

TRANSCRIPT

LEGISLATIVE COUNCIL ENVIRONMENT AND PLANNING COMMITTEE

Inquiry into Ecosystem Decline in Victoria

Melbourne—Wednesday, 21 April 2021

MEMBERS

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Mr Clifford Hayes—Deputy Chair

Dr Matthew Bach

Ms Melina Bath

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Mr Tim Quilty

WITNESSES

Professor Andrew Bennett, Director and Professor of Ecology, and

Dr Jim Radford, Principal Research Fellow, Research Centre for Future Landscapes, La Trobe University.

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

I will just quickly introduce you to everyone who is here on the committee today. My name is Sonja Terpstra; I am the Chair of the Environment and Planning Committee. Mr Clifford Hayes is the Deputy Chair, and we have Dr Samantha Ratnam. We have joining us via Zoom Mr Stuart Grimley, Dr Matthew Bach and Ms Nina Taylor. Back in the room we have Mr Andy Meddick, Ms Melina Bath and Mrs Bev McArthur.

All evidence that is taken today is protected by parliamentary privilege as provided by the *Constitution Act 1975* and is further subject to the provisions of the Legislative Council 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. I will just get you both, for the Hansard record, to please state your name and the organisations you are appearing on behalf of.

Dr RADFORD: Certainly. I am Dr Jim Radford. I am Principal Research Fellow at the Research Centre for Future Landscapes at La Trobe University.

Prof. BENNETT: My name is Andrew Bennett. I am Professor of Ecology at La Trobe University and Director of the Research Centre for Future Landscapes.

The CHAIR: Great. Thank you. And with that I will invite you to make your opening comments. If you could just keep them to about 5 minutes, it would be really appreciated, because there are a lot of us here and we would all love to ask you as many questions as we can. So with that I will hand over to you.

Visual presentation.

Dr RADFORD: Thank you for the opportunity to present today. We hope that this inquiry will represent a turning point in the resourcing, management and prospects for Victoria's flora, fauna and ecosystems. I also acknowledge the traditional owners of the land on which we meet today, the Bunurong/Boon Wurrung and the Wurundjeri Woiwurrung peoples, and pay my respects to their elders past, present and emerging.

The scale and pace of the environmental and biodiversity crisis requires a response of commensurate magnitude and urgency from governments at all levels. Unfortunately we are not seeing this in terms of action, policy or resourcing. Our primary take-home message today is that the problem is one of insufficient resourcing and inadequate action and lacks implementation, not one of ignorance of the issues or lack of knowledge about what we need to do. In football parlance, we are getting beaten by what we know, and this is inexcusable.

So what do we know? In most cases we know the reasons why ecosystems are collapsing and species are declining. We know the threats that are driving ecosystem decline. Many of these threats are entirely within our control collectively as a society to avoid, such as deforestation and land clearing, or to manage, such as pollution, invasive species, fire regimes and fire regimes in our rivers. Some are global issues like climate change, some diseases and biosecurity, but as a wealthy, stable democracy we should be punching above our weight in the fight to address these global issues. We know that targeted conservation action works.

Appropriate levels of investment that support sustained implementation informed by good science can lead to ecosystem recovery.

This book, published in 2019, details many inspiring stories of recovery—for example, feral animal eradication on Macquarie Island and independently on Lord Howe Island has been followed by ecosystem recovery and increases in previously threatened species. Closer to home the trajectory of population decline in mountain pygmy possums at Mount Buller has been reversed through genetic rescue facilitated by translocation. Yet many projects are just holding the line to prevent further loss, or hard-fought gains have unfortunately been wiped out by recent bushfires, such as we have seen on Kangaroo Island with the glossy black cockatoo. We know that revegetation and restoration can work but it takes time, and often lots of it. We are privileged to work at La Trobe University, an institution with a proud history of challenging the status quo. Upon establishment in 1967, some visionaries at La Trobe commenced what today we would call a major rewilding project, converting this former cow paddock into this rich, diverse grassy woodland, reminiscent of the red gum woodlands that would have covered the land prior to settlement by Europeans. Although it is one of Australia's longest running restoration projects, it is nevertheless still a work in progress, being only 54 years old. But it is precisely this kind of long-term vision that we desperately need today.

I am going to skip over this slide in the interests of time; I cut it over lunch. We also know that in Victoria our most endangered and threatened ecosystems occur where most of us live and where we farm. Patterns of historical clearance for agriculture mean that ecosystems on the most fertile lands were cleared first and most severely, and along with that we have lost some species forever, many species are threatened with extinction and many more are in serious decline. If you take a look at this map, which shows the distribution of vegetation classes in Victoria before European settlement, I would like you to take note of the brown shading on this map, which represents the plains woodlands and grasslands, and this is their presettlement extent—1750. And this is their extent today; they are basically gone. Only around 3 per cent of plains grassy woodland and less than 4 per cent of plains grassland remain in Victoria. These were once amongst our most widespread ecosystems, and they are now our most endangered.

If we look at the main agricultural regions in Victoria, clumsily represented by these icons on this map, we can see that this pattern is repeated over and over again—in the south-west, in the Mallee, in south-west Gippsland and in the Goulburn-Broken and north-east Victoria. Contemporary land clearing now is primarily for urban expansion on the outskirts of Melbourne and around regional towns, placing further pressure on our often already depleted ecosystems.

We know that the environment sector is under-resourced by an order of magnitude. The 2020–21 state budget included some \$307.5 million for new investments in protecting our wilderness. Whilst this is welcome, it does not match the scale of the problem or reflect the true cost of remedial action, nor is it much in the overall scheme of things. It is about equivalent to one and a half level crossing upgrades. Initial funding for the implementation of the *Biodiversity 2037* plan rolled out at just \$11.6 million per annum for the first three years, which is about the equivalent of 1 kilometre of highway duplication on the Western Highway. This is not to denigrate the upgrade of railway stations or the duplication of highways, both necessary infrastructure. But what is our environment and biodiversity worth? How bad does the problem have to get before it is adequately resourced? What kind of state are we leaving for our children and grandchildren to inherit? Would we stand for our hospitals or our schools being so woefully underfunded? Ultimately, inadequate action and lax implementation can be traced back to lack of resourcing and funding. Our submission highlights a range of actions that we believe are required to address the drivers of ecosystem decline, and these are listed on this slide. We welcome discussion and questions on these. Thank you.

The CHAIR: Thank you. I will throw to questions now. Dr Bach.

Dr BACH: Thank you, Chair, and thanks to you both for coming in and for your presentation. I found it incredibly interesting. You talked not at length but you did nonetheless talk about the impact of pests and other invasive species. I am a metropolitan member and therefore have a particular concern for the wonderful green spaces in my electorate in Melbourne's east, so perhaps I would invite you to talk first about the impact on metropolitan ecosystems but then to broaden it out across the state and our regional and rural areas as well—of pests on other, threatened, species, which we have heard from many other presenters, many other expert witnesses, is really very dire.

Dr RADFORD: I think I would just corroborate what you have probably already heard. It is a very broad question there. We could go into it in detail. Whether we are talking about predators or invasive herbivores, the

situation is dire. If we think about invasive predators—cats, foxes—the one that often escapes scrutiny is the black rat, particularly in urban areas. They do have a significant impact on many of our smaller reptiles and smaller mammals. That is an incredibly difficult situation to address there. Are you after a comment on the order of magnitude of the impact or what we should do about it?

Dr BACH: Both would be fantastic. It is interesting that you talk about black rats, because yes, we have not heard from other witnesses about the problem there. But yes, I would love your views on those points.

Dr RADFORD: Clearly in terms of small mammals and the critical weight range mammals there is ample evidence to suggest that their decline is closely linked with foxes and cats. There are some great programs—the Ark programs—that show that we can address it with significant, sustained investment. I think those programs are wonderful in that they demonstrate what can be achieved with a dedicated and sustained program, and that does lead to bounce back in recovery in some of those target fauna. In urban areas I think creating refuge and arks through fencing and associated removal of those feral predators is probably the answer in the short term. That is a necessary emergency room until we do develop approaches that enable feral animal control at larger scales. In terms of invasive herbivores, deer is a big one in Victoria and increasing. That is a matter that is on the government's agenda, and they are addressing that. But there is a whole plethora of invasives from rabbits to horses to goats that have become an issue—

Mrs McARTHUR: Pigs.

Dr RADFORD: Pigs. It is one that probably requires an integrated approach. I do not think we can pick off species by species and address it that way. I think it is one that we need to look at with a systems approach, perhaps regionally based, and come up with approaches that try and address those invasive animals collectively at a whole-of-ecosystem level.

Dr BACH: Thank you very much. Thank you, Chair.

The CHAIR: Dr Ratnam.

Dr RATNAM: Thank you so much for your presentation and your excellent submission. I was going to ask two questions. Firstly, in your submission you provide a really good summary of the key things you think need to be implemented to halt the decline in biodiversity, ranging from funding to governance. I was just wondering if you could expand on that summary, so basically what your wish list would be for particularly government to be able to do to halt the decline in biodiversity. My second question if I can ask it now, and you can answer it if we have time, is: we have heard through the inquiry the discussion about landscape-based approaches versus individual species recovery-led approaches, and we have heard that in Victoria we have kind of favoured the landscape-based approaches. There are some good examples across Australia now of the individual species recovery-led approaches having really good results and perhaps a recommendation that we should be doing both simultaneously. I would be really keen to hear your thoughts on whether you agree with that, what you think the gaps are in Victoria and what we should be turning our mind to in terms of solutions.

Dr RADFORD: Do you want to tackle the second part of it?

Prof. BENNETT: I will have a go on the second one first if you like.

Dr RATNAM: Certainly.

Prof. BENNETT: Yes, sure. I guess what we are arguing is whatever we do needs to be large scale and long term. There are hundreds and hundreds of threatened species. If we try and do each of them individually, it is going to be very difficult, and in many cases we can address them in combination. So if we take the Mallee ecosystem, there is a series of birds, there are mammals, and, for example, how we manage fire can address a number of those species at the same time. I do not think it is either/or. It is a combination of both. There is always going to be need for work on particular threatened species. But we have to think big and long term. What is Victoria going to be like in 20, 30, 50, 100 years? Our concern is that we are tinkering around the edges. So we have to think big in terms of what we do, and the actions that we take have to be sustained over time.

The other one is we have to think across tenure. Going back to the previous question about exotic invasive plants and animals, that affects private land and it affects public land. So we need to think across tenure at large scales—sustained long-term programs that are going to make progress. Does that kind of answer the question?

Dr RATNAM: Yes, that is great. And do you have any examples, or do you have any commentary on Victoria's approach so far? Are we doing enough individual species recovery work, do you think? We have heard from government agencies that we are doing the landscape-based work, more so, but have you got any examples or anything to the contrary to suggest that we are doing some of that or we should be doing more of it?

Prof. BENNETT: Of the landscape scale?

Dr RATNAM: Of the individual species recovery work.

Prof. BENNETT: Jim gave some examples of individual species. Mountain pygmy possum: long way to go. Helmeted honeyeater: state emblem. Again, some success. This is kind of dealing with species when they are in the last stages—in the really difficult stages—so it is: what are we doing about the species that are going to be the next on the list for decline? So one that we work quite a bit with is woodland birds. You know, the common things that we think of—robins, fairy wrens, kookaburras and stuff—and there are declines happening there. So what do we do with those? And that is about landscape-scale restoration and management so things do not get to those critical stages.

Dr RADFORD: And so to get back to your first question about the wish list, which is basically my last slide there, but I will slim that down. So the first is to get serious about the environment and stop funding it like it is an optional extra. So we are calling for a significant increase in the funding, including core funding to DELWP and Parks Victoria, but also for some of these landscape-scale tenure-blind actions to address management of threatening process at scale. We talked a little bit about the species approach there, and one of the issues is that we have got many unfunded recovery plans sitting on shelves collecting dust. So we know what needs to be done for many species, or at least we have got a decent idea, but it is a matter of pulling them off the shelf, funding them and getting on with it. So legislate for mandatory implementation of action statements for all threatened species, all threatened communities and all threatening processes and fund them accordingly.

We have a pretty good conservation reserve system in Victoria, one of the best in the world, but there are still gaps in it and so that can be addressed. So, for example, there are the western grassland reserves, which no doubt you have heard a lot about, that are still yet to be implemented fully. There are recommendations from VEAC in regard to the Wombat State Forest, Mount Cole and the Wellsford State Forest that are still sitting on desks and have been for over 18 months now. They can be enacted, and they are gaps in our conservation reserve system.

We talked about the tenure-blind landscape-scale management of threatening processes. I think we are in an interesting time with the review of the EPBC Act and the Samuels report recommendations and the likelihood that the commonwealth will devolve a lot of responsibility for the EPBC Act to the states. Now, depending on the package that comes with that in terms of national standards, independent review and that sort of thing, that could put a lot of responsibility on the states, and I think it would be incumbent upon states to then take that responsibility on and in the spirit and principles of the Samuels review adopt the principles that are in that package as a whole.

Finally, I think something that you have probably heard of is implementing an integrated and comprehensive Victoria-wide program of ongoing ecological monitoring and evaluation to track the health in ecosystems, species and key threats and to evaluate whether the management actions that we are undertaking are actually working. So we do that to some extent through the ARI and other agencies, but we can scale that up, and to do so we recommend a state monitoring office is established.

Dr RATNAM: Thank you.

The CHAIR: Ms Taylor.

Ms TAYLOR: Thank you for your contribution. I think you might have mentioned early in your presentation the translocation of species. I am just wondering—and it is probably an obvious question—does that vary from species to species as to how successful it is and to what extent do you think that is a solution for some of the really critically endangered species?

Prof. BENNETT: Yes, it can be successful with some of the critically endangered species, but I guess it is not a magic solution for all endangered species. That is the important thing. One of the issues with a species-by-species approach is that it is kind of mechanistic. It is treating them each as individuals, but they each have a

place in the ecosystem and so it is the interrelationships and their role in the wider ecosystem, whether it is as pollinators or predators or competitors or parasites—so they are interacting. So that is one of the reasons why we need to be a bit cautious about species by species. But for threatened species—again, going back to the mountain pygmy possum, there was a translocation there, and we will see translocations further when we are doing detailed genetic management of small populations in the future. I guess I see it as—what is the medical analogy? The last stage, the critical surgery, the dealing rather than the preventative medicine, so it is part of the package but it is not the answer on its own.

Ms TAYLOR: Thanks very much.

Dr RADFORD: If I could just add, it also depends on why that particular species is threatened in the first place.

Ms TAYLOR: Okay, that makes sense.

Dr RADFORD: For a translocation to be successful that original threat needs to have been removed from that landscape which they are being translocated into, unless they are supplementing the genetic make-up of the species.

The CHAIR: Mr Grimley.

Mr GRIMLEY: Thank you, Chair. Thank you both for your presentation this afternoon. My question is just in relation to drilling down into the funding recommendations that you speak of. You recommend doubling Victorian funding for environmental conservation to approximately \$4.5 billion per annum. Are you able to provide some context around this figure, and—I know you have touched on briefly already—what would this funding encompass?

Dr RADFORD: That would be around about 1 per cent of gross state product. We think it is reasonable. That is where we get the \$4.5 billion per annum. That would be, as I mentioned, for core funding of the department and Parks Vic, but it would be for doing a lot more than we are doing now. That is the bottom line. As I mentioned, there are dozens of action plans sitting on shelves not being implemented. There is a whole range of landscape-scale threat management that we could be doing.

Dr Bach asked about invasive species, and in effect for many of them it is a matter of person power and getting out there and doing, well, if it is weed eradication, the spraying, or laying traps or whatever it might be. That is the approach. Funding for further research so that we come up with more efficient and better ways to do some of this, in that case invasive species control or any of the other landscape-scale management practices that we need to do. There is a lot more that we need to do, so that is what it would be used for: establishing an office of monitoring, establishing an independent commissioner to overlook Victoria's responsibilities for administering the EPBC Act if it comes to that or the FFG Act if it does not. So I think we could spend it.

Mr GRIMLEY: How does this compare to other jurisdictions both within Australia and overseas, this funding recommendation?

Dr RADFORD: To be honest, I do not know. To benchmark it, to peg it to a gross state product—I am not sure if other jurisdictions have done so. I think Victoria's level of funding is commensurate with the other states. I noticed in some of the earlier transcripts and earlier presentations mention was made of the New South Wales Saving our Species funding example, which was \$100 million over five years, which sounds like a lot. It is not that much different to the *Biodiversity 2037* funding. It might be a little bit more—\$10 million to \$20 million more—but that is not what I am talking about; I am talking about orders of magnitude greater.

Prof. BENNETT: I think an example in the US, I think the figure is about \$2 billion a year on threatened species. In Australia it would be a tenth of that—a similar size country.

Mrs McARTHUR: From population, so more taxes.

Prof. BENNETT: It is a bit different. Another one is restoration, so the slides that Jim showed of rural Victoria. I come from western Victoria, and we have been doing work on revegetation on farms there. There are Landcare groups, there are lots of farms, there are a lot of people keen to do restoration. It is going to enhance farm productivity, it will have biodiversity benefits, it will have water quality benefits. Back in the 1980s there was a program called the Potter farmland plan. That was when the Ian Potter Foundation invested

heavily in some demonstration farms and within a decade were able to show what could be achieved by investing and working with farmers on whole-farm plans. Now, if we were to do something like that across the state, that could have enormous benefits for the state, for production, for rural landscapes, rural wellbeing and biodiversity.

Mr GRIMLEY: Wonderful. Thank you.

The CHAIR: Ms Bath.

Ms BATH: Thank you. I am old enough to remember the Potter Foundation and whole-farm planning. When I first started teaching years ago, we actually did that in our ag sector—an interesting concept. I will leave it for just a minute. If I get a chance, I will come back to that.

I acknowledge you are talking about funding and DELWP, conservation reservation. I think there is a chill going down the spine of people listening to this in certain sectors—very good people who are passionate about the environment—when you say we should adopt VEAC and the Wombat State Forest carte blanche and lock it up, because there are a lot of people who do enormous work in those sorts of places but still want bush access and still want to be able to go into our public forests and ride their bike or ride their horse or pan for gold, all those sorts of things. They would argue that they still support the environment rather than degrade it. They will often take out more rubbish than they will leave. And we heard from Dr Pascoe—he was the previous doctor—who talked about the concern about lock up and leave. So we need to manage the bush, without a doubt, wholesome. We need to remove weeds and pest species, unified ticket. But I also want your opinion or comments back about the report card of DELWP, Parks and the lock up and leave scenario.

Dr RADFORD: I take exception to that term, lock up and leave, because I think it misrepresents certainly the intention of park management and the way most parks should be managed, because they should be managed.

Ms BATH: Actively.

Dr RADFORD: Actively.

Ms BATH: I agree. I fully agree.

Dr RADFORD: And I do not think it is ever the intention of any parks service that they would restrict access. I mean, most of Parks Vic's budget goes on visitor access and visitor facilities, be that upgrading tracks or more fancy facilities, so I entirely agree with your thesis that these areas do need to be actively managed in terms of track maintenance, weed removal, animal control. Sometimes they require remedial action in terms of revegetation of some areas, fire management appropriately. So I think that that is the case. I do not think that the VEAC recommendations would necessarily, across the whole of the Wombat State Forest, eliminate those activities that you suggested or that you listed.

Ms BATH: I think there is certainly a fair, I do not know, 70 000 hectares that are to be locked up, which is a concern for many people who use it.

Dr RADFORD: They are not locked up. I mean, there are no gates there. People can still access them.

Ms BATH: But they cannot do their normal pursuits that they have in the past, so there is exclusion of many activities. Please, I do not want to be seen to be combative; I just think I am representing a view of many people and I also think that, you know, we cannot turn back the time. When you look at those landscape views that you showed, we cannot remove ourselves. We do have agriculture and we need to feed ourselves, and particularly because of COVID we need to be as self-sufficient as we can. Can I go back to your comments around whole-farm planning? You know, let us look at Victoria as a whole farm, noting cross tenures, need for human life, need for all interaction. Can you draw us what a whole-farm plan would be like for Victoria?

Dr RADFORD: Please.

Ms BATH: It is an interesting debate, isn't it?

Prof. BENNETT: Absolutely, and I think one of the directions I think we would love to see is what we call 'scenario planning'. So, take areas and say, 'What would we like this to be like in 50 years time? How would we design it?'. That is essentially what whole-farm planning does. It says, 'What do we want this farm to be

like? These are the productive areas. These are the areas that are not; we will fence those off. These are the areas we want shelter'. So we could do the same for Victoria, but we have not. To me, it would be saying in some of those rural areas, 'How do we get a combination of the productive land that we need for food and fibre, that feeds us—as nation we need that and we are an exporting country—but what is the balance in there to also, in and amongst those areas, retain the species and the ecosystems that we all cherish and want to have in 50 years time?'. So that might be a combination of on-farm actions like revegetation and restoration—sort of the connections through and, as you move out the scale, larger connections between areas and even having larger blocks of areas that we revegetate and restore to be representative, like we were talking about with grasslands. So it is a combination of thinking about spatial pattern, what we have, and how that is going to change through time, because it is going to take 50, 60, 100 years, and if we do not start now, our grandkids will not have it.

Ms BATH: Thank you.

Dr RADFORD: May I add to that? The largest constituency, if you like, of landowners or land managers that we work with are farmers, so I agree with what Andrew says. In the development of whole-farm plans—and I have got a large project now around natural capital accounting, which is essentially the same thing but putting a price on it as well—one of the key principles that I would love to see us shift to as a community is that not all of the cost burden for that stays with the farmer. We cannot expect the farmer, who is trying to make a living and feed us and clothe us and do all that, to carry the costs, because there are some costs involved with that. The services that they are providing in doing that, which are public benefit services often, are shared by the community. Those farms that are being managed sustainably should be recognised, accredited, and there should be a monetary benefit, either through access to markets or price premiums or stewardship payments—there are lots of different mechanisms that it could come about by—so that that cost is shared across the community and is not purely carried by the farmer. So I just wanted to make that point.

Ms BATH: Thank you very much.

The CHAIR: Mr Hayes.

Mr HAYES: Thank you very much for your presentation today and the questions you are answering. I really like what you say about focusing on the large scale and the long term, rather than tinkering around the edges. Often we are looking at things species by species, a bandaid a sort of approach. I will not drive home the point or ask you to comment so much on the government sort of leaning towards pushing for economic reasons continuous development and continuous population growth, but I want to talk about things like the use of offsets, like the results of the Melbourne strategic assessment, for example, and the Western Grassland Reserve, which is largely seen as quite a failure, really, now. We have not got what we wanted there, and what is planned to be purchased even if it does get purchased is already infested with weeds and things like that. Just this reliance on offsets worries me a bit, and how much value they really are, considering the damage that is done in the areas that are proposed to be developed. And then also I want you to talk a bit more about: it is very easy to make statements of intention and even introduce plans of what we are going to do, but where is the muscle to carry these plans out and is it worth a different legislative approach to ecological and environmental conservation? So probably two questions there, about the use of offsets and the value of legislation without the ability to carry it out.

Dr RADFORD: I will just add a disclaimer: I am not an expert in offsets, but obviously it is an area of interest and crosses our line of expertise. Basically I would recommend you read the Samuel report on that. I mean, I think that summarises it beautifully. It does not work, biodiversity conservation, the way that it is being implemented at the moment. In the Samuel review, they have offsets as a very last resort, and only where there is significant national interest in the project going ahead should offsets be used. I think that is a good starting point.

Very often developments are approved before the offsets are secured and certainly before the improvement in condition, which is what an offset is based upon, is achieved. So the basic principle of offsets is that you have got three oranges. I want to eat one orange, but I am going to protect this other orange forever. I take that orange away. I eat it. I still now have got two oranges. I have not got three. I am going to eat half of this next one. So the principle is that you are going to improve the condition of the habitat that is remaining, but very often the development is approved before that condition improvement occurs—because it is going to take time, as we have just talked about. So either it may not occur because the actions are not implemented, because it is not regulated and there is no compliance mechanisms and it is not enforced, or it may just be a factor of time.

So in the meantime the species are relying on that, and the assumed improvement—the no net loss—does not have a chance to occur. So I think there is an overreliance on offsets. I entirely agree with you and we need to rethink that, and there is a body of evidence to suggest that.

Prof. BENNETT: I will have a go at the second part of the question as best I can. A couple of comments: one is in terms of thinking for the future—again, thinking long term. As a state we have *Biodiversity 2037*, so that is looking at the time of sort of 20 years. The question is, I think, accountability. So it is setting out all of these goals. And the problem has been that in the past we have had conservation strategies, but it is, ‘Oh well, we didn’t make it—it doesn’t matter’. So the question is: how do we make it matter? Now, I am not an expert in that, but we have a state of the environment report and that has been telling us time after time that we are not achieving goals and we are going backwards. The other one might be via the Auditor-General. So the Auditor-General carries out reviews and looks very closely and then if there is some accountability through those processes about: have we achieved what we said we would achieve, and if not, why not?

Mr HAYES: Thanks. I like your whole farm plan idea, too, for the state. It is terrific.

The CHAIR: I might ask a question—we are running out of time as well. But I just want to go to your point that you make in your submission about the implementation of action statements and making them mandatory. With an action statement we have also heard discussion around the landscape approach to conservation or protection or restoration—but individual species. So how can these action statements, if they are implemented and making them mandatory, how then do you get—because you also talk about accountability—also the responsiveness? Sometimes things change, so if you have something in writing, you say, ‘This is our action statement’. But you have got to review it, too, right? Because things can change. So how do you make all of that work? We are hearing it is really quite tricky with some of these things. Some things can recover well and obviously you have got to monitor them, so what purpose would an action statement then actually have? And making it mandatory, how does that help and how could it help?

Dr RADFORD: Sure. Okay. Well, they do not work only if they are not acted upon, and they are not acted upon because there are not enough people to act upon them in government departments or outsourced to other people to implement.

The CHAIR: So it is about resourcing?

Dr RADFORD: It is about resourcing, absolutely. I agree entirely they need to be living documents. They need to be updated. Things change—climate change comes along, new diseases appear. We learn more about genetics. We learn more about this. Things get burnt out. So absolutely they need to be dynamic and updated. That comes back to the point about accountability and responsibility for implementing them. I think it is a false dichotomy, the landscape approach versus a species approach. In some cases you could clump up a number of action statements or a number of species that are threatened by the same processes. So you could have multi-species action plans. I think that has merit in some cases.

The CHAIR: Because what might work for some species may not work for another, but there might be commonality.

Dr RADFORD: There might be commonality. So woodland birds is a good example. There are a whole range of factors that are probably going to benefit a whole range of species, and it make sense to manage those as an entity, as a community. So I think it comes down to resourcing. Yes, updated, but it also comes down to who is accountable for them—so who does the buck stop with? So at the moment we have threatened species that are listed that do not have action plans. We have species that have action plans that are outdated. They are very rarely costed, so there is often not a true cost associated with what it is going to do to carry out these actions. And then there are some that are acted upon and work. That is the thing. That is the point, I suppose—that when they are implemented and when they are resourced, very often they do work.

The CHAIR: And I guess ultimately, though—on the point you make about accountability—I mean, obviously politicians are accountable at the end of the day, aren’t we? We get voted out if we do not do something right, so isn’t that accountability?

Dr RADFORD: Well, that is—

The CHAIR: Or are you talking about public service organisations—

Dr RADFORD: I am also talking, yes—

The CHAIR: when you talk about accountability? Can you just pad that out a bit? What do you mean?

Dr RADFORD: Yes, that would certainly drive it home if it is not just you guys losing your jobs but there is actually accountability that is anchored within the responsible entities—so, the public service.

The CHAIR: You mentioned before about potentially having, say, a body like the Auditor-General with oversight. Is that what you mean about accountability?

Dr RADFORD: Yes.

Prof. BENNETT: Yes.

The CHAIR: Explain to me a bit more how accountability actually looks. What does it look like?

Prof. BENNETT: Well, I think it is a matter of: if we are saying, ‘This is our strategy; this is what we are doing on behalf of the community’, the community’s expectation is that that will be carried out.

The CHAIR: Yes. But then how do you hold people to account? That is what I am asking. Can you—

Dr RADFORD: Yes, well, I think independent auditors or commissioners—whatever you want to call them—is a really good place to start, and I think we are starting to see some traction in Victoria through Auditor-General’s reports. So setting up that independent body that oversees, for example, a monitoring office or the implementation of threatened species recovery plans would hopefully provide some of that. That would come in the governance arrangements associated with that office—and that is not my area of expertise, exactly how you set that up—and the legal and governance mechanisms to ensure that that is in place.

The CHAIR: And you may not be able to answer this right now, so feel free to take it on notice, but are you aware of any other jurisdictions that have that type of approach where you have got an independent oversight like an Auditor-General or somebody else? Do you know if Canada or New Zealand or any of those other jurisdictions might—

Prof. BENNETT: Maybe we could take that and get back to you on that one.

The CHAIR: Yes, sure. That is fine.

Prof. BENNETT: I would also say, with respect, there is accountability for politicians and for governments.

The CHAIR: Obviously.

Prof. BENNETT: And part of it is that we draw up these plans and these strategies and big sweeping statements, but if we do not resource them, how can we expect that it is going to happen?

The CHAIR: Sure. I understand. Sorry, Mr Meddick—

Mr MEDDICK: That is okay. I will be as quick as I possibly can. Given the shortage of time, I think that the controversial aspect is going to fall to me this time, Mrs McArthur. So how much of a threat is land clearing, say for instance, for animal agriculture to biodiversity, and should we be looking more closely at regenerative agriculture and plant-based agriculture as a result? And a shameless plug: my parliamentary intern, Esther Millard, won the President’s prize for her report *The Track to Transformation: How Regenerative Agriculture and Indigenous Land Management Can Improve the Resilience of Farms in Western Victoria*. So that is a good read.

And the next one then is about introduced species control. Would a trial be good, in your opinion, of returning the apex predator, the dingo, to a particular area, to talk about introduced species and control of those introduced species?

And I just want to quickly come back—you talked about the devolvement of the federal EPBC Act. With the responsibility lying with the federal government comes a certain level of federal government funding. The cynic in me would suggest that if the feds devolved to the states then that funding would also be removed and the states would be expected to make up the shortfall for the programs that they would have to pick up under the EPBC Act being moved down to them. Is that a concern that you share?

Dr RADFORD: Yes. I would recommend that you ask Sussan Ley about that one. I am not going to answer that.

Mrs McARTHUR: If you stop spending a billion dollars on wire rope barriers, that might go a long way to helping.

The CHAIR: Just on this, we are running short on time, so if you cannot answer, you can feel free to answer these questions on notice as well.

Dr RADFORD: That was a lot.

The CHAIR: In the minute that we have left.

Prof. BENNETT: The dingo one is controversial.

Mrs McARTHUR: Very.

Prof. BENNETT: I would much rather see effort going into restoring a lot of the species we have lost, like quolls, like bettongs—there are a whole lot of species that we could bring back that have a role in ecosystems. That we could do.

Mr MEDDICK: Doesn't the dingo have a role to play in the ecosystem?

Prof. BENNETT: Sure, yes, but—

Mr MEDDICK: But at the moment—

Mrs McARTHUR: In the desert.

Mr MEDDICK: No, not in the desert. The dingo has been everywhere in Victoria, and we have eradicated it in those areas. They belong in those ecosystems. They do.

Prof. BENNETT: Yes.

The CHAIR: Is there anything you would like to say in the few seconds we have got left?

Dr RADFORD: I think regenerative agriculture is an area of emerging and interesting research and development, and I would be more than happy to pick that up in a much longer conversation with you outside of this, so you have got my contact details. It is a large area of research for us.

Mr MEDDICK: Yes, absolutely.

The CHAIR: Feel free to provide answers on notice as well.

Dr RADFORD: Sure.

The CHAIR: If you feel there are other things that you would like to add so that you can answer Mr Meddick's question, you can provide that on notice to us as well.

Dr RADFORD: If I get that question, yes.

Mr MEDDICK: Thanks.

The CHAIR: All right. We could talk for hours, I am sure, so I apologise, but we have got our next witnesses in the room waiting. So I would just like to thank you both very much for your contribution and your presentation today.

Witnesses withdrew.