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### **Australian Academy of Science submission on the New National Environmental Laws, January 2024**

The scope of this submission is confined to the material covered at the October and December 2023 consultation sessions held by the Department of Climate Change, Energy, the Environment and Water.

The new legislation should focus on safeguarding Australia's unique and evolutionarily significant biodiversity and environment, adding climate change considerations at every level and incorporating scientific expertise in decision-making processes. The new national environmental laws should:

- Clearly define mechanisms for scientific evidence to be embedded into the decision-making process of the new environmental laws, including the Environmental Protection Authority.
- Address the interdependence of climate change and environmental protection, introducing a climate trigger, threat abatement plans and mechanisms for addressing cumulative impacts.
- Only accept payments for impacts that can and will be compensated for with a like-for-like offset, preserving the integrity of measures protecting matters of national environmental significance.

#### **Defining the role of science and scientific advice**

**To ensure that regulatory actions are based on evidence obtained using robust science, Australia's proposed new national environmental laws should clearly articulate how scientific advice will be incorporated into decision-making processes at all levels.**

Robust scientific evidence helps policy- and decision-makers understand the complexities of ecosystems, potential environmental impacts, and the long-term consequences of decisions to inform effective environmental management. The draft legislation should provide the structure and process to ensure that quality, independent and transparent scientific advice can inform decision-making.

The draft legislation does not mandate a scientific advisory body for the Environmental Protection Authority (EPA). The draft legislation mentions that the EPA *may* establish an advisory group but does not define the size or expertise of this group or mandate how scientific evidence will guide the EPA's decision-making. The assessment and approval pathways also fail to mention scientific methodologies, along with Division 5 – Review of NES.

This omission constitutes a risk of a systematic failure to ensure that decisions are evidence-based and underpinned by reliable science.

Additionally, the information provided during the October and December consultation sessions indicates that the broad Ministerial discretionary powers in the Bill raise the risk that short-term goals and the agenda of the day could take precedence over sound scientific evidence and transparency.

#### **Mandatory considerations for climate change, cumulative impacts and threat abatement plans**

**Climate change and cumulative effects must be mandatory considerations for all relevant decisions under the new legislation. This includes decisions on approvals and related conditions as well as the development of agreements with states, territories, and other regulatory bodies.**

The legislation should also mandate the development, implementation and enforcement of fit-for-purpose statutory threat abatement instruments suitable for all key threatening processes and aligned with clear policy objectives to ensure that biodiversity threat abatement is treated as efficiently and effectively as biosecurity threat abatement.

Decision-makers need a legally binding framework that requires the assessment and mitigation of direct, indirect, and cumulative threats, aligning with broader objectives to address the climate and biodiversity crises. Only through comprehensive and integrated policies can Australia expect to safeguard its precious biodiversity.

### *Climate change*

The new legislation must recognise the connection between climate and nature. **The Academy considers that this would be most efficiently and effectively done by adding a climate trigger to the list of Matters of National Environmental Significance (MNES).**

The objects in the legislation must recognise climate impacts on nature, the contribution of biodiversity to climate change mitigation and the importance of adaptation and resilience.

Overall, climate change must be incorporated into all relevant decision-making processes at every level, including regulatory decisions (with considerations of possible impact on global emissions, scope 1, 2 and 3 emissions), regional plans (addressing climate mitigation and adaptation) and other conservation planning instruments (considering current and future climate impacts).

All projects, especially those with high emissions, must be required to be explicitly assessed for their impact on the climate.

These additions would ensure that all projects undergo a thorough evaluation, approval, or rejection based on their contribution to emissions over the project lifecycle, including projects anticipated to emit more than 100,000 tonnes of carbon dioxide equivalent (CO<sub>2</sub>-e) annually, including scope 3 end-use emissions.

Assessment and approval processes must align with Australia's domestic emissions reduction commitments under the [Climate Change Act 2022](#), carbon budget and caps in the [National Greenhouse and Energy Reporting Act 2007](#), and commitments under the [Paris Agreement](#).

### *Cumulative impacts*

**The Academy considers that assessment and approval processes must comprehensively address cumulative impacts and articulate mechanisms to measure and counter cumulative impacts of various stressors on ecosystems and biodiversity.**

Cumulative impacts are the result of multiple past, present and future pressures from various activities that interact with each other.<sup>1</sup> The independent review of the EPBC Act (the Samuel review) argued that cumulative impacts on MNES are not systematically and holistically considered and that this contributes to environmental decline.<sup>2</sup> The Samuel review envisaged that cumulative impacts would be dealt with using regional plans. Different policies and strategies need to be in place in order to efficiently and effectively address cumulative impacts on a wide range of threatened species.

### *Threat abatement plans*

**Abating the damage created by nationally significant threats such as invasive species is a challenging task that demands a sustained, long-term commitment involving research, management, and policy responses.**

An independent initial assessment by a scientific advisory committee to determine the necessary long-term measures for successful abatement is essential.

The new legislation should streamline the process for developing and updating statutory instruments that address the abatement of all Key Threatening Processes and threat abatement plans and the recovery of threatened species and ecological communities, reducing the timelines for the instruments to be implemented and reviewed. The legislation should mandate the Minister to implement the advice of the Threatened Species

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<sup>1</sup> Melissa M Foley et al, 'The Challenges and Opportunities in Cumulative Effects Assessment' (2017) 62 *Environmental Impact Assessment Review* 122 <<http://dx.doi.org/10.1016/j.eiar.2016.06.008>>.

<sup>2</sup> Graeme Samuel, 'Independent Review of the EPBC Act: Interim Report' (2020) <<https://epbcactreview.environment.gov.au/resources/final-report>>.

Scientific Committee to list and abate threats. It should also enable the development of multiple threat abatement plans for the same Key Threatening Process when necessary, including for major continental scale threatening processes such as climate change, land clearance and fire regimes that cause biodiversity declines.

### Like-for-like offsets and absolute net gain

Australia's new environmental laws should be clear about environmental offsets being the final step in the mitigation hierarchy: avoid, minimise, restore, and offset. **Relying on offsets without clear scientific evidence of their effectiveness contradicts the principles of evidence-based decision-making and exposes the environment to potential harm.**

Environmental offsets are mechanisms where proponents of a development or activity compensate for the environmental harm they cause by investing in conservation or restoration activities elsewhere.<sup>3</sup> These offsets broadly require “no net loss” of biodiversity, which is almost always measured in relation to a baseline trajectory of biodiversity decline. That is, it only aims to avoid greater biodiversity loss than would be expected based on past trends. Previous studies argue that even best practice in such “relative no net loss” (or even relative net gain) offsets results in a decline in biodiversity over time.<sup>4</sup> It is argued that these offsets cause conceptual confusion and ambiguity and do not equate to no net loss as a policy objective.<sup>5</sup> **Offsets should aim to achieve absolute net gain relative to a fixed baseline in order to align with the goal of recovery of threatened matters as reflected in relevant National Environmental Standards.**

**The new legislation should only accept offset schemes for impacts that will be compensated for with a like-for-like offset.** This means that biodiversity offsets must result in full compensation for impacts on the specific affected MNES – for example, the same species or the same ecological community. A failure to do this results in continued, cumulative, uncompensated loss of species or ecological communities that are already threatened and declining, thus contributing to their risk of extinction or collapse.

Finally, because of the evident challenge of delivering sound offsets, they must be considered a last resort in the mitigation hierarchy after avoidance and mitigation efforts have been exhausted. Offset options should be selected in line with best practice science-based principles.

### Precise terminology for clear interpretation

**Australia's new national environmental laws should use precise and objective language to avoid any risks of being inconsistent, difficult to enforce, and susceptible to legal challenges.**

This ambiguity can hinder transparency, public engagement and participation in environmental governance, as the lack of clarity makes it challenging for Australians to understand the laws that govern the protection of their environment. A precise legislative framework is essential to ensure that environmental protection is not compromised and that the laws can be effectively implemented, monitored, and enforced.

For example, when addressing offsets, the Bill should explicitly mention ‘offsets’ and not ‘restoration and contribution’ or alternative terms. Additionally, the Bill consistently uses subjective terms such as “is not inconsistent with”. The EPA’s CEO is entrusted with the responsibility of ensuring that their determinations are “not inconsistent with” the NES, which is anticipated to include “restoration payments” (i.e. offsets). This gives the CEO discretionary powers and, under the current setting, will potentially allow offset standards to take precedence over the MNES standard, which is further addressed above. **The Academy recommends that the new legislation uses precise language, clearly stating that MNES standards have precedence over offset standards in all circumstances.**

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<sup>3</sup> Katherine L Miller et al, ‘The Development of the Australian Environmental Offsets Policy: From Theory to Practice’ (2015) 42(4) *Environmental Conservation* 306.

<sup>4</sup> Jeremy S Simmonds et al, ‘Moving from Biodiversity Offsets to a Target-Based Approach for Ecological Compensation’ (2020) 13(2) *Conservation Letters* 1.

<sup>5</sup> Ibid.

## National data agency (Environment Information Australia)

**The legislation should mandate holistic and systemic data collection and transparency in decision-making and require open sharing of environmental data in the public interest.**

The Samuel Review<sup>6</sup> identified limited access to coordinated data and information as a cause of sub-optimal decision-making and inefficiency and recommended a national environmental information supply chain and a thorough examination of the department's information systems.

National harmonisation of the environmental sector data will improve the quality and reliability of environmental policies and identify gaps in research and management efforts that need to be addressed. Environment Information Australia (EIA), the proposed national data agency, should link national data assets and use FAIR (findable, accessible, interoperable and reusable) and CARE (collective benefit, authority to control, responsibility and ethics) principles.

EIA should ensure that the new national environmental data and information system provides a comprehensive and up-to-date overview of the Australian environment that is easily accessible to all. This should be supported by the legislation and data supply chain arrangements.

## Assessment and approvals

**The Academy recommends that environmental impact assessments continue to inform assessment and approvals, including on-ground investigations, and that the low impact pathway, if progressed, allows for decisions to be reviewed in cases with significant fresh information.**

**The Academy recommends that the impact assessment process require the proponent to evaluate the likely impact of the project on all matters of MNES within its footprint to minimise the risk of MNES being overlooked.**

The draft legislation proposes a streamlined assessment and approval pathway that creates an overreliance on self-assessment by project proponents and public, government-held data.

The material provided indicated that the existing two-stage process of referral and assessment will be replaced by a streamlined single-stage system. This change appears to prioritise the proponent's self-assessment before the application, consequently removing the early regulatory oversight of the environmental impact assessment process, and rely on public, government-held data, which is currently often dated. For example, according to the government's [SPRAT database](#), the listing status of more than 1100 listed threatened species and ecological communities has not been evaluated for more than 20 years.

The Wentworth Group has emphasised the irreplaceable role of on-ground surveys and that data collected and shared by the EIA are a first touch point but are not likely to represent complete and sufficient data for a project-level environmental assessment.<sup>7</sup> The Academy agrees that "without on-ground surveys, there is a significant risk of misidentifying the full suite of MNES (and MNES habitat) that may be present at a site and their condition."<sup>8</sup>

Under the proposed "low impact pathway", actions with impact deemed to be insignificant are likely not to be referred to at all (making comprehensive cumulative impact assessment impossible), and proponents of medium and even extensive actions might try their luck and overuse this process, increasing the EPA's administrative burden. In practice, this would re-introduce a two-stage approval process.

To discuss or clarify any aspect of this submission, please contact Mr Chris Anderson, Director Science Policy at [science.policy@science.org.au](mailto:science.policy@science.org.au)

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<sup>6</sup> Samuel (n 2).

<sup>7</sup> Wentworth Group of Concerned Scientists, 'Consultation on Proposed Reforms of National Environmental Law (30-31 October 2023) Submission from the Wentworth Group's Landscape Working Group' (2023).

<sup>8</sup> Ibid.