



# Melbourne Biodiversity Institute Submission to Australia's Strategy for Nature 2024-2030

We thank the Department for the opportunity to provide feedback on the discussion paper for the implementation plan for Australia's Strategy for Nature 2024-2030. The feedback in this document supplements the responses provided to the survey questions. We appreciate the focus of the implementation plan being guidance for governments and stakeholders, rather than prescriptive actions. Accordingly, we have focused our submission on matters that are most critical to providing this guidance.

This feedback represents the collected insights of the contributing scholars listed in the table on page 2.

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## General/Overarching Feedback

The Kunming-Montreal Global Biodiversity Framework represented an ambitious coming together of 196 Parties to the UN Convention on Biological Diversity, with businesses and civil society supporters, to catalyse action towards the world's 'other' urgent planetary crisis (United Nations, 1992). This reflected a growing global consensus that every aspect of all human societies is highly dependent on maintaining the abundance of diverse species across the world and the continuing health, functioning and resilience of ecosystems (Diaz, Settele and Brondizio, 2019). This includes the central role of ecosystems in mitigating other growing global threats: as essential carbon sinks in the race to net zero (CSIRO, 2025), in mitigating the growing reality of climate extremes and natural hazards (Chausson et al., 2020; Johnson et al., 2022), in ensuring the ongoing viability of our food systems (FAO, 2019; Zurek et al., 2022), and in supporting human health, wellbeing and community cohesion (WHO and IUCN, 2023; Millennium Ecosystem Assessment, 2005). The Australian Government and civil society actors played a strong advocacy role in supporting the establishment of the framework (Bekessy et al., 2022).

Unfortunately, the NBS and its implementation plan represents a significant step down from this ambition and recognition of the interdependence of our human systems on biodiversity. Australia is a hotspot of biodiversity and of biodiversity loss (Climate Council 2023, Biodiversity Council 2024, DCCEE, 2021). We are one of only a handful of mega-biodiverse countries that are economically developed, and our record of extinction and ongoing biodiversity loss is the worst among wealthy nations. To have any chance of halting extinctions and turning this record around, our national strategy for nature would need to represent transformational change, with an ambitious, resourced, nationally-coordinated approach to implementation. It would require an order of magnitude increase in resourcing, be rooted in Commonwealth leadership and accountability for outcomes, centre the voices of First Nations people at all levels, and empower the vital work of caring for Country and stewardship of regional

and local communities. And it would require implementing the GBF in full, with national targets addressing the full suite of targets and goals outlined in the global framework, rather than addressing only a subset of the GBF targets.

The discussion paper on the implementation plan fails to address the full suite of GBF targets and thus ambition to meet the GBF goals, failing to provide any indication of how the targets chosen for implementation will be achieved, and does not show how the NBSAP can achieve the goals and vision of the GBF to halt and reverse biodiversity loss in Australia.

In order to address this, we propose the following general measures be taken in the updated implementation plan for the NBSAP:

1. Mobilise a **national leadership body**, headed by the Commonwealth Government and comprising whole-of-government representation (including central agencies), state/territory governments, private sector and civil society representatives, to provide leadership and hold accountability for an ambitious NBSAP.
2. Develop an integrated, viable national strategy for **scaling funding to meet the level required to fully protect, recover and manage biodiversity identified to be ~\$7bn+ p.a.** (Wentworth Group of Concerned Scientists, 2024), with a substantial proportion devoted to scaling up the work of regional Natural Resource Management bodies and Traditional Custodian land, water and sea management organisations (Wentworth Group of Concerned Scientists, 2024; NRM Regions Australia, 2024), including through lifting funding for biodiversity protection to 1% of the Federal Budget (Muir, 2025), developing joint initiatives to scale up resourcing with state/territory governments, and providing national leadership to mobilise public-private blended finance.
3. Empower **First Nations leadership** at all levels, including through a resourced, standing voice in the national strategy and national leadership body, through establishment of a Commonwealth Land and Sea Country Commissioner role to be an independent, authoritative First People's voice to protect Australia's biodiversity (Commissioner for Country, 2019), and through investing in standing capability for Traditional Owner-led caring for Country organisations, where desired; and through addressing and removing barriers to return care and custodianship of Country to Traditional Owners (e.g. reducing barriers to First Nations-led governance; access to Country; recognition of culturally significant entities; and to First Nations-led caring for Country practices such as cultural burning and forest gardening).



4. Implement strong **national laws for environmental protection** with objects to recover biodiversity and Indigenous values in Country, with fully resourced assessment and compliance units and oversight by a genuinely independent EPA, with national targets aligned with the NBSAP, including expressly reinstating the expectation that not all development will be approved.
5. Mobilise rapid, coordinated strategies for eliminating (where possible) and otherwise curtailing **new environmental biosecurity threats**, with resourcing and coordination commensurate with the approach to **agricultural biosecurity threats**.
6. Invest in the **foundational knowledge, data and infrastructure** needed to implement the targets and monitor progress, including the headline indicators of the GBF.

In addition, the NBSAP should be expanded to address the full suite of GBF Targets including:

1. Implementation of the Nagoya Protocol and recognition of First Nations rights to knowledge and use, aligned with commitments in Section C of the GBF;
2. Implementation of measures designed to reduce wildlife poaching;
3. Implementation of mandatory TNFD reporting;
4. Clearer alignment of National targets with Global targets, including in restoring biodiversity across at least 30% of degraded areas (etc), and ensuring the ecosystems approach specified in Section C of the GBF is fully addressed.

We further propose the changes outlined in the table below to address key barriers to successfully achieving the outcomes laid out in the implementation plan.

## Extended responses to survey questions

### Targets and Enablers

| Targets                                                                                                | Outcomes                                                                                                                                                                                                                                                                                                              | Comments on Outcomes, and Barriers and Solutions                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | MBI Tools, Resources, Guidelines and Research                                                                                      |
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| <b>T1</b> Protect and conserve 30% of Australia's landmass and 30% of Australia's marine areas by 2030 | <ol style="list-style-type: none"> <li>Public and private protected and conserved areas are expanded on land</li> <li>Protected and conserved areas on land are well connected, ecologically representative and include areas of particular importance for biodiversity</li> <li>First Nations Peoples are</li> </ol> | <p><b>Barrier: threats from activities undertaken outside but nearby conservation lands undercutting targets.</b> Activities on nearby lands have the potential to seriously compromise the effective management of protected and conserved areas in ways that current policy frameworks do not fully recognise, e.g. spread of invasive species; mining activities on nearby lands that affect underlying groundwater systems that support important species and ecosystems on protected lands (Nelson 2021).</p> <p><b>Solution:</b> policy reform should create systems to alert conservation land managers of proposals to change land management that may affect ecologically important protected areas from outside their tenure boundaries and recognise and protect the significant investment in restoring species and ecosystems that is threatened by such activities (Nelson 2021).</p> <p><i>Re First Nations Peoples - see comments re Enabler "Ensure equitable representation and participation in decisions relating to nature, particularly for First Nations peoples"</i></p> <p><b>Barrier: Uncertain impacts of climate change on species and ecological communities.</b> While the target "Target: Minimise the impact of climate change on biodiversity" is included, this does not mention accounting for the impacts of climate change in the design of the protected area network. This is problematic because suitable habitat for many species is likely to shift under climate change, potentially outside of</p> | Research on incorporating climate change uncertainty into the design of protected areas (Runting et al., 2018; Beyer et al., 2018) |

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|                                | <p>supported to care for land and Sea Country</p> <p>4. Protected and conserved areas across land and sea are effectively managed</p> | <p>protected areas. This may render the protected area network inadequate, even if areas are connected and representative (outcome 2) based on current conditions. Planning for these impacts is challenging as there is uncertainty in the direction and magnitude of climate change projections. For instance, climate change projections for northern Australian precipitation are highly uncertain, with no clear indication of even the direction of change (wetter or drier) (Brown et al., 2016), which will impact species' ranges. Further, climate change can exacerbate extreme events, such as cyclones and severe fire, which tend to be stochastic, but with enormous implications for species.</p> <p><b>Solution: The impacts of uncertain future climate change should be considered in the expansion of the protected area network.</b> This should go further than selecting areas of climate refugia, but should also account for the uncertainty of climate change projections and associated changes in extreme events. Recent advances in conservation planning have used Modern Portfolio Theory (which was originally developed to reduce risk in financial investment portfolios) to create risk-sensitive spatial conservation plans under climate change (Runting et al., 2018; Beyer et al., 2018). This involves selecting a combination of sites that respond differently under different climate scenarios, so that the overall risk to biodiversity in the protected area network is reduced.</p> <p><b>Barrier: poor alignment with key text in the global target for ecologically representative protected areas.</b> Our current protected area network is biased towards non-arable lands, and relies heavily on Indigenous Stewardship of Country.</p> <p><b>Solution:</b> Large investments are needed in expanding the protected area network to ensure it is ecologically representative across ecosystem types and bioregions.</p> |  |
| T2 Priority degraded areas are | 1. Priority degraded areas are identified to guide                                                                                    | <p><b>Barrier: Lack of clarity about how "priority" degraded areas will be identified, and the role of benefits to people in this identification process</b></p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |  |

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| under effective restoration by 2030                                                         | <p>restoration where it will best support native species and ecosystem recovery</p> <ol style="list-style-type: none"> <li>Effective restoration is clearly defined to promote best practice</li> <li>On-ground restoration is supported</li> </ol> | <p>The implementation plan notes that the outcome to effectively restore priority degraded areas will involve “identify[ing] where restoration is most needed”, but it fails to clarify how the benefits to people of restoration will figure in this prioritisation process, or indeed the principles that will guide prioritisation more broadly. Restoration efforts should identify not just “what matters” but <i>for whom</i> it matters (Nelson 2025), with clear prioritisation taking both into account and recognising that it would not be feasible simultaneously to restore all degraded areas. Defining prioritisation criteria is as important as defining what “effective restoration” means (outcome 2), which we strongly support.</p> <p><b>Solution: Define prioritisation criteria in a transparent way that recognises benefits to people.</b> Eg a question relevant to prioritisation would be “All else being equal (ie species/ecosystems under equivalent threat), which of several potential restoration efforts in rural environments will result in the greatest benefits to a disadvantaged rural community?”</p> <p><b>Barrier: Currently we lack data infrastructure that would allow us to track progress in achieving this target - there is no consistent database of ecological restoration, and most efforts go undocumented other than in reports.</b> Thus we cannot evaluate whether this target is being achieved. We suggest data infrastructure is developed to allow restoration projects of different size and provenance to be compiled, providing key data for monitoring and future planning and prioritisation to fill gaps, especially for priority ecosystems.</p> |                                                                                                                                                                              |
| <b>T3</b> Eradicate or control invasive species in priority landscapes and further minimise | <ol style="list-style-type: none"> <li>Stronger collaboration and alignment across governments and sectors improves invasive species management</li> </ol>                                                                                          | <p><b>Outcomes: Requires appropriate specification of outcome.</b> There is a need for greater elaboration of what constitutes a “priority landscape” or place for the purposes of outcome 2. <i>Australia’s Strategy for Nature 2024-2030</i> appropriately recognises that the adverse impacts of invasive species add, in a cumulative way, to other impacts on species and ecosystems (p. 13). To align with this recognition, the implementation plan should clarify that the designation of priority landscapes and places should be undertaken in a way that considers cumulative impacts, targeting interventions that will make the most difference in</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | <p>The <a href="#">Centre of Excellence for Biosecurity Risk Analysis</a> has a wide range of tools and research to support biosecurity and invasive species management.</p> |



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| their introduction by 2030   | <ol style="list-style-type: none"> <li>On-ground action controls and, where feasible, eradicates established invasive species in priority landscapes and places</li> <li>Environmental biosecurity minimises the introduction and establishment of new invasive species</li> <li>Research and development improve tools and technologies for managing invasive species</li> </ol> | <p>a cumulative context (i.e. undertaking prioritisation not just considering the impacts of invasive species alone, but prioritising actions based on <i>cumulative risk</i>) (<a href="#">Nelson 2025</a>).</p> <p><b>Barrier to outcome 1: the risk of siloed approaches within entities that focus on biosecurity, including within the Commonwealth and between the Commonwealth and states and territories and industry and other stakeholders.</b> If particular biosecurity undertakings (such as surveillance) are self-contained, there is a possibility of inefficient and ineffective risk management.</p> <p><b>Solution/Opportunity:</b> <a href="#">Biosecurity Commons</a> (BC, 2024) provides a framework and infrastructure that enhance collaboration and alignment across governments and industry partners, presently with a focus on onshore biosecurity that supports plant industry but could be extended to include environmental biosecurity. BC is presently applied in agricultural settings to improve efficacy of on-ground actions including surveillance and control.</p> |                                                                            |
| <b>T4</b> No new extinctions | <ol style="list-style-type: none"> <li>Species at imminent risk of</li> </ol>                                                                                                                                                                                                                                                                                                     | <p><b>Required outcomes: Include all at-risk species in a scientifically-grounded prioritisation framework.</b> The target of no new extinctions is an important one, and we commend the ongoing commitment to this goal. The outcomes as stated are likely to be insufficient to</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | Research into the cost of recovering threatened species in terrestrial and |

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|  | <p>extinction are identified and supported to persist</p> <p>2. Actions are underway to recover priority threatened species and ensure healthy ecosystems</p> | <p>achieve the target. In particular, the outcome of ‘actions are underway to recover priority threatened species’ implies that only a subset of listed species will be prioritised for recovery. As a national strategy, this fails to account for the commitment under both Federal and many state laws to protect and recover all listed species. No detail is given as to how prioritisation will occur, other than that species designated as priority species will ‘represent diverse environments’. Current Commonwealth systems of prioritisation in the <i>Threatened Species Action Plan</i> are not adequate to prevent extinction, as these focus resources and efforts into a very limited number of priority species, and have not been shown to have flow-on benefits to other listed species. As a national strategy aimed at global targets, it is also not appropriate to limit actions underway to ‘priority’ threatened species. Rather, prioritisation should be based on needs. As a first pass, prioritisation should revert to scientifically-based assessments underpinning the threatened status of species itself (where more intensive measures may be primarily targeted to recover endangered and critically endangered species, while broader landscape-level protection and ecosystem-based recovery may be more likely to support recovery of vulnerable and near-threatened species). State-based frameworks also provide examples of prioritisation, such as the <a href="#">NSW Saving Our Species framework</a>, which takes an integrated approach to prioritising both action and ongoing investigation and research where our knowledge is insufficient to confidently ensure recovery (NSW Department of Planning and Environment, 2019). Prioritised actions should be addressed in an adaptive management approach, so that efforts are adapted as the risk to species changes and as designated management actions prove to be effective or ineffective in their recovery.</p> <p><b>Outcome: Develop a process to protect and recover culturally significant species and other entities on Country:</b> An additional outcome, to work with Traditional Owners to create a process to list, prioritise and recover priority culturally significant species on Country, would be appropriate and better align with the first enabler of change (Goolmeer et al., 2024).</p> | <p>marine environments (Wintle et al 2019 and 2025).</p> <p>A wide array of scientific, social scientific and Indigenous-led research into threatened species recovery across Melbourne Biodiversity Institute.</p> |
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|  |  | <p><b>Barrier:</b> There is a growing body of research demonstrating that Australia's extinction record is among the highest in the world (Woinarski, Garnett and Legge, 2024), and that populations of threatened species have continued to decline even after the introduction of the EPBC Act (DCCEEW, NCRIS and TERN, 2024; Bayraktarov et al., 2020). The Australian Government-commissioned independent review of the EPBC Act highlighted the need for more effective environmental laws, an independent Environmental Protection Agency (EPA), and substantially increased resourcing, including for regulatory and compliance processes, are key barriers to improving this situation (Samuel, 2020).<br/><b>Solution:</b> Implement the findings of the Samuel review in full; maintain a well-resourced and fully independent EPA and</p> <p><b>Barrier:</b> UoM-led research has demonstrated that <b>prevention of extinction will require an order of magnitude increase in resourcing</b> (Wintle et al., 2019; Trezise et al., 2025).<br/><b>Solution:</b> develop an integrated, viable national strategy for scaling funding to meet the level required to fully protect, recover and manage biodiversity, including at least \$3bn p.a. to prevent extinction across terrestrial and marine environments.</p> <p><b>Barrier:</b> There remain <b>significant knowledge gaps in actions required to recover threatened species</b>, and many taxa are not well-understood or well-represented in listing processes.<br/><b>Solution:</b> invest in ongoing research to better understand threatened species and their recovery and monitoring to improve our knowledge of taxonomic and genetic diversity.</p> <p><b>Barrier:</b> <b>Listing and recovery prioritisation processes are based exclusively on western governance models</b>, presenting a barrier to Traditional Custodians effectively caring for culturally significant species and other entities on their Country.<br/><b>Solution:</b> invest in a Commissioner for Country and co-develop mechanisms for listing, prioritising and investing in culturally significant species and entities for the Traditional Custodians and Country where they are culturally significant.</p> |  |
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| <p><b>T5</b> Minimise the impact of climate change on biodiversity</p> | <ol style="list-style-type: none"> <li>1. Continue Australia's efforts to mitigate climate change and deliver on Australia's net zero by 2050 target</li> <li>2. Nature is thriving to the greatest extent possible despite climate change</li> <li>3. Integrated climate and nature policy approaches are reflected across policy and decision making</li> </ol> | <p><b>Required outcomes:</b> It is essential for the Australian Government to develop an integrated and iterative approach to biodiversity and climate change challenges. The first outcome, for example, should refer to Australia's efforts to mitigate 'and adapt' to climate change, as adaptation will also be crucial to prevent biodiversity loss. Policies and laws will need to reflect climate and biodiversity considerations. In addition, lessons learned in climate change law and policy should be adopted in biodiversity law and policy and vice versa. For example, provisions in Victoria's <i>Climate Change Act 2017</i> (Vic) mainstream climate change considerations into all government policies, processes and operations (Bleby and Foerster 2023). South Australia's new <i>Biodiversity Act 2025</i> (SA) creates a new general duty to not harm biodiversity. Both Acts require plans to be updated every five years, pointing to the importance of iterative decisionmaking.</p> <p><b>Barrier to outcomes 2 and 3: insufficient protection of environmental elements (notably water) that support the resilience of nature to climate change, and insufficient integration in policy and decision-making.</b> The Discussion Paper notes (p. 11) that:</p> <ul style="list-style-type: none"> <li>• "Climate change and its consequences, like extreme weather events, drought and temperature extremes, are becoming increasingly significant direct threats to biodiversity and can also amplify other threats ... actions to build resilience within our land and seascapes are needed to support native biodiversity ... targeted interventions and assisted adaptation management actions will be required" and</li> <li>• Coordination across institutions, initiatives and sectors is required.</li> </ul> <p>Safeguarding ecosystem resilience and potential future adaptation management actions requires coordinating across not only policies related to nature and climate change, but also policies for governing elements of the environment that provide opportunities to support adaptation, like water. Across Australia, groundwater managers consider that the greatest overall impediment to sustainable groundwater management is challenges in setting regional extraction limits to protect ecosystems, as well as human users (Cook et al, 2022). Drought also highlights the value of less variable water sources like groundwater as a support for priority ecosystems to adapt to climate change. Active use of groundwater</p> | <p><i>Biophysical modelling of climate change risk to biodiversity</i> (Briscoe et al., 2023).</p> <p>Research into the effectiveness of translocation to improve resilience of at-risk species to climate change (Weeks, 2015).</p> <p><i>Environmental Groundwater Rights in the Western United States and Australia</i> (Nelson and Perrone 2025): research into how water law mechanisms may present windows of opportunity for establishing environmental groundwater rights and, thereby, local-scale thresholds of minimum protection.</p> |
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|                         |                             | <p>to support critical and culturally valuable ecosystems during times of stress offers an important mechanism for adaptation and climate resilience (Nelson 2022). Actively pumping groundwater to support critical ecosystems has been used overseas, and to some degree in Australia (Nelson 2022; Nelson &amp; Perrone 2025), but Australian water policies do not protect groundwater resources in a way that safeguards this ecological purpose.</p> <p><b>Solution:</b> In addition to using the implementation plan to make express links between policy and law across nature, climate change and water, <a href="#">the drafting of the new National Water Agreement</a> (DCCEEW, 2024), which is currently proceeding, is a good opportunity to trigger stronger integration between these areas.</p> <p><b>Barrier to outcome 3: the risk of siloed approaches within government departments that focus on climate action, both within the Commonwealth and between the Commonwealth and states and territories.</b> If particular climate action projects (such as forest-based carbon sequestration, solar farms and offshore wind turbine installations) are self-contained, there is a risk that negative impacts of Australia's climate action on biodiversity are invisible.</p> <p><b>Solution:</b> In the recent Advisory Opinion of the International Court of Justice in respect of climate change, the Court made clear that States must take their obligations under environmental treaties into account when implementing their obligations under climate change treaties and under customary international law (<a href="#">Young 2025</a>). Australia is responsible for ensuring compliance with its international climate obligations, and should also ensure it complies with its international obligations with respect to biological diversity. Through policy coordination and the mainstreaming of nature in all climate action (including but not limited to nature-based solutions), Australia will also address the proposed Enabler of Change: Mainstream nature into government and business decision-making, including in financing, policies, regulations and planning process, as discussed in the Discussion Paper.</p> | <p>Young, 2025 (forthcoming): Research into how Australia can best meet its targets under international law. Researcher: Margaret Young</p> |
| T6 Increase Australia's | 1. Markets are developed to | <p><b>Outcomes:</b> The outcomes are generic but appropriate.</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | <p>Research being led on circular economy by</p>                                                                                            |

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| <p>circularity rate and reduce pollution and its impacts on biodiversity by 2030</p> | <p>support producers and consumers to shift to a circular economy</p> <ol style="list-style-type: none"> <li>2. Pollution and its impacts on biodiversity are understood, measured and managed at local, state and national levels, with a focus on plastics and harmful pollutants</li> <li>3. Efforts to clean up contaminated environments are enhanced and implemented at scale</li> </ol> | <p><b>Barriers to circularity to reduce the impact of pollution on biodiversity</b></p> <ol style="list-style-type: none"> <li>1. A significant barrier is the <b>lack of national harmonisation</b> in waste regulations and incentives for recycling/reuse. For example, container deposit schemes (CDS) operate differently in each State, creating confusion for consumers and complexity for retailers.</li> <li>2. 'Waste Crime' is an increasing issue where individuals avoid penalties for waste disposal or recycling by <b>illegal dumping</b>.</li> <li>3. Increased circularity can have <b>unintended consequences</b>, where pollutants are recycled alongside the intended product. An example is the recycling of heavy metals in products derived from flyash. PFAS and other harmful pollutants can also be retained in the ecosphere when water is recycled.</li> </ol> <p><b>Solutions:</b></p> <ol style="list-style-type: none"> <li>1. A <b>nationwide CDS</b> that is <b>broad</b> should be implemented, inclusive of milk, juice and wine containers.</li> <li>2. <b>Chemical and mechanical recycling of plastics needs to be made financially viable</b> for companies to operate at a large scale, either through direct government financial assistance, or through the implementation of product stewardship and/or CDS schemes.</li> <li>3. The number of <b>national product stewardship schemes</b> are expanded and existing schemes further developed.</li> <li>4. Incentives are introduced to <b>encourage repair as a priority over recycling or waste disposal</b> e.g. for electronic goods such as washing machines and for clothing. This may include schemes where such items are rented rather than owned by consumers, with the repair costs then built into the rental rate.</li> <li>5. <b>'Right to repair' legislation</b> is needed to ensure that consumers have the capacity and knowhow to repair products over long periods of time, rather than to simply replace them (Bedford et al.2022)</li> </ol> | <p><a href="#">Professor Sandra Kentish.</a></p> |
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|                                                                                                                                      |                                                                                                                                                                                                                                                                                                                                                                   | 6. The <b>proposed national EPA is expanded</b> with a remit to harmonise regulations and incentives for recycling and re-use across the nation.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
| <b>Enablers of change</b>                                                                                                            |                                                                                                                                                                                                                                                                                                                                                                   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
| <b>E1</b> Ensure equitable representation and participation in decisions relating to nature, particularly for First Nations peoples. | <ol style="list-style-type: none"> <li>1. First Nations peoples are supported to preserve and apply Traditional Knowledge, with governance arrangements that enable culturally grounded, self-determined decisionmaking</li> <li>2. Decision-making is informed by diverse voices, including youth, people with disabilities and people of all genders</li> </ol> | <p><b>Required outcomes:</b> The First Nations estate in Australia represents a significant proportion of land and sea Country, including many high-biodiversity value areas. Caring for Country is an effective and cost-effective way to achieve biodiversity outcomes and to support First Peoples values, intergenerational care and knowledge transfer, and achieve a wide range of Closing the Gap targets. Despite this, there are significant barriers to First Peoples caring for Country, including: lack of recognition of culturally significant entities and biocultural values; lack of recognition of rights and responsibilities in Country across tenure and jurisdictions; chronic underresourcing; and lack of recognition of more-than-human entities in law.</p> <p>First Nations currently hold less than 0.2% of water entitlements in the Murray-Darling Basin (Hartwig and Jackson, 2020), which undermines their ability to care for lands and waters. Increasing First Nations ownership of water and control over water management through the cultural water paradigm is essential to overcome the devastating impacts of aqua nullius on freshwater biodiversity and enable culturally grounded, self-determined decision-making (O'Donnell, et al 2023, Marshall, 2017). Culturally grounded decision-making will require transformation of water management laws to address both legitimacy and sustainability deficits (O'Donnell, 2023).</p> <p><b>Barrier to outcome 1: First Nations biocultural values and culturally significant entities are not recognised as Matters of National Environmental Significance or in state/territory jurisdictions.</b> This exclusion overwhelmingly ties both environmental protection and program funding to western-framed priorities (Goolmeer et al., 2024). It undermines sovereignty and self-determination in decision-making for Country, by requiring Traditional</p> | <p><b>For outcome 1,</b> the University of Melbourne is undertaking research and taking practical action within multiple disciplines across the sciences, social sciences, and the humanities to enhance First Nations perspectives, recognise biocultural values and increase representation and agency of nonhuman beings and multispecies relationships, e.g <i>Lighting a Path: Our Obligation to Culture and Country</i> (Pascoe et al. 2023) and <i>Learning with owls: Human–wildlife coexistence as a guide for urban design</i> (Parker</p> |

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|  |  | <p>Custodian land and sea managers to conform to the priorities of western governments rather than caring for Country. It leads to perverse outcomes, for example where Healthy Country Plans are tied to non-Indigenous priorities, totem species cannot be protected or returned to Country if they are common (Least Concern) in other places, and threats cannot be managed in culturally significant places.</p> <p><b>Solutions:</b> work with First Nations leaders to develop a process to recognise culturally significant entities as protected matters and flow this through across all government environmental programs.</p> <p><b>Barrier to outcome 1: First Nations peoples are not afforded rights or recognition across tenures, and recognition varies by jurisdiction.</b> Many Federal and State/Territory environmental programs do not consider First Nations priorities, or require reference to First Nations priorities only where there is recognised Native Title and a Registered Native Title Body Corporate (e.g. the new Nature Repair Market legislation). The particular rights and responsibilities of First Peoples in Country are therefore excluded where they have not met the very high bar and complex process for achieving Native Title recognition. Recognising that histories of dispossession and the dominance of freehold in many landscapes and jurisdictions represents an uncrossable barrier to Native Title recognition, some state jurisdictions have progressed laws and programs to support recognition of rights in Country beyond Native Title law, such as through the <i>Traditional Owner Settlement Act 2010</i> (Vic). However, the recognition afforded in these processes is not consistently applied across state-level programs, and is not generally extended to Commonwealth laws and programs.</p> <p><b>Solutions:</b> build processes for First Nations leadership across all government environmental programs; mainstream guidance to encourage recognition and inclusion of Traditional Owners in decision-making across government programs, regardless of formal legal recognition processes (e.g. voluntary best practice engagement guidelines for</p> | <p>et al. 2025): analyses cases of positive coexistence between humans and Powerful Owls to identify key challenges, opportunities, objectives and practical strategies for urban planning.</p> <p><b>For Outcome 2:</b> The <a href="#">Melbourne Social Equity Institute</a> and <a href="#">Melbourne Disability Institute</a> lead significant research programs and expertise in inclusion and shared governance with diverse communities.</p> |
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|  |  | <p>landholders receiving environmental funding); develop bilateral agreements to adopt appropriate state-based frameworks that recognise Traditional Owners into Commonwealth law; working with First Nations leaders and people who can speak for their Country, initiate a fully-resourced national process for</p> <p><b>Barrier to outcome 1: First Nations land and sea management is under-resourced and faces many barriers.</b> Programs such as Indigenous Protected Areas and Ranger programs are underfunded compared to non-Indigenous programs, and do not take into account the extra resourcing required to renew knowledge and support relationships in Country. Barriers such as legal permits and insurance for cultural activities (e.g. burning) are often substantial, and sometimes impenetrable.</p> <p>Research shows that Indigenous Protected Areas and Ranger programs receive significantly less funding than national parks, even while often managing biocultural and biodiversity values more effectively. Furthermore, resourcing is insecure, relying on repeated granting and re-applying processes, rather than standing support which would provide long-term (Preece, 2019).</p> <p><b>Solutions: Scale up resourcing at least ten-fold to support caring for Country; embed long-term funding for First Nations-led programs, including core infrastructure resourcing for Traditional Custodian land and sea management organisations, as guaranteed funding, e.g. under a national trust (comparable to and complementing the Natural Heritage Trust).</b></p> <p><b>Barrier to outcome 1: If “equitable representation and participation in decisions” includes diverse humans but excludes nonhuman beings, it perpetuates existing patterns of oppression, suffering, and environmental harm.</b> This exclusion contradicts many Indigenous perspectives, which recognise nonhuman beings—such as plants and animals—as kin, knowledge holders, teachers, and agents deserving respect, consideration, and leadership roles (see <a href="#">Yuin declaration</a>) (Arnold et al. 2021; Yalukit</p> |  |
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|                  |                                  | <p>Weelam Tarrang et al. 2025). Embedding Traditional Knowledge within anthropocentric frameworks risks misuse and further alienation (Kennedy and Kelly 2016). The omission of nonhuman voices, knowledge, and capabilities presents a significant barrier to transformative change. For instance, the absence of discourse on agricultural animals in the Discussion Paper—despite their profound impact on land, water, emissions, and human cultures—fails to consider policies for eliminating food systems that exploit huge numbers of animals affecting all biodiversity measures (Wadiwel 2015).</p> <p><b>Solutions: Research and practical initiatives help to amplify more-than-human voices.</b> Increasingly, policies and international frameworks incorporate more-than-human approaches (Nelson and Scottish Government 2025; UNEP and UN-Habitat 2021; Plurinational State of Bolivia 2023; EESC et al. 2020; European Commission et al. 2023; European Commission and Directorate-General for Research and Innovation 2023; Scoones 2022; see also Celermajor et al. 2025). For instance, the Scottish strategy advocates for transformative legal frameworks such as Rights of Nature, Earth Jurisprudence, Wild Law, and Ecocide. It proposes granting naturehood to persons—reversing legal personhood to position humans as part of nature. The strategy supports micro-deliberative democracies and nonhuman representation in decision-making, and promotes arts-based speculative futures, relational education, and place-based regeneration. It cites Ecuador, Bolivia, New Zealand, India, and Canada as jurisdictions that recognise the legal rights of rivers and ecosystems. To remain globally relevant, Australia must adopt similar measures. Within the more-than-human cultural domain, promising innovations include interspecies cultures and practices of positive cohabitation (Parker et al. 2025; Yalukit Weelam Tarrang et al. 2025). Within the more-than-human cultural domain, promising innovations include interspecies cultures and practices of positive cohabitation (Parker et al. 2025; Yalukit Weelam Tarrang et al. 2025).</p> |                                            |
| E2<br>Mainstream | 1. Protection and restoration of | <b>Barrier to outcomes 1 and 2: mainstreaming is constrained by an overly limited view of the interventions that can mobilise action by different government agencies and diverse</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | Research into integrating biodiversity and |

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| nature into government and business decisionmaking, including in financing, policies, regulations and planning processes | <p>nature is embedded in the planning, policy and regulatory decisions of government</p> <ol style="list-style-type: none"> <li>2. Businesses embed nature in their decision-making</li> <li>3. People and communities better understand and care for nature and its many values</li> </ol> | <p><b>stakeholders, including businesses, to protect and restore nature.</b> As recognised by <i>Australia's Strategy for Nature 2024-2030</i> (p. 13), harm to nature and biodiversity is a <i>cumulative</i> environmental problem. It is caused by diverse activities undertaken by diverse entities. Accordingly, there is no “one size fits all” approach to formulating interventions to address this harm, because diverse interventions are required to mobilise action in a setting of diverse activities and actors. However, current law and policy approaches can sometimes take a relatively narrow view of the interventions available to address the harm. For example, very few law and policy approaches have been developed to require, incentivise or otherwise mobilise relevant actors to assist species and ecosystems to adapt to climate change (a ‘coping measure’: <a href="#">Nelson 2025, p. 152</a>).</p> <p><b>Solution:</b> Recent research (<a href="#">Nelson 2025, Ch 6</a>) provides a matrix of strategies and approaches to interventions that provide governments with a way to consider whether presently unexplored options for interventions are available to respond to a situation of cumulative threat to nature.</p> <p><b>Barrier to outcome 1.</b> There is a risk of siloed approaches to climate action if government departments carve out jurisdictional responsibilities for specific issues (such as ‘climate’ and ‘biodiversity’).</p> <p><b>Solution:</b> Climate action needs to be undertaken in ways that minimise negative impacts (and foster positive impacts) on biodiversity, with appropriate coordination within government departments at the national and subnational level. A suggested additional sentence to <b>Outcome 1</b> reads: This is also necessary when implementing policies and regulatory decisions that address one of the significant threats to biodiversity, namely climate change.</p> | <p>biocultural values into land use transition planning under net zero frameworks (Wintle et al., 2025, Chen et al. forthcoming).</p> <p>Research into Nature-led Resilience and Business and Biodiversity under the Melbourne Biodiversity Institute, <a href="#">Melbourne Centre for Cities</a> and the <a href="#">Melbourne Sustainable Finance Hub</a>.</p> |
| <b>E3</b> Ensure environmental data and                                                                                  | <ol style="list-style-type: none"> <li>1. High-quality, consistent and</li> </ol>                                                                                                                                                                                                           | <p><b>Barrier: Australia's shortfall in investment in foundational biodiversity data greatly limits our capacity to implement and monitor the GBF.</b> Not only does Australia's NBSAP fall short of most countries', there also appears to be no clear plan to develop the datasets to underpin</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | <p>Extensive body of research into biodiversity monitoring and</p>                                                                                                                                                                                                                                                                                                |

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| <p>information are widely accessible and support decision-making</p> | <p>fit-for-purpose data and information is produced to support decision-making</p> <ol style="list-style-type: none"> <li>2. Improved and interoperable systems and tools are developed and made accessible to analyse and apply data effectively</li> <li>3. Indigenous data are governed according to the FAIR and CARE principles and meaningfully inform decision-making</li> <li>4. Research and development improve tools,</li> </ol> | <p>the GBF headline indicators and other foundational datasets (e.g. comprehensive risk assessments of our species and ecosystems, needed to plan for protection, management and restoration) or infrastructure to track progress (e.g. databases on cross-sector restoration efforts and successes). This is a substantial barrier to effective decision-making.</p> <p><b>Solution:</b> strategic analysis of the data needed to implement and monitor progress towards the GBF targets, and investment in data gaps and infrastructure.</p> <p><b>Barrier: Information available does not cover the right issues, or is not comprehensive enough, to support effective decision-making about biodiversity.</b></p> <p>Effective decision-making about biodiversity requires comprehensive information about drivers of biodiversity decline: impactful actions that are regulated and lawfully undertaken in a way that permits some harm, actions that are regulated but undertaken in a way that exceeds their authorisation (eg clearing more than is allowed), unregulated actions that nonetheless cause impact (eg harmful actions that are exempt from environmental controls), and background effects like wildfire and climate change (Nelson 2025). However, information collection initiatives rarely deal with all of these drivers, and may fail to aggregate information that is collected by different agencies or levels of government, or information that is collected under different regulatory processes (eg environmental impact assessment and ongoing monitoring of projects). Comprehensiveness can also be hampered by industry concerns about confidentiality.</p> <p><b>Solution:</b> In addition to ensuring that different data collection efforts involve interoperable data, there is a need to ensure that the data that is in focus is comprehensive as to important impacts and comprehensively includes both public and private collectors of that data, including through voluntary or mandatory measures to address concerns about private sector confidentiality. <a href="#">Nelson (2025)</a> sets out guidelines on formulating regulatory and policy approaches to support environmental information initiatives that are</p> | <p>development of <a href="#">science-based indicators for biodiversity</a>.</p> <p>The Conservation Futures <a href="#">Integrated Knowledge System</a> is an Indigenous-led platform to allow Traditional Custodians and other knowledge holders to store knowledge and choose how to share that knowledge, as appropriate. It has a wide range of potential applications in program management and reporting, planning and informing national data while respecting and adhering to CARE principles.</p> <p>Roudavski's Ladder of More-than-Human Participation: A Framework for Inclusive Design (2024): "explores</p> |
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|  | <p>technologies and understanding for managing drivers of biodiversity decline and assisting recovery</p> | <p>fit-for-purpose to address cumulative environmental problems (including multiple, diverse threats to biodiversity), including <a href="#">examples</a> from around the world.</p> <p><b>Barrier to outcome 1: Real-world, evidence-based decision-making cannot be adequately supported without reconceptualising it in more-than-human terms</b> (Roudavski and Brock 2025; Roudavski 2024). Likewise, the collection of high-quality, fit-for-purpose data is compromised by anthropocentric biases. Without the appropriate involvement of nonhuman agents, many information exchanges essential to sustaining life are overlooked, as demonstrated by research into more-than-human data practices across diverse contexts (Heitlinger et al. 2024).</p> <p><b>Solution: Investigate data generation and exchange within nonhuman and multispecies contexts.</b> Support tailored data collection for specific projects, alongside the development of data standards and protocols for sharing. Prioritise the collection and analysis of data impactful to nonhuman lifeforms, such as arboreal wildlife, even in the absence of complete human scientific understanding. Computational approaches can assist in bridging these gaps (Holland and Roudavski 2024; Holland et al. 2024).</p> <p><b>Barrier to outcome 3: Government systems for data collection from Indigenous people (including as funded under government programs) have not addressed Indigenous data sovereignty and do not follow CARE principles</b></p> <p><b>Solution: Invest in Indigenous-led and governed data platforms to support Indigenous knowledge holders to retain sovereignty over any biocultural information and data shared, including in reporting on government programs.</b></p> | <p>more-than-human participation in design, arguing for an approach that recognizes expertise, innovation, and the rights of nonhuman beings. By integrating nonhuman contributions, design collectives can overcome limitations of human-centric governance and foster more just, resilient, and sustainable ways to live.”</p> |
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## Monitoring, evaluation and reporting

### 4. Would you like to provide feedback on Australia's approach to monitoring, evaluation and reporting under the Global Biodiversity Framework (GBF)?

Yes.

- a. If yes, please list the areas requiring particular attention to improve Australia's ability to monitor and report on progress (e.g. data availability, data consistency, collection methods, use of new emerging technologies etc.)?

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| 1 | Lack of foundational data for headline indicators, and plan to invest in those data to allow reporting even by 2029. e.g. Red List of Ecosystems, species Red Lists (including expanding to all plants and re-assessing outdated assessments, via EPBC listing or Red List processes); restoration databases;                                                                                                                                                                                                   |
| 2 | The current draft plan does not specify which headline indicators will be used or planned for (for 2029), even though Australia has in principle agreed to these mandatory indicators                                                                                                                                                                                                                                                                                                                           |
| 3 | The current national targets reporting in the CBD Online Reporting Tool are incomplete, and do not specify key information such as alignment with global targets. A fuller explanation of why only a minority of targets are being addressed is needed.                                                                                                                                                                                                                                                         |
| 4 | It is essential that a clear link is made between the proposed MER framework and ongoing Improvement, with overall national accountability held within the Commonwealth government. We recommend a <b>national leadership body</b> , headed by the Commonwealth Government and comprising whole-of-government representation (including central agencies), state/territory governments, private sector and civil society representatives, to provide leadership and hold accountability for an ambitious NBSAP. |



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