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The Ecological Society of Australia Ltd (ESA, www.ecolsoc.org.au) is the peak group of ecologists in Australia, with over 1200 members from all states and territories. Our members work in universities and other research institutions, government departments, NGOs, private industry and consultancies. We are a national not-for-profit organisation formed in 1959.

Response to:

Australia's Strategy for Nature 2018-2030: Australia's biodiversity conservation strategy and action inventory (draft),

16 March 2018

SUMMARY

Australia has a proud bi-partisan history of national and international engagement in the drive to conserve biodiversity and to stop and reverse declines of species and ecosystems. It is a signatory to the [World Conservation Strategy](#) (WCS), the [Convention on Biological Diversity](#) (CBD) and the related [Sustainable Development Goals](#) (SDGs) to name a few. These commitments resulted in the first [National Strategy for the Conservation of Australia's Biodiversity](#) in 1996 [1], and the first federal act to protect biodiversity, the [Environment Protection and Biodiversity Conservation Act 1999](#). These commitments have been reinforced by successive governments from all sides of politics, and resulted in the current strategy to conserve biodiversity, [Australia's Biodiversity Conservation Strategy 2010-2030](#).

Australia also has a proud history of excellence in ecological and environmental research, with 26 out of 34 Universities rating above world standard in Environmental Sciences, and 19 out of 24 rating above world standard in Ecology ([Excellence in Research Australia 2015](#)).

Evidence shows that global species extinctions, population losses, and reduction in ecosystem extent resulting from human activity are leading to 'biological annihilation' [2]. **The need for effective leadership and action for biodiversity conservation is greater than ever, and Australia is well-equipped to deliver this.** Unfortunately, the ESA does not see how the new draft 'Australia's strategy for nature 2018-2030: Australia's biodiversity conservation strategy and action inventory' ('the Strategy') contributes meaningfully in enabling the leadership and action that is required at this time.

The ESA is very disappointed that the Strategy **seems to abandon any link with Australia's history of national and international engagement on biodiversity conservation, and overlooks the significant body of evidence that could be used to support its aims.** The ESA is extremely concerned that the Strategy **will not achieve its purpose of enabling and enhancing the protection of Australia's biodiversity.**

We are especially concerned by the lack of any commitments or targets that are tangible, meaningful, or measurable. Based on the scientific expertise and experience of our membership, we believe that the Strategy falls far short of what is required to enable effective biodiversity conservation.

There is no sense of purposeful direction throughout the Strategy. It does not represent what we would expect of a national strategy, and does not compare to national strategies usually released by the Commonwealth Government.

We make nine key recommendations that must be met to ensure the Strategy can be used to enable better conservation of Australia's biodiversity, and these are:

1. Set measurable targets for biodiversity conservation
2. Make a commitment to preventing avoidable extinction
3. Make commitments to adequately fund implementation of the Strategy
4. Return the document's focus to Biodiversity and its intrinsic value
5. Specify legislative revisions required to effectively protect biodiversity - with particular focus on the *Environment Protection and Biodiversity Conservation Act 1999* as the principle Act, including:
 - a. Requiring recovery plans for all threatened species
 - b. Requiring threat abatement plans for all threatening processes and drivers of biodiversity loss
 - c. Including mechanisms to enable protection of high-value ecosystems
6. Include all 20 Aichi targets in the Strategy and re-establish Australia's commitment to the CBD
7. Commit to establishing a comprehensive, representative and adequate system of ecologically viable protected areas, including marine protected areas
8. Use Australia's international commitments to the conservation of biodiversity as the groundwork for the Strategy, including the CBD, the Apia Convention, and CITES.
9. Recognise key issues in the modern Australian context that affect biodiversity conservation, including:
 - a. Increasing use of natural resources
 - b. Environmental water flows
 - c. Overfishing

We discuss each recommendation in further detail below.

In addition, **we request that the Biodiversity Working Group identified in the Strategy, and National Biodiversity Strategy Secretariat, work with the ESA in re-drafting the Strategy to ensure that it incorporates the best available evidence base to achieve its stated vision.** The ESA and its members are committed to providing scientific knowledge and advice to enhance the management and conservation of Australia's biodiversity, and would welcome this opportunity to collaborate to develop a national strategy that will achieve the vision of healthy and resilient Australian ecosystems.

DISCUSSION

1. Set measurable targets for biodiversity conservation

In order to achieve outcomes, quantifiable targets are required for all projects, and are demanded by the Commonwealth for all projects that they fund. One of the most concerning aspects of the Strategy is a retreat from quantifiable targets, clear responsibilities for funding, and specific time frames for action and assessment of achievements. Clear targets help to drive effective investment and action, provide a framework for evaluation and measurement of progress, which

in turn provides the trigger to improve efforts in cases where targets are not being met [3]. All of the action statements proposed in the Strategy are too vague to be useful.

Rather than retreat from quantitative targets, targets should be explicit, contain timeframes, estimates of the likely costs to achieve the targets, and a commitment to identify public funding to meet the targets. It is also essential that the Strategy strengthen implementation programmes for existing Australian commitments, contained in national strategies or international agreements to which Australia is a party [4].

The previous Biodiversity Conservation Strategy 2010-2030, supported by the majority of Australian Parliaments, set clear and measurable targets. It is our view that the new Strategy should be a continuation of this previous strategy, but with improvements on a number of fronts.

There have been legitimate criticisms of the current and previous strategies, including the [Review of the National Strategy for the Conservation of Australia's Biological Diversity](#) [5] and the [Report on the Review of the first five years of Australia's Biodiversity Conservation Strategy 2010–2030](#) [6]. These were both government-led reviews. Their findings should be considered thoroughly and adopted where appropriate to meet the goals of the Biodiversity Conservation Strategy.

Addressing the issues raised in these reviews would provide a strong basis for the development of a more successful Strategy, with measurable targets.

2. Make a commitment to preventing avoidable extinction

In order to achieve its vision of healthy and resilient ecosystems, it is our view that the Strategy should be clear that extinction of species is an undesirable outcome. The Convention on Biological Diversity's (CBD) Aichi target 12 and the United Nation's 2015 Sustainable Development Goal (SDG) 15 set targets to prevent extinction of known threatened species.

Unfortunately, Australia did not commit explicitly to the Aichi targets. In addition, there is currently no provision in Australian legislation that makes it an offense to cause, contribute significantly to, or fail to take reasonable actions to prevent an extinction. Thus, any agencies or individuals who contribute to extinctions or fail to take reasonable steps to prevent them, operate with impunity [8].

The revised Strategy should address these serious deficiencies and commit Australia to avoiding preventable extinctions of known threatened species.

3. Make commitments to adequately fund implementation of the Strategy

Australia should be aiming for investment in environment and biodiversity conservation to be at the upper end of the OECD and G20 proportions of Gross Domestic Product. At present we are allocating less than 0.8%, whereas the budget should be 2% to enable recovery of threatened species and ecosystems and other environmental failures [8, 9].

Australia has been ranked one of the worst in the world (38th worst) for underfunding biodiversity conservation, grouped among many developing countries [10], and funding has decreased substantially since that study. Declines in the Australian Government's investment in the environment have been associated with widespread losses and declines of species and ecosystems [3]. The Strategy should commit Australia to investing a minimum 2% of GDP in the environment

and biodiversity conservation, and allow for greater investment if it is required to reverse the observed declines in Australia's biodiversity.

Allocation of funds to specific actions and targets must be based on the best scientific advice to ensure that the Strategy's goals are achieved and the Commonwealth's investment is used wisely.

4. Return the document's focus to biodiversity and its intrinsic value

The Strategy is supposed to represent 'Australia's Biodiversity Conservation Strategy and Action Inventory', and yet the document does not define biodiversity and rather focuses on a vague notion of 'nature'. We recommend the document return its focus to biodiversity, defined in the CBD as follows:

'Biological diversity' means the variability among living organisms from all sources including, inter alia, terrestrial, marine and other aquatic ecosystems and the ecological complexes of which they are a part; this includes diversity within species, between species and of ecosystems.

The first *National Strategy for the Conservation of Australia's Biodiversity* in 1996 contained an articulate statement which gained the acceptance of all Australian governments [4]:

There is in the community a view that the conservation of biological diversity also has an ethical basis. We share the Earth with many other life forms that warrant our respect, whether or not they are of benefit to us. Earth belongs to the future as well as the present; no single species or generation can claim it as its own.

Rather than build on this important statement, the current Strategy has removed it entirely. The [World Charter for Nature 1982](#) (like the CBD, carrying wide national endorsement including that of Australia) states [4]:

Every form of life is unique, warranting respect regardless of its worth to man, and, to accord other organisms such recognition, man must be guided by a moral code of action.

The Strategy should not retreat from such principles, but reiterate and extend them.

5. Identify legislative revisions required to effectively protect biodiversity – with particular focus on the *Environment Protection and Biodiversity Conservation Act 1999* as the principle Act, including:

- a. Requiring recovery plans for all threatened species**
- b. Requiring threat abatement plans for all threatening processes and drivers of biodiversity loss**
- c. Including mechanisms to enable protection of high-value ecosystems**

The Strategy should commit to reviewing and revising the environmental legislation pertaining to the conservation of biodiversity, in accordance with the recommendations for a comprehensive review made by the Australian Panel of Experts in Environmental Law [11-17]. In particular, the Strategy should recommend changes to the EPBC Act ('the Act') as follows:

- a. Requiring recovery plans for all threatened species

Recovery plans for all threatened species were mandated under the Act prior to changes passed in 2006 (*Environment and Heritage Legislation Amendment Act (No. 1) 2006*). The Act requires that the Minister not make declarations that are inconsistent with any recovery plan. However, after the 2006 amendments, recovery plans were no longer required for threatened species but rather became a discretionary matter for the Minister. Instead, 'conservation advices' became mandatory for all listed threatened species. The key difference between a conservation advice and

a recovery plan, is that the Minister is able to make decisions that are inconsistent with a conservation advice.

Recent studies have shown conclusively that Recovery Plans help drive efforts and investment for threatened species [3], and lack of recovery plans can contribute to extinction of threatened species [7]. Recovery plans are also long-term in nature, providing an evidence-based strategy to work towards species protection regardless of changes in Government that may occur. Thus, the Strategy should recommend that the Act be amended to restore the requirement for recovery plans for all listed threatened species.

b. Requiring threat abatement plans for all threatening processes and drivers of biodiversity loss

The Act also allows the Minister to make threat abatement plans for key threatening processes at their discretion. It is our view that this provision should be amended to require that threat abatement plans should be made for all threatening processes identified in recovery plans, and for additional processes identified as drivers of biodiversity loss. In these cases, threat abatement plans would be advantageous in protecting a suite of species and ecosystems, according to best available evidence.

c. Including mechanisms to enable protection of high-value ecosystems

Identification of high-value ecosystems, such as threatened ecological communities as defined under the Act, should trigger legislation specifically designed to protect the integrity of these ecosystems from the cumulative effects of ongoing developments. Such a change will assist in protecting those ecosystems listed as containing special values and should be proposed within the new national strategy [4].

There is also a need for better ways to identify ecosystems of high priority for protection. We note that there is no national approach for the identification of priority rankings for all ecosystem types, and recommend a review to address this deficiency [4].

6. Include all 20 Aichi targets and re-establish Australia's commitment to the CBD

Australia has a proud bi-partisan history of national and international engagement in the drive to conserve biodiversity and to stop and reverse declines of species and ecosystems. It is a signatory to the World Conservation Strategy (WCS), the CBD and the related SDGs. These commitments have contributed to the first national legislation for threatened species, the *Endangered Species Protection Act 1992*; the first National Strategy for the Conservation of Australia's Biodiversity in 1996 [1]; and the first federal act to protect biodiversity, the *Environment Protection and Biodiversity Conservation Act 1999*. Each federal government, from both major political parties, re-committed and, to some degree, reinforced these commitments, resulting in a new strategy to conserve biodiversity, Australia's Biodiversity Conservation Strategy 2010-2030.

The Biodiversity Conservation Strategy 2010-2030 was developed in accordance with commitments made under the CBD, which Australia ratified in 1993. Under the CBD, twenty targets for biodiversity (Aichi targets) were developed in 2010. Australia did not commit explicitly to these targets, but only in general. They also established commitments to prevent extinctions of known threatened species and improve and sustain threatened species. A full list of these 20 Aichi targets can be found in Appendix 1 to our submission.

The Strategy should explicitly commit to all 20 Aichi targets and re-establish Australia's commitment to the CBD. This should lead to re-committing to the Convention through the CBD protocols. As it stands, the Strategy draws poor comparisons with analogous strategies internationally, such as Germany's [National Strategy on Biological Diversity](#) (2007), and the NZ [Biodiversity Action Plan \(2016-2020\)](#). For example, Germany's *National Strategy* clearly defines biodiversity and its value to society, articulates actions and assigns responsibility for these actions to different levels of Government and 'other players', establishes a framework for monitoring and evaluating implementation of the Strategy, and integrates the national effort with international commitments and obligations.

7. Commit to establishing a comprehensive, representative and adequate system of ecologically viable protected areas, including marine protected areas

In spite of long-standing commitments to the development of comprehensive, adequate and representative networks of protected areas, many of Australia's bioregions remain poorly represented in the National Reserve System (NRS) and the national marine protected area system [4].

The 1996 national strategy clearly stated one of the most important principles of the CBD, a principle which is fundamental to the biodiversity strategies of all nations [4]. Principle 8 of the 1996 strategy states:

Central to the conservation of Australia's biological diversity is the establishment of a comprehensive, representative and adequate system of ecologically viable protected areas integrated with the sympathetic management of all other areas, including agricultural and other resource production systems.

Aichi Target 11, a development of the CBD, states:

By 2020, at least 17 per cent of terrestrial and inland water, and 10 per cent of coastal and marine areas, especially areas of particular importance for biodiversity and ecosystem services, are conserved through effectively and equitably managed, ecologically representative and well connected systems of protected areas and other effective area-based conservation measures, and integrated into the wider landscapes and seascapes.

Australia failed to commit explicitly to the Aichi Targets. The 2010-2030 Strategy and the current Strategy under consultation have both retreated from this fundamental principle, removing it from the list of principles. We believe that this principle must remain fundamental to Australia's national strategy and must be reinstated and elaborated.

As part of this, Australia should commit to the Aichi target 11 regarding the extent and level of protection of its coastal and marine reserve network, which is 10% of the coastal and marine areas. Australia made significant steps towards achieving this goal in 2012, declaring a network of Marine Reserves around Australia. Recent proposals to revoke or change the protected status of these reserves should be cancelled in order to achieve our commitments to protecting marine areas.

It must be noted that reservation is an important conservation action but alone should not be assumed to be sufficient to maintain some species [7]. Species that occur outside of protected areas will also be subject to threats of decline and extinction and will require additional specific action. In these cases, Recovery Plans for threatened species are particularly important to prevent

avoidable extinctions (see 5a above). Protected areas must also be resourced sufficiently to enable effective management, including managing invasive species and poaching.

8. Use Australia's international commitments to the conservation of biodiversity as the groundwork for the Strategy, including the CBD, the Apia Convention, and CITES.

We are surprised that only a few of Australia's international commitments to the conservation of biodiversity have been referenced in the document. These commitments should provide the broad framework in which our national strategy sits, and the new draft Strategy should show how Australia aims to meet these commitments.

The EPBC Act, for instance, binds Australia to not make declarations that are inconsistent with the Biodiversity Convention, the [Apia Convention](#) and [the Convention on International Trade in Endangered Species of Wild Fauna and Flora](#) (CITES). Yet of these, only the Biodiversity Convention is listed in the Strategy. As this is proposed to be Australia's National Strategy for Biodiversity Conservation, these international commitments should be integrated and the relationships among them and the Strategy should be made explicit.

9. Recognise key issues in the modern context that affect biodiversity conservation, including:

a. Increasing use of natural resources

Underlying many of the processes that threaten healthy and resilient ecosystems are a number of fundamental issues that cannot be ignored. The growth of the human population, the increase in per capita use of resources resulting in accelerated use and over-use of natural resources, globally and within Australia, are two such issues [4, 18]. The new draft entirely ignores these issues, yet they are fundamental drivers of the biodiversity crisis

A national strategy must at least acknowledge that the ongoing expansion of the planet's human population, and Australia's human population, together with the continuing increase in per capita use of natural resources, is undermining healthy and resilient ecosystems and threatening the survival of the organisms that depend on them [4].

We are all contributing to climate change, producing damage to ecosystems and loss to our biodiversity, acknowledged by all governments. The new Strategy must also acknowledge the very serious risks facing ecosystems and biodiversity under climate change – including a discussion of time lags created by inertia in the Earth's climate and carbon systems.

b. Environmental water flows

Australia has made commitments to the provision of environmental flows for the protection and restoration of aquatic ecosystems, including groundwater-dependent ecosystems [19], including in the 1996 Biodiversity Conservation Strategy. Progress in providing environmental flows has been slow, especially with regard to groundwater-dependent ecosystems and estuaries. Commitment to the principles established in 1996 should be reaffirmed and environmental flow implementation programmes strengthened, especially in drought-affected areas of Australia [4, 19].

The new biodiversity conservation strategy must re-affirm the commitments made in 1996 for the provision of environmental flows to all affected ecosystems. The new strategy should also address issues of implementation failure with respect to these critically important policies, accompanied by explicit reporting arrangements [4].

c. Overfishing

The Australian Bureau of Agricultural and Resource Economics and Sciences (ABARES) currently reports annually on the 'fishery status' of Commonwealth fisheries. A major problem exists in that the definition of 'overfished' used by ABARES is based on outdated concepts of single-stock maximum sustainable yield [20]. A fishery which meets the ABARES definition of 'not overfished' may reduce a fish population to around 20% of its unfished level, with serious impacts on natural ecosystem food chains [4, 20]. Thus this definition is in direct conflict with our threatened species legislation that uses IUCN criteria for recognising threat levels, and for example, allows that a species that has declined by more than 70% may qualify for listing as endangered.

A new definition of overfishing, compatible with Australia's responsibilities to protect natural marine ecosystems, is needed, and the new strategy should commit to its development [4]. The new biodiversity strategy should reaffirm a national commitment not to overfish, and propose an implementation programme, based on an ecological definition of overfishing [4] that assesses sustainable levels of fishing based on maintaining an ecologically meaningful biomass, required to support a thriving ecosystem and ensure continuation of the fishery into the future. Scientific understanding and evidence must be used to determine fishing limits specific to individual ecosystems.

Conclusion

The ESA cannot support '*Australia's strategy for nature 2018-2030: Australia's biodiversity conservation strategy and action inventory*' in its current form, because it is our view that it **falls short of what is required to conserve Australia's biodiversity**.

The document does not represent what we would expect of a national strategy, and does not compare to national strategies usually released by the Commonwealth Government. We are disappointed that this Strategy has abandoned links with past Australian biodiversity conservation strategies and initiatives, is not integrated with our international commitments, and ignores the relevant knowledge base that could be used to support its aims.

We have made nine key recommendations that must be met to ensure the Strategy can achieve its stated vision and ensure Australia enjoys healthy and resilient ecosystems long into the future.

In addition, we request that the Biodiversity Working Group identified in the Strategy, and National Biodiversity Strategy Secretariat, work with the ESA in re-drafting the Strategy to ensure that it incorporates the best available evidence base to achieve its stated vision. The ESA and its members are committed to providing scientific knowledge and advice to enhance the management and conservation of Australia's biodiversity, and would welcome this opportunity to collaborate to develop a national strategy that will achieve the vision of healthy and resilient Australian ecosystems.

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Appendix 1: Aichi targets

<https://www.cbd.int/sp/targets/>

Strategic Goal A: Address the underlying causes of biodiversity loss by mainstreaming biodiversity across government and society

Target 1

By 2020, at the latest, people are aware of the values of biodiversity and the steps they can take to conserve and use it sustainably.

Target 2

By 2020, at the latest, biodiversity values have been integrated into national and local development and poverty reduction strategies and planning processes and are being incorporated into national accounting, as appropriate, and reporting systems.

Target 3

By 2020, at the latest, incentives, including subsidies, harmful to biodiversity are eliminated, phased out or reformed in order to minimize or avoid negative impacts, and positive incentives for the conservation and sustainable use of biodiversity are developed and applied, consistent and in harmony with the Convention and other relevant international obligations, taking into account national socio economic conditions.

Target 4

By 2020, at the latest, Governments, business and stakeholders at all levels have taken steps to achieve or have implemented plans for sustainable production and consumption and have kept the impacts of use of natural resources well within safe ecological limits.

Strategic Goal B: Reduce the direct pressures on biodiversity and promote sustainable use**Target 5**

By 2020, the rate of loss of all natural habitats, including forests, is at least halved and where feasible brought close to zero, and degradation and fragmentation is significantly reduced.

Target 6

By 2020 all fish and invertebrate stocks and aquatic plants are managed and harvested sustainably, legally and applying ecosystem based approaches, so that overfishing is avoided, recovery plans and measures are in place for all depleted species, fisheries have no significant adverse impacts on threatened species and vulnerable ecosystems and the impacts of fisheries on stocks, species and ecosystems are within safe ecological limits.

Target 7

By 2020 areas under agriculture, aquaculture and forestry are managed sustainably, ensuring conservation of biodiversity.

Target 8

By 2020, pollution, including from excess nutrients, has been brought to levels that are not detrimental to ecosystem function and biodiversity.

Target 9

By 2020, invasive alien species and pathways are identified and prioritized, priority species are controlled or eradicated, and measures are in place to manage pathways to prevent their introduction and establishment.

Target 10

By 2015, the multiple anthropogenic pressures on coral reefs, and other vulnerable ecosystems impacted by climate change or ocean acidification are minimized, so as to maintain their integrity and functioning.

Strategic Goal C: To improve the status of biodiversity by safeguarding ecosystems, species and genetic diversity**Target 11**

By 2020, at least 17 per cent of terrestrial and inland water, and 10 per cent of coastal and marine

areas, especially areas of particular importance for biodiversity and ecosystem services, are conserved through effectively and equitably managed, ecologically representative and well connected systems of protected areas and other effective area-based conservation measures, and integrated into the wider landscapes and seascapes.

Target 12

By 2020 the extinction of known threatened species has been prevented and their conservation status, particularly of those most in decline, has been improved and sustained.

Target 13

By 2020, the genetic diversity of cultivated plants and farmed and domesticated animals and of wild relatives, including other socio-economically as well as culturally valuable species, is maintained, and strategies have been developed and implemented for minimizing genetic erosion and safeguarding their genetic diversity.

Strategic Goal D: Enhance the benefits to all from biodiversity and ecosystem services

Target 14

By 2020, ecosystems that provide essential services, including services related to water, and contribute to health, livelihoods and well-being, are restored and safeguarded, taking into account the needs of women, indigenous and local communities, and the poor and vulnerable.

Target 15

By 2020, ecosystem resilience and the contribution of biodiversity to carbon stocks has been enhanced, through conservation and restoration, including restoration of at least 15 per cent of degraded ecosystems, thereby contributing to climate change mitigation and adaptation and to combating desertification.

Target 16

By 2015, the Nagoya Protocol on Access to Genetic Resources and the Fair and Equitable Sharing of Benefits Arising from their Utilization is in force and operational, consistent with national legislation.

Strategic Goal E: Enhance implementation through participatory planning, knowledge management and capacity building

Target 17

By 2015 each Party has developed, adopted as a policy instrument, and has commenced implementing an effective, participatory and updated national biodiversity strategy and action plan.

Target 18

By 2020, the traditional knowledge, innovations and practices of indigenous and local communities relevant for the conservation and sustainable use of biodiversity, and their customary use of biological resources, are respected, subject to national legislation and relevant international obligations, and fully integrated and reflected in the implementation of the Convention with the full and effective participation of indigenous and local communities, at all relevant levels.

Target 19

By 2020, knowledge, the science base and technologies relating to biodiversity, its values, functioning, status and trends, and the consequences of its loss, are improved, widely shared and transferred, and applied.

Target 20

By 2020, at the latest, the mobilization of financial resources for effectively implementing the

Strategic Plan for Biodiversity 2011-2020 from all sources, and in accordance with the consolidated and agreed process in the Strategy for Resource Mobilization, should increase substantially from the current levels. This target will be subject to changes contingent to resource needs assessments to be developed and reported by Parties.