

Submission to the Senate Committee on Australia's faunal extinction crisis

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Healthy planet, **healthy people.**

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Parliament of Australia, Senate Standing Committees on Environment and Communications, Australia's faunal extinction crisis.¹

This Senate Committee on faunal extinction has a very important role because presently it is the only parliamentary voice in a position to make a statement on the interlocking and rapidly progressing climate change and biodiversity emergencies which are the basis for faunal extinctions. The Senate Committee is able to make recommendations for further national action and might consider means by which these national security issues can be developed further. Doctors don't use the word, emergency lightly; we indicate that we must urgently address this climate and biodiversity emergency.

Doctors for the Environment Australia (DEA) is very keen to appear before the Senate Committee as part of its remit to improve the health outcomes of all Australians.

Our recommendations are based on those in our original submission² and take into account the recommendations of the Interim Report.

Recommendations

1. That all members of the Senate Committee recognise that national biodiversity loss, interlocking with the climate emergency, is a significant threat to the sustainability of Australia, and to human health which depends on security of food supply, adequate water resources and a stable climate. The recognition of biodiversity loss as an important health issue will facilitate action.
2. That the Committee recognises that to arrest the loss of threatened species, whether they are fauna, flora or indeed soil microbes, the underlying causes must be addressed.
3. That the Committee widens its recommendations to support a statutory Commonwealth Sustainability Commission (CEC) which will prepare plans based on a range of disciplines, to be delivered nationwide by an Environmental Protection Authority.
4. That the CEC will become responsible for issues delivered so ineffectively by the EPBC Act and by State and Territory governments and it will prioritise water availability, stabilisation of ecological damage affecting agricultural production, more effective standards for

air quality, action on climate change adaptation, all issues affecting human health.

5. That the Government recognises that biodiversity is a complex issue and utilises the expertise of the CEC to promote understanding and education of the public and all elected representatives as a means to facilitate action.

Doctors for the Environment Australia

Doctors for the Environment Australia (DEA) is a voluntary organisation of medical doctors in all Australian states and territories. We work to address local, national and global health effects caused by damage to the Earth's environment. The medical profession has a proud record of service to the community. This record not only includes personal clinical care, but also involvement in global issues that threaten the future of humanity. We aim to use our scientific and medical skills to educate governments, industry, the public and our colleagues by highlighting the medical importance of our natural environment. In effect we function as a public health organisation.

Submission

New Scientific Evidence since the Senate Interim Report

New scientific evidence indicates we have before us a compelling sustainability issue related to interlocking harm from biodiversity loss and climate change.

1. In May 2019 The Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services³ Chair, Sir Robert Watson summarised the problem: "The overwhelming evidence of the IPBES Global Assessment, from a wide range of different fields of knowledge, presents an ominous picture," said "The health of ecosystems on which we and all other species depend is deteriorating more rapidly than ever. We are eroding the very foundations of our economies, livelihoods, food security, health and quality of life worldwide." ⁴
2. In August 2019 the full draft chapters of this report have been received and this submission will refer to Chapter 5 Pathways to a sustainable future.⁵

3. In the 2019 report⁶ "the State of the World's Biodiversity for Food and Agriculture" from the Commission on Genetic Resources for Food and Agriculture, of the Food and Agriculture Organization of the United Nations indicates that decline in biodiversity and ecological services is itself a severe threat to food resources.
4. The August 8, 2019 IPCC special report "Climate Change and Land" on climate change, desertification, land degradation, sustainable land management, food security, and greenhouse gas fluxes in terrestrial ecosystems⁷ adds to the details and urgency for action.
5. The Australian situation in the world re extinctions and biodiversity loss is amongst the worst in the world.

In the words of Professor James Watson, the director for the University of Queensland's Centre for Biodiversity and Conservation Science

"We are world leaders in habitat clearance, vegetation clearance — we clear more land than just about every country on the planet, especially for cattle farming,"

"Fundamentally, we're sleepwalking into an extinction crisis. We're not talking about the biosphere in the way that we need to. Nature is getting eroded in a dramatic way and a loss of natural capital means that humans will suffer in the long run."

Watson said there must be transformative change to human civilisation if we are to avoid the extinction crisis. "By transformative change, we mean a fundamental, system-wide reorganisation across technological, economic and social factors."⁸

The extinction crisis in Australia is well documented by the Interim Report of the Senate Committee and DEA has recently contributed significantly to this documentation with our review of Strategy for Nature⁹, submissions to government and articles in the media¹⁰.

The Faunal Extinction Crisis is part a Sustainability Crisis

We suggest to the Senate Committee that the extinction crisis is an important marker of a sustainability crisis involving a range of processes which will increasingly affect the basic needs of life including those of humans.

These processes need to be addressed or programs to save individual threatened species will be pointless unless they involve saving genetic material. Maintaining threatened species carries credence only if

biodiversity as a whole is understood and its needs addressed. Species becoming extinct are iconic but we need to recognise that the species that constitute a large part of soil, the unnamed workers on our behalf are also becoming extinct. In fact many of the terms of reference for this enquiry become irrelevant unless widened to include causation.

As the temperature range rises with altitude on the highest mountain only air conditioning will save a possum with a physiological system and habitat which cannot adapt,¹¹ and the same applies to bats falling dead out of trees when the temperature exceeds their range of tolerance.¹²

What are the interrelated processes which increasingly threaten biodiversity? These were detailed in our previous submission to the Committee (pages 4-10)² and are well recognised in the recent international reports detailed in the first section of this submission.

- Climate change; caused mainly by coal and gas combustion, land clearing and agriculture, and urban development. The climate emergency is the main threat to biodiversity. The Report of the 2018 Intergovernmental Panel on Climate Change (IPCC)¹³ demands zero CO₂ emissions globally around 2050 which is unlikely to be accomplished.
- Economic growth in its present form; this is a driver of all other factors, **see section 3 of DEA original submission.**
- Land clearance; forest clearance for agriculture and logging.¹⁴
- Population; our growth is one of the fastest of the developed countries and its pace catalyses the other damaging process, **see section 2 of DEAs original submission.**
- Lack of education and understanding on sustainability -> poor management, **see section 4 of DEAs original submission.**

These processes did not receive significant comment in the Interim report but are essential in directing how amelioration be sought (see below).

It is also important for Australians to understand that their health and well-being is under threat from the biodiversity crisis which involves the pillars of their lives, stable climate, adequate water and biodiversity-dependent food supplies; such a realisation negates the public reaction "why are we spending money on a possum when there are so many other needs."

The health implications of biodiversity loss and the importance of Sustainable Development Goals are discussed on Pages 11-12 of our previous submission² and we reemphasise their importance to the Committee.

The Interim Report paid scant attention to these issues apart from

2.80 Australians depend on thriving ecosystems for their well-being and prosperity. Extinction and species population loss reduces overall biodiversity in any ecosystem, reducing the stability of ecosystems and affecting the efficiency of ecosystem function.

The Australian Veterinary Association, Queensland Branch submitted:

*Biodiversity in all its complexity is essential for the maintenance of ecosystem services, clean and adequate water supplies, clean air, soil fertility and stability, carbon sequestration and to address climate change. Human health and prosperity as well as that of the natural world is ultimately dependent upon addressing faunal extinctions. A healthy fauna can only exist in conjunction with a healthy flora and microbiota.*⁹⁹

2.81 The Centre for Ecosystem Science similarly emphasised the importance of maintaining healthy ecosystems and argued that *prolonged over-exploitation of [Australia's] landscapes has eroded their capacity to deliver economic prosperity and security'*. The Centre added: *Ecosystems deliver services such as clean water and air, soil stability and fertility, climate regulation, carbon storage, recreational and tourism opportunities, as well as production goods such as food, fibre and timber. Although many of these services are often regarded as economic externalities, they cannot be taken for granted and their maintenance costs cannot be ignored without eroding Australian incomes and business profitability.*¹⁰⁰

We are grateful the Labor Senator's additional comment in the interim report

1.3 We must confront threats such as climate change and deliver on our international obligations including Sustainable Development, to protect biodiversity, to protect heritage, restore landscapes, control plastic pollution and improve air quality and water quality to protect human health and productivity.

Human Health and the Environment are indivisible so much so that one quarter of human disease relates to harm to the environment. Health is an important means for messaging public and elected representatives about the importance of necessary reforms and indeed why faunal extinctions are the canary in the coal mine.

It is essential that we move from the extractive framework of thinking about our natural environment and instead see it valued for its multiple health sustaining properties and the various occupations that can arise from them. If we take the example of forests, currently regarded by governments as primarily a source of timber and widen the lens, the list of values is much more comprehensive. Rather than just providing jobs in logging, forests can provide long-term, healthy employment in the fields

of health and wellbeing, scientific research, cultural development and education.

Australia is facing not only the ecological crises of climate change and biodiversity loss but also the health crises of non-communicable or lifestyle related diseases. Many of these challenges can be met if our forests are protected and understood as providing both crucial ecosystem services and places of psychological and physical illness prevention and treatment.

Firstly, the ecosystem services forests provide by mitigating climate change, generating and purifying our water supply, stabilising soil and being a source of medicines and native bush foods can sustain jobs. These jobs are within the scientific fields of biology, ecology, soil science, hydrology, pharmacology, climate science and bush fire science. They involve research into carbon, soil and water systems, development of medicines and bush foods as well as teaching at primary, secondary and tertiary levels.

Secondly, forests are places of restoration, both physical and psychological. Given the leading burden of disease in our society is depression and other mental health issues, the development of comprehensive, short and long-term programs for the prevention and treatment of depression and other conditions should utilise our natural assets like forests.

Other lifestyle related diseases include heart disease, stroke, cancer, diabetes and osteoporosis require a multifaceted approach to prevention and cure. This includes exercise programs like walking as well as gentle movement practices like yoga and 'forest bathing'. Forest bathing or 'shinrin yoku' was developed in Japan as a treatment modality for those suffering from stress and cardiovascular disease.¹⁵

In Japan, doctors provide prescriptions for their eligible patients to spend specified amounts of time in forests on a regular basis. Forests are accredited for *shinrin yoku* and health agencies are involved in the implementation of activities. There is great opportunity for Australia to develop our own version of this forest-based therapy with possible funding from private health insurers or superannuation funds and other companies interested in adding to their environmental and social credentials. Programs for young people including Bush Adventure Therapy can support those adolescents experiencing mental health challenges and difficulty engaging with school. Our forests provide the perfect setting for these therapeutic approaches.

There are many other ways by which the protection and restoration of natural ecosystems can support Australian communities' health and wellbeing whilst providing meaningful, long term jobs. All that is required

is a change in approach and a willingness to move away from the chop it down or dig it up mentality that has prevailed for so long.

It is important to also consider the intricate relationship between the health of Aboriginal and Torres Strait Islander Australians and the health of Country. As a legacy of inaction by successive governments on feral camel intrusion into the rangelands of central Australia a staple food source of Aboriginal people, the desert quandong, has been pushed to the brink of extinction. With over 1 million feral camels eating quandong and other plants as well as defiling water holes and sacred sites much Country has been damaged. Alongside this we see serious health problems in our First Nations people with a lack of access to nutritious bushfoods. Surely a key part of the reconciliation process and the 'closing the gap' agenda on health and education is the removal of feral species like camels and a restoration of Country rich in quandong and other foods. This would also have beneficial outcomes for the threatened fauna of this ecosystem.

The EPBC Act is inadequate for today's complex and extensive needs and must be replaced

In the Interim report, Chapter 3 "The adequacy of the EPBC Act", we note

3.5 Some evidence received by the committee suggested that the Commonwealth should develop a new Environment Act to replace the EPBC Act, arguing that its flaws would be too significant to address through amendments alone. Others told the committee that the current Act provides a solid foundation for the protection and management of the environment, even if it was acknowledged that there is significant need for reform of its provisions and implementation.

DEA believes that the evidence presented in this chapter substantiates the first sentence; it was difficult to find any evidence for the second sentence. If the current Act has a solid foundation, let us see the facts so they can be analysed.

We also note;-

3.37 A number of areas were highlighted in evidence as requiring consideration for listing as KTPs (key Threatening Processes) under the EPBC Act. Some of the issues canvassed included the challenges posed by: population growth; alteration to natural water flow of rivers, streams, floodplains and wetlands; logging of native forests; ocean acidification; dieback and inappropriate fire regimes; and the loss of hollow bearing trees that support some threatened species.³¹

These are issues which require clear new environmental laws- which will be discussed by DEA in the next section

However, there is one compelling additional reason why current environmental management is inadequate and beyond the control of the EPBC Act. This is the inability of the States and Territories to deliver on vital outcomes. Such evidence is not documented in the Interim report, Chapter 3. State Territory management is a litany of debacles with land clearing, damage to habitat of threatened species, inadequate action on feral species, camels, cats, foxes rabbits and cane toads (not that negligence is confined to the states e.g. cane toads in Kakadu)¹⁶ progression of logging to maintain jobs, inadequate park management, poor environmental impact assessments for resource development leading to legal actions and lack of transparency in process, decision making and accountability.

The state management of the RFAs is also called into question¹⁷ the agreements are a placebo in the face Australia's diminishing forests. The protection of forests must be within the remit of New Environmental Laws

By contrast to most of the States and Territories, the Commonwealth Parliament is transparent in some of the information it considers, and it is possible for the public to read submissions to parliamentary committees and benefit from the information supplied by experts. In most states such information enters a government black hole- and the parallel universe in which to read it is not yet discovered. Consequently, New National Environmental Laws can provide accountability and transparency

Furthermore, the role of the Council of Australian Governments was not addressed by in the Report of the Interim committee, this has become a graveyard for sustainability issues which impact biodiversity, and such issues must be enacted by New Environmental Laws

New Generation of Environmental Laws (NEL)

We note the following recommendations in the interim report;-

Recommendation 1

4.13 The committee recommends that to limit the drivers of faunal extinction, the Commonwealth develop new environmental legislation to replace the Environment Protection and Biodiversity Conservation Act 1999.

4.14 The committee considers that a new legislative approach to managing and protecting Australia's environment should contain provision for an independent EPA. This should be given sufficient powers, resourcing and funding to assess activities, and ensure compliance and enforcement.

Recommendation 2

4.15 The committee recommends that the Commonwealth establish an independent Environment Protection Agency (EPA), with sufficient powers and funding to oversee compliance with Australia's environmental laws.

We support this approach but go further as stated in our original submission

"The present system of environment law enacted by States, with minor input from the EPBC Act, is flawed and the present crisis has arisen during their jurisdiction".

DEA maintains that a new national framework of environmental laws based on the deliberations of APEEL¹⁸ be enacted urgently. Its proponents are an environmental alliance of over 50 groups including human health.¹⁹ The framework will deliver significant health benefits in sustaining the pillars of human health and sustainability²⁰, adequate and clean water, clean air, food production and maintenance of biodiversity.

The proposal will establish (1) an independent **National Sustainability Commission** (called Commonwealth Environment Commission (CEC) by APPEL) to set national environmental standards and undertake strategic regional planning and report on national environmental performance; (2) an independent **National Environmental Protection Authority** that operates at arm's-length from Government to conduct transparent environmental assessments and inquiries as well as undertake monitoring, compliance and enforcement actions.

The environmental mechanisms are detailed and are expected to have significant impact on many of the issues in the TORs in this Enquiry.²¹ They will give certainty for climate mitigation and adaptation policy²², and also ensure consistent standards for environment impact assessments."

The Senate Committee in its interim report expressed the view that the NSC could be encompassed within the Department of the Environment.

We strongly disagree. APEEL envisaged a statutory NSC commensurate with the Reserve Bank. The Environment Department does not have the resources for several disciplines necessary for this huge national task of bringing together national independent scientific, technological expertise and other expertise to provide scientifically based outcomes and practical advice on delivery.

We support the specific APEEL proposals;

2.14. To ensure the effective implementation of the next generation of Commonwealth environmental laws, the Commonwealth should establish one or more new statutory authorities to perform functions that will complement, replace and expand upon the functions currently exercised

by the Minister and Department for Environment and Energy and other existing Commonwealth statutory environmental authorities, with the following possibilities in mind:

- *a high-level (cf. Reserve Bank) Commonwealth Environment Commission (CEC) that would be responsible for (a) administration of the system of Commonwealth strategic environmental instruments (see Recommendations 3-9); (b) a nationally coordinated system of environmental data collection, monitoring, auditing and reporting (including with respect to environmental sustainability indicators and trends); (c) the conduct of environmental inquiries of a strategic nature (akin to those conducted by the former Resources Assessment Commission); and (d) the provision of strategic advice to the Commonwealth government on environmental matters, either upon request or at its own initiative;*
- *a Commonwealth Environment Protection Authority (CEPA) that would be responsible for (a) administration of the Commonwealth's environmental assessment and approval system, including where conditional pre-emption of equivalent State legislation has occurred (see Recommendation 8); (b) the regulation of activities undertaken by Commonwealth authorities or by other parties on Commonwealth land; (c) the auditing of Commonwealth-required EISs (see Recommendation 13(iv)); and (d) any other environmental regulatory functions that may be appropriately assigned to the authority (see Recommendations 2 and 11);*

The Interim committee noted that the EPBC Act was soon due for review with the implication that this would precede New Environmental Laws.

We disagree, the APEEL papers provide a comprehensive legal framework provide from two years of work by a group of distinguished environmental lawyers. This is an emergency!

The Role of the National Sustainability Commission (NSC)

The establishment of the NSC is an appropriate response to threatened national security. It is notable that the US and Australian military regard climate change alone as a security threat due to the climate emergencies; like defence it must have a committed national strategy (imagine the states and territories formulating and enacting their own defence strategies!). Biodiversity loss is a partner in this emergency.

An important example of the role of the NSC would be the Delivery of a National Climate Change Adaptation Strategy which would be vital for

biodiversity conservation. Presently the states and territories largely deliver their own strategy if any.

Clearly then NSC expertise would be vital for input into land policy which the vicissitudes of which are presently managed by ad hoc political responses to drought, flood and other decimations. This sad article epitomises the failure of governments across Australia to place sustainability before all else.²³

The rural and regional sector deserves better for we depend upon them for food sustainability. DEA has canvassed several aspects of this need²⁴ and one of our recommendations was that the standing of farming might be recognised by acknowledging it as the most important national industry because it confers sustainability for Australia and indeed for world food supplies which are currently falling. Individual farmers demonstrating education in sustainable land practice and biodiversity conservation - might be acknowledged as stewards of the land and qualify for financial support to function under all adverse circumstances. We note the Farmers Federation reaction to the recent IPCC land report⁷ is positive²⁵.

There would be many roles for the NSC but we highlight its potential role in the agricultural sector for surely this is one issue that all elected representatives can agree on in the national interest. There are no biodiversity loss deniers. We are confident that the implications of the IPCC land report⁷ and particularly Chapter 5⁵ will suggest and foster reforms enacted by New Environmental Laws which will help stabilise Australia's biodiversity and prevent more loss of species.

Lack of financial resources is a significant cause of biodiversity loss²⁶ and this loss in turn greatly impacts the national economy²⁷. The costs of implementing reforms in governance and their national delivery will be prodigious, but they must be a priority like defence, and must carry an ongoing budgetary line not subject to short term expediencies.

References

1

https://www.aph.gov.au/Parliamentary_Business/Committees/Senate/Environment_and_Communications/Faunalextingtion2019

2 <https://www.dea.org.au/wp-content/uploads/2018/09/Australia's-faunal-extinction-crisis-submission-08-18.pdf>

3 <https://www.ipbes.net/>

4 <https://www.ipbes.net/news/Media-Release-Global-Assessment>

5

https://www.ipbes.net/system/tdf/ipbes_global_assessment_chapter_5_unedited_31may.pdf?file=1&type=node&id=35281

6 <http://www.fao.org/3/CA3129EN/CA3129EN.pdf>

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- 7 <https://www.ipcc.ch/report/srccl/>
 - 8 <https://www.abc.net.au/news/2019-05-06/biggest-global-assessment-of-biodiversity-sounds-dire-warnings/11082940>
 - 9 <https://www.dea.org.au/wp-content/uploads/2018/03/Strategy-for-Nature-2018-2030-Submission-03-18.pdf>
 - 10 <https://www.dea.org.au/biodiversity/>
 - 11 <https://theconversation.com/australian-endangered-species-mountain-pygmy-possum-13149>
 - 12 <https://www.nrdc.org/onearth/heat-wave-australia-killed-23000-spectacled-flying-foxes>
 - 13 <https://www.ipcc.ch/sr15/>
 - 14 <https://www.dea.org.au/wp-content/uploads/2019/01/Land-clearing-fact-sheet-Final-01-19.pdf>
 - 15 <https://www.researchgate.net/publication/230797032>
 - 16 <https://www.abc.net.au/news/2019-02-20/cane-toad-inquiry-graeme-sawyer-blasts-federal-government-kakadu/10826028>
 - 17 <https://www.dea.org.au/modernisation-of-victorian-regional-forestry-agreements-submission/>
 - 18 <http://apeel.org.au/papers>
 - 19 <http://www.placesyoulove.org/australiawelove/naturelaws>
 - 20 <https://theconversation.com/why-australians-need-a-national-environment-protection-agency-to-safeguard-their-health-93861>
 - 21 http://www.hsi.org.au/assets/publications/608_next-generation-biodiversity-laws-hsi-and-edo-nsw.PDF
 - 22 <http://www.abc.net.au/news/2018-08-01/climate-change-adaptation-where-is-australias-plan/10051392>
 - 23 <https://www.abc.net.au/news/2019-06-18/coal-mine-proposal-splitting-kingaroy-in-two/11208934>
 - 24 <https://www.dea.org.au/wp-content/uploads/2018/06/Exploring-ways-to-improve-farmers'-interaction-with-the-EPBC-Act-06-18.pdf>
 - 25 <https://www.theguardian.com/environment/2019/aug/08/farmers-call-for-national-strategy-on-climate-change-and-agriculture>
 - 26 <https://www.pnas.org/content/110/29/12144>
 - 27 <https://www.climatecouncil.org.au/resources/compound-costs-how-climate-change-damages-australias-economy/>