2022 Scientific Consensus Statement | Project evaluation

The Scientific Consensus Statement (SCS) brings together the latest peer-reviewed evidence on how land-based activities affect Great Barrier Reef water quality and is updated periodically with new research. The findings are used by policymakers to support decision-making about Great Barrier Reef water quality management.

The 2022 SCS process introduced several key changes based on feedback about previous iterations. The changes were designed to build greater trust and confidence in the SCS outputs and were underpinned by seven guiding principles endorsed by Australia's Chief Scientist. C_2O Consulting who led the 2022 SCS, conducted an evaluation with support from the University of Queensland to assess how the changes were received among different stakeholder groups. This factsheet summarises some of the main evaluation findings.

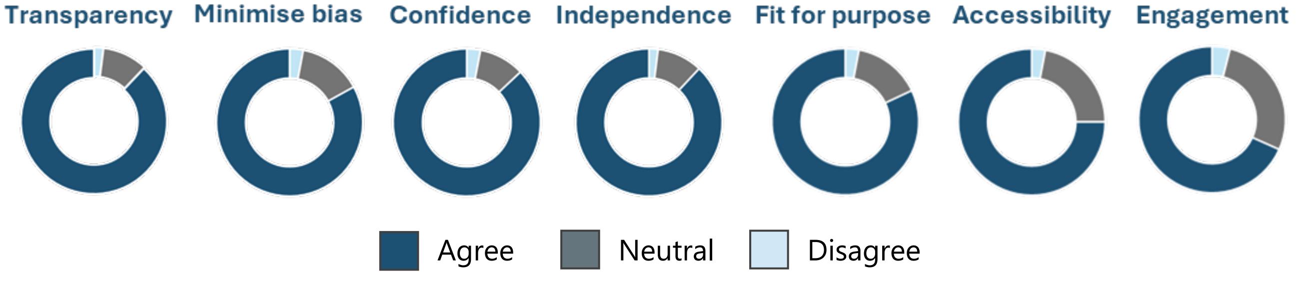
Who participated in the evaluations?

The evaluation collected 108 mid-project in 2022 and 60 post-release survey responses in 2024, with researchers and government representatives forming the majority of respondents and a smaller number of responses from other groups (e.g. agricultural industry, Traditional Owners, natural resource management organisations, conservation groups).

What did the evaluation find?

Did the process align with the guiding principles?

- There was **strong agreement** that the 2022 SCS process aligned with the seven guiding principles (across the seven principles, less than 10% disagreed).
- Agreement was highest for **Transparency** and **Confidence**, and lower for the principles of Accessibility and Engagement.



"The whole process was very thorough, structured and repeatable which has made it a much better and stronger process and delivered a more rigorous product." – **Independent Reviewer**

2022 Scientific Consensus Statement | Project evaluation

Did the process represent an improvement to previous iterations?

86% of respondents felt that the 2022 SCS process **represented an improvement** to the previous process.

Strongly supported changes included:

- Inviting literature submissions from a broader audience
- Summaries on key topics
- An independent coordination team to lead the delivery of the project
- An independent Editorial Board to oversee the peer review process
- Australia's Chief Scientist providing advice and guidance about the processes to develop the 2022 SCS.

Very few people noted any major challenges, and those challenges that were mentioned primarily related to perceived complexity of the evidence synthesis method and insufficient funding for authors and contributors.

> *The success of the review process was enabled by effective leadership of the Board and good communication among members, but above all by the role of the SCS co-ordination team whose activities allowed the editors to focus on editorial decisions rather than be consumed by the machinery of such a huge task.* – **Editorial Board member**

Were respondents satisfied with the outputs and outcomes?

There were three primary outputs of the 2022 SCS and these outputs followed a hierarchy, moving from the detailed **evidence syntheses** that addressed the 30 most pressing questions determined through stakeholder consultation, to a **summary** of that material, and finally the highest-level **conclusions**.

90% of respondents expressed satisfaction with the 2022 SCS outputs.

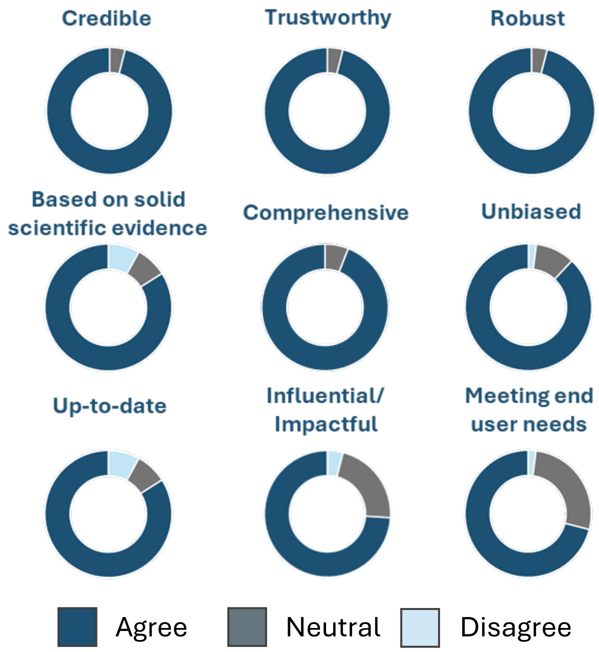


*Figure based on post-release survey data

- The most commonly accessed outputs were the SCS conclusions and summary.
- The majority of respondents agreed that the outputs were rigorous, trustworthy, credible, and based on solid scientific evidence.
- Respondents primarily intend to use the outputs for identifying research needs, educational purposes, and accessing region/industry-specific information. Government respondents were more likely to also use the outputs to inform policy.
- When evaluating communication effectiveness throughout the 2022 SCS process, **88%** of respondents reported being satisfied with information sharing and outreach efforts.

2022 Scientific Consensus Statement | Project evaluation

Evidence Synthesis Method and Peer Review process

Authors were invited to share further feedback on the Evidence Synthesis Method.

- Despite most authors finding some elements of the method moderately challenging, **83%** of the responding authors agreed that the **method represented an improvement** to previous approaches.
- The **key strengths** were seen as the use of a **consistent, transparent, and repeatable** process which led **to improved rigour and defensibility**.
- The **key limitation** identified was related to a **perceived lack of resourcing**.

"Transparent, repeatable, thorough, defensible, minimises bias" – **Author**

"The evidence synthesis process was good, but the effort was greatly under-estimated..." – **Author**

Recommendations for the future

- Streamline evidence synthesis method & data extraction
- Increase resources for authors and provide additional training for more challenging aspects
- Identify further opportunities for stakeholder engagement and review
- Continue to engage independent experts to provide review and oversight
- Provide greater certainty in the application of the outputs by decision makers

I think the process is very robust. I'm unsure as a product how much it 'shifts the dial', noting that it largely validates what is already known. With that said, confirmation that the most pressing issues are as we understood them is useful.

– **End-user**

Australian Chief Scientist Assurance Statement

Australia's Chief Scientist, Dr Cathy Foley, in her Assurance Statement noted that the 2022 SCS process was:

...an exemplar of the academic methods for reaching scientific consensus. The public can trust the processes used to develop the 2022 Scientific Consensus Statement, and the conclusions can be relied upon and trusted to inform decision-making.

Summary of the 2022 SCS process

The formal evaluation of the project has demonstrated that the 2022 SCS approach successfully delivered the requirement to deliver a more structured, transparent evidence-based synthesis as well as strengthening trust in the process among stakeholders.

Evaluation carried out by:

C2O coasts | climate | oceans

The University Of Queensland Australia

Learn more about the 2022 SCS