

## Inquiry into Ecosystem Decline in Victoria

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### Terms of Reference

Section (a): the extent of the decline of Victoria's biodiversity and the likely impact on people, particularly First Peoples, and ecosystems, if more is not done to address this, including consideration of climate change impacts.

### Moving towards a new ecological paradigm

Professor Freya Mathews, eminent environmental philosopher, currently at Latrobe University, has written several books and articles on the ethical problems of biodiversity conservation. In her paper on *Bio-proportionality* Mathews argues for the replacement of the conventional anthropocentric paradigm, which values nature only for human benefit, with a biocentric paradigm which "attributes intrinsic value, and hence moral considerability to non-human entities in their own right".<sup>i</sup>

"By what rights does humanity claim exclusive right of terrestrial and marine environments?" she asks. "The biosphere belongs as much to wildlife as to humans [therefore] we have no right to dispossess wild things of their ranges or degrade their environment to the point that it can no longer sustain them" ... To acknowledge the moral sovereignty of wildlife is to concede that wild animals are, like sovereign peoples, entitled to their territories, their ecological estates. It is to acknowledge that the biosphere was shaped for wildlife and by wildlife as much as it was shaped for us and by us".<sup>ii</sup>

Unless all living things have an **in principle right to their own existence**, whether they are endangered or not, (bio)diversity "**per se cannot be deemed intrinsically valuable**" So, absent a commitment to this principle biodiversity conservation is merely instrumental to some other purpose, namely human, rather than an ideal in itself.<sup>iii</sup> Importantly, this principle is accepted in Victoria's Biodiversity 2037 policy, which states:

"Biodiversity has a right to exist: native plants and animals have an intrinsic right to exist, thrive and flourish. Multiple lifeforms contribute to biodiversity and have significant intrinsic value. Victorians have a duty to protect biodiversity, regardless of whether it provides tangible benefits to humans."<sup>iv</sup>

### The Problems

1. **Ecosystems services**, which benefit humans and other species are directly affected by biodiversity decline. Vital ecosystem services that keep living systems alive and functioning, including ourselves. These services, mostly arcane and discrete, cannot be performed by humans. Many of these services are not even known, let alone understood, by humans, eg the symbiotic relationship between microrrhizal fungi, marsupials and trees. When species become extinct, we have no idea what knowledge, functions are lost to the world. To understand the enormity of this loss, it is estimated that 86% of the estimated 8.7 million species on earth are unknown, undiscovered, and precious little is known about the remaining 14%. Yet, Australia has the highest mammal extinction rate of any country in the world.
2. Those of us who care deeply about the natural world understand that burgeoning human populations have led to biodiversity loss and extinctions everywhere. Urban sprawl and land use changes are one of the biggest contributors to biodiversity decline in Victoria. The result is habitat fragmentation that leaves disconnected islands of remnant vegetation. The extent and condition of flora and fauna communities is reduced and competition from invasive plants (weeds) and animals, such as domestic and feral dogs and cats, foxes and rabbits crowd out and kill indigenous species. Wildlife become trapped in habitat islands. Unable to traverse the landscape, they cannot perform the ecosystems' functions critical to biodiversity health. Many animals are killed on roads as they try to cross from one area to another. The road-kill is absolutely heartbreaking and every animal killed is one less to carry on the species and one more vacancy in the ecosystem.
3. As Metropolitan Melbourne and regional cities expand, arable farmland is built over, increasingly pushing agricultural activities into areas with marginal soils and temperate climates, further displacing wildlife

and destroying vital ecosystems. This, of course, added to declining pollinators, insectivores and water supplies has huge ramifications for Australia's food security and the contribution of food and fibre to our economy. So, it is not just a biodiversity problem; it is a socioeconomic problem.

4. Our failure to take strong action on **climate change** is accelerating biodiversity decline. Species are struggling to adjust to changing climatic conditions. But catastrophic events such as the 2020 wildfires, which destroyed over 12 million hectares of essential habitat and billions of animals, birds, reptiles, insects and plants are horrific and weaken Nature's resilience. These fires illustrate how increasing residential development in areas previously reserved for, or pressing into, wilderness has resulted not only in the death of billions of species but has brought misery to many people. Perhaps it is only when humans experience this loss of Nature on a deep visceral level that something will be done to challenge the privileging of human hegemony.
5. Our waterways and wetlands are also severely stressed. Many rivers have been modified to provide water for towns, industry and food production; wetlands drained for housing and other development. These changes significantly reduce water for the environment. During drought, human demands often override the needs of the environment which puts even more pressure on these rivers to support the animals and plants that depend on them. The gradual death of the Murray-Darling river system is one of the greatest tragedies of white colonisation but waterways and wetlands all over Victoria are suffering the same death by a thousand cuts.
6. The impacts of logging, particularly clear-felling, in native forests, which is driving the well-documented collapse in populations of large old trees, e.g. in Mountain Ash forests, is another key driver of serious biodiversity decline because hollows in old trees provide critical nesting places for birds and animals, many of whom, like Leadbeater's Possum, are vulnerable and endangered. Moreover, logging increases the risk that future fires in Mountain Ash forests will be crown-scorching conflagrations that kill or even completely consume large old trees (Taylor et al. 2014).<sup>v</sup>
7. The disruption of the migratory patterns of many bird and fish species is also alarming. Even city lights divert the flight of Bogong Moths, the prime food source of the Critically Endangered Mountain Pygmy Possum,<sup>vi</sup> leading to its starvation. The protection of RAMSAR wetlands are critical habitat and breeding grounds for migratory species. Yet, the Victorian Government is intent on the industrialisation of these wetlands even though Australia is a signatory to international agreements to protect them. Such policy is antithetical to its policy commitments to biodiversity protection.<sup>vii</sup> .

## **Terms of Reference**

Section (b) the adequacy of the legislative framework protecting Victoria's environment, including grasslands, forests and the marine and coastal environment, and native species

If legislation is not supported by strong regulatory enforcement powers, then it is completely useless.

Section (c) the adequacy and effectiveness of government programs and funding protecting and restoring Victoria's ecosystems

**Protecting Victoria's Environment – Biodiversity 2037** was launched in 2017 with the "ambitious and achievable task of stopping the decline of our biodiversity".<sup>viii</sup> This is a hopeful document, which lays out the issues and is replete with inspiring statements of values and purpose "for the overall improvement of biodiversity". Yet three years on, *this* Inquiry is still asking how to arrest biodiversity decline? It seems to me this Inquiry only serves to delay action further. Why?

Notwithstanding the legislative/policy framework, including overarching national legislation and international treaties, Victoria's ecosystems and biodiversity continue to decline at an alarming rate. Strategies and plans are largely ineffective due to insufficient and inconsistent funding, which means that protection and restoration work proceeds at a depressingly slow pace—often taking decades to complete. In addition, critical scientific research to understand, measure and monitor species and ecosystems is chronically under-funded.

When it comes to biodiversity spending, Australia is one of the bottom 40 countries in the world, falling short of the average by about one third of a billion dollars per year.<sup>ix</sup> To their credit, the majority of funding comes from the States and Territories as well as privately-funded sources but more is needed.

Section (d) legislative, policy, program, governance and funding solutions to facilitate ecosystem and species protection, restoration and recovery in Victoria, in the context of climate change impacts

As previously stated, climate change is only making matters worse. The political recalcitrance against strong action on climate change is a tragic policy failure.

Section (e) opportunities to restore Victoria's environment while upholding First Peoples' connection to country, and increasing and diversifying employment opportunities in Victoria

The Victorian Government must be congratulated for its progress towards the inclusion of Traditional Owners in environmental protection. However, although the "Victorian Government's Aboriginal Inclusion Framework recognises and respects the value of Aboriginal knowledge and culture" and aims to enable Traditional Owners' involvement in land and water management,<sup>x</sup> their involvement has a deeper purpose which goes beyond their "human right...to practise their culture, and to enjoy the economic benefits that flow from healthy ecosystems".<sup>xi</sup>

The Aboriginal concept of "**Country**" is not just about the elements that comprise "landscapes", such as creeks, rock outcrops, hills and waterholes. "**Country** includes all living things. It incorporates people, plants, and animals. It embraces the seasons, stories, and creation spirits. Importantly, people do not "own" the land. As with all things, the people belong to Country. This is a significant metaphysical perspective that is quite different to the Judeo-Christian paradigm which founds the "patriarchal" concept of stewardship.

In his Encyclical Letter, *Laudata Si, On Care for Our Common Home* (24 May 2015), Pope Francis expresses a similar perspective that Mother Earth is "our common home... like a sister with whom we share our life and a beautiful mother who opens her arms to embrace us. But, he laments:

"This sister now cries out to us because of the harm we have inflicted on her by our irresponsible use and abuse of the goods with which God has endowed her. We have come to see ourselves as her lords and masters, entitled to plunder her at will. The violence present in our hearts, wounded by sin, is also reflected in the symptoms of sickness evident in the soil, in the water, in the air and in all forms of life. This is why the earth herself, burdened and laid waste, is among the most abandoned and maltreated of our poor; she "groans in travail" (*Rom 8:22*). We have forgotten that we ourselves are dust of the earth (cf. *Gen 2:7*); our very bodies are made up of her elements, we breathe her air and we receive life and refreshment from her waters."

In comparison, the goals expressed in *Protecting Victoria's Biodiversity 2037*, which refer to "change in suitable habitat", ecosystems and ecological processes' management, are essentially managerial which is very different from the Aboriginal ethos that custodianship of Country is a sacred obligation..

**Actions to Reverse Ecosystems and Biodiversity Decline**

The following list of actions –by no means exhaustive--is in keeping with the theme of the upcoming UN October 2020 Convention On Biological Diversity (UN CBS): **Ecological Civilisation: Building a Shared Future for All Life On Earth**, which "aim[s] to address social, cultural and ecological concerns in a truly holistic way by recognising that nature is the fundamental infrastructure supporting life on earth":

1. Enshrine in legislation the intrinsic rights of other species and natural assets, like rivers, wetlands, and trees to their own existence and a healthy life.<sup>xii</sup> On March 20, 2017, New Zealand recognized in law what Maori have maintained all along: that the Whanganui River is a living being. A significant first act would be to grant the same legal personhood to the Murray River.
2. Accept, as *Biodiversity 2037* acknowledges, that the triage approach, that is, "focussing only on the emergency approach is unlikely to be the most effective way of preventing extinctions over the long term".<sup>xiii</sup> Instead, act as if *all* life matters by optimising the populations of all species as a primary goal.

3. Quarantine essential habitat areas from human development and activities that interfere with other species' activities. There must be no-go areas for humans.
4. Rebuild lost habitat through extensive revegetation works and aids like nesting boxes.
5. Construct safe wildlife road crossings to reduce road deaths.
6. Respect and adopt Aboriginal land management practices, especially regarding fire regimes and river management, with full and proper involvement of Traditional Owners in decisions.
7. Introduce an Environmental Levy, like the Medicare Levy, to support funding for environmental care.
8. Provide incentives to encourage people to donate to environmental organisations or to undertake environmental works.
9. Provide incentives for farmers to set aside or create wildlife habitat. Fund regenerative farming practices.
10. Support programs like Landcare and Waterwatch by recruiting younger volunteers.
11. Create well-paid environmental jobs to replace the lost jobs due to Covid19.
12. Make Environmental and Indigenous Studies compulsory subjects in the school curriculum so young people understand how nature sustains their own lives and their moral obligation to care for Nature.
13. Implement as a matter of national emergency Climate Action initiatives that genuinely reduce human impacts.
14. End the destruction of rural landscapes and livelihoods by ceasing all gas exploration and coal mining. Create new sustainable jobs in renewable energy.
15. Facilitate programmes that limit population growth and facilitate a sustainable economy that puts environmental care at the forefront of policy.
16. Implement an Environmental Accounting pricing system which incorporates the actual or potential deterioration of natural assets due to economic activities, including production and consumption costs.<sup>xiv</sup>
17. Declare a state of emergency in respect of biodiversity and ecosystems decline.
18. Act as if you really care. Eliminate contradictory policies such as promoting heavy industry in WesternPort while paying lip service to environmental care; or turning a blind eye to non-compliant practices.<sup>xv</sup>
19. Invest heavily in scientific research.

## **Conclusion**

The Victorian Government's key policy, *Protecting Victoria's Environment – Biodiversity 2037* claims it "embraces transformational developments in thinking about conservation and the sustainability of human civilisation and economic development...When considering the benefits to current and future generations of Victorians that will flow from improved biodiversity – and the potential consequences of not pursuing such a course of action – the choice is obvious"<sup>xvi</sup>

Yet, the policy is failing our wildlife and ecosystems. Given, the huge body of evidence documented over decades, it is morally untenable to continue to exploit Nature to extinction. And, if we do not rapidly change our behaviour then the very future of the planet is in jeopardy and with it all life. In his keynote address to the Sustainability forum hosted by the Mornington Peninsula Shire in 2000, Emeritus Professor Ian Lowe said that

in our democracy other species cannot vote. Therefore, we must act for them. And, in so doing, we act for ourselves.

## **Endnotes**

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<sup>i</sup> From Biodiversity-based Conservation to an Ethic of Bio-proportionality, published in *Biological Conservation* 200, August 2016, 140-148, p8.

<sup>ii</sup> Ibid. p9.

<sup>iii</sup> Ibid. p7.

<sup>iv</sup> The State of Victoria Department of Environment, Land, Water and Planning 2017, *Protecting Victoria's Environment – Biodiversity 2037*, p6..

<sup>v</sup> Lindenmayer, David, *The Importance of Managing And Conserving Large Old Trees: A Case Study From Victorian Mountain Ash Forests*, CSIRO Publishing, The Royal Society of Victoria, 128, 64–70, 2016, 10.1071/RS16006 [www.publish.csiro.au/journals/rs].

<sup>vi</sup> International Union for Conservation of Nature (IUCN).

<sup>vii</sup> www.environment.gov.au.

<sup>viii</sup> *Protecting Victoria's Environment – Biodiversity 2037*, p4.

<sup>ix</sup> Wauldron, Anthony (Universidade Estadual de Santa Cruz), *Australia is underfunding biodiversity conservation*, The Weekend Conversation, 2 July 2013, 2.34pm.

<sup>x</sup> *Protecting Victoria's Environment – Biodiversity 2037*, p6.

<sup>xi</sup> *Protecting Victoria's Environment – Biodiversity 2037*, p5.

<sup>xii</sup> Stone, Christopher D. *Should Trees Have Standing? Towards Legal Rights for Natural Objects*. Southern California Law Review, 45, 1972, 450-501...

<sup>xiii</sup> *Protecting Victoria's Environment – Biodiversity 2037*, p17.

<sup>xiv</sup> Yencken, D and Wilkinson D., 2000, *Resetting the Compass: Australia's Journey Towards Sustainability*, CSIRO Publishing, Collingwood.

<sup>xv</sup> See, for example, Auditor-General Report, 17 June 2020, *Protecting Critically Endangered Grasslands*.

<sup>xvi</sup> *Protecting Victoria's Environment – Biodiversity 2037*, p4.