

Submission to the Productivity Commission: The Net Zero Transformation.

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Dear Sir/Madam,

I am sending my submission to your Office in response to my concerns over any changes to the Environment Protection and Biodiversity Conservation Act 1999 (EPBC Act), which may cause damage to Australia's, currently at risk, High Biodiversity.

I believe that biodiversity is just as important to the long-term well-being of Australia's environment as climate change.

I believe that the EPBC Act needs to protect the following:

- Australia's remaining areas of High Biodiversity
- Australia's Biodiversity as a whole
- Endangered and Vulnerable native plants
- Endangered and Vulnerable native Animals

Australia's Microorganisms, Fungi, and our Soil Microbiome.

Australia has one of the worst rates of native species extinctions in the world. (1)

Australia also has one of the highest rates of deforestation of remnant forests in the world. (2)

I have concerns that if renewable energy industrial projects are planned in areas of high biodiversity or in areas of remnant forests, and EPBC regulations are changed, then there may be fast tracking of these developments at the cost of Australia's biodiversity.

I believe that high standards of environmental protection need to apply to any proposed industrial development, including proposed renewable industrial developments.

Long-term impacts to our environment and endangered and vulnerable species must not be accepted for the construction of renewable industrial projects; some of which only have a 20 year life span.

Australian areas of remnant vegetation and high biodiversity have wondrously evolved and developed over many thousands of years; the animals, plants, and micro-organisms within them have concurrently evolved and developed, and called these forests home for millennia.

Once destroyed, these special and rare environments can never be replaced.

Once infrastructure and access roads have been put in place, feral animals, plants and microorganisms will enter into these areas of remnant forest and there can never be a return to the former ecosystem. (3)

I very much believe in protecting the remaining high biodiverse areas in Australia.

I think there can be no justification in destroying areas of high biodiversity by placing industrial developments, with wide access roads, in these areas.

We need to protect our climate and environment but not at the cost of destroying precious area of high biodiversity that are nesting and foraging habitat for Koalas, Spectacled Flying Foxes, Greater Gliders, Red Goshawks, and Magnificent Broodfrogs; these creatures all want to live in a beautiful and balanced remnant forest, just as their ancestors have lived for thousands of years.

If humans reduced the amount of energy and resources that they used, realising that they are not the only inhabitants of Planet Earth, then we would not continually need to plunder the few pristine areas of remnant forest that we have left.

I believe Australia as a nation, needs to move forward with a high level of protection of our high biodiverse areas.

The EBPC Act needs to live up to the word 'Protection' in its name and really seriously protect vulnerable and endangered plants and animals, and the microorganisms in our soil.

The destruction of the rich and fertile soil in remnant forests by developments destroys important fungi and other microorganisms in the soil.

According to Professor Elaine Ingham, Professor of Microbiology at Oregon State University; for soil to be healthy, in each gram of soil, there needs to be 600 million bacteria, 20,000 species of bacteria, and 5,000-7,000 species of fungi.

(5)

Research by the University of Sheffield in the UK, published on 5th June 2023, shows that Fungi stores 36 per cent of all carbon from fossil fuel emissions and could be essential to reaching net zero. (4)

Researchers found that Mycorrhizal fungi are responsible for holding up to one third of yearly global fossil fuel emissions below ground, more emissions than China emits each year. (4)

Researchers also stated that the vast underground network of fungi beneath our feet stores over 13 gigatons of carbon around the world, which is roughly equivalent to 36 per cent of yearly global fossil fuel emissions. (4)

The Mycorrhizal fungi are particularly abundant in remnant forests, even more reason to leave in place the small percentage of remnant forest still remaining in Australia.

I believe that to truly look at our Australian Environment in a wholistic way, microbes and soil health need to be included in any environmental reports carried out by both the Government and developers; and the Soil Microbiome needs to be included in the EPBC Act.

I believe that the EPBC Act needs to be solid and unbiased and something that every Australian can trust to truly protect our environment.

I believe that when exceptions to important environmental protection regulations are made for heavy industrial developments by the renewable sector, then we are really at risk of species extinctions and an irreversible destruction to Australian remnant forests.

Cleaner and affordable energy is a goal and aspiration for every country. However, the road to cleaner and cost effective energy cannot, I believe, be at the expense of destroying some of our most precious environmental and high biodiverse areas.

I believe that clean energy does not have to be at the expense of our currently fragile environment and ecosystems.

I hope that each proposed industrial development, whatever sector it comes from, is assessed equally by the Government and the EPBC Act; regarding its potential impact

on flora, fauna, and fungi.

We are so fortunate in being a global biodiversity hotspot and one of just 17 'megadiverse' countries on the planet. (3)

I believe that Australia needs to keep our EBPC Act strong and uncompromised to ensure that this current generation of Government keeps the integrity of our environment, conserves native species, and ensures our areas of high biodiversity are protected; for future generations of humans, animals, plants, and fungi.

Thank you very much for your time and consideration.

Best Regards,
Anne Osborne.

References:

1) <https://www.nespthreatenedspecies.edu.au/news-and-media/latest-news/a-review-of-listed-extinctions-in-australia>

2) <https://wwf.org.au/news/2021/australia-remains-the-only-developed-nation-on-the-list-of-global-deforestation-fronts/>

3) <https://invasives.org.au/our-work/ending-extinctions/>

4) https://www.sciencedaily.com/releases/2023/06/230605181230.htm#citation_chicago

5) Sait, Graeme, *Nutrition Rules*, Soil Therapy Pty Ltd, Eumundi, March 2003.