



**LEGISLATIVE ASSEMBLY FOR THE
AUSTRALIAN CAPITAL TERRITORY**

**STANDING COMMITTEE ON ENVIRONMENT,
CLIMATE CHANGE AND BIODIVERSITY**

(Reference: [Inquiry into climate change and a just transition](#))

Members:

**DR M PATERSON (Chair)
MS J CLAY (Deputy Chair)
MR E COCKS**

TRANSCRIPT OF EVIDENCE

CANBERRA

TUESDAY, 2 JULY 2024

**Secretary to the committee:
Mr J Bunce (Ph: 620 50199)**

By authority of the Legislative Assembly for the Australian Capital Territory

Submissions, answers to questions on notice and other documents, including requests for clarification of the transcript of evidence, relevant to this inquiry that have been authorised for publication by the committee may be obtained from the Legislative Assembly website.

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Amended 20 May 2013

The committee met at 10.29 am.

LEWIS, DR SOPHIE, Commissioner for Sustainability and the Environment, Office of the Commissioner for Sustainability and the Environment

THE CHAIR: Welcome to the second public hearing of the environment, climate change and biodiversity committee's inquiry into climate change and a just transition. The committee will today hear from the Commissioner for Sustainability and the Environment and the Woden Valley Early Learning Centre.

The committee wishes to acknowledge the traditional custodians of the land we are meeting on today, the Ngunnawal people. The committee wishes to acknowledge and respect their continuing culture and the contribution they make to the life of this city and this region. We would also like to acknowledge and welcome any Aboriginal and Torres Strait Islander people who may be attending today's event or viewing it online.

The proceedings today are being recorded and transcribed by Hansard and will be published. The proceedings are also being broadcast and webstreamed live. When taking questions on notice, it would be useful if witnesses used the words, "I will take that as a question on notice."

I welcome Dr Lewis, the Commissioner for Sustainability and the Environment. I remind you of the protections and obligations afforded by parliamentary privilege and draw your attention to the privilege statement. Witnesses must tell the truth. Giving false or misleading evidence will be treated as a serious matter and may be considered a contempt of the Assembly. Could you state your acceptance of the privilege statement?

Dr Lewis: Yes, I have read and accept the privilege statement.

THE CHAIR: We will go to questions. One of your recommendations speaks to the thermal comfort and energy efficiency standards required of the ACT public housing portfolio. Could you speak to what benefit you think that would have?

Dr Lewis: Yes. That was one of the points made in the submission from my office. It recognises that, currently, those who are most impacted by the effects of climate change are people who have lower socio-economic status. In particular, we see that around housing. That is something that was evident in the 2019-20 bushfires. Climate change has been linked as a driver to that catastrophic fire event, which deeply affected the Canberra region and people within the community here.

We saw that those who had the lowest resilience to that event and other events are people who have the least ability to implement measures individually. That particularly comes out regarding the quality of housing. We know that quality of housing is linked to socio-economic status, which is linked to vulnerability to climate change.

Given that we have already experienced that event and the impacts of climate change, we need to be thinking about how we use housing as a way to decrease that inequality and the experiences of climate change. As we decarbonise the Canberra economy and

decarbonise our society, our housing is a really important mechanism by which we can reduce that inequality. In particular, the public housing portfolio is a place where we see those greatest vulnerabilities and the greatest disparity in socio-economic status. It is also an area where there is that direct control or policy lever that the government has to reduce those inequalities.

THE CHAIR: Given that the housing portfolio is quite significant, and I believe there is a focus on new homes, as it would be easier to implement solar in new builds, do you have any advice or thoughts around a solar rollout strategy for the public housing portfolio?

Dr Lewis: In talking about improving the thermal comfort and energy efficiency of the public housing portfolio, or any residential housing, it is not just about rooftop solar—although that is a really important contribution to decarbonising the grid and grid supply of energy, and it can reduce costs for householders—but also it is really important to be thinking about the energy efficiency and quality of the housing itself. It is not just about insulation; it is about all of the options for improving the efficiency of homes.

One of those is rooftop solar, which is an important aspect of the transition to a low carbon or zero carbon economy. We also need to improve the quality of the housing in the first place. We know that we do have quite a lot of poor-quality housing in the ACT in terms of “leaky” housing, as we call it, which we saw during the bushfires, where houses were deeply smoke affected because they had a whole lot of permeability to poor air quality.

MS CLAY: Dr Lewis, thank you for raising this one in your submission. I knocked on the door of a constituent in Cook two weeks ago, and he brought me in. He showed me a hole in his wall—a big crack. You could see daylight through it. He had been given a letter from the government third-party contractor saying that they would install rooftop insulation. He was quite pleased about that, but he was a bit worried about the crack in the wall. It did strike me that it was a bit strange. It is great that we are going ahead with insulation, but it struck me that we have fallen a bit behind on those basic thermal repairs. I was worried about him regarding smoke and heat. We have sent that through to try and get that fixed, but I am not sure how long it will take. You are obviously also a bit concerned that we have some of those leaky, basic maintenance problems in our public housing stock.

Dr Lewis: I cannot provide any specific comments on individual houses or the quality of the housing portfolio as a whole. We know that if we do not look at each house holistically, any measure might be poorly placed. For example, focusing on reducing that thermal barrier between a house and the outside through installing roof insulation, wall insulation or underfloor insulation is unlikely to be good value for money or beneficial if there are gaps in the walls or gaps around windows.

We need to look at each house and focus on improving the thermal comfort efficiency of those houses and how they retain heat or block out heat in the summertime. It is not just about looking at rooftop solar, as I suggested to Dr Paterson, and it is not just about looking at insulation; it is about looking at each house and the portfolio as a whole, which is likely to have greater benefits for both the environment, in terms of

reducing energy usage, and people's experience of living in those homes.

As I have emphasised, and I will continue to do so, we know that people in those homes, including others in the community, tend to have the lowest resilience to climate change, and particularly during extreme summer heatwaves. We see that those people on the lower income levels have the lowest resilience and are the least prepared. We know that things like extreme heat are our most deadly natural disasters in Australia.

MR COCKS: One of the big concerns, in terms of a just transition, is around costs, who pays for what and the comparative impacts of different measures. When we are building more public housing, there is a limited amount of money to go towards that task. If we push up the cost of building that public housing by \$50,000 per dwelling to meet a higher standard of airtightness, thermal efficiency and comfort, is there a threshold where the fact that we cannot build as many houses has an impact on people, in the same way as not building houses to a high enough standard does?

Dr Lewis: That is a great question, Mr Cocks. I am not an economist or a policy expert, so I would not be able to tell you where specific cost-benefit thresholds are. One thing I would note is that we know there is a necessity for this transition to occur. That has certainly been acknowledged, in being a very early adopter, in recognising and declaring a climate emergency—

MR COCKS: To be clear, you are talking about transition to—

Dr Lewis: A low carbon economy or decarbonising. The question then is: how do we do that, and how do we do that for the Canberra community? In recognising that, an important acknowledgement is the cost of climate change. Not only do we have to work out how money is best spent to provide housing for Canberrans, and particularly low income Canberrans, or the lowest income Canberrans, but also we have to think about the cost of not providing a safe and healthy environment for people into the future, including avoided health costs from the impacts of these extreme climate and weather events, or even from the harshness of Canberra's typical seasonal climate, and the increasing costs of climate change, in terms of the costs on people and the economic costs, as we have further levels of climate change.

I do not have a specific answer as to where to best invest those specific measures, about whether it is more housing or more efficient housing, because I do not have that specific subject matter expertise. But I would say that, in framing the question exclusively in those terms, we are perhaps not recognising the costs that we are already bearing because of climate change.

MR COCKS: Do you have an idea of how much cost in terms of climate change is contributed due to slightly lower standards versus slightly higher standards of housing?

Dr Lewis: No, I would not have those figures with me, and I am not sure that they would be available in the local context—whether we have locally specific information. There is a huge body of research that demonstrates that one of the best adaptive measures we have for climate change—to be best adapted and most resilient to the

pressures and impacts of climate change—is about improving human health and ensuring that the quality of health and standard of health within the community is as high as it can be. That is one of our best adaptive measures, and the other is around our built environment. The confluence of those two factors is probably why we are discussing public housing, rental housing and housing that is most used by those lower socio-economic status community members.

MR COCKS: Do you see it as being more in the adaptation space than in the mitigation space?

Dr Lewis: Yes.

MS CLAY: Dr Lewis, you mentioned in your submission that urban transport should consider transport emissions and community needs in future developments. I was interested in that line in the submission. We have a really good, top-line commitment to transport-oriented development. Government policy on that is pretty clear and pretty sound, but I have a bit of concern when you get down to the detail, particularly given that over 60 per cent of our tracked emissions are coming from transport. Those numbers do not seem to be moving in the right direction. Unlike a lot of areas of action where our numbers are reducing, those ones look like they are increasing. Do you think we are doing that properly at the moment? Are we considering transport emissions and community needs when we think about our future developments?

Dr Lewis: As you said, I do not think the evidence does suggest that we are, because we are not seeing reductions in transport emissions over time. In particular, with respect to not just emissions but uptake of public transport or active transport, we are not seeing huge changes in terms of uptake from the Canberra community, which is what we do need to be focusing on, in addition to the transition to zero or low emissions vehicles.

MS CLAY: From a just transition point of view, I would say that, from my reading of the numbers, people in Canberra do not find active and public transport particularly useful. The only people who are using it are the people who are already using it; we are not getting a lot of new mode share, except on light rail. Everything else seems to be pretty static. What is the impact on people if they do not have access to public and active travel as the climate changes, petrol gets more expensive and the world moves in the direction we can see it heading in?

Dr Lewis: I think there are multiple possible impacts of that. From the evidence, information and data from Canberra in the latest *State of the environment* report, we do not seem to be seeing much change in terms of uptake of non-private—public and active transport. There are, as I said, multiple possibilities in terms of people who do not find public or active transport accessible, and who also increasingly find private transport unaffordable, with changes around vehicle costs and incentivisation there. We may well see people who are already unable to access those modes of transport being essentially stranded or unable to participate in the Canberra community in the way that they would wish.

MS CLAY: That is not a great outcome. What could we do differently to get a better one?

Dr Lewis: That is a really good question. It is a huge question, and I probably need to take a little bit more time to think about a more sophisticated response to that. It is very difficult to compel behavioural change in terms of active transport or public transport, and particularly where people perceive that they are not accessible. There are things we can do regarding infrastructure around that, particularly around active transport and making that more friendly, particularly for women and young people, and particularly around costs and frequency—all of those factors around public transport.

The submission that we made really focuses on the higher level problems around future developments and how we build consideration of transport into that, rather than retrofitting or having programs that encourage people to get on bikes or scooters, or to walk. It is about trying to avoid embedding future problems at the same time as we are discussing the necessity for this transition.

MS CLAY: Urban planning that puts people where they need to be rather than further away than they need to be.

Dr Lewis: Not just putting people where they need to be. That is one factor. Also, we need to think about how we move people from where they are to where they need to go, or where they might want to go, and consider what transport would be helpful or useful to people in this future that has been decarbonised.

THE CHAIR: Following on from Ms Clay's question around how the bus uptake is pretty static, it does not matter whether it is in the new suburbs or wherever it is, there is a threshold regarding people who use buses. With light rail, it does see a substantial increase in access to public transport and use of public transport. With respect to taking a step further than just saying "urban planning", do you think we need to be really actively campaigning for light rail over buses in new suburbs? It is clearly a mode of public transport that will get the uptake that we need to reduce emissions.

Dr Lewis: Again, I would go back to the fact that it is not one or the other. There are multiple things that need to be done to shift us. While low emissions or zero emissions vehicles are a key part of decarbonising transport, they are not the solution, and they are not the only solution. We need multiple factors, including how much we move and how we move, and including not just those low or zero emissions vehicles but also public transport, active transport and all of those other things that are part of this healthy environment of a future Canberra.

As to how we encourage people onto certain modes of transport, that is, again, outside my area of expertise, but it is correct that we are not seeing, in our reporting or data, as far as I am aware, any changes in bus uptake, but light rail does seem to be a different way of transporting, in terms of behaviour and attitudes, from buses.

MR COCKS: It sounds like you are saying that the urban planning factors, and making sure people can be within reach of the services and the infrastructure they need, can make a big difference—to some extent more than which technologies you install, or transport.

Dr Lewis: I think they are all important; that is what I am saying. It is about the technologies, the built infrastructure, making suburbs walkable, having bike infrastructure, making those things accessible for young children, and riding to work for people who are commuting via bike. We need all of those things. There will not be a single, simple solution to this transition or making this transition just.

THE CHAIR: We might end there. Thank you very much for your time today.

JAGUS, MRS PAULINA, Director, Woden Valley Early Learning Centre
CARTWRIGHT-WILLIAMS, MRS REBECCA, President, Woden Valley Early Learning Centre
MILLGATE, MS GABBY, Nature Pedagogy Leader, Woden Valley Early Learning Centre

THE CHAIR: We welcome witnesses from Woden early learning centre. I remind witnesses of the protections and obligations afforded by parliamentary privilege and draw your attention to the pink privilege statement on the table there. Witnesses must tell the truth. Giving false or misleading evidence will be treated as a serious matter and may be considered contempt of the Assembly. Could I ask you each to state the capacity within which you appear and to confirm that you understand the implications of the privilege statement.

Mrs Jagus: I am the director and nominated supervisor for Woden Valley Early Learning Centre and have been for the past seven years. I understand the privilege statement and I will abide by it.

Mrs Cartwright-Williams: I am a parent of two children that have attended the centre and the president of the Parents Management Committee. I am also a nurse at the Canberra Hospital. I also understand the privilege statement.

Ms Millgate: I am the nature pedagogy leader at Woden Valley Early Learning, and I understand the privilege statement.

MR COCKS: I really liked the submission. I was really interested in it. I want to give you the opportunity, to start with, to explain what is different about the access-to-nature approach that you have embedded in your centre.

Ms Millgate: Different to what?

MR COCKS: What is the unique factor? The different factor about how you—

Ms Millgate: Okay. About 7½ years ago the service did a quality improvement plan and discovered that everything was plastic and that the children's access to nature was limited. Based on best practice and research, they set about enacting the quality improvement plan. They employed a sustainability educator. When I took that position, I became the nature pedagogy leader, with the specific purpose of ensuring children's access to nature so that that they could benefit from best practice, based on years and years and years of research.

Our service has a dedicated nature pedagogy leader. What that means is that educators can attend to the immediate needs of children. However, as a nature pedagogy leader, we are taking care of not only their immediate safety but their long-term safety. We are making sure that their developmental needs are met through access to nature and environments that make learning irresistible. We are making sure that proper brain development is happening through access to all sorts of different environments and landscapes within the service and on nature walks.

MR COCKS: Wonderful. Thinking in terms of justice, in particular for young people,

what are the benefits that that brings to our kids and young people?

Ms Millgate: I am going to refer to the experience of Jo Roseco, who was on the executive parent committee when they did their QIP. Her child had had meningitis and was in therapy to deal with the consequences of that. The therapist said, “Really, you can come here once a week or you can just give your child access to uneven surfaces, climbing, scrambling, lifting, pulling opportunities in an outdoor space.” The benefits are unknown for each individual child. However, we have observed, and there has been research on, how children more readily regulate their own emotions in the natural space.

Their developmental need to push and pull, say, in the toddler age group looks like bullying by some stronger personalities. However, if they are given access to rocks and logs so that they have agency to push and pull and discover and dig and move and develop their sense of agency, they are less likely to dominate the most important bit of play equipment. Industrial revolution style play equipment is actually mirroring the iron and steel of this great industrial age that we are now transitioning from.

What I would like to point out is that these recommendations that we have made were recommended by UNESCO and the World Summit on Sustainable Development in 2002—22 years ago. We have had 22 years where children have not benefited from access to nature. When we look at children too anxious to go to school, they have no sense of agency, purpose or meaning. They have had no access to that if they have been in an early learning environment that was set up for them and that they had no agency or control to participate in.

Mrs Jagus: If I may just add one thing to your question: for example, we have farm animals on the premises, as well as wellbeing dogs. We have two dogs on rotation, just because children love both of them. The basic developmental challenge that we see in young children is separation anxiety. That is something we rarely observe in our service, and that is where the animals come in handy. The children are able to make that informed decision for themselves if they wish to connect with one of our animals—a chicken, a duck or a dog—and that supports their sense of belonging to the service. It makes the transition between the home environment and the centre environment much easier. The separation anxieties we observe are normally just at the very, very beginning, where children have not built relationships with the animals yet. As soon as they are able to do it, which normally takes a week or two, that separation anxiety almost disappears.

My daughter also attended the centre. She is now seven and in year 1. We are still good friends with many peers who attended preschool with her at Woden Valley Early Learning Centre. My daughter is also neurodivergent. She is diagnosed with ADHD, just like our family, and it helped her to build great confidence when she entered the schooling system, so there were no issues with communication. She was able to build a very strong sense of agency from the start at primary school.

This is something I have observed also with her peers, who we still have very close contact with. We are trying to start our own research on how access to natural environments and challenging environments builds the children’s sense of agency. When they enter the primary schooling system, their language is on a better level than

many other children at the same age, and they are able to build relationships much more easily and quickly. They have great resilience towards older children because they have outgrown them already in their social, emotional and physical abilities. That is our next project. Those are the benefits that, so far, we have been observing in running the nature-based program.

Mrs Cartwright-Williams: To go on from what you were saying about the recommendations being made 22 years ago and to put that into perspective: I was 18 when those recommendations were made. Ultimately, what we are suggesting and what we are recommending is that not only do we want to make a better world for our children but we need to teach our children and give them the ability to change that world. It is in their hands. If we are looking at how we can make changes for the better, we need to look to our children. We can tell them until we are blue in the face to do things—anybody who has children will know that they are not going to listen—but it is better if we actually show them and provide them with that environment.

I had an idyllic childhood in north Wales, surrounded by farms. I grew up running through fields, crossing streams and climbing trees. That is how I grew up. I could not provide that for my children here, but the next best thing that I could do was—luckily, I made the best decision of my life, and I have said that many a time—to enrol my children in Woden Valley. We can use them as a basis for how we can change things in other centres. You can give children plastic trees and plastic grass, but it is not real; it is tailored to be safe. We need risky play. They need to be able to climb a tree to gain confidence. As a parent, I feel that that is important. We need to be educating our children but also giving them that experience now so that they care about the world. They have a ritual that they say on their nature walks: that we care for our—

Ms Millgate: The land, the animals and the people.

Mrs Cartwright-Williams: And they do, and it shows.

Ms Millgate: It is the world as a relationship, not just as a resource. It is natural to want to pick up a rolled-up bit of bark and take it home, but they understand that that belongs in the country and that it might be a home for a creature. So, from a very early age, they have that awareness, and it stays with them.

MR COCKS: It sounds like that connection with the natural environment is helping to build up a sense of responsibility and stewardship as well.

Ms Millgate: That is right. It is belonging, it is being and they are becoming.

Mrs Cartwright-Williams: It is giving them the confidence to know that they can change things and that they can do this. One of the children, who is about four, said that we should grow lemongrass because lemongrass keeps mosquitoes away. So Gaby grew lemongrass.

THE CHAIR: So no mozzies at the centre either!

Mrs Cartwright-Williams: That kept them away. So, they grew the lemongrass and now they make lemongrass in the afternoon. My child, who will not touch anything

green, is making lemongrass tea and wants me to make it at home. It is amazing that a four-year-old came up with that, but it was not just cast aside; it was acted on.

THE CHAIR: We did an inquiry on waste management. A lot of the discussion was on nappy waste. What we could be doing in childcare centres was a key part of that discussion, and the challenges there.

Ms Millgate: Early learning services.

THE CHAIR: Early learning; sorry. Your submission and the work you are doing at Woden Valley is incredibly impressive. I am just wondering how you have implemented this, the time it has taken and how you see this as being easily transferable to other centres.

Mrs Jagus: The financial aspects of running an early learning service are not a huge challenge. Our centre is structured a little bit differently from many typical early learning services. We work quite heavily above the ratio. We also have four non-contact leaders: me; my 2IC, Tracy, who is also our lead pedagogical leader; Marissa, who is our pedagogical leader, and she is also coordinator of our Places and Spaces program, which is our nature walks; and Ms Gabby, who is our nature pedagogy leader.

You are probably aware of how much early learning services cost. It is partially funded by the government, which is great. We are able to provide lower fees than many other services, mainly because we are a community-based centre. We do not have a big organisation behind us. We do not have one owner who takes the profit into their pocket, which is great. However, we are still a business. It is our responsibility to ensure that we are financially sustainable and we always make a profit each year. It is our goal, and it builds our safety kitty that we can use for things like renovations or purchasing additional resources, or going on excursions—whatever the children wish to do.

We have a specific sustainability budget in our yearly budget planning. This year, the budget increased to \$850 a month. That is something that Ms Gabby has been managing since she has been with us. She pretty much has full autonomy in managing that budget. That budget has increased over the past six years, from \$650; that was our base start in the budget. Looking at the costs of employment, the typical wage in early learning services for qualified educators is approximately \$65,000 to \$75,000 a year, and that is what having a dedicated nature pedagogy leader costs us. That is pretty much it from the budget perspective.

Ms Millgate: So, if it can be done, why is it not being done? I see the chance for this inquiry to be where “the can that gets kicked down the road” can stop with us; it can stop here. There is regulation 118, which requires all services to have an educational leader. That is a national regulation. However, CECA, Children’s Education and Care Assurance, is able to add to and amend those regulations. It would be possible to regulate for a nature pedagogy leader in all services to help lead the transition, because you cannot keep putting it on educators who have perhaps had no access to nature themselves.

What we have done over the past seven years at Woden is discover how to run a nature pedagogy program and how to work with educators and children so that there is a predictable program. We have also gone to a lot of effort to share what we have learned with other services. But if the regulations and the requirements of service providers were adequate in ensuring children's rights when it comes to the environment, it would have already been done.

I think it needs to be looked at seriously, as 90 per cent of brain development is happening by the time a child is five. If you want to have an impact on society, start there, because you are building the scaffolding of who that person is going to become. You are laying down the foundations of what they believe they can impact in the world through their own experience. We do not open up their head and pour in information. We let them learn with nature in a way that nature itself invites—and nature on planet Earth has 5.4 billion years of research and development. We have evolved, we think, with Earth, with nature. It is so amazing, it is so incredible, and you will see a child be amazed at a worm when they can turn a log and discover that.

THE CHAIR: We would like to thank you very much for your time today and for the submission. We really appreciate the significant time you have taken to input into this inquiry.

Ms Millgate: Maybe it deserves its own inquiry, because we are just one service. Good luck in the election, everyone.

THE CHAIR: We have the inquiry into the right to a healthy environment as well, which might interest you.

Ms Millgate: That is how I discovered this inquiry. I was checking on that and I said, "What's this?" I know it is about electrification and decarbonisation, but nobody else is advocating for children's access to nature, as I said in my report. That is worth investigating. It might be worth investigating how we lead the transition strategies for early learning services, because they cannot do it by themselves; otherwise they would have done it.

Mrs Cartwright-Williams: Yes, and teaching the children sustainability as well; educating them about that. We have the bottle recycling program and things that we are doing with the children. They see that transfer into money, so they can buy toys and things, but they are also learning about looking after the Earth.

THE CHAIR: Awesome work. Thank you so much.

The committee adjourned at 11.11 am.