (The Conversation, Monash University, The University of Sydney, Commonwealth Scientific and Industrial Research Organisation, Google Classroom). X (otherwise known as “Twitter”) was the most popular social media site where the report was spread. However, it was the sixth most popular website referral source.

The avenues for accessing the report online, as observed through the website analytics, confirm the importance of networks and referrals in generating interest in the report. A number of interviewed stakeholders expressed that COVID-19 had negatively impacted communication of the 2021 report. In past iterations, the report had been promoted by the Department through roadshows and events across Australia. The networking opportunities that this afforded were seen as highly valuable. Beyond more face-to-face interactions, stakeholders believed that communications could be enhanced by offering products tailored to their specific needs and audiences. It is important to note that currently available products, such as audio recordings, facts sheets and the animation are found on the Department’s landing page for the report, not the webpage that hosts the report. This could be problematic, with a search for ‘state of the environment report’ via Google taking the user straight to the report webpage, completely by-passing the Department’s landing page. There is no reference to these products on the report webpage. This likely explains why some stakeholders asked for the development of simple summary documents, despite them already being available.



**Recommendation 6:** Assist stakeholder networks in sharing the report through the provision of accessible and regularly updated communication products that cater to specific audiences.



## Section 4

Response to the report

## Introduction

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This section of the report analyses the various responses of stakeholders to the report and its content. Analysing stakeholder responses to the report is vital for gauging how the report is regarded across stakeholder groups. A sentiment analysis was completed to track stakeholder responses and categorise them as positive, neutral, or limited responses towards the report. This analysis concluded that the majority of stakeholders have a positive or neutral response to the report and its content. The primary drivers for stakeholders with a positive response to the report centred on the report's incorporation of First Nations knowledge and insights into the state of the natural environment throughout the report.

For most stakeholders, this was overwhelmingly the most positive element of the report that they responded to. Other positive elements of the report included the report's detailed overview of the state of the environment, which underlined the acute environmental crisis that Australia is facing. For individuals with neutral reactions to the report, the report's content was considered less pertinent to certain stakeholder groups. This was particularly evident among peak body and industry stakeholders representing the mining, investment, and agricultural sectors. These stakeholders specifically emphasised that, while the report effectively offers a comprehensive overview of the environment, the explicit relevance of the report's content to their respective sectors is limited and does not provide actionable insights. Other neutral responses were driven by the report's content, which, according to some stakeholders, does not provide any significantly new insights that individuals with a vested interest in scientific reporting aren't already aware of. This caused some stakeholders to have a more neutral response to the report and its content.

## Positive response

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The majority of stakeholders had a positive response to the report and its content, seeing it as a significantly important document that effectively provides a broad overview of the state of Australia's natural environment. Individuals across stakeholder groups emphasised that the report plays a significant role within the environmental reporting landscape and is heavily relied upon by individuals and organisations to inform their research, education, or advocacy work. The 2021 version of the report also received a positive response from stakeholders due to its stark presentation of the overall decline in Australia's natural environment, which some noted as being confronting yet immensely beneficial for policymakers to understand the true challenges that the natural environment faces.



"It's an amazingly important document for us as a means to know how our environment is progressing. It's a beautiful report that gives a really good overview of all the environmental issues that are around." Education sector stakeholder



"The report's release is probably one of the most important moments in the environmental policy space that we have nationally. It's of critical importance." Education sector stakeholder

The positive response by stakeholders towards the report is further driven by the report's previously outlined authority and independence. However, the vast majority of stakeholders noted that their positive response to the report stemmed from the report's incorporation of First Nations knowledge.

## Incorporating First Nations knowledge

The report was the first of its kind to incorporate First Nations knowledge and perspectives throughout the content of the report. Through the Indigenous Co-Authorship Strategy, the Department outlined the co-authorship arrangements between First Nations and non-Indigenous experts to reflect traditional knowledge

and insights from the oldest continuous environmental management systems (DCCEEW, 2021b). The First Nations co-authorship also reflected Australia's commitment to acknowledging the continuing connection and critical role that First Nations people and communities have in protecting Australia's natural environment. The First Nations co-authorship also fed into Australia's international commitments to recognising First Nations people in environmental management, including the United Nations Declaration on the Rights of Indigenous Peoples and the United Nations Convention on Biological Diversity (DCCEEW, 2021b). This incorporation has occurred against the backdrop of increased awareness and receptiveness to the recognition of First Nations people in the conservation of Australia's environment (Goolmeer et al., 2022). First Nations knowledge was incorporated in each of the thematic chapters, with the exception of the Antarctica chapter.



"It's a groundbreaking report that put together western and traditional knowledge to give an indicator of the health of our country." Author

A key consideration for both First Nations and non-Indigenous authors was ensuring that First Nations knowledge was not interpreted as an afterthought or a separate element of the overall report. According to some authors of the report, effective co-author collaboration across each thematic chapter enabled proper consultation and extensive editing to ensure that First Nations knowledge was infused with the report's findings from non-Indigenous authors. Specific mention was given to the effectiveness of this collaboration, which garnered repeated praise from authors as well as other stakeholder groups.



"We really tried to incorporate not just to have Indigenous knowledge as a sort of tack on the side, but to have it flow right through the report." Author

Across all stakeholder groups, the incorporation of First Nations knowledge was the primary driver of the positive responses to the report and its content. Many stakeholders highlighted the significance of this development and noted that the incorporation of First Nations knowledge in environmental reporting in Australia is unprecedented. Many stakeholders elaborated that reflecting First Nations perspectives has elevated other intergovernmental and international reports and that Australia's inclusion of this knowledge now aligns with international best practices.



"I've never seen a national report infuse traditional knowledge to this degree. It's elsewhere in Canada and New Zealand, but to see it in Australia is really fantastic." NGO representative



"If you have access to 65,000 years of understanding about how to use a landscape, it would seem to me that that's a no-brainer to be drawing down on that." Peak body/industry

Stakeholders who have engaged with previous iterations of the report gave particular praise to the incorporation of First Nations knowledge into the report. They stated that this incorporation provided both symbolic and practical meaning for the future of Australian environmental reporting by acknowledging the connection of First Nations people to the natural environment and the practical and tested solutions that First Nations knowledge can and will have for future natural resource management.



"It was really valuable to hear those traditional perspectives quite directly and to have a focus on First Nations contribution to the management and protection of our environment." First Nations stakeholder



"That fusion of knowledge strengthened the report enormously because when you come from a western perspective, you just have no idea what the different Indigenous perspective is on the land." NGO representative

This development was equally important for First Nations and non-Indigenous stakeholders, who both equally attributed the incorporation of First Nations knowledge within the report as the primary motivation for their positive overall response to the report.

## Increasing the cultural awareness of non-Indigenous readers

For some non-Indigenous authors, the incorporation of First Nations knowledge within the report provided them with a new perspective towards analysing the health of the environment. These stakeholders noted that they felt more informed about the reciprocal importance of First Nations knowledge to the environment which has elevated their overall cultural awareness of First Nations culture in relation to the environment. Some stakeholders acknowledged that through their background, education, and work they had developed a tendency to view the natural environment in purely scientific terms, but that this report provided them with a more holistic approach towards evaluating the environment.



“I learnt a lot through that First Nations lens. It’s certainly provided me with a new perspective in how I interpret the environment.” Peak body/industry stakeholder



“There is knowledge from First Nations people here that we can use if we can find the right ways to go and get it. It was the first time I’d seen that in a report like this in the Australian context, that I thought was really exceptional.” Peak body/industry stakeholder

This demonstrates the broader benefits of incorporating First Nations knowledge within the report and displays a significant intangible benefit that warrants repeated celebration. This can also be included as a broader positive impact of the report.

## Opportunities to better reflect First Nations knowledge

While the consensus among stakeholders towards the incorporation of First Nations knowledge in the report is positive, several opportunities for improvement were identified. These include:



Ensuring extensive consultation with First Nations people, communities, and groups within the report’s development



Improving the incorporation of traditional knowledge throughout the report



Displaying the impact of environmental degradation on First Nations communities



Providing analysis on culturally significant threatened species

These were specifically noted by both First Nations and non-Indigenous stakeholders as pathways to ensure the significant impact of environmental degradation on First Nations people and communities was articulated in the report and additionally analysed through a cultural lens.

## First Nations consultation

As part of infusing First Nations knowledge into the report, extensive engagement with First Nations people and communities was completed. A Supply Nation-certified organisation was engaged to conduct consultations with First Nations participants in different parts of Australia to obtain their insights and perspectives about how they wanted First Nations knowledge to be reflected within the report. This engagement included face-to-face and virtual engagement and took place during a period when public health measures related to Covid-19 restricted travel and in-person gatherings.

Multiple First Nations stakeholders who were aware of these consultations noted that this engagement process was somewhat rushed and did not allow for a more adequate engagement of First Nations people and communities. This was attributed both to the impact of Covid-19 and to the report's strict development timeframes, which, according to some, did not allow for adequate consultation with First Nations communities.



"Everything is very rushed with SoE reporting and the Indigenous co-authors really didn't have extensive engagement with their respective communities." Author

Multiple stakeholders raised the need for future reports to ensure appropriate timeframes for more extensive engagement with First Nations Elders and organisations to better reflect and incorporate First Nations knowledge within future reports. These stakeholders reiterated their overall support for the incorporation of traditional knowledge in the report but felt that more extensive engagement would be required in the future.



"There needs to be more engagement with relevant organisations and First Nations Elders to better reflect their knowledge." Author



"With First Nations engagement, there's a tendency to leave it to the last minute, whereas it needs to be considered throughout the five years consistently." Author



**Recommendation 7:** Ensure an extensive engagement period with First Nations people, communities, and organisations to maximise First Nations input into how traditional knowledge can be reflected throughout the report.

Some stakeholders further elaborated that First Nations groups and organisations should also be consulted on the content of the report, including the reflection of traditional knowledge. These groups could include networks of First Nations scientists and academics, as well as First Nations groups such as the Indigenous Desert Alliance, First Nations Heritage Protection Alliance, ranger groups, or prescribed body corporations with extensive involvement with industry and the remediation of Country. This was noted by stakeholders as improving the engagement of First Nations people, maximising First Nations participation in the development of the report, and potentially improving collaboration between First Nations and non-Indigenous authors of the report so that it appropriately reflects the importance of First Nations perspectives in each thematic chapter.



"I think there's more that could be done and that could be improved over time. More First Nations groups and their environmental knowledges and management efforts could be recognised and included." NGO representative

## Incorporation of knowledge throughout the report

The broad support for the report's incorporation of First Nations knowledge was cited by some stakeholders as a positive step to further acknowledging the connection of First Nations people to the natural environment. The 2021 version provides a strong foundation for this, and some stakeholders raised opportunities for future reports to further incorporate traditional knowledge more robustly throughout the report by increasing the overall quantity of traditional knowledge reflected in the report and enhancing the infusion between traditional and western knowledge. Some First Nations stakeholders acknowledged the importance of the report's infusion with traditional knowledge but felt that in some parts of the report it seemed that there were more opportunities to infuse traditional knowledge due to a perception among some stakeholders that First Nations knowledge was included as a separate analysis from the body of the report.



“It would be nice to see more integration between that Western and Indigenous knowledge within all of the sections. We now know the protection of the environment is much more holistic than western science.” First Nations stakeholder



“It could perhaps go a little further to make sure that those First Nations perspectives, values, aspirations, interests are integrated a bit more throughout the entirety of the report.” First Nations stakeholder

The incorporation of First Nations knowledge within the report remains the most broadly supported element of the report across stakeholder groups. This broad support and the opportunities for improvement highlighted by First Nations stakeholders show that traditional knowledge can be further integrated into future reports.



**Recommendation 8:** Explore opportunities for the further infusion of traditional knowledge in future reports and across each thematic chapter.

## Impact of environmental change on First nations people and communities

Some First Nations, government, and NGO stakeholders raised the need for more in-depth analysis within the report on the impact that the decline in Australia’s environment has on First Nations people and communities. This opportunity for improvement centred mainly on the need to increase focus within the report on how environmental decline impacts First Nations people. These impacts include the relationships between environmental decline and the social and emotional wellbeing of First Nations people, as well as the impact of environmental decline on cultural practices, such as hunting and gathering. Stakeholders raised that in the marine chapter and multiple other thematic chapters within the report, there were noticeable opportunities to conduct assessments on how environmental degradation, such as land clearing or the acidification of oceans and reefs, has affected First Nations people and communities in relation to cultural practices and their connection to Country.



“Sea level rise and ocean acidification will and is greatly impacting First Nations people and communities and there should be a greater assessment on that in the report.” First Nations stakeholder



**Recommendation 9:** Ensure that future reports reflect the impact that environmental degradation has on First Nations people and communities.

In Australia, culturally significant species are plants or animals that hold significant cultural and spiritual importance and meaning for First Nations people. Culturally significant species hold great significance within First Nations knowledge, including language, ceremonies, lore, identity, and narratives, and are considered cultural icons (Gore-Birch et al. 2020).

For multiple stakeholders, there is a need for more in-depth analysis on the impact of environmental degradation on culturally significant species within the report. Culturally significant species were briefly analysed within the biodiversity chapter of the report. However, these stakeholders felt that in future reports the threats to culturally significant species and the ensuing cultural impacts on First Nations people should be included and analysed appropriately to further infuse traditional knowledge within the report.



“We have the number of listed threatened species and threatened ecological communities, but we don’t incorporate the same information for culturally significant species.” Author



“We should be looking at totem species and other culturally significant species within the report.” Federal government stakeholder

For both of these opportunities related to reflecting the impact of environmental change on First Nations people and communities, there will be lengthy consultation required to be conducted with First Nations Elders and groups during the development of the report. Ensuring this consultation will better enable First Nations stakeholders to ensure that their traditional knowledge is reflected within the report in a culturally appropriate way.



**Recommendation 10:** Ensure that future reports include discussions on culturally significant threatened species.

## Quantitative insights on First Nations perspectives

Various First Nations stakeholders highlighted opportunities to improve the gathering of quantitative data that reflects the First Nations insights and perspectives within the report. Specific quantitative measurements that both First Nations and non-Indigenous stakeholders would prefer to see in future reports are demographic analysis of the number of First Nations rangers taking care of Country, as well as social and emotional wellbeing indicators that reflect the social and emotional improvements of First Nations people caring for Country.

Other potential measurements that were also raised include the degree to which First Nations people caring for Country encourages language practice or the transfer of First Nations knowledge. Stakeholders who raised this opportunity acknowledged that acquiring this data would require an extensive consultation period to engage with First Nations stakeholders, including Elders and rangers who are caring for Country. However, these stakeholders noted that to improve the incorporation of First Nations perspectives within the report, gathering quantitative demographic data, implementing First Nations criteria for assessing the health of Country, and social and emotional wellbeing indicators should be included in future reports.



“We just don’t have the data and research frameworks in place to really quantify and consolidate Indigenous knowledge in the same way that we do for our Western knowledge.” First Nations stakeholder



“We need to improve the ways we’re measuring things that are relevant to First Nations’ perspectives. Demographic and social and emotional wellbeing indicators are a big step forward in that process.” Author



**Recommendation 11:** Include demographic and social and emotional wellbeing indicators within future quantitative measurements to further reflect First Nations perspectives within the report.

Despite these opportunities for improvement raised by stakeholders, the incorporation of traditional knowledge was still overwhelmingly received in a positive manner by stakeholders and formed the primary driver of positive stakeholder responses to the report.

## Neutral response

Comparatively to positive stakeholder responses to the report, a significantly smaller portion of stakeholders had a neutral response to the report and its content. Stakeholders with neutral responses to the report highlighted that the content of the report and its key findings did not illustrate anything that was significantly new to stakeholders with a vested interest in and involvement in environmental reporting and management. They acknowledged that the report’s stark findings on the state of Australia’s natural environment would have generated a more positive and impactful response for general audiences, but not for individuals who

continuously monitor and keep updated with environmental reporting through other intergovernmental or peak body reports.



“None of the content of the report was particularly surprising. It paints a picture that most people are aware of.” NGO representative

Another NGO representative elaborated further that their and their colleagues’ neutral responses to the report were generated by the perception that the report and its development are simply a repackaging of research and findings within the intermediary years of the report’s five-year reporting timeframe.



“It’s a very big and thorough review. It doesn’t present a lot of original messages, it really just gathers the research of others that’s been evaluated or published over the intervening years between reports and compiles it all in one place.” NGO representative

An additional driver for neutral responses to the report, both from individual stakeholders and the sectors they represent, also stemmed from a lack of relevance and engagement to their sector or line of work. This observation holds particular significance for peak body and industry stakeholders in the mining, investment, and agricultural sectors, who expressed a collective sentiment that the report is widely regarded as a general, high-level overview with limited applicability to their respective industries and day-to-day operations. Stakeholders have underscored the scarcity of insights tailored to their specific sectors, including a lack of information on how environmental deterioration directly affects their operations, as well as a notable absence of actionable guidance for these sectors on fostering progress to enhance the overall state of the environment.

This reduces the responses of these stakeholders and the sectors or members they represent to a neutral response to the report, despite some broader positive perceptions of the report and its role within the environmental reporting landscape.



“It’s not something that people that I work with across industries actually engage with. It may be relevant to some people, but overall not many people would actually read it.” Peak body/industry stakeholder



“Nothing in that report will directly affect an operation. It’s not going to play a role in decision making and there’s nothing that points directly in the report to direct operations. Therefore, I don’t think any of our members will see a direct impact.” Peak body/industry stakeholder

For some other industry stakeholders, the report was received in a generally positive manner due to its robust and comprehensive elaboration on the challenges facing the natural environment. However, these same stakeholders acknowledged a broader neutral perception of the report across their sector again due to the report’s minimal influence within industry decision-making processes or operations.



“I don’t think it’s directly impacting what we do because it is a general report. In general, the industry welcomes it.” Peak body/industry stakeholder



## Section 5

Accessibility of the report

## Introduction

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The accessibility of the report refers to the degree to which the report, in its development and presentation, can be easily understood and used by a broad audience. Accessibility includes factors such as the availability of the report, its level of clarity and understandability, and the format in which it is presented. Accessibility is critical in ensuring that the report and its informative content can be accessed and utilised by everyone, regardless of their specific needs or circumstances. Ensuring accessibility also maximises the benefits of the information presented on the state of Australia's natural environment, particularly regarding behavioural change and informing policy, by ensuring that as many people as possible can not only engage with and understand the report but also identify its personal relevance to individuals on the need to preserve Australia's natural environment.

Across stakeholder groups, there were varied perceptions towards the report's accessibility and the various elements of the report that sought to make it more accessible for a broader audience. The elements of the report that are used to measure accessibility in this section include the level of complexity of the report's content, its website format, the accessibility of data within the report, and the report's layout and design, including the length of the document. Overall, stakeholders mostly held positive views towards the report's accessibility and efforts to make the report more accessible, particularly the adaptation of the report's content to be more interactive through the website format. However, broad opportunities for improvement to the report's accessibility centre on the need to utilise more inclusive language within the report that accommodates individuals with a non-scientific background, as well as the need to make PDF versions available of both the entire report and thematic chapters, which numerous stakeholders highlighted were difficult to find. Practical recommendations as informed by stakeholder engagements are included throughout the section to enhance the accessibility of the report where there are opportunities for improvement.

### Accessibility of the report's content

The perception of stakeholders towards the complexity of the report's content varied across stakeholder groups. There was broad positive reception towards the efforts to make the content of the report as accessible as possible, for example through using inclusive language that would allow a broader audience to understand and interpret complex ideas, such as scientific data sets and trends relevant to environmental reporting. Some stakeholders believed the report's content was accessible for a non-scientific audience, citing their own personal experience of engaging with the report and understanding it without needing significant experience in environmental management.



"I'm not part of the science community, I'm just a policy officer. So, it's been really useful to be able to see the information and data that's presented in an accessible way." Federal government stakeholder

Other stakeholders were more cautious towards categorising the report's content as accessible, highlighting that for people to properly understand and interpret the report's content beyond the high-level key summaries and findings, it requires a certain level of subject matter expertise and background in engaging with environmental and government reporting more broadly. Authors and government stakeholders acknowledged that certain parts of the report, particularly figures and graphs of scientific-related environmental measures, do require an informed audience. They also further highlighted that critiques of accessibility can be made towards environmental reporting more broadly due to the often complex nature of what is being reported on.



"You do require some subject matter expertise. When it comes to the web format, there could be more done to make information more accessible on the website format." NGO representative



“I know how hard it is to transfer such technical information, it’s very hard.” Federal government stakeholder

Other stakeholders affirmed that the accessibility of the report’s content is appropriately aligned with the predicted expertise of its audience, primarily individuals and groups with a strong investment in and knowledge of environmental reporting. Stakeholders elaborated by stating that if the report’s overarching goal was to engage more with the general public and less with the scientific and policymaking communities, then increasing the accessibility of the report’s content would be appropriate. However, multiple stakeholders outlined that the report’s current purpose is to inform improved strategic policymaking, and the report’s current level of accessibility is entirely appropriate.



“If you’re targeting a policymaker or a scientific expert, then the accessibility currently is great. If you’re trying to broaden your audience then some things will need altering.” NGO representative

### Limited accessibility of the content

Numerous other stakeholders highlighted that there are significant opportunities to improve the accessibility of the report’s content, believing that the 2021 version of the report was difficult to interpret not just for a general audience but also for informed individuals with a background in environmental reporting. The complexity of engaging and understanding the report’s content reaffirms the importance of it needing to be inclusive for a broader audience so that the report can be interpreted and applied to influence behaviour. Some stakeholders who raised this point similarly acknowledged that if the report’s intended audience was only scientifically-oriented readers, then the current level of accessibility of the content is somewhat appropriate. However, individuals with subject matter expertise themselves highlighted the difficulties they experienced in engaging with and understanding the report’s content, deeming it too complex and scientifically-oriented.



“There are departments whose job it is to take the report and use it to help inform future policies. But I don’t know how accessible that is to the general public.” Federal government stakeholder



“It’s such a complex package of data that we need to find better ways of communicating. Even as an expert, I found it very complex.” Education sector stakeholder

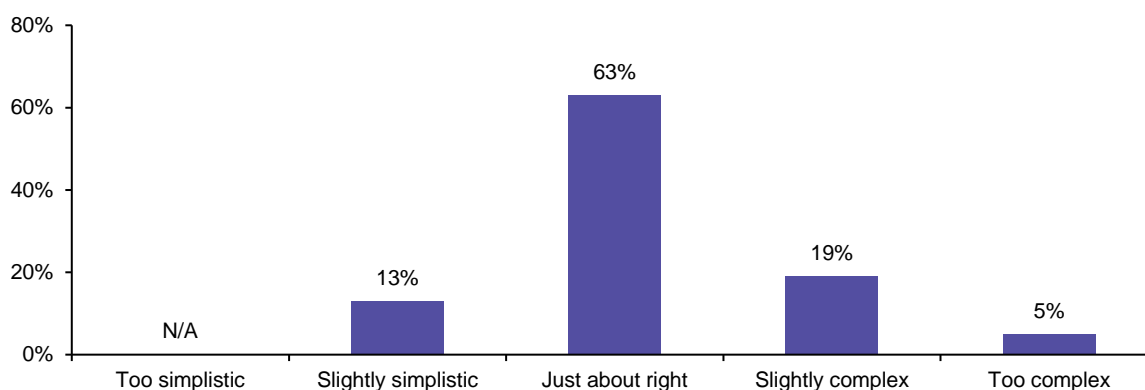


“If I repeated a lot of the content to my parents or my mother-in-law, they wouldn’t even know what it means.” Education sector stakeholder

These opportunities for improvement are particularly centred on the articulation of scientific findings and trends such as temperature rises, reductions in biodiversity, and the number of threatened species. The difficulty that some stakeholders have in understanding the report’s content limits its overall accessibility and engagement, which raises the need to ensure that the use of inclusive language is maximised in future reports.

These qualitative findings somewhat align with survey responses related to the overall complexity of the report. While a strong majority (63%) of respondents believed the complexity of the report was sufficient, other respondents felt that the report’s content was slightly complex (19%) or too complex (5%). Conversely, other stakeholders felt that the report’s content was slightly simplistic.


Figure 6: Stakeholder assessments of the report's overall complexity



Source: Q13 - How would you rate the complexity of the 2021 SoE Report's content? (n=16)

## Altering content for various audiences

Some stakeholders who categorise the report's content have limited accessibility, urging the development of additional reports that are catered to specific audiences. This could include catering the report's content towards a scientific-oriented audience in the primary report, as well as catering the report's content for a school audience or the general public. This recommendation stemmed from stakeholders who felt that the limited accessibility of the report's content was acceptable if the report continued to be catered to an audience with a background in environmental reporting. Altering the report's content for specific audiences would require additional resources. However, if the report's content will be similar in future iterations, providing additional products with altered content may be required.

 **Recommendation 12:** Ensure that future reports maximise the use of inclusive language and content alterations so that the report's content can be understood by a broader audience.

## Website format

As part of increasing the accessibility of the report, the 2021 version was displayed in an interactive website format that displayed the various thematic chapters across a web interface, where users could explore and interact with key findings and figures throughout the report. This had previously been done in the 2016 report. The website version of the report was developed in accordance with Web Content Accessibility Guidelines version 2 and enabled compatibility with accessibility software such as text-to-speech programs. The implementation of the report and government reports more broadly can significantly improve their accessibility by reaching a broader audience, providing features that cater to various needs, and offering a more flexible and interactive experience for users.

Perceptions of the report's website format again varied across stakeholders. The website format was broadly supported for increasing the accessibility and interactivity of the report for a broader audience. A notable benefit for this was particularly highlighted by stakeholders who are living with disabilities, who raised that the website format provided greater accessibility for them to engage with and understand the report. However, a significant number of stakeholders also highlighted their limited response to the report's website format, citing it as being difficult to find specific information, and noted their preferences for more readily available pdf documents of the report and its thematic chapters.

## Improved accessibility through the website format

Most stakeholders held positive perceptions of the report's website format, believing that it was an appropriate measure to increase the accessibility and interactivity of the report and its content. The website format, in turn, maximised the level of engagement and provided a clearer pathway for individuals to navigate across the different thematic chapters of the report. Stakeholders with positive perspectives towards the report's website format reiterated that it made the report more accessible through its effective breakdown of the larger report, allowing users to properly engage with the report without the risk of disengaging or having difficulty navigating the report due to its extensive length. Stakeholders specifically highlighted that the website format of the 2021 version of the report was significantly improved from the previous 2016 version's website format, noting a significant increase in the usability and presentation of the website's interface.



"The other thing about this one which was better than before was the report was presented mostly online and in a much more interactive style than just an electronic printed version." Author



"I think fantastic work was done in this version to make it more accessible, particularly through the way that it's presented online and the way that the chapters are broken up and more interactive." Federal government stakeholder

Stakeholders reiterated that the website version of the report effectively altered the way in which the report and its content were communicated, believing the website format to have increased the flow and narrative of the report away from long and sometimes disengaging environmental reports. This was raised by multiple stakeholders, including First Nations stakeholders, who highlighted that the flowing narrative of the website format increased the report's accessibility to a broader audience instead of catering solely to a policymaking or scientific-oriented audience.



"The website format makes the report very accessible. It's telling it in story format, it is moving away from the science and the policy audience." First Nations stakeholder



"I'm probably more likely to look at it if it is online. I don't respond well to regular reports. It's massive, it's hundreds of pages." Federal government stakeholder

Perhaps the most notably beneficial aspect of the website format of the report is its compatibility with accessibility software such as text-to-speech programs. For stakeholders living with a disability, the website format of the report significantly enhanced their engagement and ability to interpret the report's findings.



"The accessibility was good with the website. I'm vision impaired, so I use text to audio to read information, and the website was accessible in that respect for me." NGO representative

The positive experience of stakeholders living with disabilities who engaged with the website format of the report illustrates the broader benefits of the website format and its increased accessibility for diverse audiences. This is extremely positive and warrants continued celebration.

## Limited responses to the website format

Despite the positive benefits of the website format's improved accessibility, multiple stakeholders highlighted their limited response to the website format. The limited response of stakeholders to the website format centred on the difficulty users had in finding specific information and simply navigating the website format, citing it as not user-friendly and at times cluttered with information. Some stakeholders with a limited response

to the website format acknowledged that their views stemmed from their preference to engage with full reports in their work and their limited digital literacy.



“I tend to process information not in the form that it’s presented on the website. I feel like it’s difficult to get the full context of content that you’re looking at when you’re looking at it in little parcels broken up on the website.” Author



“As users of the report, I would say from a logistical perspective, it was challenging to get through online.” NGO representative

According to multiple authors, the report was written specifically to suit a traditional report format by ensuring that the content has an adequate flow and narrative to keep the reader engaged. However, these authors, while supportive of the report’s website format, felt that this alternative website format hindered the flow and narrative of the report.



“We write it as a report so that it has flow and narrative in a report structure. It does feel to me like it kind of loses a bit of the narrative when it’s in the website format.” Author

Other stakeholders noted their limited accessibility and engagement with the report’s website version, illustrating that at times it felt cluttered and difficult to navigate certain data sets and hyperlinks. Others raised the fact that trying to find very specific information through the search engine was difficult in the website version, which led some individuals to disengage and instead seek the pdf version of the report.



“I liked the way it was trying to be accessible in short snips. But once you actually knew what you needed, or wanted to find something, it was hard to navigate.” NGO representative



“I just found the website really hard to navigate to the key bits of data that I wanted to access, and I found myself just wanting to download the PDF.” Education sector stakeholder

While the website format of the report has accrued positive benefits for some stakeholders, it is important to note the sentiments of those with limited experiences and continue to look for alternative ways to communicate the information on the website format. One practical way of being more accommodating to stakeholders with limited engagement with the website format is to increase the accessibility of traditional report formats, particularly PDF documents. These sentiments were also expressed through survey responses.



“The website is over-complicated for anyone looking for specific information: downloadable searchable PDFs of chapters and spreadsheets of their data should be available directly from the main page.” Survey response



“The presentation of the report on the website makes it challenging to navigate to find information on exact topics in short turnarounds. A more straightforward option would assist.” Survey response

Source: Q17 - Are there any ways you would like to see the SoE Report improved in the future to assist decision making?

## Preference for a PDF document

Multiple stakeholders highlighted the difficulty they had in trying to find a readily available PDF version of the entire report, the overview document, and succinct summaries of the thematic chapters on the report’s website format. This barrier was raised by a significant number of stakeholders who recalled their

disengagement from the report due to their inability to locate and download a simple PDF version of the document. When prompted on whether they were ever able to find and download a PDF version of the report, only a small minority of stakeholders recalled doing so.



“It took me a long time to figure out where the pdf was to download. That was really hidden in lots of ways and so that was a bit frustrating.” Author



“I would have loved it to be a simple PDF, just one PDF per document, and then I can control that from the document to find what I need.” NGO representative

While these stakeholders did again praise and admire the new website format for its attempts at increasing the engagement and accessibility of the report and its content, various stakeholders urged for future reports in the website format to have a readily available and visible PDF document for download, which is visible on the main web interface. This should apply for the entire report, the overview report, and each of the thematic chapters.



**Recommendation 13:** Ensure that future web versions of the report include a readily available PDF format and download for readers that prefer engaging with PDF documents.

## Accessibility of data

The accessibility of the data in the report refers to the ability for users to obtain, use, and interact with data in a convenient and efficient manner. This is an important aspect, particularly for experienced and informed users who are seeking to engage with specific data to identify specific trends within the report’s figures. Numerous stakeholders who rely on data sets for their work or personal interest raised that the accessibility of the data within the report was limited, noting opportunities to increase the availability of raw data within the report.



“Where accessibility could really improve is in having more accessibility to the data that sits behind a lot of the tables.” Education stakeholder


Numerous stakeholders highlighted their preference to have access to raw data in Excel spreadsheet form that could be downloaded from the report’s website. This would allow individuals to engage with the data at their own pace and conduct their own research to identify specific trends that may not be highlighted in the report. Stakeholders also noted their preference for greater access to data to enable further interrogation and potential segmentation of data to identify jurisdictional and regional trends such as natural resource management councils and local government areas. Accessing and downloading the raw data should be available for individuals through an easy-access download tab on all graphs and figures to maximise the ease with which users engage with raw data.



“The tables and charts are great, but it would be great to be able to look at the raw data that you can just pull up and manipulate it yourself to ask it different questions.” NGO representative


They also noted opportunities to include a data explorer tool through a software application on the website for the purpose of visually exploring and analysing data through a user-friendly interface. Examples of effective data exploration and engagement in other reports that stakeholders highlighted were the Intergovernmental Panel on Climate Change’s Data Distribution Centre and the International Energy Agency’s Critical Minerals Review, both of which were noted as providing greater accessibility of data through an effective and specialised search tool for independent engagement and analysis. Stakeholders asserted that implementing

these tools would enable greater accessibility of data and align with best practices in international environmental reporting.


 **Recommendation 14:** Increase the availability of raw data within the report and implement a data explorer tool to allow stakeholders to independently engage with the data.


## Layout and design of the report

The layout and design refer to the visual and structural elements within the report, both in its PDF and website formats. This includes how information is organised, the use of fonts, colours, images, headings, tables, charts, and other formatting elements. Accessibility in the context of report design relates to making sure that the report is easy to understand and navigate for all individuals, ensuring that they can access and comprehend the information effectively. Some stakeholders who discussed the layout and design of the report recalled their positive perceptions of the layout and its accessibility through the report's PDF and website formats. These positive perceptions were based on the efficient user experience of tracking across different thematic chapters and engaging with written and visual material, which they felt was engaging and effective in articulating the report's findings while still avoiding the potential risks of creating a report that is too heavy in text and disengaging for a broader audience.

 "In terms of the actual layout of the report, I really liked it. There's a lot to it, which I think can get a bit heavy, but at a high level, but they've done well in breaking that down." Education sector stakeholder

However, most stakeholders who brought up the report's layout and design cited multiple opportunities for improvement, particularly around the colour scheme of the report. Multiple stakeholders consistently noted their response to the report's colour scheme, which they felt provided limited visual engagement for users and was not aligned to the nature of the report as the preeminent national report on the state of Australia's natural environment. Some stakeholders acknowledged that accessibility concerns may have played a factor in the report's colour scheme; however, they further urged for more visually engaging and colourful future reports.


 "You want to make people want to go to it and for the colours to be engaging. The moment you see grey blue, you think, oh, this must be dull." Peak body/industry stakeholder

 "I'm not sure if there were accessibility concerns with other colours, but I did find the colour scheme quite dull. We want more people engaging with it. It shouldn't look like a financial report." NGO representative

An additional opportunity for improvement in the layout and design of the report was based on stakeholder recommendations to increase the number of visual images within the report's website and PDF formats. In this context, visual images are graphical elements or representations used to convey information, data, or concepts visually. Visual images are included in a report to enhance understanding, engage the reader, and provide a more comprehensive and appealing presentation of the information being communicated. Visual images include photographs, graphs, tables, maps, and infographics.

Some stakeholders felt that more visual images should be included throughout the report so that the report is not consistently in paragraph form, which some stakeholders felt creates disengagement and is not accessible for a general audience. Stakeholders specifically highlighted the need to include visual images and graphics, particularly for case studies and key findings, which some stakeholders felt were not visually engaging and required images to better contextualise the topic of the case study for the audience. These same stakeholders did urge caution towards overloading the report with too many images, which would clutter the report and

distract from the main message. The selection and placement of images should align with the report's objectives and the preferences of the target audience, and they should include alternative text to allow people using text-to-speech software to engage with the visual images.

 **Recommendation 15:** Consider enhancement to the visual appeal of the report with a focus on the report's colour scheme and increased use of visual images.

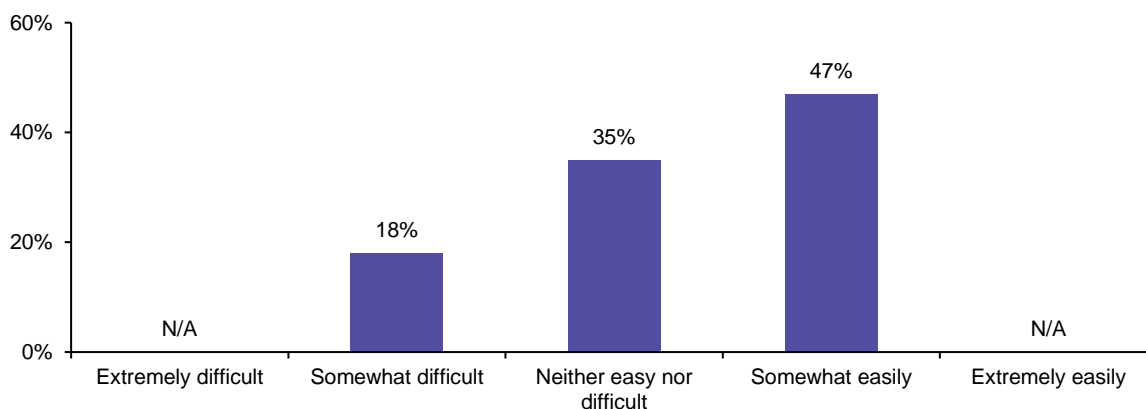
## Length of the report

The length of the report can have a significant impact on its accessibility. Accessibility in this context refers to how easily people can find, read, understand, and use the information in the report. While the length of a report is just one aspect of its overall accessibility, it plays a crucial role in determining how easily the report can be understood and utilised by a diverse audience through factors such as readability, navigation of the report, and the attention span of individual readers. Most stakeholders felt that the report in its entirety was too long for a general audience to engage with, noting that even individuals with subject matter expertise would likely only engage with specific thematic chapters and not the report in its entirety. Individuals who felt that the report was too long acknowledged that the breadth and scope of the report in providing a detailed overview of Australia's natural environment warranted the report's significant length. However, they further noted that the length of the report can cause people to disengage if they feel overwhelmed by the sheer volume of information within the report.

 "The length of the report might seem overwhelming and I would find that personally overwhelming and go, I don't have time to look at it." State/territory government stakeholder

Survey responses related to the accessibility of information within the report somewhat aligned to these qualitative findings as 18% of respondents found the information somewhat difficult to find. However, 35% of respondents outlined that the information was neither easy nor difficult, while 47% believed that finding the information was somewhat easy. Importantly, no respondents believed that accessing the information was extremely difficult. While these results are not overly negative, opportunities to increase the accessibility of information within the report are evident as no respondents believed that accessing the information was extremely easy.

Figure 7: Stakeholder accessibility of information in the report



Source: Q11 - How easily are you able to find information you need in the 2021 SoE Report? (n=17)



## **Section 6**

Use and impact of the report

## Introduction

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The use and impact of the report refers to how the report is employed across stakeholder groups and the consequences or influence it has in a particular context. Stakeholders have used the report in a variety of ways, often relying on the report's strong authority, independence, and extensive content for their own advocacy, research, and education work. The use of the report by stakeholders includes engagement and promotion with members and supporters, using the report as a reference in research, informing government submissions, conducting parliamentary briefs, and informing environmental and education policy and programs to improve environmental reporting and influence behavioural change. Most positively, the report's diverse uses often intersect because of the report's inclusion of useful information and report components such as visual images and figures, which make it suitable for multiple purposes and applications.

Some of the report's most useful components, as noted by stakeholders, are the report's graphics, figures, maps, data sets, key summaries, case studies, and reports on positive outcomes. These components within the report have been relied on across stakeholder groups for the above uses.

The intersection of the report's use and impacts refers to the relationship between how the report has been specifically utilised and the broader effects this has had for stakeholders. The report has had broader impacts, including the provision of a broad overview of the state of the environment, raising broader community awareness of Australia's natural environment, and providing positive affirmation for individuals and organisations working in the conservation and advocacy space.

However, despite the positive and diverse utility of the report, there are several opportunities for improvement that could encourage broader use of the report and its impacts. These opportunities centre on the need to track and incorporate more stakeholders beyond the federal government within the report's recommendations, to instead incorporate other entities such as Aboriginal organisations, NGO, the private sector, and other peak bodies, given their relevance and important contributions to the natural environment. Additional opportunities included the report's alignment with the United Nations SDGs, increased integration with state reports, a greater emphasis on the broader cultural importance of the natural environment in Australia, and a more tailored approach to the report's content to better incorporate the importance and applicability of Australia's natural environment to the commercial sector, specifically the relevance of the environment to the sector's decision-making and the ways in which the sector can contribute to improved environmental outcomes.

Engaging with these diverse opportunities in future reports was noted by individuals across stakeholder groups as increasing the utility and application of the report within their respective work and sectors. Implementing the entirety of these opportunities for improved utility may differ from the report's current purpose and format and is at the discretion of the Department and future authors of the report. However, the importance of these opportunities to respective stakeholders, as well as their potential for maximising the use of the report, should be adequately considered if future reports and their contents are to engage a broader audience.

The section concludes with an analysis of stakeholder responses on the timeliness of the report's development and release based on the current five-year timeframe under the EPCB Act. Responses on whether the report's current timeframe was sufficient for providing a detailed overview of the state of the environment varied between stakeholders. Most stakeholders engaged in interviews highlighted that the current five-year timeframe limits both the report's use and impact due to the long gap between reports, particularly with regards to reporting on emerging environmental trends. Most stakeholders encouraged an increase in the regularity of reporting to provide more efficient and timely updates on the state of Australia's natural environment. However, even among stakeholders who supported an increased regularity in the report's development, they noted that doing so would require significant efforts and resources, with the authors in particular noting that developing the report at its current length requires a prolonged period of time.

## Use of the report

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The ways in which individuals used the report varied across stakeholder groups and were commonly dependent on the level of involvement they had in the report, the relevance of the report to their professional or academic interests, or whether stakeholders had a membership or public-facing role to share and articulate the report's findings. For most stakeholders, the report has had a broadly positive and helpful application to their work and organisations.



“There’s nothing that influences our work more than the SoE report. It really is the most influential and impactful national environmental report that we refer to.” NGO representative

## Engagement with members and supporters

Various stakeholders that are part of larger organisations, such as peak bodies or advocacy groups, highlighted that the report and its key findings were used as part of their communication with their membership and supporters. This communication included mass email and text correspondence to members and supporters informing them about the report's release and a high-level summary of findings. These stakeholders, which included peak bodies, industries, and NGO representatives, also shared the link to the report with members via text, email, and weekly and monthly newsletters. Stakeholders who shared the report in this manner noted that members and supporters responded positively to these promotional channels and were actively engaged in the report's findings, according to some of the feedback they had received from members and supporters who were not aware of the report's release.



“When the report came out we sent a note out to all our members to make sure they’re aware that the report has come out, and we shared links to the report.” Peak body/industry stakeholder



“The report tells a really powerful story, which we then tell our supporters and when we’re speaking to the public about the biodiversity crisis.” NGO representative

## Social media promotion

As part of their engagement with members and supporters, peak body/industry and NGO stakeholders also used social media to promote the report and its findings. Some individuals and organisations independently engaged with the report's authors through recorded interviews, which were also posted on social media. For some organisations working in conservation, the report's promotion to members and supporters on social media served broader advocacy purposes in terms of garnering public support for future environmental conservation efforts. Some of the engaged stakeholders represent organisations with significant membership and support bases. Their ensuing use and promotion of the report to their members and supporters illustrates the strong utility of the report and its findings, as well as the important role that such organisations play in the broader promotion of the report.



“We’ve used it to frame media and we use it to tell the story of Australia's environmental decline and to tell the story of the impact of invasives to our supporters.” Education sector stakeholder



“We would use content from the report and our own views to communicate our key message about need for urgent action to respond to the poor and declining state of the national environment.” NGO representative

## Reference in research

One of the more common uses of the report across stakeholder groups was to reference it in various works, such as academic research or educational presentations. Stakeholders who use the report as a reference in their work noted the report's previously outlined high legitimacy through its strong authority and independence as one of the preeminent national reports on Australia's natural environment. The works in which stakeholders have referenced the report include their own organisational annual reports, websites, or academic research papers for submission to journal articles. Some of the ways in which stakeholders reference the report in educational presentations include in university lectures, international or national conferences, or in private presentations to senior political or corporate presentations.



"I regularly refer to it because it's high capability, high legitimacy and the report didn't pull any punches on the major issues." Education sector stakeholder

Some of the individuals who have referenced the report across their own research or presentations noted that the reference tends to be a high-level summary of the report's findings regarding the broader environmental decline in Australia. However, other individuals noted that they have referenced the report in a more granular way, instead citing specific figures or thematic chapters in accordance with their relative expertise and line of work.



"I've referenced it a couple of times. I give a lot of speeches, so I have referenced it in summits and conferences that I attend, but it's usually just a brief mention about environmental decline." Peak body/industry stakeholder

## Government submissions

Numerous stakeholders have found value in the report for informing the development of written submissions to state and federal governments. In Australia, parliamentary committee inquiries or government departments rely on written submissions to gain insight on the views and experiences of individuals and groups to inform policy responses regarding a particular field. Across stakeholder groups, the report has been relied on when making government submissions on various policy and environmental factors. For example, one industry stakeholder referred to the report within a government submission on the need to combat climate change through renewable energy and critical minerals projects.



"The report did point to natural disasters as a major cause of decline and so that informed some of our work when writing government submissions on the need for renewable energy and critical minerals projects." Peak body/industry stakeholder

Other NGOs have used the report in their submissions, advocating for policy changes relating to environmental issues at both the federal and state levels. Again, the report's strong authority and independence, as well as its funding by the federal government, have made it a useful document to refer to for stakeholders when advocating for policy change. This usefulness stems from the report's credibility and evidence, which supports the need for broader efforts and policy changes in the preservation of Australia's natural environment.



"In terms of talking back to government about issues with policies it's good to say that this is your report. Your report says how dire things are we don't need to tell you. I think it's very useful." NGO representative

## Funding proposals

Individual stakeholders and organisations have also utilised the report to inform funding proposals as part of their written submissions to the government. In Australia, government funding proposals are requests for financial support or grants from the Australian government and its various departments and agencies. These proposals are typically submitted by individuals, organisations, businesses, or community groups seeking financial assistance for specific initiatives, research, or activities that align with the report's findings on the state of Australia's natural environment. Various stakeholders raised the fact that they have relied on the report in funding proposals to federal, state, and local governments.

Stakeholders raised that the report and its oftentimes stark findings have been particularly beneficial as a strong and authoritative source to refer to when rationalising funding proposals due to the clear and present need for environmental conservation initiatives in the protection of Australia's natural environment.

## Parliamentary briefs

Multiple peak body/industry and NGO stakeholders illustrated their use of the report to inform parliamentary briefings at the federal and state levels by providing information and succinct context to policymakers. This helps members of parliament make informed decisions to not only legislate but also scrutinise and advocate for change in government policy.

Some organisations also used the report to inform the training of their members and supporters to advocate for policy change to their local members of parliament at the grassroots level.



"We've done parliamentary briefings and had politicians and their staffers come to an event to hear more about the report." NGO representative

While the outcomes of these parliamentary briefs in advocating for change are unknown, the use of the report in parliamentary briefs displays the strong utility of the report in advocating for environmental conservation across all levels of government in Australia. This speaks to the report's broader impact on informing policy and programs throughout Australia.

## Informing policy and programs

The report has played a crucial role in informing policy and programs related to environmental protection and sustainability. For numerous stakeholders, the report has served as a foundation for evidence-based decision-making in the development of government policy frameworks and state environmental reporting, as well as community exhibitions and school-based education packages on Australia's natural environment.

### Policy

At a high level, numerous stakeholders cited their belief that the report has been effective in galvanising the Australian federal government to address some of the major challenges facing Australia's natural environment. Stakeholders raised the fact that the report's stark findings have been mostly acknowledged in terms of their importance to the preservation of Australia's natural environment, resulting in policy action such as the proposed action plan to stop the impact of predation by feral cats and the Australian Government's Nature Positive Plan.



"I really think it was used and is still being used to set the new government's environmental reform agenda and environmental policy changes." Author

For other government stakeholders, the report and some of its specific thematic chapters have been fundamental driving forces in informing other national plans relating to conservation and environmental sustainability. For a federal government stakeholder, the report's findings have provided an efficient snapshot into the current state of the environment, which has established a baseline measurement to inform future tracking and monitoring of the environment in relation to the impact of the national plan. In the development of this national plan, the report has been equally important for galvanising the support of state and territory governments and obtaining their input into the plan's development.



“The report has been really fundamental to be able to point to that evidence base to show the need for the work that we are doing.” Federal government stakeholder



“In the plan that we're developing at the moment, in several sections we've directly quoted the 2021 State of the Environment Report because it has so succinctly summarised and articulated the findings, that we haven't needed to interpret it ourselves.” Federal Government stakeholder

Other government stakeholders recalled their experience in engaging with specific findings in the report related to thematic chapters such as marine and air quality, noting that specific and stark findings were identified as top priorities within their departments or departmental teams.

## Guide for state and territory environmental reporting

As well as the national report outlining the state of Australia's environment, state and territory governments are also responsible for assessing and reporting on the environmental conditions and trends within their respective regions. This is not done in every state and territory in Australia. For state and territory governments that actively develop state of the environment reports, the report has been an effective template both in its content and format. State and territory government stakeholders highlighted their engagement with the report and relied on it as a template to inform their future state of the environment reports. These stakeholders highlighted that both the report's content and website format have been extensively analysed to inform future reporting based on what works well and what the key opportunities for improvement are that can be applied to state and territory reports.



“You start looking at it to inform how you might emulate it or use information from it or be informed by it”. State/territory Government stakeholder

State and territory government stakeholders also noted that the report has been and will continue to be used as a high-level snapshot for governments across Australia, as well as referenced in the state and territory reports. These same stakeholders also use the report to cross-check with their own environmental reports to ensure alignment and accuracy, as well as draw on and reference specific data and figures that apply to their jurisdictions. The broad use that the report has to inform environment policy and reporting across both federal, state, and territory governments further illustrates the high regard for the report.

## Programs

The report has also been able to inform the development of education programs aimed at primary and secondary school students, as well as educational exhibitions for broader community engagement. One education sector stakeholder highlighted that the report and its content have informed an education package targeted at primary and secondary school students, providing information on the state of Australia's natural environment, the challenges it faces, as well as the opportunities for future conservation activities. The education package has only recently been made available for student engagement after it was distributed to teachers who expressed an interest in utilising the education package for their classes.

According to the stakeholders involved in the development of the education package, the report formed the basis of the package's content after several education sector stakeholders interpreted a need to better engage school students with the report and its important content. This demonstrates the report's positive impact and utility for the education sector to better educate students about the state of Australia's natural environment.



“The education package is being used by the passionate teachers in schools and it's informed teaching and learning where teachers have expressed their interest in delivering it.” Education sector stakeholder

The report has also been able to inform community displays and exhibitions to engage the broader community on the importance of Australia's natural environment and the need for future conservation activities. The developers of these programs were inspired to effectively add to the communication of the report's findings, particularly around threatened ecosystems.

The development of the programs was undertaken so as to communicate with a broader audience and to make the threats facing the natural environment more personable and engaging. This was achieved after these education sector stakeholders noted some barriers to accessibility in terms of reading and understanding the report's findings. These programs have included an academic lecture series, community days, an online exhibition, and national advertising partnerships to broaden awareness of these educational programs. The development of these programs has been done in partnership with First Nations and non-Indigenous collaboration, as well as extensive collaboration with academics. This not only shows the positive impact of reports in the development of programs, but also the opportunities to improve broader community engagement with the report's findings, noting previous recommendations to alter the report's content according to subject matter expertise and cater to a broader audience. However, the development of these programs does demonstrate the report's positive use and potential broader impact in educating a more diverse audience on the importance of Australia's natural environment and its relevance to individuals and groups beyond the scientific and policy community.

## Informing organisational strategies

Multiple stakeholders, particularly those affiliated with NGOs and peak body/industry stakeholders, raised that the report is an important resource for the development of organisational strategies surrounding education on the environment and conservation advocacy. Stakeholders highlighted that the report's tracking of environmental indicators over time through data sets and figures provides an effective snapshot of the need for future conservation activities.



“We grab the report and identify some of the big changes in the last five years and we actually incorporate that into our own internal planning and strategy.” NGO representative

This in turn provides organisations with the means to allocate resources and prioritise organisational funding and programs in order of priority based on the report's findings. Combined with the report's strong authority and independence, the report's content and thematic chapters allow organisations to easily identify the key priority areas in relation to their organisation's relevant expertise. This positively demonstrates that the report is having a positive effect and achieving its strategic objective to inform policy and strategy for future conservation activities.

## Useful components of the report

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When discussing their use of the report, stakeholders noted the various useful components that they engaged with. Reports typically consist of several key components that help organise and convey information in a structured and coherent manner. In the context of the report, these components include the visual images, including First Nations artwork, figures, maps, and data sets, as well as the report's key summaries, case studies tracking specific environmental trends, and reports on positive outcomes. These components were most commonly referred to across stakeholder groups as being useful and effective components to draw upon for the aforementioned specific uses of the report as well as general engagement with the report and its content. For most of these components, stakeholders urged for their increased use in future reports so as to improve the utility, accessibility, and engagement with the report.

### Visual images

Visual images in reports refer to any type of graphical or pictorial representation included in a document or presentation to enhance understanding or convey information more effectively. These images can take various forms and serve different purposes, including First Nations artwork, figures, and data sets. Visual images are critical for environmental reports as they enable improved communication, comprehension, engagement, and the overall visual appeal of the report's content. The importance and usefulness of visual images within the report were consistently noted as vitally important due to the report's length and heavy use of paragraph text to convey information. Visual images were also noted as increasing the accessibility of the report to a broader audience.



“The report is very dense and these visuals are great to break up the report and make it a bit more engaging. We will definitely need more if we are to engage a broader audience.” NGO representative

Numerous stakeholders also noted their personal preference for engaging with visual images over extensive paragraph text so as to quickly engage with and understand specific findings within the report. Stakeholders cited their busy schedules and the need to efficiently engage with visual images as a means to understand the report and its broad findings in the most efficient way possible.



“I'm a massively visual person, so all of the graphics, and my finding stuff in the report, that's always the best way to view information.” Peak body/industry stakeholder

### First Nations artwork

As part of the report's infusion with First Nations knowledge, traditional artwork and visual representations were incorporated within the report to articulate findings and their cultural relevance to First Nations people and communities. For most stakeholders, the inclusion of First Nations artwork provided an effective means to visually represent findings in an accessible and culturally appropriate way that acknowledged and respected the cultural importance of the natural environment to First Nations people and communities. This inclusion of First Nations artwork also enabled readers to avoid getting lost in the report or struggling to interpret findings that were articulated in paragraph form or through graphs and figures.



“I found the artwork to be a really effective way of breaking down the report and its findings. The artwork made it more engaging than your standard graphs and tables.” NGO

This sentiment was particularly strong among First Nations and education sector stakeholders who felt that First Nations art made the report more inclusive to interpret and articulate to a broader audience.



“The First Nations art that was used, for me that is a good way of integrating all our ways of learning and ways of knowing into the report. So, it’s not just a really dense reading, there’s some good ways of transferring knowledge for different ways of learning.” Education sector stakeholder

## Figures

Figures within an environmental report are visual representations of data or information related to the environmental aspects being assessed or discussed in the report. These figures are included to help convey complex information, trends, or findings in a more understandable and visually engaging format. For the purposes of the evaluation, ‘figures’ include maps, charts, and graphs used to convey findings and trends regarding the state of Australia’s natural environment.

Numerous stakeholders noted the effectiveness that many of the report’s figures have in conveying complex information in accessible and engaging ways. Stakeholders also noted the interactive nature of many of the report’s figures on the website format, noting that the interactivity increased engagement and accessibility of the information within the figures. Multiple stakeholders have directly sourced any of the report’s figures within their own research and presentations to their engaging formats and presentations.



“All the figures have been really great to engage with. The interactivity of a lot of the graphs has been particularly beneficial.” NGO representative

Some stakeholders believed that some of the figures within the report provided unprecedented insight that was not readily available in other environmental or government reports. One stakeholder noted that Figure 34, outlining Australian Government funding for environmental objectives, was not available anywhere else other than in the report, and that its inclusion was significantly beneficial for them and their organisation in their advocacy and government engagement work.



“There’s a lot of discussion about resourcing in nature conservation in Figure 34. That information is really hard to find and access. It doesn’t exist in the budget papers. It doesn’t exist in the Parliamentary Budget Office.” NGO representative

## Maps

Within environmental reporting, maps can show the geographical location of a habitat, species populations, or an environmental area of concern. Maps can also illustrate the distribution of environmental features, pollution sources, or other relevant spatial data. A particular type of map that stakeholders have found most useful and relevant to their work or organisations is the use of heat maps. Heat maps are graphical representations used to visualise and communicate data related to environmental factors in a spatial context. Heat maps are a valuable tool for presenting complex environmental data in a way that is easy to understand and interpret and are particularly useful for identifying patterns, trends, and variations in data across different geographic areas or over time.

Multiple stakeholders have relied on the report’s extensive use of maps to convey the changes in environmental factors over time, such as Figure 1 outlining Australia’s rainfall anomaly from 2019 to 2020 and Figure 13 outlining the change in the number of dangerous fire days from 1985 to 2020. These maps have been effective for stakeholders to utilise in their own research and presentations due to their accessibility and in-depth conveying of complex information in an engaging way.

Numerous stakeholders have urged for increased utilisation of spatial mapping in future reports, with requests for increases in macro-heat mapping through what one stakeholder described as a wilderness inventory. A wilderness inventory in Australia refers to a systematic assessment or survey of remote and largely undeveloped natural areas to identify and document their unique ecological, scenic, and cultural values. management decisions, conservation efforts, and land-use planning. The Government of South Australia has recently produced a wilderness inventory that assesses the wilderness quality in South Australia (Department of Environment and Water, 2023). However, this had not been released at the time of writing the evaluation report. Multiple stakeholders raised the need for a national wilderness inventory that conducts a macroanalysis of biodiversity across Australia in future reports. These stakeholders cited the need to better track biodiversity through a national inventory as well as the improved strategy and resource allocation a wilderness inventory could provide both the government and NGOs in allocating resources to future conservation activities. They also noted that South Australia's implementation of a wilderness inventory should also apply to a national context, with opportunities to further integrate state and national environmental reporting.



**Recommendation 16:** Explore opportunities to conduct a national wilderness inventory in future reports.

## Data sets

In environmental reporting, data sets are collections of structured information that provide quantitative or qualitative details about various aspects of the environment. These data sets are typically used to monitor, analyse, and report on environmental trends and impacts. Numerous stakeholders also highlighted the importance and utility of the various data sets within the report, which effectively convey important quantitative and qualitative information to the users. Representatives from the education sector and NGOs specifically highlighted that the report's data sets and statistics outlining key environmental trends have been particularly useful for education and advocacy purposes in conveying the report's stark findings and the need for environmental protection to a broader audience.



"Particular indicators, particular statistics are a really key way that we can continue to talk to Australians and elevate their concerns about decline in the health of the Australian government." NGO representative

Stakeholders further praised the report's use of data sets and the extensiveness of the data collected from various state and territory authorities to inform the reporting. Tying in again with the report's strong authority, stakeholders noted that the report's collation of longitudinal data is unprecedented within national environmental reporting and noted the distinct importance this has for tracking the national health of the environment over time.

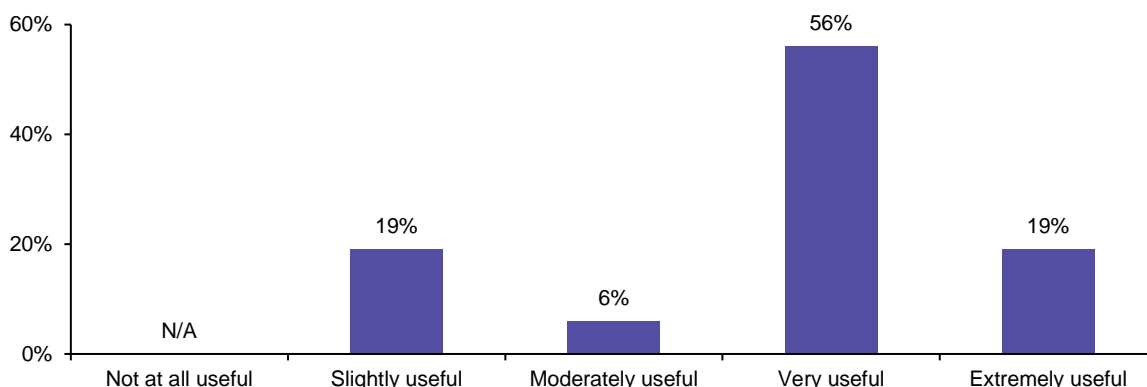


"In this scientific realm, you very rarely see this longitudinal dataset, it's just unheard of. That can't be underestimated, the value of this style of dataset." First Nations stakeholder

These views of the report's data sets were widely held across stakeholder groups and positively reinforces the high regard that stakeholders have towards the report and the utility of its data sets.

Survey respondents reaffirmed the usefulness of the report's figures including graphs, maps and tables. Positively, a strong majority of survey respondents highlighted that they found the graphs, maps, and tables at very useful (56%) or extremely useful (19%). A smaller minority of respondents noted that the graphs, maps, and tables were slightly useful (19%) or moderately useful (6%). Important to note is that no survey respondent felt that these elements to the report had no utility.

Figure 8: How stakeholders perceived the usefulness of the graphs, maps, and tables in the chapters



Source: Q12 - How useful do you find the following chapter components? (Graphs, maps, and tables) (n=17)

## Key findings

Stakeholders extensively raised the usefulness of the report’s key findings sections throughout the report for their effectiveness in succinctly outlining key information for users. In each section of the report, there is a key findings section that outlines the most important and relevant findings that have been derived from the research and analysis within the report.

Peak body/industry stakeholders and NGO representatives highlighted the benefits of the report’s key finding sections for individuals with limited availability to extensively engage with the report and each of the thematic chapters. Stakeholders felt that the key summaries provide effective context for the report while still enabling only brief engagement for users with limited capacity.

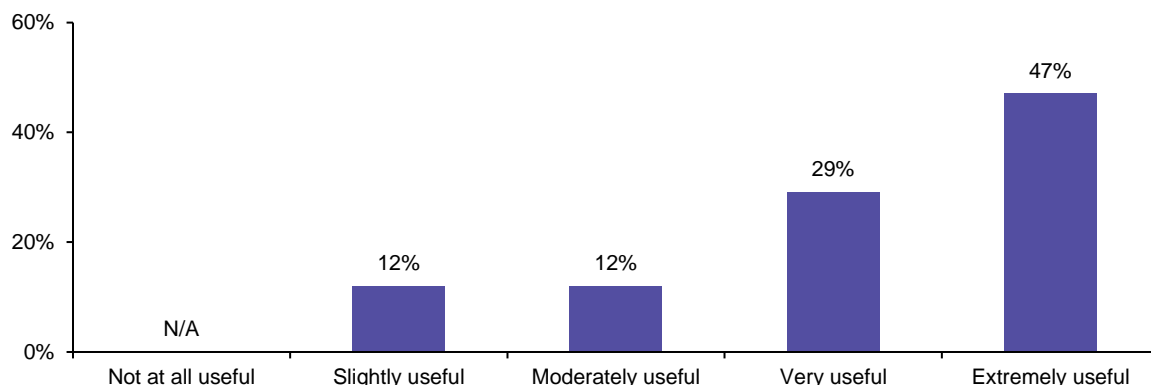


“The key findings were great for me and my role. I haven’t got heaps of spare time, so the key findings are really beneficial for just a quick read.” Peak body/industry stakeholder

Other education stakeholders also felt that the report’s key findings sections were also beneficial for a broader audience, as they increased accessibility and engagement with the report’s findings without requiring readers to engage with the extensive length of the entire report. Key findings have also been beneficial for individuals in the development of educational presentations, as the key findings and priority information are readily available for individuals to draw upon.

The positive utility of the key findings of each thematic chapter was also highlighted in quantitative survey responses which outlined that the key findings were at least to some degree useful for survey respondents. Important to note is the strong majority of respondents who found the key findings very useful (29%) or extremely useful (47%). This strong majority further demonstrates the positive use of key findings which warrants their inclusion in future reports.

Figure 9: How stakeholders perceived the usefulness of the '10 key finding summaries' of the chapters



Source: Q12 - How useful do you find the following chapter components? (The 10 key findings summarising the chapter) (n=17)

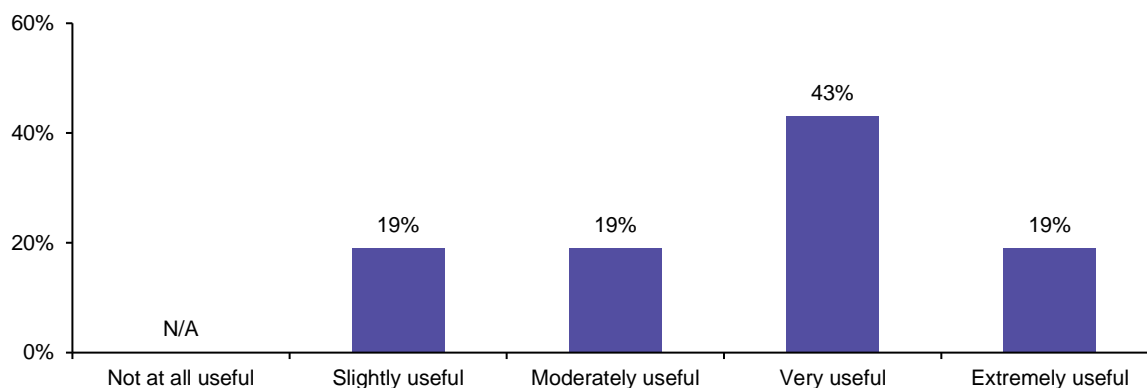
## Case studies

Specific case studies within the report have been an extremely useful component for stakeholders due to their detailed discussions of certain environmental factors in Australia. Case studies in environmental reporting are detailed, specific examples or investigations that illustrate various aspects of environmental issues, challenges, solutions, or impacts. They are used to provide real-world examples to support the information and findings presented in the report.

Stakeholders have relied on case studies for their own research and advocacy work as well as to inform organisational strategies. For example, several NGO and state and territory government stakeholders have relied on case studies on topics such as Indigenous Data Sovereignty and the protection of koalas as an iconic species to inform strategic policy and organisational objectives, both through their engagement with First Nations people and groups and in planning for future conservation activities and funding submissions. Other various stakeholders have cherry-picked case studies based on their relevance to their specific work or organisations, highlighting the need for and informing future conservation activities. The various case studies have also been useful to other stakeholders in providing education on specific environmental trends and work that would not otherwise be readily available to an individual working outside of the case study's subject matter. The detailed and in-depth provision of information through case studies was consistently praised across stakeholder groups.

The usefulness of case studies as identified in qualitative interviews aligned with quantitative survey responses as the strong majority of survey respondents found the case studies either moderately useful (17%), very useful (43%), or extremely useful (19%). This further demonstrates the positive utility that the case studies within the report have for its users.

Figure 10: How stakeholders perceived the usefulness of the case studies in the chapters



Source: Q12 - How useful do you find the following chapter components? (Case studies) (n=17)

## Reports on positive outcomes

Despite many of the report’s stark findings on the state of Australia’s natural environment, many stakeholders celebrated and used the report’s inclusion of positive outcomes, either in the form of statistical data or case studies. Reporting on positive outcomes within environmental reporting is important to identify what is working well in environmental conservation and protection and to inform future efforts to protect and increase the health of Australia’s environment. Some stakeholders also noted that the inclusion of positive outcomes generated a greater sense of hope and optimism among much of the report’s findings on overall environmental decline. Stakeholders specifically noted the importance of positive case studies, such as how empowering Indigenous values in urban areas promotes better outcomes for people and the country, to showcase the positive outcomes of specific policy and advocacy work being completed in the environmental and cultural spaces.



“It does report on a number of successes, which is a really important part of these reports as well is to highlight where things are working.” NGO representative

The beneficial engagement that stakeholders have with the report’s positive outcomes was highlighted as an opportunity for increased inclusion of positive outcomes in future reports. Specific environmental programs were noted as being of particular importance in future reporting on positive outcomes so that new and innovative programs can be duplicated or altered to ensure effective environmental management throughout Australia. Some individuals also advocated for specific topics to be explored for positive outcomes, such as the national amount of habitat restoration occurring each year and the success factors of threatened species conservation programs.



**Recommendation 17:** Increase the number of case studies that report on successful outcomes.

## Broader impacts of the report

Beyond these direct uses of the report by stakeholders, the report has had several broader and more general impacts due to its release and engagement in Australia. Stakeholders noted that of these broader impacts, the report’s provision of a broad overview of the state of Australia’s natural environment has been one of the

primary impacts, which aligns with its strategic and legislative purpose as outlined under the EPBC Act. Other broader impacts generated by the report include raising awareness with the broader community and providing positive affirmation for individuals and organisations working in environmental conservation and advocacy. Despite these broader impacts, stakeholder views on the overall impact of the report varied, particularly regarding the report's initiation of a call to action, leading many stakeholders to note that the report in its current form can have a limited impact, highlighting the need for several opportunities to increase the overall use and impact of the report in future iterations.

## Providing a broad overview

As already outlined, the report provides a comprehensive assessment of the state of the environment and is designed to help shape strategy, policy, and action, to influence behaviours, and to assist in assessing the actions taken to protect Australia's environment. With this strategic purpose in mind, most stakeholders held positive perceptions towards the report and believed its impact in providing a broad overview of the environment at a certain point in time had been positive. Stakeholders noted further that the report's incorporation of all state and territory jurisdictions within this overview gave added weight to its impact due to its significance and relevance throughout Australia.



“The national report serves its purpose well in that it tells a broad story about the environment for the whole country.” Federal government stakeholder

Providing a broad overview of the state of Australia's environment was how most stakeholders interpreted the report's use and impact, with some stakeholders highlighting that they have never seen it as anything more than a broad overview. While still positive in its impact, to inform policy and action, this sentiment speaks to perceptions of the report's limited impact discussed later in the report.



“My sense of how the State of the Environment report functions is as a barometer of where we're at. I've never really seen it as a document that gives concrete advice about how to get somewhere better.” Education sector stakeholder

## Raising awareness with the broader community

Across stakeholder groups, one of the primary impacts of the report has been its effectiveness in raising awareness about the state of Australia's natural environment and the numerous challenges and opportunities that face it. An important dynamic to highlight within this impact is the report's effectiveness in raising awareness with the broader community beyond individuals and organisations with a vested interest in environmental conservation and advocacy. The report's content, as well as the previously mentioned media attention surrounding its release, galvanised significant public attention to the report and many of its stark key findings.



“It reconfirms what we kind of know, that the environment is in a state of decline and that we recognise the report plays a part in educating the broader community about that.” NGO representative



“We value this report immensely and we use the content of it to talk to Australians about what we see as a crisis in the health of the environment.” NGO representative

According to various stakeholders, this has positively contributed to an increase in awareness within the broader community about many of the stark findings regarding the health of Australia's natural environment. This was particularly noted by stakeholders with extensive engagement in previous iterations of the report who

raised broader community awareness about the report, and its content was maximised in the 2021 version's release. According to stakeholders, this increased awareness shows a positive trend of increased public consciousness on the state of the natural environment, an increased impetus for change from the broader public, and a potential altered change among individuals towards their engagement and behaviour towards the natural environment.

## Positive affirmation for stakeholders

Particularly for NGO representatives, the report and its content have had the broader positive impact of providing positive affirmation for their individual and collective work in environmental conservation and advocacy. Positive affirmation and validation for these environmental organisations refers to the recognition and encouragement given to them through the report, which acknowledges their efforts and initiatives aimed at addressing environmental issues and promoting sustainability. By referencing their research, programs, or even simply highlighting the need for future conservation and advocacy within their individual or organisational subject matter expertise, numerous stakeholders felt positive affirmation and validation for their continuing work within Australia's natural environment.



"This report offers a really fantastic validation for us and the work we do in the sense of the position that we take and the work that we do in protecting the environment." NGO representative



"The report is a very important validation of the concern that we have as a sector about the poor state of the environment and the need for action. The report really backs in what we've been saying." NGO representative

A particularly important factor of this validation highlighted by some stakeholders was the report's incorporation and value of traditional First Nations knowledge throughout the report. This was a positive validation for NGOs and individuals in the education sector who, over the past few years, have developed various First Nations engagement strategies and reconciliation action plans within their organisations, emphasising the importance of First Nations people and knowledge to their work in conservation and advocacy. For other organisations yet to implement such strategies, the report's incorporation of First Nations knowledge has provided a positive framework for their own First Nations engagement strategies.



"It's pleasing for us to see that the stuff we say in the years between reports gets picked up and highlighted in the reports as key findings about the health of the environment." NGO representative

## Call to action

The report's call to action refers to the degree to which the report has had an impact that encourages readers and stakeholders to take specific steps or make changes to address environmental issues and contribute to sustainability. The purpose of a call to action is to inspire and promote positive actions through policy, strategy, and improved behaviours towards the environment. The perceptions of the report's impact through a call to action varied among stakeholders. Some stakeholders raised the point that the report and many of its stark findings have generated an impetus for change in the current Australian government, which has had a positive impact, as previously highlighted in the report.



"It has hit the mark in terms of motivation and impetus for change. It certainly helped galvanise the government. Certainly not the major thing by any means but it's a contributing factor in terms of galvanising more action on climate change." Education sector stakeholder

However, most stakeholders raised the fact that the report's call to action and overall impact have been limited. They illustrated that while the report's stark findings have generated a broader awareness of the need for future conservation and advocacy activities for the natural environment, they believed that the omission of specific policy recommendations and calls for stronger environmental legislation limited the report's call to action, instead limiting it to a broad overview as it is intended to be.

In some cases, the report was more relevant to individuals and organisations with a vested interest in environmental reporting, such as conservation and advocacy organisations or peak bodies. One stakeholder in the education sector noted that the report's calls to action can be fulfilled by advocacy work completed by organisations as opposed to being the sole responsibility of the report itself.



"I think I would have liked to have seen a bit more of a clear call to action around stronger nature laws. I think that everyone knows that's needed, but it wasn't a clear enough call to action." NGO representative



"I don't think it does the call to action particularly well. But I don't think that's its role either, because I think that role is better fulfilled by civil society and other actors in our society." Education sector stakeholder

These sentiments speak to broader opportunities for the potential increase in the report's use and impacts.

## The report in the environmental reporting landscape

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Environmental reporting refers to the process of collecting, analysing, and releasing information about the state of the environment. Environmental reporting is often completed by federal, state, and territory governments, intergovernmental organisations such as the United Nations, NGOs, and private corporations. Similar to the report, environmental reporting more broadly informs policy development and increases public awareness to environmental challenges.

### Other environmental reports and frameworks

Across stakeholder groups, numerous individuals rely on various environmental reports to inform their own work such as in research, advocacy, or internal organisational strategic planning. Beyond the report, stakeholders commonly referred to other Australian state and territory government state of the environment reports, as well as intergovernmental and NGO reports to inform their work. The most commonly cited piece of environmental reporting by stakeholders was the Independent Review of the EPBC Act, also known as the Samuel Review, which was released in October 2020 by Professor Graeme Samuel AC. The Samuel Review was most utilised by other stakeholders, particularly NGO and peak body/industry stakeholders who raised that, when compared to the report, the Samuel Review made explicit policy recommendations which could inform stakeholders of the potential legislative changes to the EPBC Act.



"The report has not been as influential as the Samuel Review was which was a direct review of policy of the EPBC Act, which has actually led to policy changes." Peak body/industry stakeholder

Other environmental reports used by stakeholders to inform their work can be categorised by either Australian or international reports. Stakeholders also rely on various environmental academic journals which are not included below, but still play integral parts within stakeholder engagement of environmental reporting. Reports that are produced by the Department have been identified within the table.

Figure 11: Australian and international environmental reports used by stakeholders

Australian reports	International reports
Environmental Economic Accounting (Department report)	Intergovernmental Oceanographic Commission reports
Nature Repair Market (Department report)	Intergovernmental Panel on Climate Change reports
Productivity Commission reports	Intergovernmental Science Policy Platform on Biodiversity and Ecosystem Services reports
Samuels Review	International Union of Conservation and Nature Red List
State and territory government environmental reports	United Nations Environment Programme Global Environment Outlook
State of the Climate report	United Nations Sustainable Development Goals report
The Threatened Species Action Plan 2022-2032 (Department report)	World Meteorological Organization reports

Among most stakeholders that rely more heavily on other environmental reports, the report is still highly regarded for its authority, independence, as well as its extensive content.

## Opportunities to increase the report's use and impact

The report, its content, and its various components have been extremely useful for individuals and organisations across stakeholder groups. However, there are several opportunities to increase the use of the report and its application in informing strategy and policy to protect Australia's natural environment and influence behaviour. These opportunities primarily centre on the recommendations made within the report and the need to appropriately track the outcomes of recommendations, incorporate broader stakeholders within the responsibility of these recommendations, and ensure a follow-up statement by the Federal Government to articulate specific policy priorities within the report's recommendations. Other opportunities to improve the use of the report and its broader application include improved integration with the United Nations SDGs, reporting on emerging environmental trends, improved integration with state and territory reports, increasing discussions on the broader cultural relevance of Australia's natural environment, and tailoring the report's findings towards the private and commercial sector.

These numerous opportunities are diverse and may conflict with one another, which has generated caution among some stakeholders who urge the need for the report not to overextend its scope and application. However, these opportunities, as passionately raised by most stakeholders, do provide alternative pathways for future reports that can be considered potentially beneficial for increasing the overall utility of the report and increasing its relevance to a broader audience. These should be considered for implementation if the report is to shape policy more broadly and positively influence behaviour towards the preservation of Australia's natural environment.

## Recommendations within the report

The report does not make explicit recommendations to address the environmental challenges that are highlighted, which is not within the report's scope which is defined as only to providing an overview of the state of Australia's natural environment. In each of the report's thematic chapters, there is a management section that outlines the various management approaches used to address key environmental challenges, but these are based on existing legislative frameworks and Australia's international and national obligations to environmental protection. Within environmental reporting more broadly, recommendations are a critical

component of a report as they provide a specific pathway for taking action based on key findings and analysis, acting as a bridge between identifying opportunities for improvement and implementing concrete steps to address them.

Most stakeholders raised the need for future reports to include specific recommendations that can guide future policymaking and environmental conservation efforts. Stakeholders highlighted that the report in its current form does an effective job of highlighting the challenges facing the environment, but that the report provides little information on how best these challenges can be addressed by governments and organisations. For some stakeholders, the limited inclusion of recommendations within the report led them to believe that there was scope for the report to be more innovative and impactful. For example, recommendations could be made explicit through a table of recommendations and go further by tracking their outcomes.

With the increasing pressure on Australia's natural environment, more explicit recommendations would be beneficial in future reports. Doing so would equip governments and other large organisations to better use the report to inform policy and programs in accordance with the recommendations.



"The report doesn't necessarily articulate the recommendations about where broader focus areas are going to be, or where there has or hasn't been a change in approach." First Nations stakeholder



"It is fit for purpose because it does provide some of that direction to government around those policy themes, but it definitely could go even further with putting forward recommendations and tracking their progression." Federal government stakeholder

## Tracking recommendations

Tracking recommendations in environmental reporting was noted as critical by stakeholders for achieving environmental goals, ensuring accountability towards governments, and making informed decisions to address current and future environmental challenges. Specifically, tracking the progression of recommendations was noted by several stakeholders as an opportunity to potentially mitigate the report's perceived limited impact on environmental reforms, as tracking these recommendations could help hold individuals and governments accountable for implementing these measures and meeting environmental commitments.



"It hasn't driven the necessary changes and reforms that are needed to actually address any of these drivers. We've got all these drivers and there isn't any evidence that there's been a major shift in policy to tackle any of those drivers as a result of the report." Education sector stakeholder



"Tracking the implementation of the recommendations would be enormous. That would be transformational." NGO representative

## Traffic light reporting

To track the progression and outcomes of explicit recommendations in future reports, multiple stakeholders raised the opportunity for the implementation of traffic light reporting across key environmental measurements and recommendations. Traffic light reporting is a method used in reporting to visually convey the status or progress of various aspects of a report. It typically uses a colour-coded system to represent the health or status of specific elements, as outlined below.

Figure 12: Traffic light reporting



**Red**

Indicates that there are significant issues or problems that need immediate attention.


**Yellow**

Indicates caution or that there are issues or concerns that require attention. It suggests that something might be off track or at risk, but it can still be addressed to prevent further decline.

**Green**


Signifies that progress is on track, progressing as planned, and meeting or exceeding expectations.

Stakeholders raised the idea that traffic light reporting is an inclusive and effective way to communicate the status of various components of environmental progression or indicators at a glance, making it easier for stakeholders to understand the situation without having to dive into a detailed report. This could also be applied to other aspects of the report discussing measures of environmental decline or positive outcomes.

 **Recommendation 18:** Make recommendations more explicit within the report and ensure there are mechanisms to capture updated outcomes of the recommendations in future reports.


### Incorporating more stakeholders within recommendations

Along with the need to implement and track explicit recommendations, stakeholders also highlighted the opportunities to encompass a more diverse set of stakeholders within the recommendations and the progressive measures taken towards the protection of Australia’s natural environment. Multiple stakeholders indicated that the report still centres on what actions and progress can be made by the federal government with little consideration for the important role that Aboriginal organisations, NGOs, the private sector, and other peak bodies have in the protection of the environment. The report’s focus on federal as well as state and territory governments was further highlighted as not being completely representative of the diverse stakeholders who are actively engaged in conservation efforts.

 “It’s still very much about what can government do to change the environment and I think that that could be quite worrying if you read it and then don’t necessarily see where you fit into it and see how you can create change.” First Nations stakeholder

Other stakeholders also noted that incorporating local governments and other regional bodies is necessary due to the important on-the-ground work that many of these groups and organisations have in the care and preservation of the natural environment, particularly in regional and remote areas. They elaborated that the need to encompass more stakeholders within the report’s recommendations would increase the broader call to action in the report and provide more concrete policy and program pathways for their organisations to implement in contributing to the preservation of Australia’s natural environment.

 “If you’re going to make a recommendation then it should be clear who you’re making the recommendation to.” NGO representative

 **Recommendation 19:** Encompass broader stakeholders within the report’s recommendations beyond government stakeholders.

## Follow-up statement

As part of ensuring accountability and follow-up by the federal government to the report, several stakeholders highlighted the opportunity for the federal government to provide a follow-up statement to the report either as a separate or integrated piece in the report. Stakeholders noted that governments providing a follow-up statement outlining specific government priorities and policy pathways to address environmental challenges would be a positive inclusion in the report and play a vital role in ensuring that environmental goals and commitments are met, progress is tracked, and accountability is maintained. Implementing a follow-up statement was also noted as a positive step to likely improve the utility of the report, as non-government stakeholders would be able to conduct their research or advocacy work in alignment with government progression and commitment to environmental challenges. Follow-up statements already occur in some state and territory governments, such as Victoria and the Australian Capital Territory, and the release of a published response is also recommendation 35 of the Samuel Review (Samuel, 2020).



“There would be potential to strengthen this body of work, if there was either attached or followed up then a statement about what the areas of focus were going to be.” First Nations stakeholder



**Recommendation 20:** Implement a follow up statement through a published response upon the report's release.

## Alignment with the SDGs

The SDGs are a set of 17 interconnected global objectives established by the United Nations in 2015 as part of the 2030 Agenda for Sustainable Development. These goals are designed to address a wide range of social, economic, and environmental challenges facing the world and provide a framework for countries, organisations, and individuals to work together to create a more sustainable and equitable future for the world (United Nations, 2023).

Across stakeholder groups, multiple individuals raised that the report is limited in its alignment with the SDGs and felt that the report does not make an explicit connection to the SDGs across each of the thematic chapters. The SDGs are discussed in the report under the environment management framework section, outlining Australia's commitment to international obligations and treaties, however, stakeholders felt that this discussion should have been more integrated throughout the report.



“The report certainly needs to be a policy reference document to indicate, what does it all mean in context of what we want to achieve and that it doesn't do it in relation to the SDGs.” Peak body/industry stakeholder

Stakeholders further noted that improved alignment and integration of the SDGs would increase the report's utility due to the high regard that organisations and governments assign to the SDGs internationally. The SDGs also provide a structured framework for goal setting, accountability, and collaboration with various stakeholders. According to stakeholders, aligning the report to the SDGs would create added benefit in the private and commercial sectors, which explicitly use the SDGs as a framework for their own sustainability measures. Organisations that effectively incorporate the SDGs into their business operations can not only actively contribute to a more sustainable future for the environment but also enhance their brand reputation, attract socially responsible investors, and create new business opportunities in the emerging sustainability sector.



“The thing that we find missing is that there’s a lack of alignment with the report and the Sustainable Development Goals, and more broadly the 2030 agenda, which serves as an important framework for risk assessment and mitigation.” Peak body/industry stakeholder



**Recommendation 21:** Improve the integration and alignment with the SDGs throughout the report.

## Alignment with state and territory reports

An opportunity raised by stakeholders both within and outside of government entities was the need to improve alignment between the report and state and territory state of the environment reports. As previously noted, various state and territory governments conduct their own state of the environment reports to assess the environmental conditions and trends within their respective jurisdictions. Improving the alignment between the report and state and territory government reports already occurs, as the report is significantly informed by state and territory government data and environmental reporting.

Content, methodology, and data set alignment between the report and state and territory reports would improve the overall use of both document types, according to various stakeholders. These improvements include a nationally consistent approach, effective environmental management, informed decision-making, and the preservation of the country’s unique ecosystems across jurisdictions. By working together and sharing data consistently, governments at both levels can address environmental challenges more effectively and sustainably. Other specific steps highlighted by state and territory government representatives to improve alignment included increasing engagements between federal and state and territory governments relevant to environmental reporting and collaborating on future monitoring and evaluation processes for specific environmental trends. State and territory government representatives also noted opportunities to potentially increase the alignment of content between future reports and the state and territory government state of the environment reports where possible. Representatives from state and territory governments who encouraged increased alignment cited their own positive experiences and the utility of the report when informing their own state of the environment reports.

Increased alignment with state and territory government reports could alter some perceptions held by stakeholders that the report is merely a gathering of state and territory data and instead engage more in analysis and interpretation, according to one NGO representative.



“It will certainly be a fantastic step if there was a nationally consistent approach taken to SoE reporting, to the methodologies, to the data and data sets were developed collaboratively and available publicly.” State/territory government stakeholder



“There are a number of areas of opportunity to improve the report. First and foremost, would be much better integration and consistency with state reports.” NGO representative

However, some state and territory government representatives cautioned against increased alignment using a top-down approach where national standards and methodologies are imposed on state and territory governments. This was elaborated on by government representatives who raised the concern that national standards and methodologies may not be appropriate for environmental reporting in state and territory jurisdictions due to the unique environmental landscapes, legislative requirements, and existing place-based reporting arrangements in these jurisdictions.



“States shouldn’t compromise because the states have got to talk about the stories that are important for their jurisdiction. You can’t be imposing indicator sets or imposing standards.” State/territory government stakeholder

They raised the point that any future efforts to increase alignment between state and territory environmental reports should be conducted in full consultation with state and territory government representatives and in accordance with the unique place-based standards and methodologies in these jurisdictions.



**Recommendation 22:** Explore future alignment between the report and state and territory government reports in full consultation with state and territory government representatives.

## Cultural importance of the environment

As previously noted, the 2021 version of the report was the first to infuse traditional First Nations knowledge throughout the report, with an emphasis on the important role and relationship that First Nations people and culture have in the protection and conservation of the natural environment. This was universally praised across stakeholder groups. However, numerous stakeholders raised opportunities for future reports to increasingly incorporate more discussions on the broader cultural importance of the natural environment to Australians. Many cultures throughout the world and within Australia assign deep cultural importance to the natural environment, particularly in Australia with its various unique and diverse landscapes. According to stakeholders, many non-Indigenous Australians do not necessarily engage with the natural environment through a scientific lens, instead focusing more on personal experience and narratives around their engagement with the natural environment, such as sport, recreation, or religious engagement, which in turn holds deep cultural relevance to Australians.



“There’s a danger with a cursory engagement with culture, or one that just ignores non-Indigenous Australian cultural engagement.” Education sector stakeholder

Incorporating the broader cultural significance of the natural environment within Australia was noted by stakeholders as engaging in a more holistic and potentially more accessible way for users with a non-scientific background to engage with the report and its findings. Incorporating the cultural importance of the natural environment was also raised as potentially increasing the use and engagement of the report if individuals within the broader audience are able to personally relate to the report and its encompassing cultural significance. This was the sentiment of one survey participant.



“The inclusion of some First Nations place-based knowledges was welcome, although discussion of its inter-relationships with scientific approaches was limited. There was essentially no inclusion of non-Indigenous cultural-ecological knowledges.” Survey response

Source: Q14 - How well were knowledge bases (e.g. scientific, First Nations place-based) interlinked and balanced in the SoE? Q15 Please explain your answer.

However, while a potentially more engaging and alternative lens could be included in future reports, these same stakeholders acknowledged the likely criticism and resistance from some sectors towards the inclusion of the cultural significance of the environment within the report. This criticism could be driven by the belief that the report should be a purely scientific document and that the inclusion of other non-scientific analyses may limit the report’s strong evidence base and scientific authority. These potential pitfalls led multiple stakeholders to highlight the potential to incorporate the cultural significance of the natural environment into supplementary reports alongside the report.



**Recommendation 23:** Consider incorporating the broader cultural significance of the natural environment within Australia in future reports.

## Private and commercial sector use of the report

The most common theme raised by various stakeholders to increase the use of the report was the need to increase the tailoring of the report to the private and commercial sectors. The private sector comprises all economic activities and organisations that are owned and operated by private individuals or non-governmental entities. The commercial sector is a subset of the private sector, specifically focusing on business activities that involve the buying and selling of goods and services for profit. Numerous stakeholders highlighted that the report contains several opportunities to be increased, tailored towards the private and commercial sectors, amid a growing social consciousness within Australia on the environmental impacts and responsibilities of private and commercial entities towards the natural environment.



“The fact of the matter is that the private sector has a massive impact on nature. Unless you're tapping into that in the report, that information's not being fully utilised. I think there's a massive opportunity here, but it needs to be tailored.” Education sector stakeholder

Tailoring the report for the private and commercial sectors was highlighted as being crucial due to its potential support for businesses to address sector-specific environmental challenges, encourage compliance with regulations, and provide policy pathways and opportunities for improved environmental sustainability and investments. It could also aid private and commercial sector entities in building credibility, attracting investors, and fostering a culture of environmental responsibility. This plays into the corporate social responsibility (CSR) of entities in Australia, which describes an entity's commitment to operating in a socially and environmentally responsible manner while also contributing to the wellbeing of society.



“For businesses looking for lead indicators around what it is expected to do with regards to the environment, it needs to be able to align its practices with the findings of a forward-thinking SOE report.” Peak body/industry stakeholder

Peak body/industry stakeholders noted that the report could be tailored towards the banking and financial sector, which has been increasingly analysing opportunities for increases in sustainable investments both for commercial and corporate reputational benefits. Stakeholders noted that tailoring the report and its findings to show the impacts and opportunities of the natural environment for the private and commercial sectors will increase the report's use within these sectors.



“Particularly the finance sector have much longer-range views. A document like the SoE that points to long-term trends and trajectories would be of considerable value for them.” Education sector stakeholder



“In terms of strategic planning, the key insights that the SOE report does provide, we think, are important to report on long-term strategic planning, which in turn also helps business make data-driven decisions that are both profitable but obviously as well as being sustainable.” Peak body/industry stakeholder

Specific themes and trends applicable to the private and commercial sectors that could be tailored and discussed within the report, as highlighted by stakeholders, included the following:



Sustainable investments



The application of CSR in each thematic chapter



Supply chain sustainability

These themes were noted as being of particular importance to private and commercial sector entities and their potential inclusion within future reports due to their alignment with CSR obligations and their relevance to the state of Australia's natural environment. Some of the key private and commercial sectors highlighted by stakeholders included finance, banking, insurance, and investments. For example, discussions on supply chain sustainability could be incorporated into the marine chapter. The supply chain refers to the entire process of producing, transporting, and distributing goods and services, and it includes various stages and stakeholders. When this supply chain is not managed sustainably, it can lead to adverse effects on the marine environment through pollution and transportation emissions.



“The report needs more collaboration, particularly the finance and banking sectors because there is huge pressure on them from both shareholders and customers to ensure they're not funding unsustainable investments.” Education sector stakeholder



“An SOE report could actually provide valuable insight for business looking to ensure that its own sustainability through its supply chain meets a growing expectation among consumers and investors alike.” NGO representative

For stakeholders advocating for the increased tailoring of the report to private and commercial entities, the need to incorporate commercially-minded individuals within the development of the report was highlighted. This would require incorporating individuals or groups with an approach that is focused on understanding and effectively engaging with the business aspects of the natural environment, with a strong understanding of investments and market dynamics. This would enable the report's content to be tailored to a private and commercial audience through altered terminology and language that would engage more users in these sectors.



“Unless you get people with those commercial skills engaging with the report early, you're not going to tap into the commercial world.” Peak body/industry stakeholder



**Recommendation 24:** Communicate the relevance and implications of the report's content to private and commercial sector entities and engage these sector stakeholders in the report's development.

## Caution towards overextending the report

Several stakeholders noted that the report in its current form does a sufficient job in accordance with its current purpose and that seeking to extend the scope of the report could diminish its overall use and impact. To maintain the report's credibility, stakeholders urged for the report to have a clearly defined scope and for this scope not to be extended, so that the report can focus on specific factors when providing a snapshot of Australia's natural environment.



“It's important to remember the SoE's just part of a bigger system of environmental reporting and it can't, and shouldn't be, all things to all people.” Federal government stakeholder



“I think it's really important that the report doesn't try to do everything because I think that's when you get to a situation where it loses its incredible value as a document on what's happening.” Education sector stakeholder

## Timeliness of the report

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The timeliness of the report refers to how quickly it is prepared and delivered relative to changing events within Australia's natural environment. In the context of reporting and communication, timeliness is an important factor to evaluate, particularly for environmental reporting, as it can significantly impact the relevance and utility of the information within the report. The report's current reporting timeframe of five years is outlined under the EPBC Act.

Most stakeholders raised the concern that the current reporting timeframe limits the overall impact and utility of the report due to the rapidly evolving circumstances of Australia's natural environment and the need for regular and updated reporting to track such rapid change. The degree to which stakeholders perceived the timeliness of the report as limited does depend on the relevance of the report to their work and sector, as well as their specific requirements to track environmental change. Most stakeholders highlighted the need to increase the regularity of reports away from the five-year timeframe to ensure that the report is relevant and includes updated contents that can properly inform policy and strategic decisions related to the care of Australia's environment in a timely manner. However, even among stakeholders supporting an increased regularity of reporting, it was acknowledged that the report's length and significant amounts of content would require added resources or an alternative level of detail in the content of the report. Despite this caution, most stakeholders still acknowledge that the report's timeliness can impact the report's relevance and utility across stakeholder groups and the broader community. Multiple peak body/industry stakeholders noted that the report can be immediately relevant upon a timely release, but as time passes, the report quickly becomes irrelevant.



"It's just validating what everybody suspects is true, then its utility is helpful as at the moment it comes out, but not much more after that." Peak body/industry



"Five years is an enormously long time and within that time species can go from being threatened to extinct very easily." Education sector stakeholder

## Limiting the relevance of the report

Most stakeholders noted that the report's five-year reporting timeframe impacted the report's relevance due to the broader requirements for timely and updated reporting on Australia's natural environment among both scientific and non-scientific-oriented stakeholders. The limited relevance of the report was exacerbated due to the report's delayed release, which has impacted the report's overall utility among stakeholders who use the report for their own research, education, or promotional purposes. The report's limited relevance due to its timeliness was applied to the overall content of the report, but particularly to elements of the environment that are rapidly degrading, such as biodiversity loss and land clearing. Multiple NGO and education sector stakeholders noted that despite the early utility of the report within the first three months of its release, the report's content quickly became irrelevant, and other environmental reports had to be relied upon for more updated and relevant information.



"I want to have information that's up to date about what's happening, some of the information in the report is already feeling a little bit old." Education sector stakeholder

One NGO stakeholder noted further that the current reporting timeframe limits opportunities for stakeholders to properly inform policy and programs to address environmental challenges. They elaborated by stating that certain challenges to the environment identified early in the report's development could inform timely policy

responses to mitigate or reverse environmental damage. However, in current reporting timeframes, these findings are instead released years later, creating significant missed opportunities for more effective policy and program responses.



“Through the five-year timeframe, some of the information already is quite old, and we’ve missed a significant opportunity to lean into some of the critical policy elements that we might needed to have canvased a couple years earlier.” NGO representative



“We’ve missed a lot of opportunities to identify effective policy solutions, particularly for biodiversity loss. There are things happening that we need to be much more aware of much more frequently.” Education sector stakeholder

The report’s timeliness and the ensuing impacts on its relevance to stakeholders reaffirm the need to increase the regularity of reporting so that it can be properly utilised by stakeholders and align with its design to help shape policy, strategy, and action towards the health of Australia’s natural environment.

## Support for more regular reporting

Increasing the regularity of reporting was broadly supported by most stakeholders, with mentions of increases to two, three-year, or even annual reporting so as to ensure the relevance of the report, its content, and its relevance to shaping strategy and policy. Individuals who held this view noted that the length and even scope of the report would need to be reduced, but that the breadth of information could be continuously updated with increased reporting so that the quality of the report’s overview of the state of Australia’s natural environment would not be reduced. For example, with increased reporting, the report may outline certain priority areas while also reporting on emerging and longer-term issues over a more prolonged period across multiple reports.



“There’s absolutely a need for up-to-date reporting. Once every five years is great for a really thorough, comprehensive report like this, but five years is also far too long.” NGO representative



“For the environment’s sake, we need to review it constantly, in the same ways that we review economic indicators. For my professional needs, a report once a year would be sufficient.” Survey response

Source: Q16 - To effectively meet your needs, what would be the ideal frequency to review the state of the environment, and why?

As well as ensuring the relevance of the report, multiple stakeholders also urged that increased reporting would also assist in maximising public awareness of the report and overcoming the perceived drop in public awareness that the five-year timeframe can create. Stakeholders elaborated that the five-year reporting time frame meant that public awareness and media engagement with the report and its content were limited to a short window immediately after the release. However, with increased reporting, this could be alleviated and ensure continuous momentum and maximised engagement with the report and its content. According to some First Nations stakeholders, increasing the regularity of reporting would also send a positive message to the broader public and individuals and groups with a vested interest in environmental reporting that the state of Australia’s environment is prioritised by policymakers.



“Doing more incremental reporting in the middle might be a way to try and keep that momentum going a little more.” Peak body/industry stakeholder



“You measure the things you care about, so measuring the environment once every five years seems a little bit like we don’t care about it quite enough.” First Nations stakeholder

Some authors also highlighted the barriers to the five-year reporting timeframe, noting their experience in developing the report's content and discovering new information relevant to the report, but due to the report already having been written, such information was unable to be included as it was either contrary to or inconsistent with other findings already in the report.



"There were multiple instances where we came across some amazing new findings, but it was too late in the development of the report, so it couldn't be included." Author



"I think there is an awful lot of information, and it's not always easy to collate all the information and synthesise it when you're working with a small group of people in a short period of time." Author

To mitigate this impact, several authors advocated for the introduction of more regular reporting so that updated information can be appropriately included in the report to increase its overall relevance. However, despite this broad support for increased reporting, individuals across stakeholder groups acknowledged that this would require significant alteration for resourcing the report's development.

## Reporting on emerging trends

An important point raised by stakeholders on the report's use and impact was the need for a greater emphasis on emerging trends within the report. Reporting on emerging trends in the context of the report refers to analysing emerging environmental trends, either positive or negative, regarding the state of Australia's natural environment. Reporting on emerging trends was highlighted by stakeholders as providing an early warning system for potential issues for policymakers and organisations to undertake proactive measures to address emerging challenges before they become significant problems. This can help prevent or mitigate environmental damage and associated costs.

Multiple stakeholders raised opportunities to discuss emerging trends in Australia's natural environment, such as waste and biosecurity threats, at an increased length and depth. While these and other emerging trends were included in the report, stakeholders with significant subject matter expertise felt that the report did not adequately cover these topics, which limited the use of the report by individuals and organisations in this sector. The report's limited discussion on emerging trends has created a knowledge gap, requiring other organisations to conduct their own reporting to cover these topics more adequately.



"The report doesn't adequately contemplate these emerging threats and some of the failures in our biosecurity system." Education sector stakeholder

These stakeholders also noted that some of these emerging trends, particularly in biosecurity, are extinction-level events for various native plant and animal species, which were able to be reported on at the time of the report's development. These stakeholders linked the need to report on emerging trends back to the timeliness of the report and again advocated for increased reporting as a means to properly report on emerging trends within Australia's environment promptly to inform policy responses.



"Some of the things that are missed in the report are some of the big environmental risks that are sitting on our doorstep. We have multiple things coming into the country that are likely an extinction level event for a number of species and they were certainly foreseeable when the report was being drafted." Education sector stakeholder

Stakeholders re-affirmed the need for the report to more frequently and extensively report on emerging trends within Australia's natural environment to increase the report's usability to stakeholders within and outside of

these specific subject matter sectors so as to prompt proactive policy and conservation responses to mitigate their potential impacts.

## Caution towards increased reporting

While support for increased reporting timeframes was broad across stakeholder groups, some stakeholders, particularly authors and NGOs, raised the concern that increasing the regularity of the report's development would add pressure to the report's authors and resourcing. Some stakeholders believed that the current five-year reporting timeframes are sufficient and believed this is useful as they align with state and territory government reporting, which increases the accessibility and cross-referencing of some stakeholders who rely on various environmental reports in their work and sectors. This was the particular sentiment of one survey respondent.



“Every 4-5 years works well as we understand how much work goes into gathering the data and information that underpins the report. This frequency also aligns with the frequency most jurisdictions review their SOE reports as well.” Survey response

Source: Q16 - To effectively meet your needs, what would be the ideal frequency to review the state of the environment, and why?

Several authors recounted their experience of developing the report based on the five-year timeframe, citing the experience as difficult due to the extensive information required to collate and synthesise the report. They further elaborated that increasing the timeliness of reporting would add additional pressure to the previously outlined need to complete extensive community and other stakeholder consultation to inform the content and promotion of the report, particularly the future incorporation of First Nations perspectives in the report's content.



“The wheels of Government move slowly, and I'm not sure they're set up to deliver it in that kind of timeframe. I think that would just require dramatic changes.” Author



“I think it would be hard to do more regularly. It's a huge piece of work, and to invest that much to do it more regularly would require heaps of resources.” NGO representative



**Recommendation 25:** Consider reporting more regularly to capture emerging trends and progress, with due consideration to the additional resources required and potential alterations to the report's length.



# Section 7

## Appendices

## Appendix 1: Glossary of terms

Acronym/Term	Meaning
DCCEEW/The Department	Department of Climate Change, Energy, the Environment and Water
CSIRO	Commonwealth Scientific and Industrial Research Organisation
CSR	Corporate Social Responsibility
EPBC	The Environment Protection and Biodiversity Conservation Act 1999
GA4	Google Analytics 4
IPS	IPS Management Consultants
NGO	Non-government organisation
PDF	Portable Document Format
SDG	Sustainable Development Goals
SoE	State of the environment (used by some stakeholders in quotations)
The report	2021 State of the Environment Report

## Appendix 2: Methodology

### Context of the evaluation

To inform policy and the management of our natural environment, the EPBC Act legislates a review of the state of the environment every five years. The output of this review is the State of the Environment (SoE) Report, which is designed to help shape strategy, policy and action, to influence behaviours and to assist in assessing actions taken to protect Australia's environment.

### Aims of the evaluation

IPS Management Consultants were engaged by the Department of Climate Change, Energy, the Environment and Water to conduct an evaluation of the 2021 State of the Environment Report. The intent of the evaluation is to improve the future State of the Environment reporting, and to investigate the effectiveness of the 2021 Report's promotion, the relevance and utility of content, and the impact that the Report has had. IPS facilitated a virtual co-design workshop with the Department to inform development of the evaluation plan (evaluation questions, indicators, data source and data collection strategy); and gain an understanding of existing data to identify any gaps to inform data collection for the project. The evaluation was guided by three overarching evaluation questions:

1. What is the breadth and depth of engagement with stakeholders?
2. How has the SoE Report been generally received by stakeholders?
3. In what ways is the SoE Report being used and applied by stakeholders?

### Evaluation approach

The evaluation utilised a mixed methods approach, primarily a qualitative approach with supporting quantitative data. The interviews and focus groups were designed to be exploratory in nature. Stakeholder

interviews were guided by a framework of prompts relating to the key lines of enquiry, rather than adhering to a strict set of formulaic questions which may have limited discussion.

## Stakeholder engagement

IPS engaged with a number of stakeholders, including representatives from the public sector, NGOs, research and education sectors, industry and business sectors, and SoE authors and contributors, including First Nation knowledge partners.

## Recruitment

The names and contact details of stakeholders were provided to IPS by the Department. All stakeholders were contacted by email inviting them to participate in interview or focus group, depending on stakeholder cohort. The email included information about the 2021 SoE evaluation project, what their participation would involve, how their contributions were to be de-identified, and how their contributions would inform the evaluation. Stakeholders were contacted up to three times to participate in the evaluation. If no reply was received after the third contact, they were noted as declining to participate.

## Engagement period

Field work was conducted from 18 September 2023 to 6 October 2023, a total of 18 days. Interviews and group interviews were conducted remotely, by phone or video conference.

## Summary of engagement

### Interview and focus groups

A total of 84 stakeholders, representing 50 organisations, were invited by IPS to participate in one-on-one phone interviews and virtual group interviews for the evaluation of the report. Of these 84 invitations, 35 stakeholders participated in interviews, representing 24 organisations.

Stakeholder group	Number of individuals invited	Number of individuals participated
Department of Climate Change, Energy, the Environment and Water	5	3
Academics/Authors	5	3
Education sector	5	4
First Nations	12	5
Federal government	13	4
States/Territory and local governments	18	5
NGOs	14	6
Peak bodies/Industry	9	4
Others	3	1
<b>Total</b>	<b>84</b>	<b>35</b>

### Online survey

All stakeholders were also invited to participate in an online survey. Additionally, some stakeholders shared the online survey with their colleagues and member organisations. The intent of this survey was to support

interview findings by gathering quantitative metrics around stakeholder experience and use of the Report. The survey was open to everybody regardless of whether they engaged in an interview.

The online survey was open from 18 September 2023 until 6 October 2023. There were a total of 30 respondents in the online survey. These survey respondents represented all of the above outlined stakeholder groups.

## **Limitations**

Several limitations were identified during the evaluation.

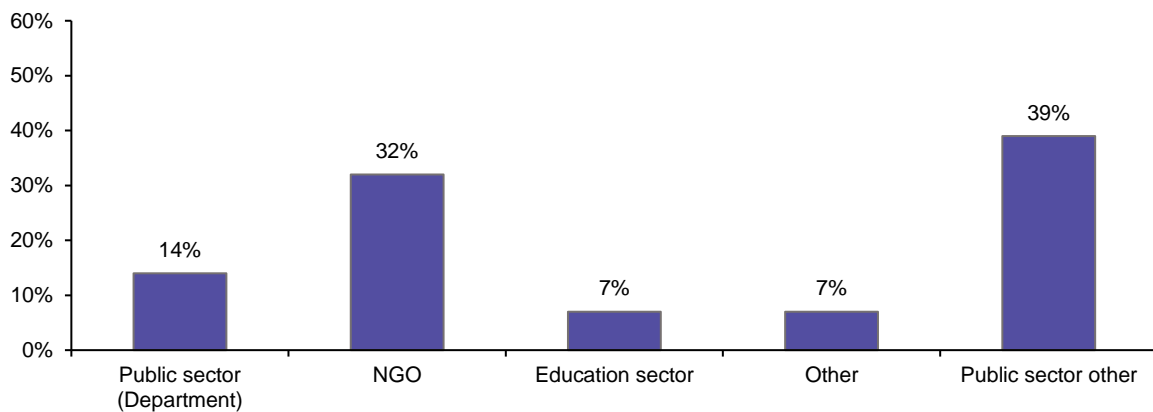
- The general busyness of stakeholders through their extensive work, academic, and personal commitments may have limited the availability of individuals to participate in the evaluation. To accommodate the busyness of stakeholders, IPS maintained flexibility and offered engagement times outside of regular business hours. However, some stakeholders were still unable to participate.
- The period of stakeholder engagements for this evaluation coincided with the school holidays in multiple state and territory jurisdictions. This may have impacted on the availability of individuals to participate in the evaluation either through an interview or survey.

## Appendix 3: Survey analysis

### Stakeholder cohorts

Survey respondents were asked to identify which stakeholder cohort they belonged to according to their professional affiliation. Across the 30 respondents, there was a sufficient spread of stakeholders who belonged to each cohort.

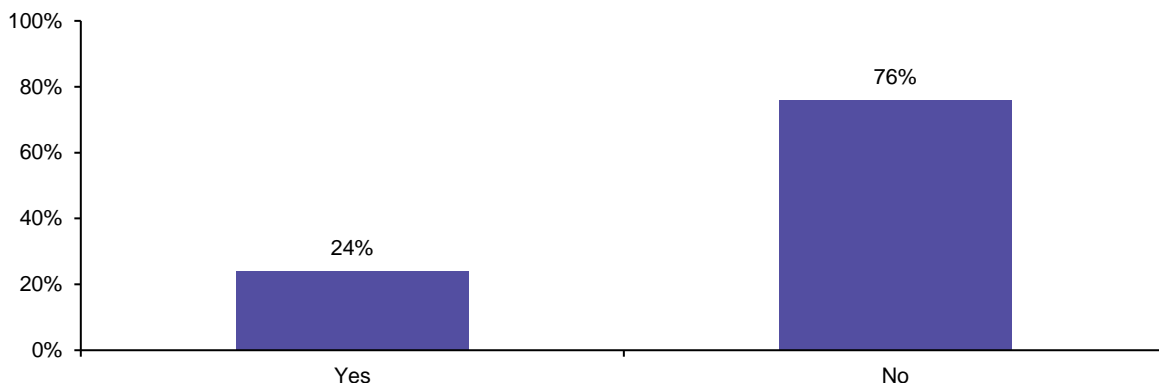
Figure 13: Survey respondents' stakeholder cohort by sector



Source: Q1 - Which stakeholder cohort or sector best describes you? - Selected Choice (n=30)

For survey respondents who did not state that they worked for the Department (selected Public sector Department option), the respondents were asked to identify whether they were an author or contributor to the report. Authors are the main creators and writers of the report, responsible for its overall content and structure. Contributors provide supplementary information or expertise to support the report but do not have the same level of responsibility in its creation.

Figure 14: Survey respondents' authorship or contribution to the report (Not displayed for Department staff)



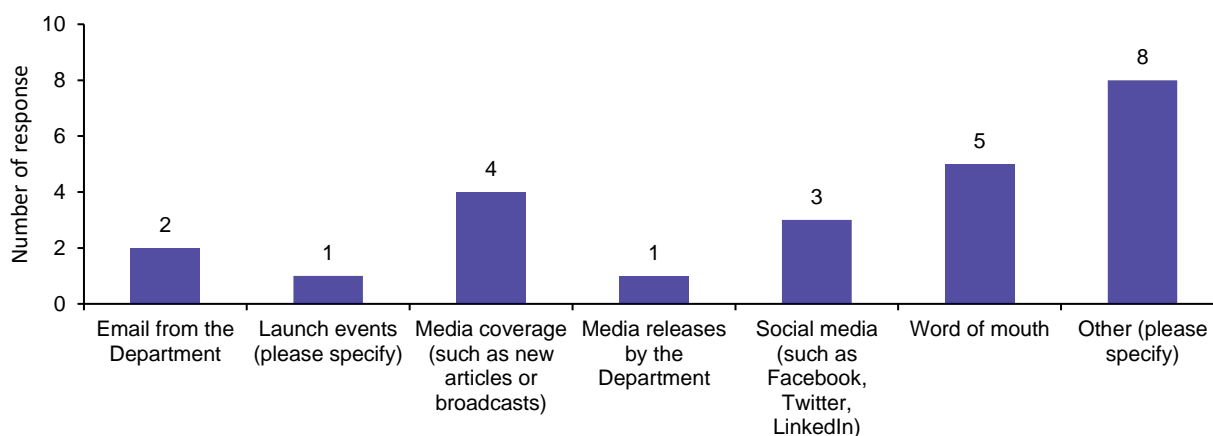
Source: Q2 - Were you an SoE author or contributor (including First Nations knowledge partners)? [Not displayed for DCCEEW] (n=21)

The responses show a strong majority of survey participants were neither authors nor contributors to the report.

## Communication and promotion

Survey respondents were also posed questions related to the reports communication and promotion. Survey participants who did not identify as Department staff, identified which promotional channel by which they were initially informed about the report. Respondents were able to select multiple answers.

Figure 15: Communication channels initially informing stakeholders of the report (Multiple selections per participant)

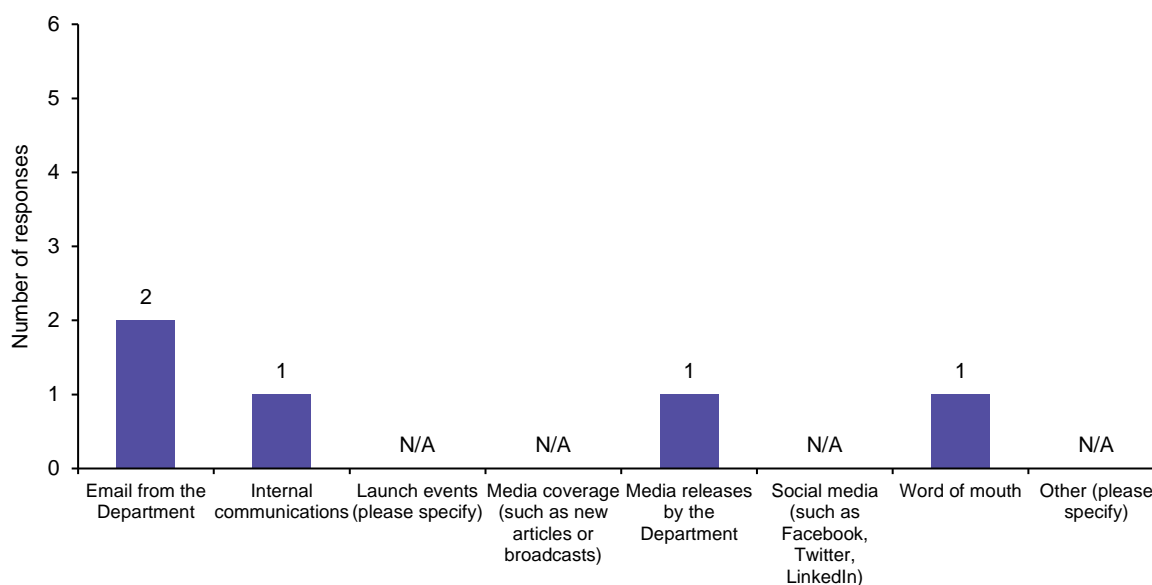


Source: Q3 - Which communication channels informed your initial knowledge of the 2021 SoE Report? [Not displayed for SoE authors] (n=14)

For some of the respondents who selected 'other (please specify)' some of the alternative channels included, Federal government website, internet search, and the State of the Environment Reporting Forum communication.

Department staff were also asked which promotional channel they were initially informed about the report by.

Figure 16: Communication channels initially informing Department stakeholders of the report (Multiple selections per participant)



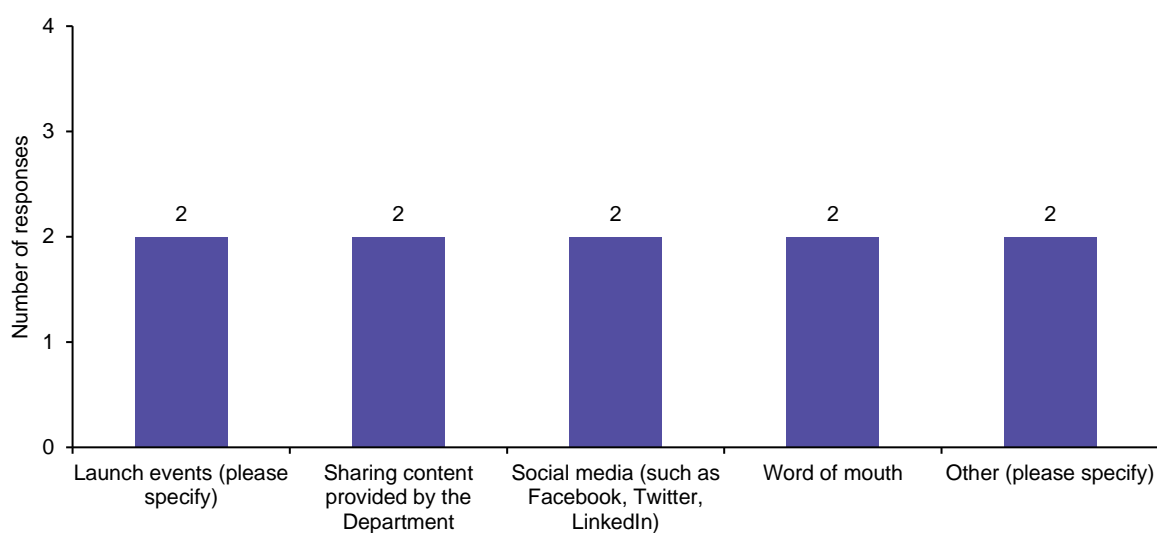
Source: Q4 - Which communication channels informed your initial knowledge of the 2021 SoE Report? [Display for DCCEEW] (n=2)

## Cross-promotion of the report

Cross-promotion in the context of the report refers to the extent that individuals and organisations shared or promoted the report and its findings across various platforms or promotional channels in order to raise awareness about the report.

Survey participants were asked to identify whether they engaged in cross-promotion of the report. For those who stated they had cross-promoted the report, they were asked to elaborate through which promotional channels did they cross promote the report.

Figure 17: Cross-promotional channels used by stakeholders who promoted the report (Multiple selections per participant)



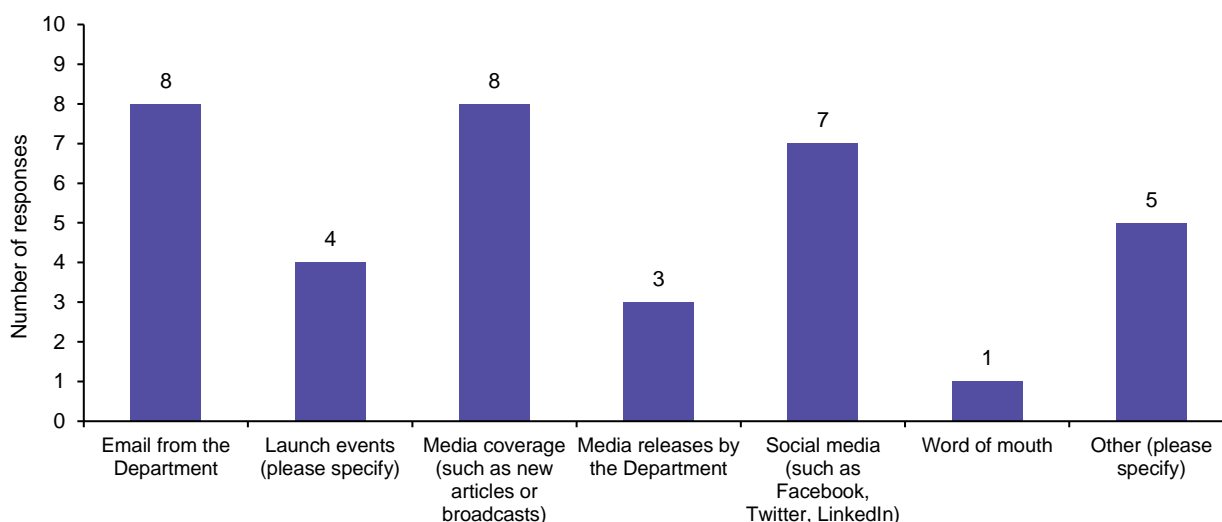
Source: Q5 - If you cross-promoted the 2021 SoE Report, what channels did you use? [Displayed for SoE authors and DCCEEW] (n=5)

For those who selected 'other (please specify)' the alternative channels included their internal organisational emails.

## Future promotional channels

Stakeholders were also asked for their preferred communication channels for the promotion of future reports. Multiple options were able to be selected by survey participants. The most preferred promotional channels according to survey respondents were emails from the Department (8), media coverage (8), and social media (7).

Figure 18: Future promotional channels recommended by stakeholders (multiple selections per participant)



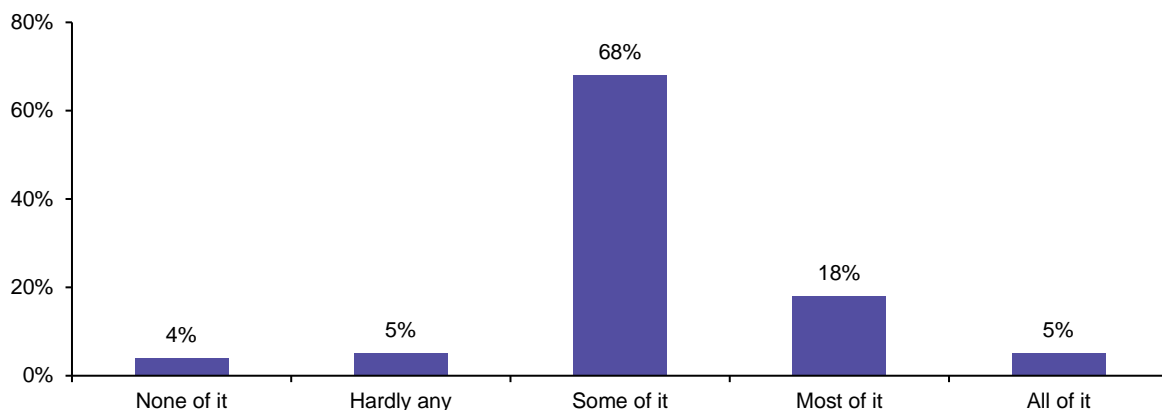
Source: Q18 - What communication channels would you recommend be used to ensure that future SoE Reports reach decision makers in your sector? (n=15)

For survey respondents who select 'other (please specify)', the preferred future promotional channels included universities, schools, local government areas and networks, as well as at the Environment Ministers Meeting where the federal, state and territory environment ministers collectively meet to discuss strategic issues and actions to improve Australia's environment.

## Engagement with the report

Survey participants were asked questions related to their overall engagement with the report. This included a question on how much of the report stakeholders had read. The majority of respondents stated that they had at least engaged with some of the report or most of the report, while smaller minorities of participants highlighted that they had read none of the report, hardly any of the report, or all of the report.

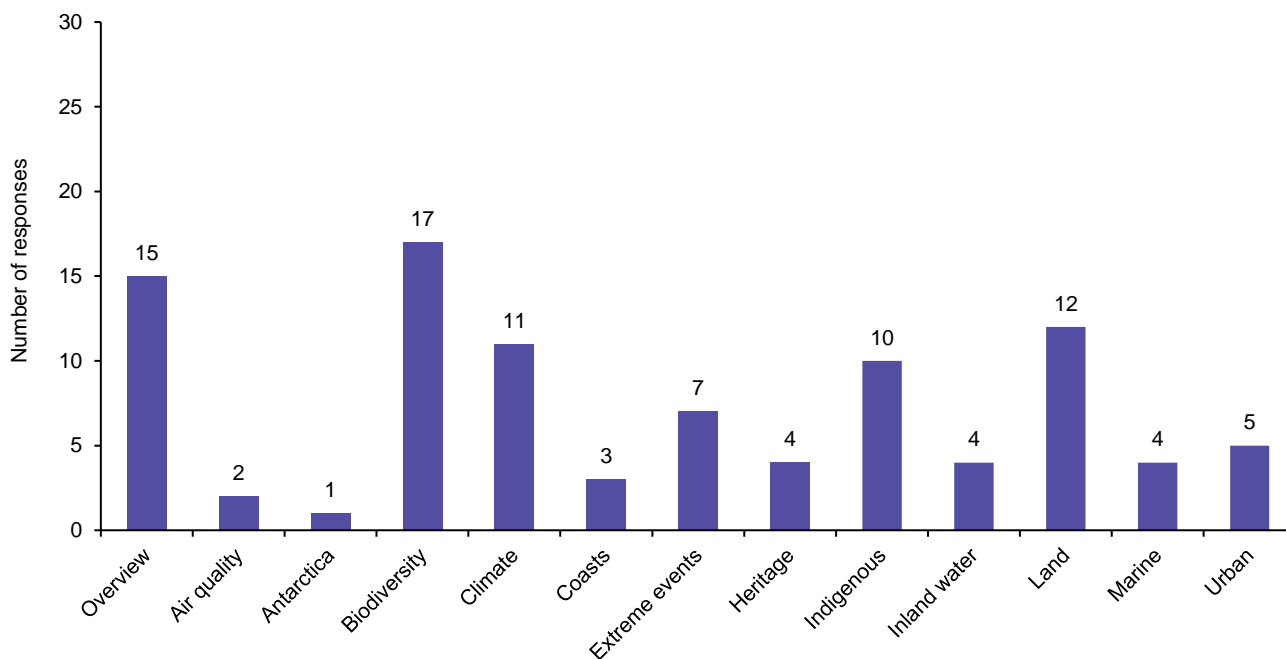
Figure 19: Degree to which stakeholders have read the full report



Source: Q6 - How much of the 2021 SoE Report have you read? (n=22)

Survey participants were also posed questions as to which of the report's thematic chapters were most relevant to them and their work. Participants were able to select multiple answers. All thematic chapters were at least considered important to the work of participants, with the biodiversity chapter (17), the report overview (15), and the land chapter (12), being the three most relevant chapters to survey respondents.

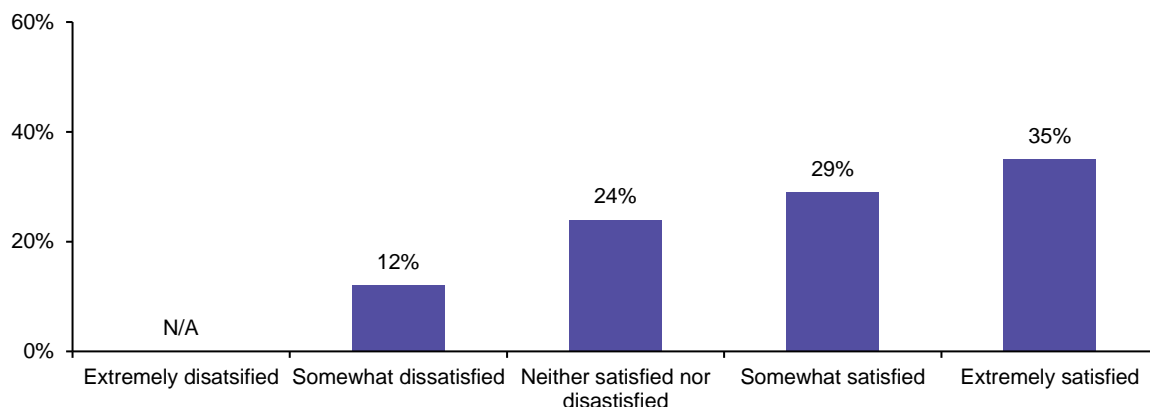
Figure 20: Thematic chapters most relevant to stakeholder needs (Multiple selections per participant)



Source: Q7 - The 2021 SoE Report has the following chapters. Out of these, which do you find most relevant to your needs? (n=20)

Survey participants were also asked to illustrate their satisfaction with the report and its content. This was asked to identify the degrees to which stakeholders were satisfied with the inclusion of certain themes and elements of the report and not as to whether they were satisfied with the report's stark findings of environmental decline in Australia.

Figure 21: Stakeholder satisfaction with the report's content



Source: Q8 - How satisfied are you with the content that the 2021 SoE Report provides? (n=17)

Overall, the strong majority of survey respondents (64%) were at least somewhat satisfied or extremely satisfied with the report and its content. The remaining respondents noted that they were somewhat dissatisfied (12%) or neither satisfied nor dissatisfied (24%). Importantly, no respondents stated that they were extremely dissatisfied with the report and its content.

## Use of the report

### Use of the report according to survey responses

The uses of the report as noted by survey participants aligned with the qualitative interviews as short answer responses on how stakeholders have used the report were categorised through a thematic analysis. Overall, the primary uses of the report by survey respondents were categorised in the following uses.

Figure 22: Ways in which stakeholders have used the report (short answer responses)



Inform environmental reporting



Reference for research and communication



Government briefings



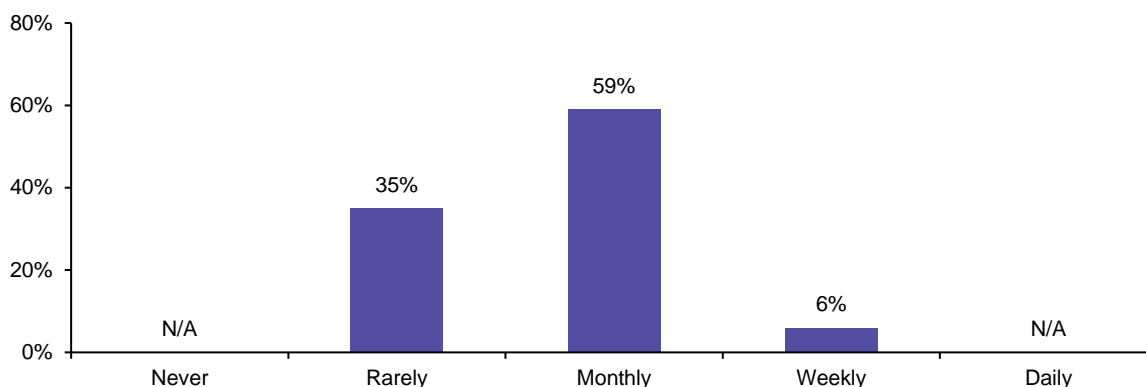
Community engagement and education programs

Source: Q9 How have you used the 2021 SoE Report? If possible, please provide specific examples. (n=17)

### Frequency of use

Survey participants were asked about their frequency of their engagement with the report. The majority of survey participants (59%) outlined that they engaged with the report at least on a monthly basis. A minority of stakeholders (35%) noted that they rarely engaged with the report, while an even smaller minority (6%) stated that they engaged with the report on a weekly basis. No survey participants outlined that they had neither never engaged with the report nor engaged with the report on a daily basis.

Figure 23: Frequency of stakeholder use of the report



Source: Q10 - How frequently do you access or use content from the 2021 SoE Report? (n=17)

## Useful components of the report

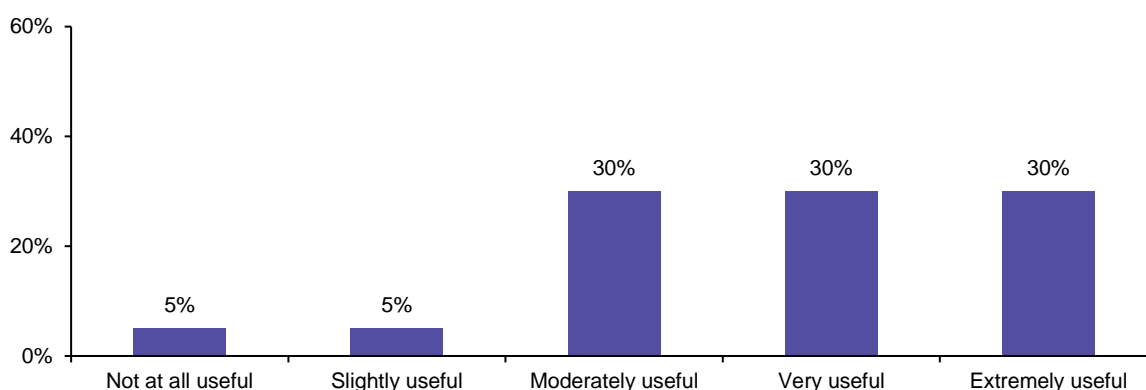
Survey respondents were posed various questions on the degrees to the report's various components were useful. These components included the different sections of each thematic chapter including the "Outlooks and impacts" section, which looks to the future of our environment and how this will affect our wellbeing, and the "Pressures" section, which looks at the impacts of pressures relevant to each thematic chapter. Overall the distribution of responses for each of these elements remained consistent for each question as the majority of responses highlighted that survey respondents found these various components with very useful or extremely useful with smaller minorities registering these components as slightly useful or moderately useful. Across all components, only one respondent believed one of the components (outlooks and impacts component) was not useful at all.

The other positive responses demonstrates a consistent and positive use for all of these components, which warrants their inclusion in future reports.

### Outlooks and impacts

The outlooks and impacts section looks to the future of our environment and how this will affect our wellbeing. This section was mostly positively perceived by survey respondents.

Figure 24: How stakeholders perceived the usefulness of the 'outlooks and impacts' of the chapters

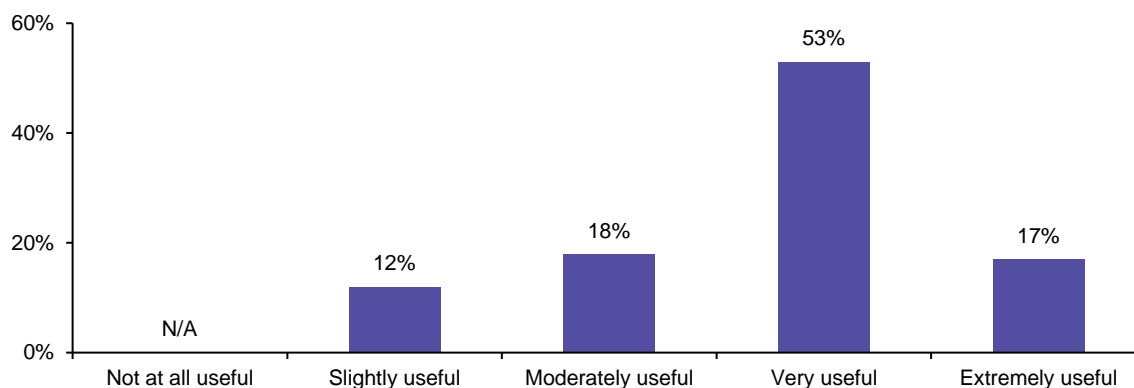


Source: Q12 - How useful do you find the following chapter components? ("Outlooks and impacts", which looks to the future of our environment and how this will affect our wellbeing) (n=17)

## Environment

The environment section of the chapters explores the state of various aspects of the environment for each thematic chapter. The majority of stakeholders perceived this component as either very useful (53%) or extremely useful (17%). Smaller minorities had found the environment section as slightly useful (12%) or moderately useful (18%).

Figure 25: How stakeholders perceived the usefulness of the 'environment' section of the chapters

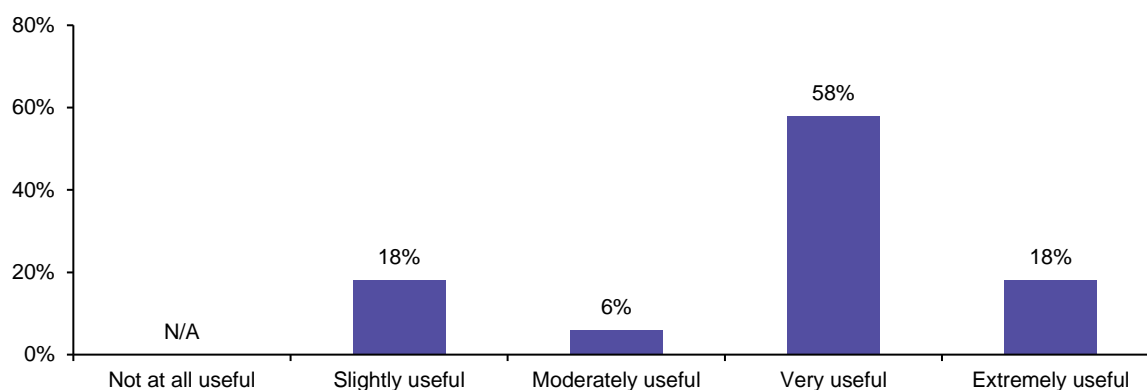


Source: Q12 - How useful do you find the following chapter components? ("Environment", which explores the state of various aspects of our environment) (n=17)

## Pressures

The pressures section of the report analyses the impacts of pressures relevant to each thematic chapter. The majority of survey respondents found the pressures section of the thematic chapters either very useful (58%) or extremely useful (18%), while fewer respondents felt the pressures section was slightly useful (18%) or moderately useful (6%).

Figure 26: How stakeholders perceived the usefulness of the pressures section of the chapters

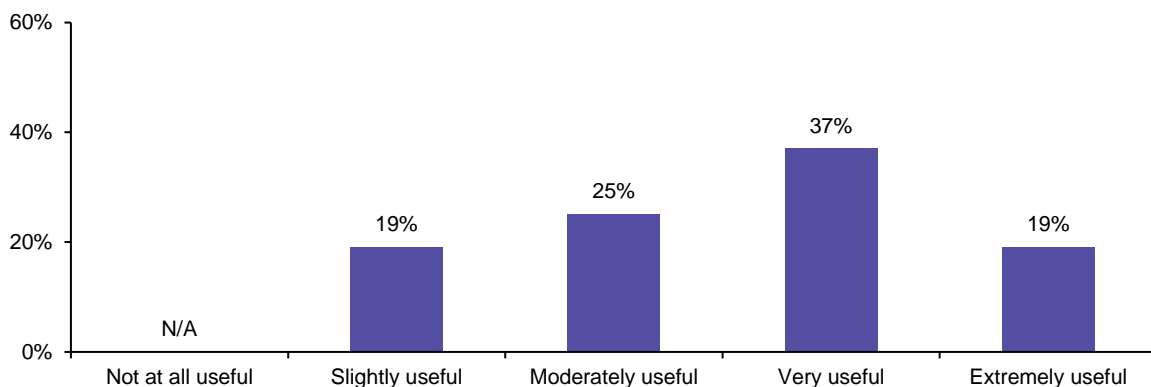


Source: Q12 - How useful do you find the following chapter components? ("Pressures", which looks at the impacts of pressures relevant to each chapter) (n=17)

## Management

The management section of the chapters assesses the overall effectiveness of policy, legislation and action towards environment conservation and addressing challenges. The distribution of responses was fairly consistent as users felt the management section was slightly useful (19%), moderately useful (25%), very useful (37%), or extremely useful (19%).

Figure 27: How stakeholders perceived the usefulness of the 'management' sections of the chapters



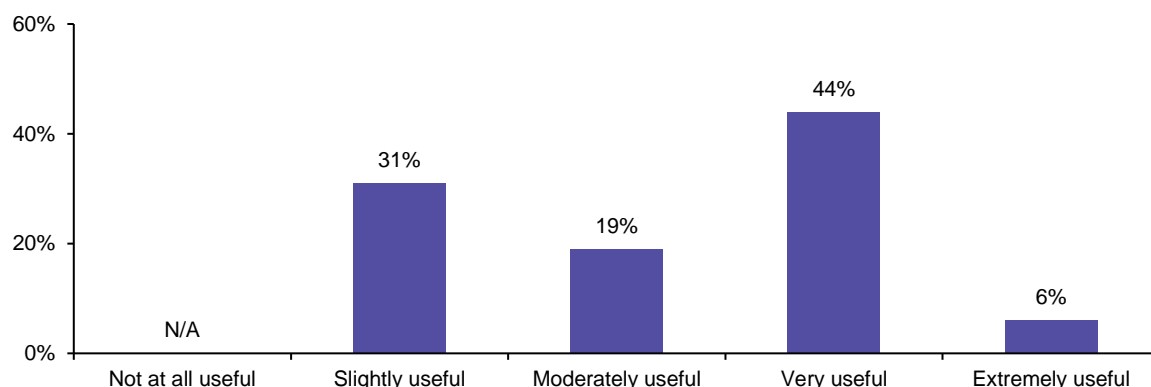
Source: Q12 - How useful do you find the following chapter components? ("Management", which assesses the effectiveness of policy, legislation and action) (n=17)

## Assessments

The assessments within each thematic chapter are analysis on the current aspects of the environment which receive a status rating from very poor, poor, good, or very good. These assessments are based on scientific evidence, literature and expert opinion.

Of survey respondents 31% believed the assessments were slightly useful, 19% believed they were moderately useful, while 44% found them very useful. Only 6% of respondents believed that the assessments were extremely useful.

Figure 28: How stakeholders perceived the usefulness of the 'assessments' section of the chapters

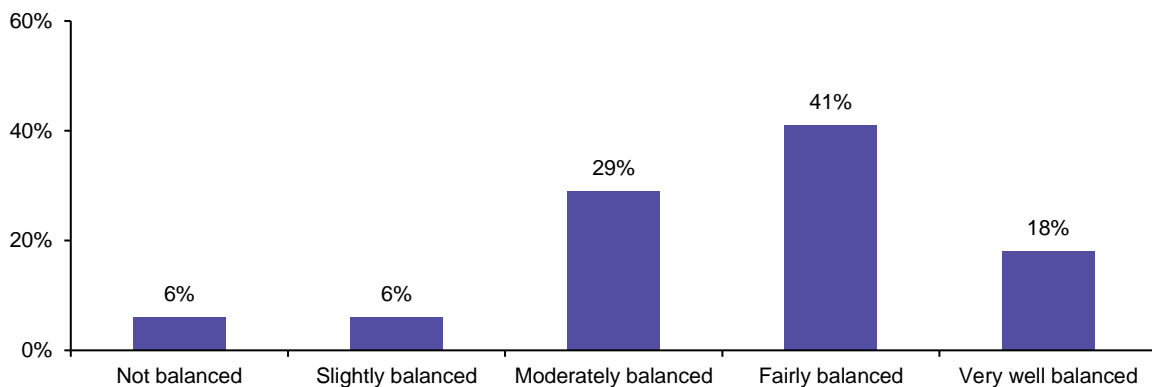


Source: Q12 - How useful do you find the following chapter components? (Assessments) (n=17)

## The incorporation of First Nations knowledge

Survey respondents responded positively to the incorporation of First Nations knowledge within the report. When asked on the effectiveness and overall balance to which First Nations and western scientific knowledge were balanced within the report, survey responses somewhat varied. Of survey respondents, 6% believed the incorporation was not balanced and 6% believed it was slightly balanced. The majority of survey responses noted that the incorporation of First Nations knowledge in the report was at least moderately balanced (29%), fairly balanced (41%), or very well balanced (18%). This shows an overall positive responses of survey participants towards the incorporation and balance between First Nations knowledge and western scientific knowledge.

Figure 29: Stakeholder perceptions on how well First Nations and western scientific knowledge bases interlinked in the report

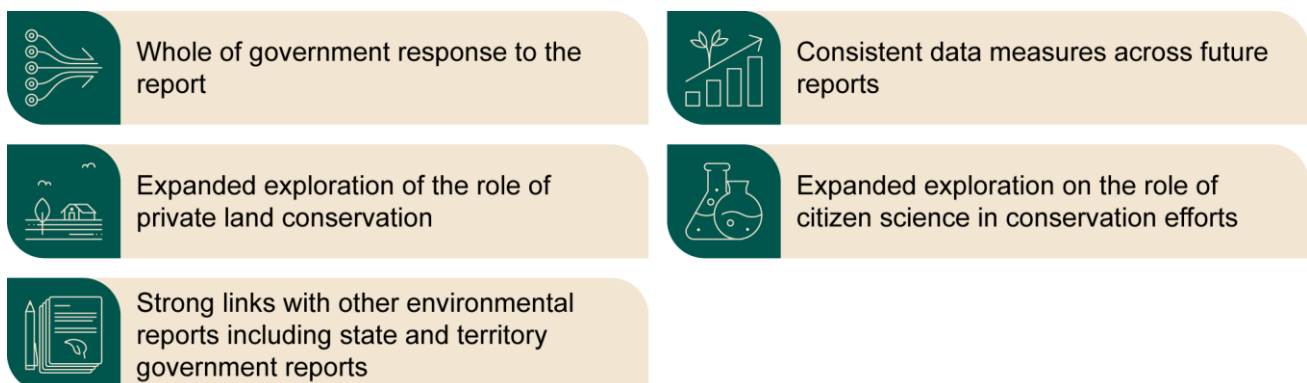


Source: Q14 - How well were knowledge bases (e.g. scientific, First Nations place-based) interlinked and balanced in the SoE? (n=17)

## Other future improvements of the report

Survey participants were granted the opportunity to provide short answer responses regarding the potential improvements for future reports. Upon the completion of a thematic analysis, the responses could be categorised across the following broad themes.

Figure 30: Other future improvements to the report (short answer responses)



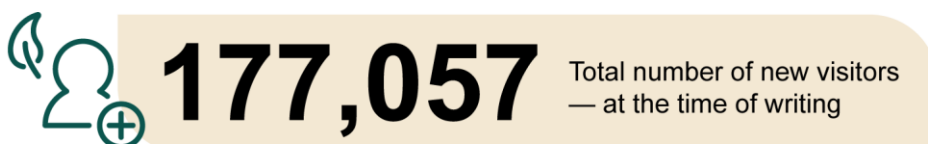
Source: Q19 - To meet the needs of your sector, what information should future SoE Reports report on?

## Appendix 4. Website visitation and interaction

IPS was provided website analytics which tracked the overall engagement with the report online. Due to the report being centralised on a dedicated website, engagement and accessibility of the report could be directly investigated and measured with Google Analytics 4 (GA4), with the data collected by the Department and analysed by IPS.

The report had the highest engagement upon its release in July 2022, but engagement slowed down in the following months, until largely reaching a consistent level of engagement in October 2022 that has been maintained since the time of writing. This can be seen through the total number of visitors on the website, the time users viewed a webpage on the website, and the average number of pages viewed by users.

Website visitors refer to anyone who views the website and are split between the total number of new visitors, and the total number of all visitors. The total number of new visitors to the website refers to the number of people who had never visited the website before.

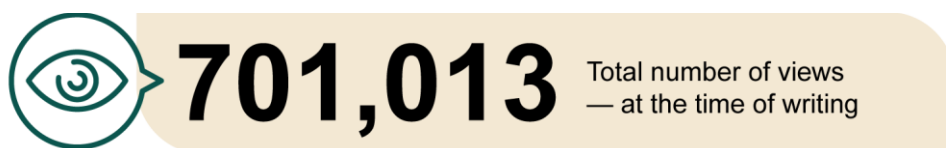


**30,000** approx.  
Highest number of new users  
between July and August 2022



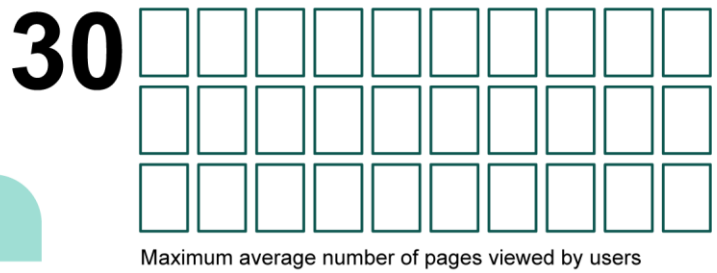
**5,000** approx.  
New users declined by 25,000  
between August and September 2022

The total number of visitors refers to the number of people who visit the website, including people who have visited the site before.

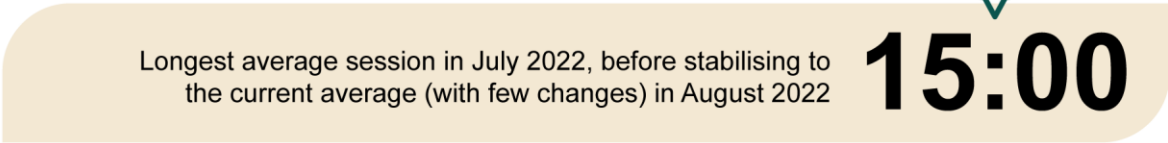


This suggests that **523,956** of the webpage views were from previous users

Engagement metrics were also measured through the number of webpages visitors viewed, and the average time visitors viewed a webpage. These metrics had a similar pattern of engagement, with the highest number of webpages viewed and longest viewing time being recorded between July 2022 and August 2022, before reaching a consistent average by October 2022.

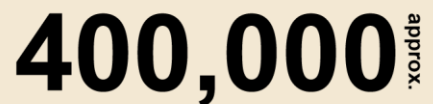
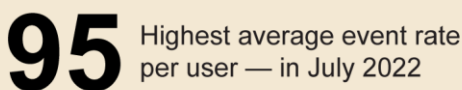
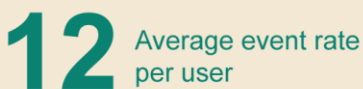


Stats from July and August 2022, before stabilising in October 2022



### Event rate

Website events are specific interactions on a webpage that visitors do, such as button clicks, viewing videos or images, and accessing navigation menus. The website event rate measures engagement through the degree visitors interacted with the website.



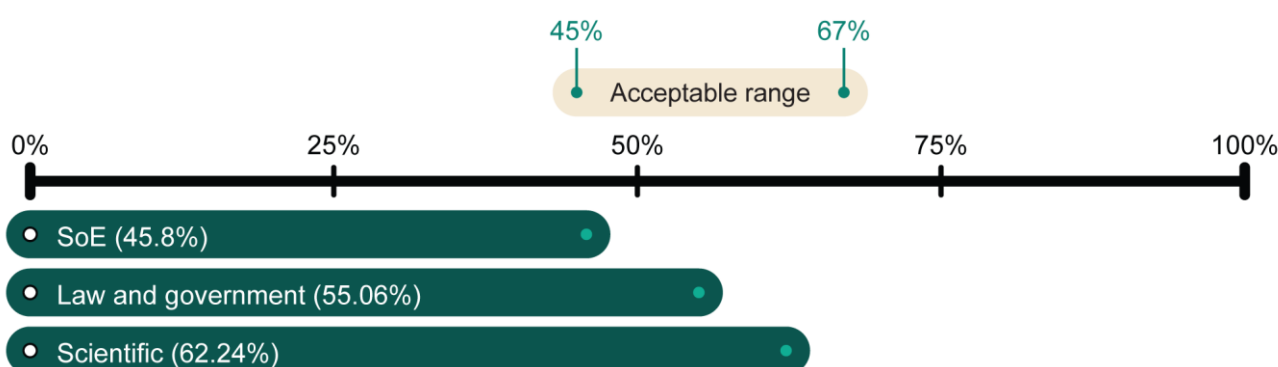
Events occurring between July and August 2022 (~18%).

In addition to the overall website engagement, specific webpages could be measured in terms of the number of downloads of the thematic chapter PDFs.

Overview	Biodiversity	Climate	Indigenous	Inland Water	Air Quality	Land	Coasts	Urban	Extreme Events	Marine	Heritage	Marine Assessment Case Study	Indigenous Collaboration Guidelines	Antarctica	
# of downloads	342	215	170	128	128	121	117	115	113	104	102	87	64	60	58

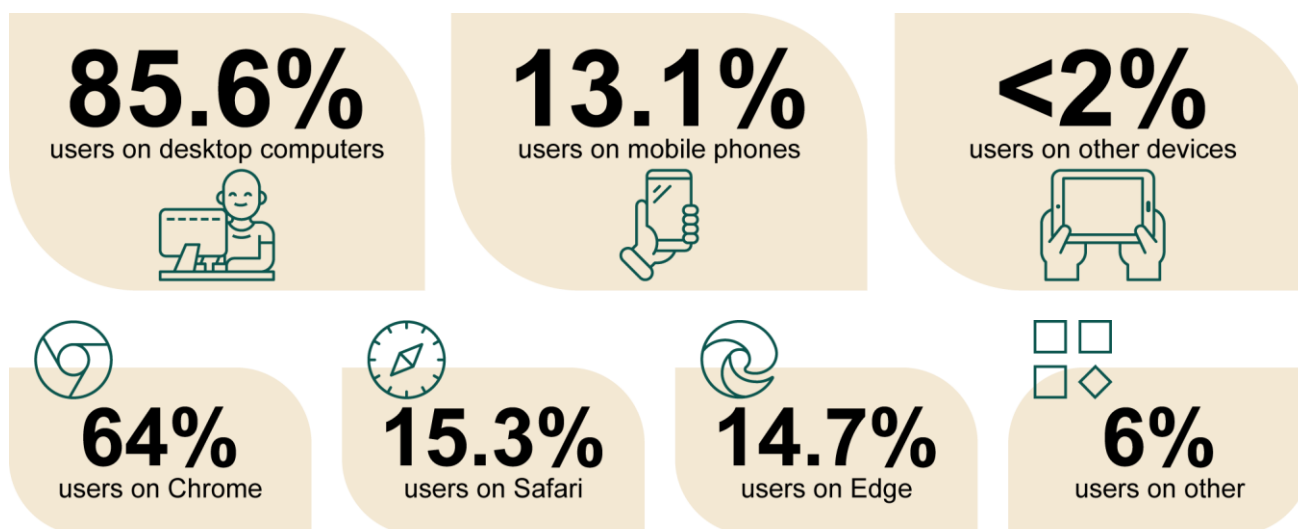
## Bounce rate

Bounce rate refers to the percentage of users who leave a website without interacting with it, with a high bounce rate possibly indicating issues with the website's design or content. Different website types, such as law and government websites or scientific websites, have different benchmark bounce rates (Ruden, 2023). The report's bounce rate was within the acceptable range for educational/law and government websites. The report's bounce rate was, on average, 45.8%, which is below the listed bounce rates and within the acceptable range across a wide range of industries (typically between 45% to 67% depending on industry) (Ruden, 2023; Schneider, 2023). Bounce rate was much higher in July 2022 (between 65 and 70%), but this rate dropped over time. This higher rate likely correlated with the higher engagement with the release of the report on 19 July 2022 and would not suggest webpage engagement issues.



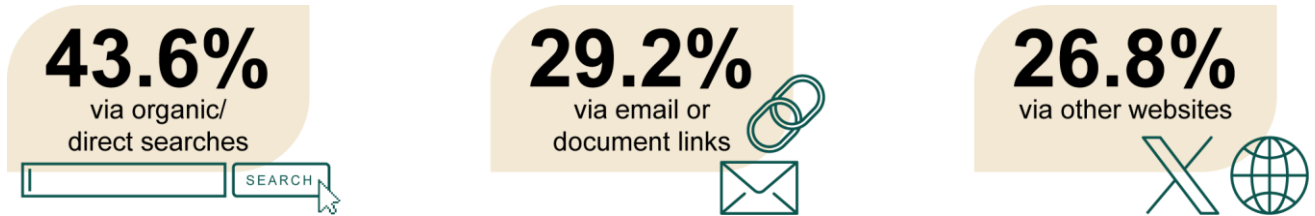
## Device and browser use

In terms of accessing the report, most users used the website with desktop computers or mobile phones, with a small percentage of users used other devices such as tablets or smart TVs. The most common browsers used to read the report was Chrome, Safari, and Microsoft Edge. A small percentage of users used alternative browsers such as Firefox or Opera to access the report.



Most users were referred to the website via organic and direct searches (43.6% of users), referring to opening a browser and directly requesting the report in the search engine. Links via emails or documents were the second highest number of referrals (29.2% of users), but more digitally trackable than organic searches (due to their presence in emails or documents). Referrals that were from other websites (26.8% of users) were typically educational/government websites where the report website link was placed (The Conversation, Monash University, The University of Sydney, Commonwealth Scientific and Industrial Research Organisation

[CSIRO], Google Classroom). X (otherwise known as “Twitter”) was the most popular social media site where the report was spread (and the sixth most popular website referral source, with 2,672 new users), but there were relatively less referrals compared to the other sources. Due to its popularity as a social media site and as a news source (Pew Research Centre, 2021), it would be an important area of user engagement to investigate in the future.



## Appendix 5: Engagement tools

### Interview matrix

#### Communication and Promotion

##### Question 1: What is the breadth and depth of engagement with stakeholders?

Key lines of enquiry	Information needed	Information sourced	Data collection methods	Data analysis methods
1.1 What strategy and/or plan did the Department adopt for communicating and presenting the SoE Report?	Intent of comms	Department	Department records	Review
1.2 What elements of the communication strategies were implemented as intended by the Department?	Execution of comms	Department	Department records Staff interviews	Review
1.3 What evidence is there that materials provided as part of the communication strategies were implemented as intended by external stakeholders? <i>For example, has content from the digital communication toolkit for Indigenous stakeholders been shared in newsletters, or on websites and social media?</i>	Execution of comms	Stakeholders (IPS)	Desktop research Interviews	Review
1.4 What evidence is there that the elements developed as part of the “Indigenous Communication Plan” reached intended First Nations audiences?	Execution of comms	Stakeholders (IPS)	Desktop research Interviews	Review
1.5 Were there any unexpected promotional activities that may have impacted engagement? <i>If so: What was the nature and timing of these events?</i>	Promotional activities that the Department did not have control of or anticipate	Department	Interviews	<i>Note: Feed into other components of evaluation including website analytics</i>
1.6 What, if any, effect did the chapter/theme author presentations have on engaging stakeholders or raising awareness of the SoE Report??	Intent and distribution of comms Attendance records of events	Department	Department records Interviews and online survey	Review

1.7 What is the general level of awareness of the SoE Report amongst different stakeholder cohorts?	Number of people/ organisations aware of report	Random/representative draw within stakeholder cohorts (IPS)	Interviews and online survey	Quantitative, summary statistics
1.8 How did stakeholders become aware of the SoE Report? <i>For example, through the planned communication channels, word of mouth, or other?</i>	Communication modes	Stakeholders (IPS)	Interviews and online survey	Mixed method
1.9 How did stakeholders share the SoE Reports through their own networks?	Communication modes	Stakeholders (IPS)	Interviews and online survey	Mixed method
1.10 How was interest in the SoE Report changed over time? <i>For example, within the publication timeframe for this report?</i>	Website hits	Department	Website analytics	Statistical analysis, including temporal factors
1.11 What elements of the SoE Report are most accessed by stakeholders?	Page/content hits	Department	Website analytics	Quantitative, summary statistics
1.12 Looking to the future, what can be done to improve communication and promotion of the SoE?	Areas for improvement	Stakeholders (IPS)	Interviews and online survey	Mixed method

## Reception

### Question 2: How has the SoE Report been generally received by stakeholders?

Key lines of enquiry	Information needed	Information sourced	Data collection methods	Data analysis methods
2.1 What sentiments have stakeholders expressed in: <ul style="list-style-type: none"> <li>the media?</li> <li>through feedback channels to the Department?</li> <li>interviews with IPS?</li> </ul>	Perceptions of SoE report	Department records Media articles Stakeholder views	Department records Desktop research Interviews and online survey	Sentiment analysis
2.2 Do stakeholders identify a call to action in the information presented in the SoE Report? <i>If a call to action was identified by the stakeholder, could they apply it specifically to their work area or sector, what has informed that?</i> <i>If no call to action was identified, why not?</i>	Perceptions of SoE report	Media articles Stakeholder views	Desktop research Interviews and online survey	Mixed method
2.3 How appropriate do stakeholders perceive the content of the SoE Report to be? <i>For example:</i> <ul style="list-style-type: none"> <li><i>content pitched at the appropriate level</i></li> <li><i>length of the report</i></li> <li><i>the mix of independent scientific, local and traditional knowledge</i></li> <li><i>timeliness</i></li> <li><i>geographical scale</i></li> </ul>	Perceptions of SoE report content elements	Stakeholder views	Interviews and online survey	Sentiment analysis Mixed method
2.4 How credible do stakeholders perceive the content of the SoE report (and what contributes to that)? <i>For example, do embedded links to primary data sources and references add to credibility?</i>	Perceptions of credibility, reliability	Stakeholder views	Interviews and online survey	Sentiment analysis Mixed method
2.5 How do stakeholders feel that they are assisted or impeded in their use of the SoE Report? <i>For example, in terms of accessibility of content, presentation and form of content, and navigation of content.</i>	Perceptions of accessibility, design, and navigation	Stakeholder views	Interviews and online survey	Sentiment analysis Mixed method
2.6 Looking to future, what can be done to improve stakeholder perceptions of the SoE Report?	Areas for improvement	Stakeholder views	Interviews and online survey	Future needs mapping

## Impact

### Question 3: In what ways is the SoE Report being used and applied by stakeholders?

Key lines of enquiry	Information needed	Information sourced	Data collection methods	Data analysis methods
3.1 What parts of the SoE Report do stakeholders identify as being most useful for themselves, in their role? Why? <i>For example, the overview, specific themes, case studies.</i>	Usefulness of specific SoE content	Stakeholder experiences	Interviews and online survey	Mixed method
3.2 What parts of the SoE Report do stakeholders identify as being most useful for their sector? Why? <i>For example, the overview, specific themes, case studies.</i>	Usefulness of specific SoE content	Stakeholder experiences	Interviews and online survey	Mixed method
3.3 How is the SoE Report being used by the different cohort groups, and what specific instances are identified? <i>For example:</i> <ul style="list-style-type: none"> <li><i>to inform policy or environmental impact assessments</i></li> <li><i>to inform strategy and operations</i></li> <li><i>to assist with lobbying and/or grant development</i></li> <li><i>to inform curriculum</i></li> <li><i>to inform research priorities</i></li> </ul>	Examples of SoE being used in practice	Stakeholder experiences	Interviews and online survey Desktop research	Mixed method
3.4 Where specific call to actions were identified by stakeholders, how have these been acted on (if at all)?	Examples of SoE being used in practice	Stakeholder experiences	Interviews and online survey Desktop research	Mixed method
3.3 If stakeholders report intending to use the SoE Report and ultimately not being able to, what were the contributing factors?	Examples of barriers to use of the SoE	Stakeholder experiences	Interviews and online survey	Mixed method

<p>3.4 How have stakeholders used specific elements provided in the SoE Report, and to what effect?  <i>This includes:</i></p> <ul style="list-style-type: none"> <li>• <i>case studies</i></li> <li>• <i>data/figures/tables</i></li> <li>• <i>indicators</i></li> <li>• <i>assessment indicators</i></li> </ul> <p><i>For example, are they referred to as best practice or something to be replicated?</i></p>	<p>Examples of SoE being used in practice</p>	<p>Stakeholder experiences</p>	<p>Interviews and online survey</p>	<p>Mixed method</p>
<p>3.5 How does stakeholder use of the SoE Report compare to their use of other national environmental reporting frameworks?  <i>If there are comparisons made, what contributes to either the SoE Report or alternatives being more impactful? Alternatively, are they complementary?</i></p>	<p>Replaceability of the SoE</p>	<p>Stakeholder experiences</p>	<p>Interviews and online survey</p>	<p>Mixed method</p>
<p>3.6 Looking to the future, how can the SoE Report be improved so it is of most benefit to stakeholders?</p>	<p>Future needs</p>	<p>Stakeholder views</p>	<p>Interviews and online survey</p>	<p>Future needs mapping Gap analysis</p>
<p>3.7 Looking to the future, what specific information do stakeholders expect to see the SoE Report providing?  <i>For example:</i></p> <ul style="list-style-type: none"> <li>• <i>assessing the effectiveness of environment management responses in Australia</i></li> <li>• <i>providing recommendations to address the pressures facing the environment</i></li> </ul>				

## Online survey questions

### Q1 Which stakeholder cohort or sector best describes you? (Select one)

- Public sector- DCCEEW
- Public sector- other
- Non-Government organisations
- Research and education sectors
- Industry and business sectors
- Other \_\_\_\_\_

### Q2 Were you an SoE author or contributor (including First Nations knowledge partners)? [Not displayed for DCCEEW]

- Yes
- No

### Q3 Which communication channels informed your initial knowledge of the 2021 SoE Report? [Not displayed for SoE authors]

Select all that apply:

- Email from the Department
- Launch events (please specify) \_\_\_\_\_
- Media coverage (such as new articles or broadcasts)
- Media releases by the Department
- Social media (such as Facebook, Twitter, LinkedIn)
- Word of mouth
- Other (please specify)

### Q4 Which communication channels informed your initial knowledge of the 2021 SoE Report? [Display for DCCEEW]

Select all that apply:

- Email from the Department
- Internal communications
- Launch events (please specify) \_\_\_\_\_
- Media coverage (such as new articles or broadcasts)
- Media releases by the Department
- Social media (such as Facebook, Twitter, LinkedIn)
- Word of mouth
- Other (please specify) \_\_\_\_\_

**Q5 If you cross-promoted the 2021 SoE Report, what channels did you use? [Displayed for SoE authors and DCCEEW]**

Select all that apply:

- Launch events (please specify) \_\_\_\_\_
- Sharing content provided by the Department
- Social media (such as Facebook, Twitter, LinkedIn)
- Word of mouth
- Other (please specify) \_\_\_\_\_
- I did not share information about the Report

**Q6 How much of the 2021 SoE Report have you read?**

- None of it
- Hardly any
- Some of it
- Most of it
- All of it

**Q7 The 2021 SoE Report has the following chapters. Out of these, which do you find most relevant to your needs?**

Select all that apply:

- Overview
- Air quality
- Antarctica
- Biodiversity
- Climate
- Coasts
- Extreme events
- Heritage
- Indigenous
- Inland water
- Land
- Marine
- Urban

**Q8 How satisfied are you with the content that the 2021 SoE Report provides?**

- Extremely dissatisfied
- Somewhat dissatisfied
- Neither satisfied nor dissatisfied
- Somewhat satisfied
- Extremely satisfied

### **Q9 How have you used the 2021 SoE Report?**

*If possible, please provide specific examples.*

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### **Q10 How frequently do you access or use content from the 2021 SoE Report?**

- Never
- Rarely
- Monthly
- Weekly
- Daily

### **Q11 How easily are you able to find information you need in the 2021 SoE Report?**

- Extremely difficult
- Somewhat difficult
- Neither easy nor difficult
- Somewhat easily
- Extremely easily

### **Q12 How useful do you find the following chapter components?**

(Likert scale for each component: Not at all useful, Slightly useful, Moderately useful, Very useful, Extremely useful)

- The 10 key findings summarising the chapter
- “Outlooks and impacts”, which looks to the future of our environment and how this will affect our wellbeing
- “Environment”, which explores the state of various aspects of our environment
- “Pressures”, which looks at the impacts of pressures relevant to each chapter
- “Management”, which assesses the effectiveness of policy, legislation and action
- Assessments
- Graphs, maps, and tables
- Case studies

### **Q13 How would you rate the complexity of the 2021 SoE Report's content?**

- Too simplistic
- Slightly simplistic
- Just about right
- Slightly complex
- Too complex

**Q14 How well were knowledge bases (e.g. scientific, First Nations place-based) interlinked and balanced in the SoE?**

- Not balanced
- Slightly balanced
- Moderately balanced
- Fairly balanced
- Very well balanced

**Q15 Please explain your answer. [Displayed if previous answer slightly balanced or not balanced were selected]**

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**Q16 To effectively meet your needs, what would be the ideal frequency to review the state of the environment, and why?**

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**Q17 Are there any ways you would like to see the SoE Report improved in the future to assist decision making?**

*Please identify how these changes would allow the Report to better meet your needs.*

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**Q18 What communication channels would you recommend be used to ensure that future SoE Reports reach decision makers in your sector? (Select all that apply)**

- Email from the Department
- Launch events (please specify) \_\_\_\_\_
- Media coverage (such as new articles or broadcasts)
- Media releases by the Department
- Social media (such as Facebook, Twitter, LinkedIn)
- Word of mouth
- Other (please specify) \_\_\_\_\_

**Q19 To meet the needs of your sector, what information should future SoE Reports report on?**

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## Appendix 6: Documents and data

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Australian Government (1999). *Environment Protection and Biodiversity Conservation Act 1999*. Federal Register of Legislation.

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Gore-Birch C, Costello O, Garnett S, Goolmeer T, Legge S, Muggeridge B, Robinson C & van Leeuwen S (2020). A case for culturally significant species, submission to the 2020 independent review of the Environment Protection and Biodiversity Conservation Act 1999, Australian Government Department of Agriculture, Water and the Environment, Canberra.

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## **Communication and engagement documents**

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Department of the Environment and Energy (2016). Australia State of the Environment User Research Report. Australian Government.

## **Internal documents**

State of Environment 2021 Approach Discussion (DCCEEW)

Indigenous Communication Plan (DCCEEW)

Report Release Strategic Plan (DCCEEW)

Report Release Social Media Plan (DCCEEW)

State of the Environment 2021 Report Co-creating Environmental Reporting presentation (Department of the Environment and Energy)

Social Media Posts Repository (DCCEEW)

Recommendations for Indigenous Inclusion provided by the Department of the Environment

State of the Environment 2021 Intro presentation (Department of the Environment and Energy)

Promotion Plan (DCCEEW)

State of the Environment: Communication plan on a page (Department of Agriculture, Water and the Environment)

Communication plans post-election (DCCEEW)

Detailed communication implementation plan (DCCEEW)

Communication implementation plan word document (DCCEEW)

Report Release Social Media Plan previous version, (DCCEEW)

State of the Environment 2021 Project Plan (DCCEEW)

Digital communication toolkit for Indigenous stakeholders draft (DCCEEW)

Digital communication toolkit for Indigenous stakeholders final (DCCEEW)

State of the Environment Communication and Engagement Activities (DCCEEW)

Universal McCann State of the Environment targeted advertising for Indigenous stakeholders campaign

(DCCEEW)

State of the Environment meeting paper sent to Indigenous Advisory Committee (DCCEEW)

Communications and Engagement Strategy (DCCEEW)

Indigenous Communications for launch Media Strategy (DCCEEW)

Indigenous Communications for launch Media Plan (DCCEEW)

## Print media

Title	Date	News site/organisation	Author	Highlights release of report?	Report is point of reference to highlight an environmental issue?
This is Australia's most important report on the environment's deteriorating health. We present its grim findings	19-Jul-22	The Conversation	Emma Johnston, Ian Cresswell, Terri Janke	Yes	Yes (overview of report)
Australia's environment in 'shocking' decline, report finds	19-Jul-22	BBC News	Tiffanie Turnbull	Yes	Yes (overview of report)
Majority of Australia's environment in 'poor' state as Labor blames the Coalition for decade of 'inaction and wilful ignorance'	19-Jul-22	ABC News	Michael Slezak	Yes	Yes (overview of report)
'Shocking': The 'grim reality' of environmental decline in Australia has been revealed	19-Jul-22	SBS News	Steven Trask	Yes	Yes (overview of report)
State of the environment: shocking report shows how Australia's land and wildlife are being destroyed	19-Jul-22	The Guardian	Adam Morton, Graham Readfearn	Yes	Yes (overview of report)
Tanya Plibersek pledges new environment laws to end years of 'wilful neglect' by Coalition	19-Jul-22	The Guardian	Graham Readfearn, Josh Butler	No	No
The dire state of the environment report is a major challenge for Labor – and an opportunity	20-Jul-22	The Guardian	Adam Morton	No	No
Farmers tackling climate change critical of State of the Environment Report	21-Jul-22	ABC News	Pat Heagney, Tanya Murphy, Kallee Buchanan	No	Yes (agricultural and grazing industries and impact on land)
Urban patchwork is losing its green, making our cities and all who live in them vulnerable	25-Jul-22	The Conversation	Gregory Moore	No	Yes (urban environment)
A new report says Australia is facing an environmental crisis. How is the government responding?	19-Jul-22	SBS News	Tom Stayner	Yes	Yes (overview of report)
Out environmental responses are often piecemeal and ineffective. Next week's wellbeing budget is a chance to act	20-Oct-22	The Conversation	Michael Vardon	No	No
Frozen in time, we've become blind to ways to build sustainability into our urban heritage	22-Aug-22	The Conversation	James Lesh	No	Yes (urban environment)
Migration boost is bad news for Australia's environment -- we mustn't ignore that	6-Sep-22	The Conversation	Ian Lowe	No	No
State of the Environment 2021: diving into the findings and response	30-Aug-22	Australian Conservation Foundation	Jess Abrahams	Yes	Yes (overview of report)
<b>First Nations media coverage</b>					
Indigenous knowledge key to healthy Country	10-Aug-22	Koori Mail (Issue 782, pg. 11)	Rudi Maxwell	Yes	Yes (overview and highlights First Nations voices)
Indigenous focus in State of the Environment report	22-Jul-22	Yamatji Marlpa Aboriginal Corporation (YMAC)	N/A	Yes	Yes (overview and highlights First Nations voices)

Murawin helps shape the Australian State of the Environment Report 2021	10-Aug-22	Murawin	N/A	Yes	Yes (overview and highlights First Nations voices)
State of the Environment report notes Indigenous peoples will suffer disproportionately from climate change	29-Jul-22	National Indigenous Times (NIT)	Emma Ruben	Yes	Yes (impact of climate change on First Nations people)
State of the Environment Report released	14-Sep-22	Indigenous Carbon Industry Network	N/A	Yes	Yes (overview and highlights First Nations voices)

