



International Panel on the Information Environment

IPIE Submission to the Australian Select Committee on Information Integrity on Climate Change

Prevalence and Impacts of
Mis-/Dis-information on Climate Change
and Energy

Technical Paper 2025.7

Background on the IPIE

The IPIE is an independent and global science organization providing scientific knowledge about the health of the world's information environment. Based in Switzerland, the IPIE offers policymakers, industry, and civil society actionable scientific assessments about threats to the information environment, including climate misinformation, disinformation campaigns, and coordinated inauthentic behaviour. The IPIE is the only scientific body systematically organizing, evaluating, and elevating research with the broad aim of improving the global information environment. Hundreds of researchers worldwide contribute to the IPIE's activities.

This submission draws on the IPIE's comprehensive systematic review *Information Integrity about Climate Science: A Systematic Review*,¹ which analysed 300 publications published between 2015 and early 2025 to assess the state of knowledge about challenges to and disruptions of information integrity regarding climate science. The review examined the origins, backgrounds, and consequences of climate misinformation, documented gaps in current research, and identified evidence-based solutions for mitigating information integrity crises.

Our evidence demonstrates the urgent need for comprehensive regulatory frameworks that can address the systematic financing and dissemination of climate misinformation, while also strengthening public resilience through education and transparency mechanisms that enable informed democratic participation on climate issues.

Summary

This submission to the Australian Parliament outlines what policymakers should consider when addressing climate misinformation and strengthening information integrity in Australia. The International Panel on the Information Environment (IPIE) recommends that policymakers consider developing robust corporate accountability frameworks, transparent financial tracking systems for climate-related funding, and comprehensive educational programs to protect democratic discourse on climate issues while ensuring evidence-based climate policy development.

Recommendation 1: Strengthen Corporate Climate Reporting Standards to Combat Greenwashing

The IPIE recommends mandatory standardized climate disclosure requirements with independent third-party verification to address systematic corporate misinformation including practices commonly referred to as “greenwashing”. Such requirements would include uniform reporting standards, enforcement through legislation and information disclosure mechanisms that provide stakeholders with accessible information about corporate climate violations. These requirements should also establish verification procedures that distinguish between emission-reduction and carbon-removal targets, while requiring full disclosure of fossil fuel dependencies.

Recommendation 2: Mandate Transparent Disclosure of Climate Communication Funding Sources

The IPIE recommends financial frameworks and tracking systems to ensure transparency in climate-related funding. Such frameworks would include mechanisms to direct funds to genuine climate purposes while preventing greenwashing, monitoring and evaluation systems for climate-related financial instruments, and open-access real-time tracking systems to make investment flows and communications funding transparent to the public.

Recommendation 3: Integrate Climate Information Literacy into Education Curricula

The IPIE recommends mandatory climate information literacy education combining scientific and media literacy skills across all educational levels. Such education would include inoculation strategies using both fact-based and technique-based approaches to build resistance against misinformation, teacher training programs to prepare educators for guiding students on climate issues, and curriculum design that fosters “constructive hope” while emphasizing student responsibility and active engagement.

Recommendation 1: Strengthen Corporate Climate Reporting Standards to Combat Greenwashing

This recommendation directly addresses Terms of Reference *(b)* regarding how misinformation is financed, produced and disseminated, and *(f)* concerning the efficacy of regulatory approaches in combating misinformation and disinformation.

Corporate greenwashing represents a significant and widespread threat to climate information integrity. It undermines public understanding through deliberate misrepresentation of environmental commitments and actions.² The IPIE's systematic review of 300 publications on climate misinformation reveals the scope of these deceptive practices. One key study within this review analysed 725 corporate sustainability reports and found that most companies engage in greenwashing by deploying symbolic narratives instead of documenting concrete mitigating actions.³

Fossil fuel companies have been especially adept at employing a strategy of dual deception, denying climate change while simultaneously presenting themselves as environmentally responsible.⁴ This practice is not unique to the fossil fuel sector. Research shows that the airline industry engages in similar tactics, with 44% of its statements about carbon footprints found to be misleading—a pattern identified in other sectors such as tourism and fast food.⁵

In addition to making deceptive statements, companies frequently divert responsibility from their own operations by equating emissions reductions with carbon offsets and shifting the burden onto others, including consumers and farmers in the Global South.⁶ Such practices reveal major inconsistencies between corporate sustainability commitments and actual environmental actions. However, countries with strict climate laws show less prominent greenwashing. This indicates that robust regulatory frameworks can effectively address this form of misinformation.⁷

The IPIE recommends:

- Enacting legislation to ensure standardized carbon reporting and labeling.
- Implementing uniform and stringent standards for corporate climate reporting.
- Instituting independent third-party verification procedures for corporate net-zero and carbon-neutral claims. This should include an explicit distinction between emission-reduction and carbon-removal targets and full disclosure of fossil-fuel dependencies.
- Implementing information disclosure mechanisms that provide stakeholders with accessible information about corporate climate violations through labels, databases, and public disclosures.

Recommendation 2: Mandate Transparent Disclosure of Climate Communication Funding Sources

This recommendation addresses Terms of Reference (b) on how misinformation is financed, produced, and disseminated, and (d) on links between Australian organizations and international influence networks.

Climate misinformation is often financed through concealed networks that distort public debate by masking the economic interests behind climate communications. The IPIE's *Systematic Review* documents extensive coordination among fossil fuel and other companies and political organizations in spreading false climate information through hidden funding mechanisms.⁸ This coordination forms part of what researchers identify as a "coordinated climate change countermovement"⁹ operating across multiple industries, including fossil fuels, plastics, and agrichemicals.

A central feature of coordinated climate misinformation is hidden financing. Opaque and untraceable funding mechanisms, such as donor-advised funds, obscure the links between funders, recipients, and the narratives being promoted.¹⁰ Furthermore, anonymous funding streams sustain think tanks and advocacy groups that challenge climate science, creating mechanisms that are difficult to trace.¹¹ At the international level, networks that circulate aligned messages across regions often consolidate into business coalitions—alliances of companies and industry groups that coordinate lobbying and communication strategies. These coalitions wield significant influence over environmental and climate policy in nearly all major fields, including climate change.¹²

The IPIE recommends that:

- Financial frameworks are established by relevant Australian agencies to ensure that funds are directed to genuine climate-related purposes and protected from greenwashing or other misuse.
- Monitoring and evaluation mechanisms are implemented by appropriate authorities to assess whether climate-related financial instruments are delivering on their stated objectives and to identify abusive practices.
- Open-access, real-time tracking systems are developed by Australian agencies to make investment flows and communications funding transparent to the public, reducing the risk of greenwashing.

Recommendation 3: Integrate Climate Information Literacy into Education Curricula

This recommendation directly addresses Terms of Reference (g) regarding the role of media literacy education and (a) concerning the impacts of misinformation and disinformation.

Building resilience against climate misinformation in the long term depends heavily on education, with scientific and media literacy required across all stages of learning, from primary to tertiary education.¹³ According to the IPIE *Systematic Review*, there is strong evidence to indicate that education is “one of the most important enablers of information integrity about climate science.”¹⁴ Students are especially vulnerable to climate misinformation, a risk that grows with age and greater reliance on social media.¹⁵ Their susceptibility is further heightened when teachers hold unclear or unresolved beliefs about appropriate climate responses and lack the technology-enhanced skills needed to help students navigate misleading information across media.¹⁶ These factors highlight the importance of comprehensive digital literacy education that equips learners to evaluate both textual and visual content.¹⁷

Two categories of ‘inoculation’ methods that pre-emptively expose learners to common misinformation tactics have been proposed for building lasting resistance to misleading claims.¹⁸ Fact-based inoculation provides learners with accurate scientific information early on, equipping them to recognize and reject false claims when they encounter them. Technique-based inoculation trains learners to identify the rhetorical strategies and manipulative argumentation commonly used in misinformation, such as cherry-picking data or presenting false experts.¹⁹ While the evidence is mixed, research indicates that the effects of inoculation may endure even after the influence of simply presenting scientific consensus begins to fade.²⁰

Finally, the emotional dimensions of climate education also require attention. Research identifies constructive hope, which is associated with responsibility and active engagement, as being linked to greater climate engagement, while highly negative representations fuel hopelessness and demotivate students.²¹

The IPIE recommends that:

- Scientific and media literacy training be implemented as integral parts of education from primary school onwards.
- Teacher training programs be established, as research shows many educators lack the necessary preparation to guide students regarding climate change.
- Climate education curricula be designed to foster constructive hope that emphasises student responsibility and active engagement while avoiding approaches that create demotivating despair.
- Inoculation strategies can complement ongoing education to build lasting resistance to misinformation by pre-emptively exposing people to misleading content and tactics.

References

¹ International Panel on the Information Environment. 2025. *Information Integrity about Climate Science: A Systematic Review*. SR2025.1. Zurich, Switzerland: IPIE.

² Ibid, pp. 25–26, pp. 39–40.

³ Ibid, p. 39.

⁴ Ibid, p. 25.

⁵ Ibid, p. 26.

⁶ Ibid, p. 40.

⁷ Ibid, p. 61.

⁸ Ibid, pp. 30–32.

⁹ Ibid, p. 26.

¹⁰ Ibid, p. 32.

¹¹ Ibid, pp. 31–32.

¹² Ibid, p. 88.

¹³ Ibid, p. 76.

¹⁴ Idem.

¹⁵ Ibid, p. 55.

¹⁶ Ibid, p. 34.

¹⁷ Ibid, pp. 77–78.

¹⁸ Ibid, p. 74.

¹⁹ Idem.

²⁰ Ibid, p. 75.

²¹ Ibid, pp. 79–80.



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