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PARLIAMENTARY INQUIRY INTO BIODIVERSITY LOSS AND ECOSYSTEM DECLINE

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This submission begins with an anthropological review of our current crisis, recognizing the recent silo focus on human interests. Following this are the five key drivers of biodiversity loss and ecosystem decline: exploitation, habitat loss, pollution, introduced species and climate change. The submission then identifies detrimental actions that are perpetuating our current predicament, and suggests restorative actions that can help facilitate a recovery. The summary calls for robust legislation, and offers four recommendations including supporting farmers in transitioning towards plant agriculture, incorporating First Nations culture and care for Country, re-introducing the Dingo as apex predator, and restoring the natural sense of wonder that exists in the naturally life-affirming human.

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Background

PREFACE

I would like to preface the submission by acknowledging that the Country under inquiry at this hearing was, is and always will be home to the Taungurong, Gunditjmara, Djab wurrung, Djadjawurrung, Djargurd Wurrung, Gadubanud, Girai wurrung, Gulidjan, Jardwadjali, Jarijari, Dadi Dadi, Ngarigo, Wathaurong, Wemba-Wemba, Wurundjeri and Yorta Yorta People.

AUTHOR INTRODUCTION

My name is Dr. Tamasin Ramsay and I am a medical anthropologist (PhD) with specialisations in environmental anthropology and the anthropology of religion. My doctorate (PhD) investigated the impact of disasters on a spiritual community in India. During my extensive fieldwork I witnessed the ruinous impacts of biodiversity loss and ecosystem decline on local communities, and the devastating and long-reaching effect this has on human and non-human lives.

After I completed my degree I was invited to represent civil society at the United Nations in New York. During my four year appointment I worked with grassroots communities in India, participated in UN climate change conferences on their behalf, and was part of the team that negotiated with governments.

I am a participating member of the Alliance of World Scientists, an international assembly of more than 21,000 scientists in 184 countries that is independent of government, civil organisations and corporations. In 2017 we published the Second Warning to Humanity which states that “scientists have a moral obligation to clearly warn humanity of any catastrophic threat and to tell it like it is”.

In the context of COVID, the Second Warning can be summarised thus: “However horrific the COVID-19 pandemic may seem, it is merely one symptom of gross human ecological dysfunction. The prospect of economic implosion is directly connected. The overarching reality is that the human enterprise is in a state of overshoot.”ⁱ

I consider my submission here part of my responsibility as a citizen of this world and am available to present as a witness to the Parliamentary Inquiry.

SUBMISSION STRUCTURE

I begin my submission by giving an anthropological overview of our current biological predicament. I then identify each of the drivers of biodiversity loss and ecosystem decline. I follow each with the detrimental action that needs to be addressed, followed by an action that is restorative in nature, which can help facilitate a return to balance.

Submission

THE ANTHROPOCENE

There is a period of history that has been informally identified by geologists as being the Anthropoceneⁱⁱ. It remains widely accepted by natural and social scientists that, along with the Great Accelerationⁱⁱⁱ period after WWII, human activity has completely reshaped the ecology of the world. This didn't happen in isolation: There are social, political, theological, geographical, economic and colonial factors in our past that have created our current predicament.

Our contemporary world-view is grounded in particular European interpretations of Judeo-Christian teachings. This has created an ideology which positions humans at the top of a perceived hierarchy whereupon everything and everyone else is inferior to them and there for the taking. However with the abundant evidence available to us from biology, anthropology, ecology, quantum theory, systems theory and indeed the fundamentals of religious theory, we know this to be untrue. It is this attitude of superiority, of speciesism, that lies at the heart of our ecological dysfunction.

COUNTRY AND BIODIVERSITY

There are three core components to biodiversity, and they are interrelated: sentient beings, living forms, and non-living structures. Biological diversity comprises all three and the ways in which they interact with each other in time and space, which is myriad in complexity. Nothing and no-one is excluded. Biodiversity keeps the planet habitable and ecosystems functional which each life form, including ours, contributes to, shapes and benefits from.

We know from our First Nations People and their stories and songlines that from the remote past through to before Europeans made landfall on this continent, there was balance and harmony among all species. The Old People taught longstanding law and lore to the younger ones through Story and Ceremony. Each person has a special obligation to look after Country and the life forms that are a part of it. This deep respect for, and understanding of, all aspects of Country ensured continuing abundance allowing everyone on Country to flourish. This state we call Victoria was biodiverse and rich; everyone and everything had a place on Country. If we consider this inquiry with the seriousness it deserves, it could become central to making true and meaningful amends with First Nations People, as well as being central to the wellness of everyone in Victoria.

ANTHROPOCENTRISM

"The arrogance of humanity is that somehow we imagine we can get by without biodiversity or that it is somehow peripheral: the truth is we need it more than ever..."^{iv}

At the core of our global politics and economy is a fallacy that nature is some unending resource 'out there' that we can dip into or out of at our pleasure. In fact, nature is far too complex to be singular. Rather than *nature is* we should start saying *nature are*. Whether we reside in the city, country, high rises or remote valleys, our human bodies are made up of the very same bio-diverse elements that give rise to what we call nature; earth, air, fire, water, carbon, oxygen, hydrogen in all their forms. We are bio-diverse, multi-complex organisms that are dependent on the diverse biology and microbiome of

our own bodies, and the biodiversity of the ecosystems we live amongst. We are living sentient beings with subjective experiences of our lives and unique views of the world. We are related to each other through our interdependent relationship with the ecology that supports our lives. Other species are also sentient subjects who experience the world in their own distinctive ways. Oddly, we have come to think of these individuals as products and have become blind to the fact that they are our fellow residents with their own *speciety*^v (species specific view of the world). We are not above any other species. We sit amidst them. The concept of hierarchy is a product of the human mind. It does not exist in nature.

The world-view that arrived at our shores a few generations ago is one that imagines other self-aware species either as resources to take or as problems to overcome. This is reiterated and justified through a language of exploitation: “harvest”, “manage”, “cull” and “process” for example. We put a linguistic distance between us and the killing we do. As a naturally biophilic (life loving) species, it softens the blow in the individuals who kill, and retains a social license for those who don’t have to participate. However, the impact of all of the above is now coming to meet us.

The truth is that our lives depend on the survival of other animals, and on other living forms. No bees. No trees. No life. By contrast, the principle of reciprocity and symbiosis, which exists in nature, allows a give and take with other sentient beings and living forms that supports the flourishing of both. Yet we have considered ourselves to be the standout species who can reason or buy their way out of the most serious of problems. We have rather boldly just taken what we want, thinking that we can just keep on taking and keep on growing, that somehow this will satisfy us, and fill us with joy. As we can see from our current predicament, this is the greatest misunderstanding of our time. We are increasingly replete with stuff we don’t need, and becoming dangerously empty of wonder.

HUMAN ADAPTATION

Fortunately humans are highly adaptable. History shows us that we change our behaviour regularly when the need arises. We are highly modifiable organisms with hearts and minds that are capable of deep transformation. Look at the ways in which we have adapted to COVID-19. Although the virus is but a symptom of the greater concerns of anthropocentrism, biological simplification and ecosystem collapse, it has captured our attention like nothing else, and given us pause for many - including me - stimulating a reauthoring^{vi} of our lives.

Whether we see it as an opportunity, or as an interference, we are being compelled to re-write the narrative of our lives and the ways in which we live them. All of us are governed by our own ideas of how the world should be. These ideas are supported by our beliefs, values, traditions, institutional arrangements and power relationships, and with these often comes resistance to change. However life as we knew it in 2019 has changed irrevocably. And we have well adapted. So, as we move to the next phase we can take this as an opportunity to look at the world around us - and within us - with new eyes.

THE FIVE CAUSES OF BIODIVERSITY LOSS AND ECOSYSTEM DECLINE

Five drivers are responsible for biological dysfunction and are the root of our precarious ecological instability: Exploitation, habitat loss, pollution, introduced species and climate change. Below, I identify

each key driver, identify the actions that are detrimental, and recommend restorative actions in their place.

Exploitation

- The exploitation and commodification of other species is destroying habitats and ecosystems to a singularly catastrophic degree. This includes killing other species for entertainment, for sport and – more recently and bizarrely - for ‘ecological reasons’. History demonstrates that shooting, trapping, hunting and fishing do not achieve claims of conservation and biodiversity restoration. Hence we are in this dilemma.
 - *Detrimental Actions:* Shooting, trapping, fishing, poisoning and hunting. E.g. Duck shooting has polluted wetlands through human detritus and bullet casings, significantly reduced bird numbers and damaged First Nations cultural sites throughout Victoria.
 - *Restorative Actions:* Nature based immersion and observation, nature play and appreciation, environmental tourism on wetlands, citizen science in forests, re-establish non-harming relationships between our species and other species.

Habitat Loss

- Removing old growth forests, grasslands and other ecosystems removes the food and homes of thousands of animals. Clear felling for industry or for urban sprawl creates a tinderbox effect as saplings regrow uniformly, heightening the risk of catastrophic fire damage to free-living animals. Pushing other animals out of their homes to create infrastructure that does not consider the interests of other species in the landscape and clearing biodiverse land to create paddocks of feed for introduced animals also destroys habitat.
 - *Detrimental Actions:* Clearing land for animal agriculture, agribusiness and urban sprawl; anthropocentric infrastructure.
 - *Restorative Actions:* Re-wild land. Use regenerative agriculture as means of transitioning^{vii} to plant-based agriculture (Indigenous and European). Support innovative and harm-free farming methods, encouraging smallholder farmers. Retain old growth forests as living cathedrals and irreplaceable treasures; they filter our air and water, provide homes for thousands of animals, cool down our towns and make us happier and feel more connected. Integrate other species’ needs into human infrastructure, e.g. the successful innovations of Prof. Darryl Jones at Griffith University (wildlife bridges and tunnels).

Pollution

- Chemical, pharmaceuticals, plastics and waste are polluting our land, air and waterways harming human and non-human animals.
 - *Detrimental Actions:* Administering pharmaceuticals to animals in animal agriculture pollute the soil, water and air, whilst causing chronic health problems in humans. Using chemicals in plant agriculture damages human microbiomes and kills microorganisms that are critical to biological health. Inhumane poisons such as 1080 and Papp hurt and kill both introduced and native animals. Creating new plastics and other non-biodegradable waste causes even more of it to end up in our waterways and in the gastric systems of sea life and birds killing them in large numbers.^{viii}

- *Restorative Actions:* Utilise nature's effective system of predation (e.g. dingo) rather than laying poison baits and traps that inhumanely kill domestic, introduced and native animals. Make it easy for people to eat fresh plant produce from farmers that is manufactured free from chemicals. Ensure the one who farms (and harms) with chemical additives pays for the environmental and health costs of chemical farming. Ensure chemical-free farming is widespread and cheap. Increase the cost of new plastics, and encourage people to re-use old plastics. Create financial incentives for plastic-free production and consumption. Support a circular economy.

Introduced Species

- Through poor judgement and disregard for native animals, we have introduced species that are harming the Australian environment: sheep, rabbits, cows, cats, deer, goats, pigs, horses and foxes. Certain species amongst them have survived and are now free-living in the landscape. As we are responsible for bringing them here we should treat them with contempt by killing them. Rather we have a responsibility to give them equal consideration by respecting their fundamental interests in life, bodily integrity and self-determination.
 - *Detrimental Actions:* Breeding, feeding, killing and poisoning introduced species through aerial shooting, ground baiting, factory farming, and slaughterhouses.
 - *Restorative Actions:* Stop breeding introduced animals. Allow nature to restore balance through predation. Educate people about co-existing with other species. Encourage people to learn about, understand, observe, appreciate and relate to other species.

Climate Change

- Fossil fuels are a root cause of global warming and climate change, but they have an equal partner: Deforestation for animal agriculture (or plant food for animal agriculture) is just as significant a concern. The consumption of animal products is driving biodiversity loss and environmental decline as we remove native ecosystems over huge swaths of land to plant animal feed. Drought exacerbation through poor water management for animal agriculture (primarily) is compounding the problem.
 - *Detrimental Actions:* Clear felling forests for animal agriculture, including old growth forests which are the lungs of the earth and habitat for many. Water appropriation for animal agriculture and animal feed.
 - *Restorative Actions:* Employ First Nations forest management methods to reduce fuel load and fire risk: this will maintain and enhance habitat for other species, cool the earth, and provide clean air and good habitat for everyone. Increase plant agriculture and reduce animal agriculture to absorb carbon and reduce greenhouse gas emissions. Support plant farming to feed many more people with less land. Make local nutritious plant food easily available and cheap. Ensure that the environmental and health costs of animal products are reflected in the sale price of those products.

SUMMARY

Biodiversity loss and ecosystem decline is being driven by human decisions and actions, which is enabled by poor legislation. Current laws that are designed to protect non-human animals and the

environment contain so many exemptions that any protections become fundamentally meaningless. This is not to blame any particular government, but rather to identify corrective measures we need to take. Our current government must bring in laws that are sacrosanct and not subject to erosion. These laws must fulfil at least three functions:

1. give equal consideration to non-human species
2. ensure the harmer pays
3. protect existing habitat.

I have identified the five main drivers of biodiversity loss and ecosystem decline, and followed each by identifying detrimental actions that must be rapidly phased out, and restorative actions that must be rapidly phased in.

Some of the ways in which this submission addresses the Terms of Reference are below:

- (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;
 - a. irrevocable loss of species
 - b. destruction of totem animals for example the dingo and the kangaroo
- (b) the adequacy of the legislative framework protecting Victoria's environment, including grasslands, forests and the marine and coastal environment, and native species;
 - a. protections are rendered meaningless due to the type and number of exemptions to legislation affecting non-human animals and the environment
 - b. ensure laws are truly protective, sacrosanct and not subject to erosion by successive governments
- (c) the adequacy and effectiveness of government programs and funding protecting and restoring Victoria's ecosystems;
 - a. the harmer must pay the cost of the harms
 - b. local, plant-based and animal-friendly must be cheap and widely accessible
- (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;
 - a. nature-based tourism, citizen science projects and First Nations management of forests can facilitate species protection, restoration and recovery
- (e) opportunities to restore Victoria's environment while upholding First Peoples' connection to country, and increasing and diversifying employment opportunities in Victoria; and
 - a. ensure First Nations knowledge and culture is integrated at all aspects of decision-making regarding Country, which can offer meaningful employment to First Nations people supporting their wellness and helping to facilitate true reconciliation.
- (f) any other related matters.
 - a. stop using the language of exploitation and gloss words for hurting and killing (e.g. "harvest") which perpetuates systems of structural violence; become more forthright and honest about what we do to other species.

The urgency of this situation requires all of us to adapt and make changes to our lives. We must make this shift collectively for our own sakes, and for the sakes of future generations if we are to survive and thrive as a species.

RECOMMENDATIONS

Although the problems rest with us, fortunately so do the solutions. Some recommendations that can be implemented immediately are to:

- assist farmers in transitioning away from animal agriculture and encourage traditional and harm-free farming methods such as:
 - plant-protein farming
 - chemical free farming
 - regenerative farming
- incorporate First Nations cultural knowledge and care for Country into all aspects of environmental care including forest management and fire safety, providing jobs and meaning for First Nations People
- re-introduce and protect the dingo as the apex predator, recognising they are a totem animal for First Nations People, key protectors of ecosystems and supporters of biodiversity in the state
- restore the sense of wonder people have for the natural world by encouraging nature play for children and nature excursions, offering nature-based tourism and citizen science programs for adults.

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Endnotes

ⁱ William E. Rees, Professor Emeritus of Human Ecology and Ecological Economics, University of British Columbia, Canada. Available at <https://www.scientistwarning.org/2020/06/04/coronavirus-pandemic/>

ⁱⁱ Crutzen, Paul J. (2006). "The "anthropocene"." In *Earth System Science in the Anthropocene*, pp. 13-18. Springer: Berlin, Heidelberg.

ⁱⁱⁱ Steffen, W., Broadgate, W., Deutsch, L., Gaffney, O. and Ludwig, C. (2015). The trajectory of the Anthropocene: the great acceleration. *The Anthropocene Review*, 2(1), pp.81-98.

^{iv} Achim Steiner, United Nations Under Secretary General and Executive Director, United Nations Environment Program. Available at: <https://www.reuters.com/article/us-biodiversity-economy-idUSTRE64929520100510>.

^v Burque, Augustine (2017). Thinking the ambient: On the possibility of Shizengaku (Naturing Science) in *Japanese Environmental Philosophy*, eds. J. Baird Callicott and James McRae, Oxford University Press: New York, 13-28.

^{vi} Janoff-Bulman, Ronnie (1989). Assumptive worlds and the stress of traumatic events: Applications of the schema construct. *Social Cognition*, 7(2), 113-136.

^{vii} Millard, Esther (2020). "The track to transformation: How regenerative agriculture and Indigenous land management can improve the resilience of farms in Western Victoria", *Parliamentary Internship Report*: Parliament of Victoria. Available at [https://pov.ent.sirsidynix.net.au/client/en_GB/default/search/detailnonmodal/ent:\\$002f\\$002fSD_ILS\\$002f0\\$002fSD_ILS:81492/one](https://pov.ent.sirsidynix.net.au/client/en_GB/default/search/detailnonmodal/ent:$002f$002fSD_ILS$002f0$002fSD_ILS:81492/one)

^{viii} Gill, Victoria (2018). "Marine plastic: Hundreds of fragments in dead seabirds", *BBC News*. Available at <https://www.bbc.com/news/science-environment-44579422>.