

TRANSCRIPT

LEGISLATIVE COUNCIL ENVIRONMENT AND PLANNING COMMITTEE

Inquiry into Ecosystem Decline in Victoria

Melbourne—Tuesday, 11 May 2021

MEMBERS

Ms Sonja Terpstra—Chair

Mr Clifford Hayes—Deputy Chair

Dr Matthew Bach

Ms Melina Bath

Dr Catherine Cumming

Mr Stuart Grimley

Mr Andy Meddick

Mr Cesar Melhem

Dr Samantha Ratnam

Ms Nina Taylor

PARTICIPATING MEMBERS

Ms Georgie Crozier

Mr David Davis

Dr Tien Kieu

Mrs Beverley McArthur

Mr Tim Quilty

WITNESS

Mr Paul Mahony.

The CHAIR: I declare open the Legislative Council Environment and Planning Committee public hearing for the Inquiry into Ecosystem Decline in Victoria. Please ensure that mobile phones have been switched to silent and that background noise is minimised.

I would like to begin this hearing by respectfully acknowledging the traditional custodians of the various lands which each of us is gathered on today and pay my respects to their ancestors, elders and families. I particularly welcome any elders or community members who are here today to impart their knowledge of this issue to the committee or who are watching the broadcast of these proceedings.

I would like to welcome any members of the public who may be watching these proceedings via the live broadcast as well.

I will just take the opportunity to introduce the committee members to you. I am Sonja Terpstra, I am the Chair of the Environment and Planning Committee. Mr Clifford Hayes is the Deputy Chair. Now, I just cannot quite see who is with us on Zoom, so I will come back to them in a second. We have in the room: Mr Andy Meddick, Ms Melina Bath and Mrs Bev McArthur. I do believe we will have Ms Nina Taylor, Mr Stuart Grimley and possibly Dr Matthew Bach joining us, but they will pop up on the screen momentarily.

All evidence taken is protected by parliamentary privilege as provided by the *Constitution Act 1975* and further subject to the provisions of the Legislative Council's standing orders. Therefore the information you provide during the hearing is protected by law. You are protected against any action for what you say during this hearing, but if you go elsewhere and repeat the same things, those comments may not be protected by this privilege. Any deliberately false evidence or misleading of the committee may be considered a contempt of Parliament.

All evidence is being recorded, and you will be provided with a proof version of the transcript following the hearing. Transcripts will ultimately be made public and posted on the committee's website. If you could, for the Hansard record, please state your name.

Mr MAHONY: My name is Paul Mahony.

The CHAIR: And you are appearing as an individual?

Mr MAHONY: Correct.

The CHAIR: Okay. Thank you. All right, with that, it is over to you. I will invite you to make your opening comments. If you could just keep them to about 5 or 10 minutes, and I will give you a 2-minute warning as we approach the end of your time. Thank you.

Mr MAHONY: Thank you, Chair. Thanks to the committee for the opportunity, firstly, to submit a paper on this important topic and also for the opportunity to appear today to discuss the issues with you.

Visual presentation.

Mr MAHONY: My submission is titled 'The Devastating Impact of Animal Exploitation Activities', and this is a copy of the submission cover page and the table of contents. I will not go through those in detail, but I have listed a few of the key topics on this slide. Because of the time constraints I will focus primarily in this discussion now in the first few minutes on the first item, which is the fact that animals are a grossly and inherently inefficient source of nutrition which requires us to use far more land and other resources than would otherwise be required.

Other issues include animal agriculture being a major contributor to climate change. We face a climate emergency. This is a critical issue, and animal agriculture's impacts are arguably significantly understated in official reporting of climate change. I also in the submission talk about the impact of consuming sea animals on marine ecosystems, including vegetated coastal habitats, which include seagrass meadows and also kelp forests, and these are significant issues in Victoria. Also there is an impact from invasive species, and I comment in the submission about buffel grass, which is very prominent in northern Australia and which is coming into

Victoria. The issue, apart from animal agriculture, is the fact that we are deliberately killing wild animals—in the case of ducks, for recreational purposes—which is a practice that seemingly goes against some of the statements by the Victorian government in various papers, as is the killing of other wild animals.

It is not included in my submission, but I will just comment here on the fact that consumption in Victoria can adversely affect ecosystems elsewhere. That includes in Queensland the Great Barrier Reef, because cattle grazing has had an enormous impact on the Great Barrier Reef, including the release of sediment. It is responsible for about 70 per cent of sediment that is in the Great Barrier Reef waters and also the loss of woodlands in the Brigalow Belt bioregion, which covers a large area of Queensland and part of northern New South Wales. We have lost about 90 per cent of the woodlands in that bioregion primarily because of cattle grazing.

I talk in the submission about the big picture, and what I am getting at there is that we can talk about various technical issues and climate change and that type of thing, but there are large issues as to why these concerns are not as prominent in the community as they might be. Part of that is direct political pressure, and that includes powerful lobby groups such as the Victorian Farmers Federation, which has an office a couple of minutes from this building at the top end of Collins Street, and also there is an issue of links between the farmed animal sector and major environmental groups. I also talk in the submission about the farmed animal sector's sophisticated marketing and PR techniques, which utilise in part this state's and other states' education systems for the purpose of accessing schoolchildren.

I just wanted to mention that since the submission was sent through in August last year, Chatham House, the think tank in London, has issued this paper titled *Food System Impacts on Biodiversity Loss*, and that is supported by the United Nations Environment Programme. They say in that paper that humanity must shift towards more plant-based diets.

Now, this particular topic is animals being a grossly and inherently inefficient source of nutrition. This slide is based on a paper from 2018 by Joseph Poore from Oxford University and Thomas Nemecek from the LCA research group in Zurich, Switzerland. They have reported that animal farming occupies around 83 per cent of farmland globally, and for that massive use of land it only provides 30 per cent of global protein and 18 per cent of calories globally. So if we think about efficiencies, we seem to talk about food production in a very different way to how we would about productivity agreements in an industrial relations setting or something similar. Poore and Nemecek reported that moving away from animals as a food source would enable us to release 76 per cent of farmland that is currently used globally. That is equivalent to an area the size of Africa or four times the contiguous United States or four times Australia that would be freed up for rewilding, revegetating—any number of uses that we wanted.

In Victoria the land was almost completely covered by forest and woodlands at the time of European settlement. David Lindenmayer from ANU and Mark Burgman from the University of Melbourne have said, and I quote here:

It was once possible to walk from Melbourne to Sydney through almost continuous woodland cover, but now much of it is gone and the remaining patches are small and highly disturbed.

When we drive along the Hume Freeway north or along the Calder Freeway west we see a lot of open land with a few trees, and we might think that is natural, but it is not. It has been cleared and cleared mainly for animal agriculture and obviously a lot of cropland as well, but the animal agriculture part of it is the really inefficient use of the land. Around two-thirds of Victoria's native vegetation has been cleared, leaving 34 per cent of land covered by native forests.

So they are the main points, and just back to the key points again, if anybody wants any reminders, they have got the submission as well if they want to draw from that. Thanks, Chair. I am happy to answer questions.

The CHAIR: Great. Thank you. Mr Meddick, you can go first.

Mr MEDDICK: Thank you, Chair. Thank you, Mr Mahony, for your presentation and for your extensive contribution. I want to just ask one question rather quickly and then I want to revert to specifically focus on marine environments because I think others will cover other subjects. What uses more land? Very simply, what uses more land and water: is it animal ag or horticultural agriculture?

Mr MAHONY: Oh, animal agriculture would. Fifty-four per cent of the Australian continent is used for farmed animal grazing, so there is no comparison there. I do not know the percentage used by horticulture, but

it is tiny compared to the amount used for animal ag. Now, a lot of that is on the rangelands—the outback—but a lot of it is on cleared land as well. We should not think that the grazing on the rangelands comes without a cost, because it has got a huge environmental cost. They are very rich ecosystems. I mentioned earlier issues like introduced species. In the north of Australia a huge problem is gamba grass, which is introduced for pasture. It has got a massive fire load; it burns incredibly intensely. Buffel grass is another one, which is the one I mentioned that is encroaching into Victoria. They destroy trees. Natural fires in Australia prior to Europeans arriving burnt at a low temperature and they were not intense. Trees would survive without any problem. They served a purpose. They would help regenerate the landscape. These fires with gamba grass or buffel grass destroy the trees completely. They get into the canopy and they are causing a massive problem in terms of fire control in the Northern Territory and other places. So introducing grasses like that for pasture is coming at an enormous cost, and I hate to think of the difficulties involved in controlling those invasive species.

Mr MEDDICK: Thanks very much. If I can come to the marine question now, recently we heard about an exposé in the form of a book about the salmon industry in Tasmania particularly, and certainly I have campaigned in the past against super trawlers. Around the world they are recognised as being roundly condemned for being responsible for overfishing and the creation of marine dead zones. But many marine scientists from around the globe also predict that the world's commercial fisheries will be completely gone—I think by the year 2045 is the prediction—if the current rates of fishing continue. If we are to restore marine environments, what constitutes a safe or sustainable level of fishing?

Mr MAHONY: The paper that estimated the loss of all fish from the sea used a model which indicated 2048, and that has been modified along the way as we go. What is a sustainable level? I have not investigated that to say what it might be. I have read about Richard Flanagan's recent book about salmon farming. What I have commented on here and elsewhere is the fact that we are removing apex predators in the ocean, so the massive amount of fishing that is occurring is taking with it not only the targeted fish but the bycatch. And what is happening off the coast of Victoria is that rock lobsters are a problem—for example, the harvesting of rock lobsters—and they have caused a massive problem in Tasmania as well, with the loss of giant kelp forests. What has happened is that with climate change the area for sea urchins has expanded and they have come south. Sea urchins graze on the vegetation at the bottom of the sea and they are destroying the kelp forests. With rock lobsters in their natural state, they would control that population of sea urchins and we would not have that problem. It has been said that the problem exists for the two reasons—climate change and the harvesting of rock lobsters. We would not have the problem if one or the other did not exist. So that is just one example.

I have written before about this concept of trophic downgrading, which is where we are moving the species at the top end of the food web or the food chain and letting the other species who disturb the seabed to proliferate to unnatural levels, and that is causing a huge problem. Something that is a real concern is that these ecosystems—say, the giant kelp forests and the vegetated coastal habitats—can capture carbon at around 40 times the rate of a tropical rainforest, but we do not see them. If you go off the coast of Port Phillip Bay—Point Cook, Williamstown, Beaumaris—you will see barrens of sea urchins where the landscape is like a desert because the kelp has been removed and we are no longer sequestering the carbon that we used to. And not only that, we have lost the habitat for other species that use that ecosystem.

So in considering your question generally, what we are doing to the oceans—and it is frightening to see the amount of fish coming out of some of the nets on those industrial fishing vessels—is totally unnatural. To a large extent it is not controlled; there is a lot of illegal fishing. To the extent we are allowing it, we are still overdoing it and we are ignoring a large part of the problem and having immense impacts, which are to a large extent out of sight and possibly out of mind. A lot of it is out of sight because most of us are not looking. We are not visiting areas where the terrestrial problems are happening either. So we are not seeing it; we are hearing about it. We have to find reliable sources, and that is what I have tried to do. I am here in a private capacity. I have spent the time to research a bit of these things, and it is quite frightening to see what is happening.

I mentioned the climate emergency. When I talk about carbon sequestration in the oceans and on land, I do not think people really appreciate the urgency of the situation we are facing and the fact that we are facing exponential trending in the climate system. It is not a linear trend. This is getting out of control. We have feedback mechanisms in the climate system. One process feeds back and accelerates. It is like compound interest. It grows very quickly, and that is what is happening. The loss of forest, for example, causes more loss of forest because the forest fragments, it dries out, less rain. I talk in my submission about regional impacts of

land clearing and how there are higher wind speeds, higher temperatures, less rainfall. It is a terrible combination, and we saw what that can mean in the 2019 bushfires on the east coast of Australia.

Mr MEDDICK: Thank you. Cheers.

Mr MAHONY: No problem.

The CHAIR: Mr Hayes.

Mr HAYES: Thanks, Mr Mahony. That is very interesting what you are saying, but very scary too. We are hearing how really our species extinctions have fallen off a cliff. I worry about the other side of it—our exponential population growth—and also worry that if we do go to a plant-based diet it will be used by governments to say, ‘Well, we can have more people for economic purposes’. But apart from that, I just wanted to ask you: could you give me your views? There is a lot of promotion, a lot of talk, of hamburger production and feedlot in cattle to produce hamburgers and even very poor socio-economically disadvantaged communities living on fast food like hamburgers, so the big push to increase feedlotting and the environmental effects that has. If you would like to—

Mr MAHONY: Yes. It is a really good question because feedlots are often demonised, but from a climate change viewpoint the big problem is cattle fed on grass. No ruminants spend their entire life in a feedlot, because they would not survive. They are spending most of their life grazing, and then they will go into a feedlot to get to a certain weight at an accelerated pace in the last three or four months of their life—it just depends. But whilst they are feeding on grass they are releasing methane at about four times the rate of what they would be in a feedlot, and that grazing occupies a huge amount of land. They are both problematic, because the inherent inefficiency is the problem here. To obtain food from an animal, from animal flesh, we are feeding it grain or grass—vegetation; they are getting their protein from vegetation. Cows do not eat meat. Elephants—I know we do not eat elephants either—do not eat meat, for example. They grow big and strong eating the vegetation. So what we are doing is allowing them to have that vegetation, whether we have cleared forest to provide pasture for them or whether we have cleared forest to grow grain for them. We are giving it to them, but of course they need to grow and survive, so they are using the nutrition, and at the end of the day there is not much left for us in the form of the meat. So they are both problematic.

But a lot of people—and environmental groups do this—will mistakenly say that it is okay to eat animals that have been fed on grass. Intuitively it sounds okay, you know, ‘It’s natural, it’s what they do’, and you would think, ‘Yeah, it’s healthier’. It might be healthier; I do not know. I mean, there are problems with red meat from a health point of view whether the animals are fed on grass or grain. You cannot remove those problems. From an environmental point of view both are problematic, but certainly for emissions intensity the grass-fed cattle, for example, are far more emissions intensive than those fed on grain.

Mr HAYES: Right. Okay.

Mr MAHONY: Let us say those fed entirely on grass are more emissions intensive than those finished on grain, because as I said earlier, they will not be on grain all their life.

Mr HAYES: That is interesting. I guess just the industrial scale of it, from what I have seen, is quite enormous in America. But I would move on to something else: the rangeland that is used for animals at the moment. If animals were off the rangeland, would that rangeland be converted to cropping? How much of it could, or would that be desirable?

Mr MAHONY: Well, I would say not very much. We are talking about outback Australia. It is what it is, you know. It is not land that is ideal for cropping. You probably could not grow much out there. But as I was saying to Mr Meddick earlier, it still has a value. It is a very rich ecosystem. As a nation we tend to think that it is just barren and of no use whatsoever, but that is not true, and there are lots of species out there. So if we are talking about ecosystems, it is a very important part of the landscape.

The point about cropping is, like, if we stopped those animals grazing that land we would not need to crop all that land, because we need far less land if we are cropping than if we are relying on animal agriculture, and that was highlighted in the chart I showed with the map of Africa. Because Poore and Nemecek are saying that we would release 76 per cent of farming land by moving towards a plant-based diet. We would still be getting the nutrition. And let us remember the end product is nutrition; it is not a steak or a lamb chop or a soy burger, it is the protein and the calcium and the zinc and the potassium, all the nutrients we need to survive—the calories.

So I like to think that if we had a blank sheet of paper and we were all in this room and we had not been brought up with any particular diet or any particular way of life and we were given the problem of coming up with a system to feed the world's population, whatever it is at the current time, we would not end up with animal agriculture. Because if we had anybody with any business sense in that room and we spoke about efficiencies, as I mentioned earlier, we would not go down that track.

Mr HAYES: Fair enough. Thank you.

The CHAIR: Mr Grimley.

Mr GRIMLEY: Thank you, Chair. Thank you, Paul, for your submission. I just want to expand upon the quote that you said about animals—'grossly and inherently inefficient source of nutrition'. I am one to really try to explore and get all of the sides of the argument in terms of this, and I certainly hear a lot of different sides to it. Whilst you were talking I was just trying to do a bit of research myself. There are organisations and people like yourself who propose one position and there are organisations and industries that propose the other, and I suppose somewhere in the middle lies the truth. So in your opinion, how do we get to the truth, and is there a lack of data or research in this area? Because there seem to be very strong arguments from either side of the equation.

Mr MAHONY: I do not think that the truth has to be in the middle somewhere. I like to think that we can argue a point which we believe to be the truth, and what I am putting forward are the facts as I see them. I get back to this point because you were quoting my comment about the gross and inherent inefficiency. I have got in front of me a chart which is based on the Poore and Nemecek paper that I quoted earlier, and it is talking about the land use per 100 grams of protein. Lamb and mutton is 184 square metres; tofu—soybeans—is 2.2 square metres. We hear a lot about things like regenerative grazing and bringing carbon into the soil and things like that, but we have still got this inherent problem with animal agriculture that it is just so inefficient. In temperate climates it might be possible with good practices to improve the soil from what it might have been at one stage. That is not to say it is as good as they were before the forest was cleared to create that pasture, but you might have practices that are better than some. But to a large extent it is tweaking around the edges because the problem is so big, the comparisons are so great, that we can never get to the position which we would be in if we moved away from animals altogether. That is how I see it anyway. The land use issue is a massive one. It is possible to rewild landscapes and to start to draw down carbon, which is an essential thing if we going to overcome the climate crisis.

Mr GRIMLEY: No worries. Thank you. Thank you, Chair.

Ms TAYLOR: Thanks for your contribution. Not to divert from the points that you are making, you see in Europe and increasingly here more use of urban settings like the top of rooftops and other things to grow vegetables et cetera. Do you have an opinion on that? What do you think about the cities taking a bit more of that burden, so to speak, in a positive sense?

Mr MAHONY: It is all good. I think there is nothing wrong with that. But again it is a little bit like what I said a minute ago: tweaking around the edges. It will help, but it is not going to overcome the problems. You can see what is going on in Brazil where they are burning the forest, and they are burning it mainly for cattle grazing. Bolsonaro, the President, says, 'Well, you guys go jump because you did this before'. Much of the land in Victoria was cleared in the 1880s. We had landscape that probably looked a lot like parts of Brazil at the moment. It probably was not as thickly wooded as the Amazon rainforest, but it was still woodlands and forests. What did we do? We cleared it. Bolsonaro's argument is: 'Well, you guys did that 100 years or more ago. Now it's our turn, so go away'. So in answer to your question, what I am highlighting there is: we are destroying such a fertile ecosystem mainly to graze cattle. A lot of people say, 'But they're growing soybeans'. Yes, but they are growing soybeans to feed farmed animals. China has a population of around 500 million pigs. Australia slaughters about 5 million a year. China has an ongoing population for 500 million pigs. Now, they are massive importers of soybeans to feed those pigs. That is inefficient. If those soybeans were coming directly to people, we would need far less land to grow them because we would not need as much. We would be getting all of the nutrition from those soybeans, and soybeans are incredibly nutritious. They have a very high protein content and other nutrients as well, so I think that is the main game really. I think things like you are talking about are good, but they are not going to solve the problem.

The CHAIR: Dr Bach.

Dr BACH: Thank you, Chair. I think, Chair, because I was quite late to this session I had better pass to another member of the committee, and potentially, only if there is time, perhaps you will come back to me.

The CHAIR: Okay. Thanks. Dr Ratnam.

Dr RATNAM: Thanks, Mr Mahony, for your submission. You talked about the damage that current agricultural practices do, so I wanted to ask for your views on how you see agriculture being changed in Victoria. How could it be changed in Victoria, and what difference do you think this would make for ecosystems, threatened species and addressing climate change?

Mr MAHONY: In Victoria we have got a massive potential to use land in other ways. Part of that could be rewilding, because we do not need to use all that land for food production. If we look at where cattle are grazing in Victoria and sheep are grazing in Victoria at the moment, potentially—just looking at the chart that I showed earlier about the amount of land that we can recover globally, which is 76 per cent of farmland we can recover for other uses, and that is after putting it to use for plant-based agriculture—there are lots of different ways, but I have not looked at the alternative production that could be used in Victoria.

What I am saying is that we have to recognise the problem, and once we recognise the problem and look at potential solutions, then through combined efforts we can consider lots of alternative uses for that land. A lot of it could be ecotourism. A lot of it could be for alternative crops and alternative ways of growing it. And, look, there is no doubt that animal farmers can improve what they are doing. They can always improve what they are doing, and a lot of them would want to maintain the grazing practices with agroforestry and other things to at least improve what is happening at the moment and to draw down some carbon. We hear a lot about carbon neutrality, but we really need to go beyond that overall. We need to be drawing carbon out of the atmosphere because it is already at levels that are miles higher than we have seen in all of human civilisation, in all of human existence. So carbon neutrality as a goal is just not sufficient. We have to do more, we have to draw down that carbon beyond neutral. So the more we can rewild, revegetate, the better. And we can allow natural ecosystems to develop. This is all about ecosystems. We have a natural environment where we have scarred the landscape, but we can help it recover back to something approaching what it was and let nature do its job and allow ecosystems to develop and species to expand et cetera. So we have so many options, but whilst we are using that land in such an inefficient way as we are at the moment our opportunities are very limited. We cannot do much.

The CHAIR: Okay. Ms Bath.

Ms BATH: Thank you, Chair. Thank you for your appearance today. I have been listening quite attentively, and I have read your submission. I would like to quote something back to you that was from Bill Gammage. Bill Gammage is a historian, quite a renowned historian, and he wrote a book called *The Biggest Estate on Earth*, and in that he researched past explorers. They said—I am quoting, but I am not telling you who they are from in his book, that they ‘passed through a very pretty grassy and park-like country . . . park-like scenery and splendid grass’. I would say that there are others who say that—including Bill Gammage’s research—Australia was not all covered in forest. There were landscapes with great swathes of grassland that were cultivated by our Indigenous First Peoples. And in your submission, which talks about concerns about animal base—we are concerned about this, that or the other—it does not mention bushfire in any major capacity, and it does not mention, we will say, weed species, like our various invasive weeds. Yet the CSIRO in the 2019 report says they are the two biggest threats, and we are doing threatened species: bushfire and pests and weeds. I am just wondering why that did not get a mention in your quite comprehensive analysis on threatened species?

Mr MAHONY: I did talk about invasive species and buffel grass, and I have spoken today about buffel grass and gamba grass. So if we are talking about invasive species and weeds, buffel grass is classed as a weed in South Australia, and the South Australia government says it has got the ability to cover 60 per cent of the Australian continent. Now, that was introduced for pasture and also for dust suppression. But you mentioned the forests. I did not say Australia was covered by forests; I said Victoria—forest and woodland. So I know that all of Australia was not covered by forests—no, I understand that.

Mrs McARTHUR: But Victoria was not, either.

Ms BATH: It was not totally covered by—

Mr MAHONY: No. I said largely—earlier I said largely.

Ms BATH: And I guess the comment is that if you look at the public estates, so our national parks, we have got about 3.5 million hectares of public. I guess my frustration with your report is it is very focused, and you have the full right to be focused on whatever you want to be, but when we have heard evidence from this inquiry and certainly the CSIRO report talks about bushfire and pests and weeds, it seems to me it is a very narrow focus against the ag industry and the livestock ag industry and I feel that it misses some of the key factors around some of the greater threats that we have heard in these hearings and submissions.

Mr MAHONY: Sure. When you talk about bushfire, I mentioned earlier and it is in the report, talking about the regional impacts of climate change—sorry, land clearing on climate change. That focuses particularly on south-eastern and south-western Australia. The land clearing has contributed to the change in climate—that is, drier climate, less soil moisture, less rainfall and higher wind speeds, a perfect combination for bushfires. So it is certainly possible that the massive bushfires we saw in 1920 and Black Saturday and Ash Wednesday et cetera, et cetera and the increasing intensity of bushfires has been contributed to by the fact that we have cleared so much land in Australia. My point is that we have cleared more than we needed to because of animal agriculture. I spoke about the Brigalow Belt in Queensland and New South Wales. About 90 per cent has gone because of cattle grazing. It is 130 000 square kilometres, and there are species that are close to extinction or have become extinct in that bioregion. It is a critically important bioregion, and it is a huge area on the Australian map.

I mentioned the Great Barrier Reef: 70 per cent of sediment in the reef is from cattle grazing, and the nutrients from cattle grazing and other agriculture have contributed to the proliferation of crown-of-thorns starfish, which have been a huge cause of the loss of the reef, which is a huge home for species. At least 30 per cent of marine species spend part of their life in coral reefs. Charlie Veron, the reef researcher, says it could be as high as 80 per cent. Cattle grazing is a huge industry in Queensland. Queensland is the home of cattle grazing in Australia. The sediment makes the corals far less resilient than they would otherwise be to changed water temperatures and other stressors, so we cannot ignore those things, I feel.

Ms BATH: I have got one more, thanks, Chair. I notice you take aim at logging as well, timber harvesting, and you also mentioned before about, you know, we need to capture carbon. Well, I would contend that certainly harvesting four trees out of 10 000 and then regrowing them in a forest estate, native timber estate, is actually a very good form of carbon capture and storage. Also to that point, you talk about harvesting et cetera, and I note today there is some new research out that says ‘New research finds native forest logging did not worsen the Black Summer bushfires’, and that is from scientists Bowman, Williamson, Gibson, Bradstock and Keenan. So I guess I just put it to you that as new evidence comes out it is always wise to encompass a broad range of scientific evidence when we are making discussions and conversations that are recorded and deliberated on.

Mr MAHONY: Yes. I have not seen that research, but I would be interested to see what people like David Lindenmayer and others say about that. He might support it, I do not know, but certainly if there is new evidence I am always—

Ms BATH: Is he the only one you go to?

Mr MAHONY: No, but he is very authoritative and he has spent a lot of time in the forests that we—

Ms BATH: He is very prolific. I do not know if he is authoritative. That is my editorial.

Mr MAHONY: Fine.

The CHAIR: All right. I might ask a question, if I can. What would be your top three recommendations for this committee to focus in on? If there are things that we could recommend to government to change, what would be your top three?

Mr MAHONY: Okay. A key thing is making people aware of the issues. I mentioned the PR and marketing of the meat and livestock sector, and there is a group called the Primary Industries Education Foundation Australia, which I understand is a registered charitable institution which provides information for schools. The CEO said in an annual report that they aim to provide a return for stakeholders who are members of the animal agriculture sector. I am a bit concerned about that type of thing, because if it is a charitable institution it needs to be benefiting the people that it is providing a service to. There should be no return to stakeholders in the industry. It should be providing objective information to children, so I would like to see some controls over the information that is given.

I have written elsewhere, and just one example is that education material from the meat industry in Australia tells schoolchildren that farmers provide sheltered areas for native animals to feed and breed. Then we see an article in the *Age* saying that Victorian farmers have called for kangaroos to be culled in much greater numbers because of the hazards they pose to motorists as well as the damage they are inflicting on pastures, crops, fences and earnings. The information that is going to schoolchildren needs to be vetted, I believe, because this is part of what I was saying earlier—that the big picture is that the information is not really getting out there. People are not aware of a lot of these issues. Sure, points that I put forward can be argued and there can be other evidence, and I am not saying I have got all the evidence in the world here, but I am not a multimillion-dollar enterprise which has won marketing awards, which Meat & Livestock Australia has done. It has won very prestigious marketing awards. I am not in that boat. I can put in a submission to a government inquiry and attend, which I am very grateful to be doing, but I am not spending millions of dollars including costs to pay Sam Kekovich to promote lamb et cetera. I think they are perfectly free to do that, but to the extent that the government education system is being used for information that is coming from the industry, I think that is something the government can directly consider.

I think the government needs to make people aware of where we are on climate change. I mentioned earlier the exponential trending et cetera. A lot of people I just do not think appreciate this. This is probably a federal issue, and I would like to have seen prime ministers in the past and US presidents address the nations on this issue. They have the opportunity to do that, and there is no point saying, as a former Prime Minister did once, about his emissions reduction target, 'It has upset people on one side and on the other side, so it must be about right'. It is not a Goldilocks world. It is either right or it is not. And if we are facing a crisis and an emergency, then we are facing a crisis and emergency and people need to be told. I know the Victorian government has done a lot to address climate change and has set a 2050 target. I personally do not feel that a 2050 net zero target is sufficient, and again that is because of the lack of appreciation generally about the issue.

The CHAIR: I am sorry. We are out of time, unfortunately, but thank you very much, Paul, for your contribution and evidence today.

Witness withdrew.