Independent Forestry Panel

TRANSCRIPT OF PROCEEDINGS

AUSTRALIAN CLIMATE AND BIODIVERSITY FOUNDATION (ACBF) AND MANDALA PARTNERS

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<THE MEETING COMMENCED

MR DUNCAN: The role we've got as an Independent Forestry Panel is really to lead and report on key stakeholder engagement for the New South Wales government and to provide advice on the future Industry Action Plan, Forestry Industry Action Plan. So our role is quite discrete, if you like. We're not developing the plan but we're very interested in I think the sorts of things you want to talk about today, which is carbon and nature based markets and I understand you've got Mandala as well, is that right, that's involved?

DR HENRY: Yes, that's correct. Actually, I was hoping they'd be joining this meeting because I was hoping – are they on?

MR AMIT SINGH: We're on, Ken.

MR DUNCAN: Yes, we've got –

DR HENRY: [non-transcribable]. You are. Right, okay. [non-transcribable].

MR DUNCAN: You're breaking up a little bit, Ken.

DR HENRY: [non-transcribable]. Yes, I've got a mobile phone [non-transcribable]. What's going on? Hello, can you hear me now?

MR DUNCAN: Yes.

MS CLARE MILLER: That's better.

MR DUNCAN: Just to clarify –

DR HENRY: Sorry, yes, look –

MR DUNCAN: – you're representing the Australian Climate Change and Biodiversity Foundation today?

DR HENRY: Yes, the Australian Climate and Biodiversity Foundation, yes. I'll have to ask my wife if she can pull the car over because I'm losing reception. We're on the Pacific Highway and I'm sure you all know how good the reception is on the Pacific Highway.

MR DUNCAN: Yes, yes, we do.

DR HENRY: It's stunning. Yes, okay, she's looking for a place to pull over. I'm very sorry about this. I didn't think the reception would be quite this bad. I should've known better. Actually, I'll turn off the video for the moment [non-transcribable]. Can't even do that. Okay.

MR DUNCAN: Well, we can hear you a lot clearer at the moment.

DR HENRY: Can you hear me now?

MR DUNCAN: Yes, we can.

DR HENRY: Okay, all right. Well, let me start. Yes, so I chair the Australian Climate and Biodiversity Foundation. We're a pretty small foundation but nevertheless quite active. We have I think quite effective working relationships with a lot of rather – well, a lot of important stakeholders on this issue as well as a number of others that are associated with two big topics.

And the first big topic for us is trying to find a way to end native forest logging across Australia that is good for all parties involved and we wouldn't have even ventured something with that level of ambition unless we thought that there was a new mechanism that would be available to achieve this sort of outcome and that's really what has to do with what's happening in the carbon market, so we can talk about that.

And then the second ambition that we have is really in the broader nature positive space where we have I think managed to put ourselves in some sort of leadership position in Australia in helping businesses and organisations and others get some familiarity with what nature positive means and what it might mean, particularly for business as we go forward.

So look, in respect of the first of our missions, which has to do with ending native forest logging and that's obviously the thing that's most relevant or highly relevant to your work, we have commissioned quite a lot of work over the past several months and the work that we've commissioned from Mandala is focused very much on the nature of the transition for the industry in New South Wales. And I'm sure you would know that we have also been helping on the development of a couple of new carbon methods that are quite relevant to this, one, the improved native forest management method. It's particularly relevant I guess to your work.

And a second method that is more relevant for a voided regrowth or native regrowth clearing, which is probably not quite as relevant to your work, although it may well be. Anyway, and you'd be aware that last week Minister Bowen announced that these two methods are two of the four methods that the Commonwealth government has now signed off on for further work or really for development. And so we started some work – sorry.

MR DUNCAN: Just on that, the other two methods, one of those is what New South Wales [DCCEEW] is putting forward, is that right?

DR HENRY: I'm not that familiar with the other two methods, I'm sorry. I haven't – yes. And so what we've been – the question that's been in our mind really from the get-go is this, is it possible to have a carbon method that funds a transformation in the management of native forests on the public estate? And when I say funds a transformation, I mean that not only pays for the new management that would be

required in order to sequester sufficient amount of carbon but would also pay for the biodiversity enhancement, enhanced bushfire resilience and so on, you know, imagining a completely different sort of management model for the native forest estate on public lands in New South Wales but also in other states.

So firstly, is it realistic? Can we really expect to see carbon credits generate sufficient revenue to fund that transformation? And then secondly, what are the employment implications of that new management model for forests? And so that's really what we tasked Mandala to model and that's what we'd like to present to you today.

MR DUNCAN: Thank you. Right, I think if we go forward, we're happy with what you've outlined, Ken. So happy to hear the model.

DR HENRY: Okay, thanks. Okay, so Amit, maybe if you were to take it from here?

MR AMIT SINGH: Great, okay. Thanks, Ken and thank you to the panel. My name is Amit Singh. I'm the managing partner of Mandala, which is an economics, policy and strategy consulting firm. I'm joined with my colleague Dr Jun Tong, who has led the research on this work. So thank you for making the time to speak with us.

Before we start the meeting, I just wanted to make sure that – or make a declaration to ensure that the panel is aware of an adjacent issue that we are advising on. We have been contracted to do a piece of work for the National Parks and Wildlife Service in relation to the economic and social impact of The Great Koala National Park. That work concluded at the end of May. The scope of that work and the scope of this work differs and does not overlap in subject matter, focus areas or geographical scope.

But for the avoidance of doubt, we communicated the fact that we were doing this work with the Secretary of the Department of Climate Change, Energy, Environment and Water and outlined a series of different protocols to ensure that we had scrubbed any data that we had received from the government for our initial work in the process of developing this work.

This work is built purely of public data and for the purpose of being able to demonstrate and articulate a kind of public view about what carbon markets across the whole state of New South Wales operate and the ways in which to think about the different implications of that work are relative to the way in which we think about its relationship with ACCUs. The work that – we have subsequently – once we concluded this work, we were subsequently asked to do a separate piece of work for the Department of Environment.

Again, that is not related in any subject matter, scope or anything else, but because they both relate to nature positive markets, we wanted to make sure we made that declaration at the beginning. And we have also provided ongoing updates to the Secretary of the Department or their delegate on the protocols that we proposed to put in place through that process. So I just wanted to make sure I made that declaration at the beginning. I'm happy to run through –

MR DUNCAN: Yes, that's helpful. We were aware of some of that work but we were just trying to place it in the right location, so that's helpful. Thanks, Amit.

MR SINGH: That's great. Okay, great. So we're really excited to share this work because I think one of the things that we think about when we think about this work is thinking about the shift towards sort of carbon assets and the role that the state of New South Wales can play in that context.

And we think that this is a huge opportunity for the state because when we think about the sort of future of what these markets would look like, what they need is sort of high integrity, high integrity kind of carbon credits that are then underpinned – high integrity carbon credits that are produced and kind of created for the purpose of a government or a sovereign kind of capability, which would work in the way in which you'd think about it in any ordinary financial markets.

But then ones that are then also able to be produced in a way in which there is - where they're large landholders and in turns out that actually the state of New South Wales has or can commission or has an effect over a large parcel relative to the rest of the kind of other landholders in the country. And so taking those two things together, we think this represents a huge opportunity in terms of additional revenue for the state.

We think it represents a huge opportunity in terms of its ability – obviously its ability to meet its kind of environmental kind of objectives and we think it represents a huge opportunity to transition its workforce towards future industries where there are certain industries in flux or in transition. And so that's what we've kind of set up in our work. We'll run through the kind of research now and the kind of implications a bit but the way to kind of think about our work is that there is demand for these types of services – sorry, there's demand for these types of products.

That demand – there's an opportunity to kind of fill that kind of demand in the current context and there are significant opportunities that arise for the state as a government but also for the state economy itself. The summary kind of facts for this that's important to put in context is that there's roughly about 1.5 billion in additional revenue that could be generated over 15 years and where it creates a series of different opportunities for new workers, for about 1,500 new workers through this process if you take certain choices or approaches in the way in which you manage that transition.

Before I hand over to Jun to take you through the substantive parts of the research, one thing that's important to emphasise is that we didn't look at this question and ACBF didn't – in working with ACBF we were really clear about the way in which we approached this work wasn't to just look at it in terms of the potential revenue but also the potential ways in which that revenue could be deployed to support the transition into a sustainable industry into the long run, right.

So we looked at the revenue that could be generated based on their high integrity credits on a conservative estimate, then how that could be reinvested to support the transition to then create an ongoing sustainable industry where New South Wales would be a leader in that kind of basis. So that's the kind of context of our work and

that's a rough summary. I'll get Jun to just run you through some of the key highlights and then we can speak a little bit more in terms of what it means for demand and where these kinds of products may be most beneficial, but then also speak a little bit to the way in which we've thought about the transition modelling and its effects.

MR DUNCAN: Yes. Thank you.

DR JUN TONG: Wonderful. Great. I will share my screen. Can you all see that?

PROF MARY O'KANE: Yes, thank you.

MR DUNCAN: Yes.

DR TONG: Great. Thanks everyone and thanks for the opportunity to present our research. We're keen to make this as useful as possible to the Panel, so there are many aspects of this work, as Amit has outlined. There's the investment of ACCUs, there's the demand for ACCUs, there's also a regional and workforce dimension to this. So if there's a particular focus area you'd like to dive into, please let me know and we can home in on that.

Otherwise, I'll stop from the top. The transition – if the method is approved formally in New South Wales, this method allows a shift from wood extraction from native forests to carbon production and that shift is coming at a time when high integrity carbon credits are in great demand. So there's been a lot of work done trying to forecast the demand for carbon abatement from polluters, not just in Australia but globally, which has meant that analysts expect a similarly steep increase in the price of high quality credits.

What you see here is an amalgamation of two high quality forecasts on demand over the coming years to 2035. This is likely a conservative estimate given the fact that in the last six to 12 months the boom in AI datacentres has meant that technology companies are also very much looking at carbon credits as a way to meet their corporate sustainability goals, in addition to the traditional sectors that have demanded credits, that being mining and manufacturing, especially in Australia. So demand is –

MR SINGH: Just for context, so you can appreciate, Amazon and Microsoft are the largest producers of – are the largest buyers of PPAs in the United States last year and their obligations are not limited to obligations within a particular country. They think about their kind of carbon crediting sort of regime as a global sort of enterprise.

DR TONG: And so the price of carbon credits, which at the moment are within between $30 and $40, expected to grow to close to 100% by this time next decade. So conservative forecasts have it in the mid-$70. Ideal carbon credits and there is, as a commodity, buyers are becoming more sophisticated about the characteristics they're looking for. Not only are they looking for those credits to have integrity, meaning that they are additional to carbon abatement, that they're permanent, that they're accurate and well accounted for, but they also have co-benefits.

So co-benefits meaning that it also increases biodiversity of where those credits are generated, that they have benefits for the local community and the regional economy. All of that is to say that where the proposed method meets a lot of these criteria for an ideal carbon credit generating project, it has the potential to create revenue using high integrity credits, has benefits for the local community and has a series of very rich environmental co-benefits. That is significant.

I'll just pause there before I go into our modelling results. To give you a little bit of a sense of our modelling, what we tried to do to estimate the scale of this opportunity in New South Wales is to try and understand, well what is the potential range of revenue that the method can produce in New South Wales, what are the costs required to realise that revenue to implement the carbon project well and what is the net income? And the second part of the research looks at well how do we invest that net income from those projects, one, to support the transition of those regional areas in the state and what are the investment options that government has to ensure that those benefits are lasting to those local economies and that natural capital goals can also be reached?

So I'll go through these in series. So I'll talk about our revenue estimates followed by the costs required to implement the project, followed by the investment opportunities of the net income.

We have three scenarios here in trying to estimate, well, how much revenue can native forestry credits in New South Wales generate? I've spoken a little bit about the growing demand and correspondingly the growing price forecasts of these credits. If we take a central case, which uses relatively conservative and modest assumptions that these credits don't fetch a price premium, that we use a reasonable $67 forecast by 2030, over a 15 year credit period, the central scenario gives us total revenue of about one and a half billion dollars.

If we assume a price premium, given the fact that these are high quality credits, we reach over two and a half billion dollars over a 15 year crediting period. Now, that is a significant amount of new government revenue. You can take more modest assumptions where you assume the price remains steady to around what it is at the moment. that gives us a low scenario where the revenue is around a billion. So the total range is between one and a two and a half, with the central being at one and a half.

Where are those credits being produced? They are largely produced where the method is eligible. So this will be familiar to you, familiar to the panel, nearly half of that revenue is located in the north of the state, with the remainder in the south and then about a tenth in the western part of the state. But much of that potential ACCU revenue is concentrated in the state's northeast, where native forestry activity is correspondingly high. So I'll just pause. Any questions regarding the revenue component of the research before we go into the costs of implementing the project?

MR DUNCAN: Not really but I guess I had a couple of – some of the things that have been put to us is it may not be a full shutdown, it might be partial. Does this modelling – would that be able to be done, a ramping up to a full closure or is it something that

happens from day one? And secondly, do plantations have a role in this as well if there was a further expansion? Not saying a complete expansion but further expansion.

DR TONG: Yes, good question.

MR LYNDON SCHNEIDERS: Jun, would you like me to talk about plantations?

DR TONG: Yes, that'd be great, Lyndon.

MR SCHNEIDERS: G'day everyone. My name is Lyndon Schneiders, I'm the Executive Director of the ACBF. For full disclosure, I'm sitting underneath a very depressed US election party and watching lots of sad people walk past. Anyway, on the issue of plantations, it's a really good point, right.

So what we do know is that the generation of ACCUs has already been available to the plantation sector actually over quite a long period of time. There's been a plantation carbon methodology in place for several years but there was very limited uptake in the method until some rule changes were made literally a couple of years ago which enabled plantations in high rainfall areas to be eligible for generating credits. So we're already seeing – we work quite closely with the plantation sector, so we're already seeing quite substantial business changes occurring around the plantation sector because they are now able to access ACCUs.

And what the ACCUs are doing is they're strengthening up the bottom lines around plantation management. I think you would know this from the work you've done to date is that the plantation business can be sometimes quite financially challenging. You're putting a lot of costs upfront and you are relying on a product that comes many, many years later that actually makes a financial return. So the plantation sector has been increasingly accessing the ACCU market specifically over the last couple of years. It's generating a series of changes including changes around decisions to extend the rotation length of plantations and that leads to a range of different products that are actually produced.

So we are already seeing that the access to the ACCU market now is having an important and beneficial change to the plantation sector in terms of firming up some of their bottom lines and also importantly it's not a significant carbon benefit but there is benefits that come from letting the trees grow longer, letting the logs that get pulled out of those plantations grow to be larger and that leads to a range of product types to be able to use that hold the carbon for longer periods of time. So to your question, we're already seeing quite a number of positive signals coming from the access to the ACCU market by the plantation sector.

MR DUNCAN: And then the issue of full or partial closure of sort of native forestry, you're talking about high quality credits, are you still able to do it in a proportional way or is it an all or nothing type of equation?

MR SCHNEIDERS: Look, it depends ultimately on the final decision made around the method development. My understanding, looking at the material that has been

submitted to the federal process was that there was an option for two different types of treatment. One is around a cessation and the second is around an extended logging rotation, which in theory generates – well, one, enables the trees to grow older and store more carbon and then potentially enables the trees to go to products that have got a longer carbon life.

You know, one of the challenges, as you would know in New South Wales is a number – a large proportion of particularly the native forests that are logged end up in short-lived products and those short-lived products can be things like firewood, for example. Firewood is the single biggest end point use of native forest products in New South Wales and in Australia. So clearly if you're logging to produce firewood, you know the carbon benefit is reasonably short-term because you're throwing it on your fire, right. Likewise, products like paper based products, even though there's been a very strong commitment to recycling, just means that the carbon benefit of the embodied carbon in the product is quite short-lived.

So I think for the New South Wales government, for the process, those two options are there. I think the critical determinant is both the price point, as Jun and Amit have walked through. You know, there is a range of different price points to the carbon credits. And secondarily, the volume of credits that get produced. Our working proposition is that there will be from 2027 onwards a mismatch between the demand for credits and the available supply.

And I think one of the benefits we would argue around the cessation approach is that it generates a quantum substantially larger volume of credits that either compliance buyers, i.e. those who are captured by the safeguard mechanism, and there's something like 67 heavy polluters in New South Wales, who are now part of the safeguard mechanism and who are, as you know, required by legislation and policy to be progressively reducing their emissions between now and 2030. And also the voluntary market that goes to Amit's earlier point around the big global players who are looking for high integrity credits.

So the policy decision is really around price point versus volume of credits required to meet those compliance and voluntary demands. So I think there's a choice there obviously for the New South Wales government about those two decisions. Does that make sense?

MR DUNCAN: Yes, yes. No, I understand.

MR SCHNEIDERS: Yes, cool.

MR DUNCAN: So do we want to keep going?

DR TONG: Yes, so on costs, to ensure that the credits are of sufficient integrity to fetch a potential price premium, we did an exercise where we interviewed a bunch of carbon managers. We looked into the literature to work out what exactly does a high grade carbon operation look like and we tallied up that cost and we were upwardly conservative to ensure that we were capturing the ceiling of that cost and our result is

that on a per annum basis, the cost of forest management over the native forest estate in New South Wales to manage fire risk, to manage for sufficient maintenance of the carbon growth nets out to just over $20 million a year.

There is an additional $8–10 million worth of administration in terms of accounting for that carbon, ensuring that the abatement calculations and the reporting are of a sufficiently high standard to ensure integrity and the cost of conducting regular audits for buyers to have trust in those credits. Overall, that takes us to a net cost of between $25–30 million a year to implement and operate this INFM method across the state.

To the panel's earlier question of does this work for different types of – for harvests of forest instead of the cessation of native forestry, if rotation lengths were extended, of course that would be true but it would require a different implementation of the method and the amount of credits yielded would be lower. And these costs would also have to change against such a method. So this is cost that assumes a cessation method.

If we subtract the cost from the revenue, you can see a breakdown there. In the second column, we have the central case where we subtract costs from that $1.5 billion worth of revenue. The net revenue comes up to about 1.1 billion over the crediting period where about 20% of that revenue was spent on land management, on forest management, and fire risk management and about 5% on verification, auditing and internal accounting of that carbon stock.

MR MICK VEITCH: Can I just ask, the costs of forest management, does that include your biosecurity obligations?

MR SINGH: Yes, so it includes the – we spoke to some land managers to work out well exactly what is the best form of if they had an endless stream of money, how would they implement their land management practices to the highest standard? That includes biosecurity, that includes fire, that includes improving the biodiversity of the estate and that we built all of that in to make sure that we were really capturing everything and we weren't missing out on the hidden costs.

PROF O'KANE: And is the auditing annual?

DR TONG: So the auditing is – we've calculated it on a per annum basis but different projects have different auditing periods. Some are on a five year window, some are on a two year window, it varies.

MR SCHNEIDERS: Yes, it's largely regulated around the decisions in respect to the clean energy regulator and also the final method. So obviously from the regulatory approach, particularly for the federal government, who have got the responsibility of ensuring the integrity of the ACCU system, what they really want to know is that the ACCUs being generated are real and they also want to know that the benefit that's being returned to a landholder, in this instance the New South Wales government, are not being spent on a range of other things that are not – well, so first and foremost, they want to know that the carbon project is being maintained, the calculations around

the amount of carbon that's been abated is actually occurring and that the monitoring systems are in place.

So the final detail will come with the final methodology and also it is a progressive process of improvement that the clean energy regulator at the federal level has been putting in place to ensure that the credits claimed are real, that they are additional and that the benefits that are being accrued are correct and lastly that the management systems are in place to ensure that that carbon is being stored as the model suggests it is.

PROF O'KANE: Just one more question, once you've got the thing established and you've had the early audits that you've got the carbon that you think you have, how important or not is management? Would it be very light touch or do you need to do quite detailed management? I mean, I suppose I'm getting to how do you know what's an appropriate standard of management when you're in that stage - [cross-talk]

MR SCHNEIDERS: Yes. Look, it's a great question, right. And in some respects we're not in uncharted waters but in some respects we are. Like, one argument that would be made from people like me who have been involved in forestry issues for 25 years is that we have been progressively degrading the overall health of the native forest estate for a range of reasons, right, not all of them to do with logging. Some to do with the sort of expansion of invasive species, weeds and ferals, certainly some of the economics of native forest logging has meant that the forest managers probably don't have the resources available to manage the forest appropriately.

I think the – you know – a very real issue, particularly post 2019 and 2020 is a fundamental rethink about how to manage fire. So I do think ultimately you would not from my personal perspective based on a long history of experience, this is not a set and forget approach to forest management. This is an opportunity to fundamentally rethink how to restore forest health and restoring forest health has a range of components. I would argue one of those would mean - involves - removing threatening processes that are degrading the overall health of the forest.

The second are around effectively dealing with weeds and ferals and then thirdly really having a strong hard look at fire management because I think effectively and I don't think this is a disputed fact but it may be, effectively what we've done over the last however long you want to talk about commercial logging in native forests is we've fundamentally changed the structure of the ecology of the native forest.

So increasingly, native forests bear some resemblance to plantations in that they've got a very even age structure. You know, habitat trees, older trees are left behind after selective logging activities which are the activities that particularly get put in place in northern New South Wales. But the overarching structure of the forest has changed quite dramatically over the last 100 years. Now, I do think all the indicators are telling us that forest health is declining, that the age structure of the forest is fundamentally different and they're becoming more flammable.

So I think one of the things that carbon project pursued as a policy by the New South Wales government, it gives us an opportunity to think quite differently about how we're managing forests into the future. Clearly there are sections of the native forest estate that have not been substantially impacted by human intervention, even since colonialism. But the vast majority of the estate has been fundamentally changed and this gives us an opportunity to think about managing the forest in a different way. But it is active management and that active management is going to be very, very important to restore forest health but also to increase the carbon stocks. Does that make sense?

PROF O'KANE: Yes, no, that's very helpful. Sorry, Peter.

MR DUNCAN: Lyndon, just while you're talking about this, can you answer a question? It's been on my mind for a while. About 20 years ago under the New South Wales Greenhouse Gas Scheme there were a number of credits generated. Whatever happened to that scheme and the credits that were created? And they were mostly around plantation growth, I think.

MR SCHNEIDERS: It's a fantastic question, right, and it's been raised recently by me. I fear it went the destination of state based emissions reduction schemes. My memory was when we had ambitious – not ambitious, we had forward looking state premiers like Premier Bracks and Premier Carr and a few others and their desire to get ahead of the inertia at a federal policy level, they took the first steps of creating state based emissions reductions approaches.

MR DUNCAN: Yes.

MR SCHNEIDERS: I honestly have no idea. It was a question raised quite recently in the koala park, it'd be interesting to find out.

MR DUNCAN: The reason why I asked –

MR SCHNEIDERS: Sorry, but can I just –

MR DUNCAN: Yes, keep going.

MR SCHNEIDERS: No, no, no. You go, mate. You're right I'll shut up. No, I –

MR DUNCAN: I guess the reason why I asked was nobody seems to be able to answer the question and I'm just curious to know – you know, those buyers were international buyers like TEPCO and companies like that, just curious to know where they sit.

MR SCHNEIDERS: Yes, I think in the early days of the market there was so much policy experimentation and also kind of ambitious investment by those who are trying to be first movers and my suspicion – now, that is my suspicion and look, and that has been the nature of this market. It's taken a long time for us to get from a nice idea

through to an early compliance market which was a compliance market that was brought in by the clean energy package in 2011.

We then moved almost to like a state socialism model under the federal government in 2013 where the federal government became the buyer but a buyer still of largely a voluntary market. I think the most significant thing has happened obviously since 2022 is that we have finally got in place a compliance based market that affects the industry clearly and effectively and has real rules around it. And this is what gives us some degree of confidence at last that there's an investable product.

You know, we've had probably 10, 15 years of experimentation and the ERF, the old emissions reduction fund that was put in place by Tony Abbott and Greg Hunt in 2014-2015 was really – it was important even though it wasn't as effective as it should've been. It was important as it allowed experimentation with the safety net of the federal government being the buyer of the credits. And so historically I was never a complete critic of the ERF, even though I thought the model that was put in place in 2011 was much more simple and effective, I wasn't critical because this was a whole new industry. You know, and I think now we've had 10 years of proof of concept and that's what makes this opportunity quite exciting. There's been a lot of learnings, right.

The thing that I find particularly interesting around the potential of the carbon project is most of the carbon projects that have been undertaken in Australia have happened on private property and this would be the first project of size and scale that would be taking place on Crown land, which would have not just a benefit around reducing emissions but also have a massive community public interest benefit in being able to generate these resources to both look after the workers, get people back into the bush and then clearly demonstrate that we're actually reducing emissions and restoring forest health. That's the exciting potential of this.

MR DUNCAN: Okay, look that's good. Look, we've got about 10 minutes to go. Do we want to wrap up the presentation? How's –

MR SCHNEIDERS: In Mandala's hands.

DR TONG: Apologies, I was on mute. Amit?

MR SINGH: No, no, go ahead.

DR TONG: Yes, just very quickly, panel. I thought we'd cover off on – so we've talked about revenue and costs for implementing the program. We've also modelled the investment options of that net income to achieve several goals, to achieve a just transition for the regional economies in question and also to outline how that investment in those communities and in those estates can generate natural capital improvements and can generate GVA improvements and can generate jobs and jobs that are of comparable and improved quality to native forestry jobs.

We've modelled three options. I won't go through all those details but just to give you an idea of the work we did, we looked at expanding plantation processing to make it more sophisticated and productive. We've modelled a community fund where those funds are invested in regional infrastructure and in advancing health and social outcomes. And we've also modelled an option that includes additional forest management that is not just managing the forest for carbon stock but also managing it for a step change in natural capital improvement.

You can see the corresponding spend jobs in GVA according to each of those options. To give you an idea, native forestry in New South Wales we've estimated to employ about 2,500 workers. All up in our option three there which involves additional forest restoration, we generate a comparable number of jobs in the new state where the INFM method is in place. I'll just pause there. I know we're short on time, so any questions or comments.

MR DUNCAN: No, I think we can see your logic.

MR SCHNEIDERS: A question for the panel, like obviously the work that Amit and Jun and the team have done is genuinely groundbreaking and hopefully is very helpful in terms of providing a series of options. I guess the only other thing I was going to ask before we get to the end is we have been commissioning some other work and undertaken some other work just around sort of the future direction of a forest based industry in New South Wales and Australia. Is there any interest in talking about hat briefly or would you like to just sort of run it out through the Mandala presentation?

PROF O'KANE: Whatever you think is the most useful I think is what would be best. Can I slip in a question too that I meant to ask earlier? For needed wood products, where would you see them being sourced?

MR SCHNEIDERS: In terms of substitution, sorry, is that the question?

PROF O'KANE: Yes. Substitution.

MR SCHNEIDERS: Yes, look, I won't throw to Ken because he's probably still, I don't know, in Bulahdelah or something.

DR HENRY: No, no, hang on. No, no, no, I'm in Wauchope. If there was one town in New South Wales you wanted to be in to have this conversation, it would be Wauchope, right.

MR DUNCAN: Yes, yes.

DR HENRY: And that is where I am. Yes, yes, yes, my father was a timber worker here all his working life. He was working in the state forest around Wauchope and actually all the way up to Dorrigo and then out west to The Great Dividing Range, Yarras, places like that. So I know this part of the world rather well [redacted] and I have witnessed the, well, falling condition of native forests in this part of the state over many years, in fact all my life.

But look, I think in answer to that question, one of the things I've noticed is that whereas 60 years ago almost every house in this part of the state was built out of hardwood timber and in fact I live in a house at the moment that is entirely constructed of hardwood timber, but it was built in the early 1900s, there's no house in this part of the state that is currently using hardwood timber in its construction at all unless it's a few floorboards and that would only be in a house being built for a very wealthy person in this part of the state.

So hardwood is no longer the construction material, certainly not the construction material it was when my father was chopping down trees. It's been phased – I would say it has been phased out. I mean, there's some minor use continuing but it's very, very minor and I would say that hardwood – people took decision a long time ago that hardwood was not going to be, at least from native forests, was not going to be the future of construction material in New South Wales or indeed Australia for both residential and commercial construction.

But what we are seeing of course is increasing use of laminated softwoods from plantations and the laminated softwoods, from what I've seen, are stronger, more durable and indeed more fire resistant because of the way they're put together, more fire resistant than the hardwoods. So I think that's where the future is. Now, there are people who are more expert on this than I am but –

MR SCHNEIDERS: Can I add to that, Ken? I just wanted to draw attention to the panel to a couple of pieces of information we put into our original submission and I won't go into detail around that but just to draw it. I think there's two components here. When we posed the question around substitution, there's two things to think about. One is around the role of imports and I'll come back to that in a moment. The second one is to when you get the chance after this – call – slide number I think it was 46 that we attached into our submission, as Appendix 1, which was based on some work we asked for - [non-transcribable].

PROF O'KANE: We'll look that up. Thanks, Lyndon.

MR DUNCAN: We'll look it up. Lyndon, that's a question, are you going to share the slide pack with us or not?

MR SCHNEIDERS: [non-transcribable] yes, look it up. But the main point I wanted to – that was part of our submission, so we put that in. So, look, very happy to [non-transcribable] – but the information I was referring to was attached as an appendix to our submission that we put in whenever it was, you know, 13 October or whatever date it was.

PROF O'KANE: We'll look that up.

MR SCHNEIDERS: Yes, have a look at 46 and the main issue to look at in 46 is essentially it's a very effective and interesting graph around the product uses. Like, so what is timber from both softwood – from both plantations and natives, what is the

product being used for? What's the price per cubic metre and what are the volumes? And what's interesting about it is in some respects, when you get the opportunity, you'll get to the end right-hand part of the graph and you'll see that there is a residual highly prospective appearance grade native forest industry. It doesn't generate much in terms of volume but it is clearly very profitable.

The reason I would argue it's profitable is it's largely based on logging quite old trees, anywhere between sort of 120 and 170 year old trees, which are in (1) in competition as habitat trees and that's become very clear through the Great Koala National Park process. But also not only are they in competition for their conservation values, there's not much of it left because we have gone through that long process over many years of changing the age structure of the forest.

So there certainly is an argument that will be made I'm sure by sawmillers that there is a very prospective and profit making industry that still exists inside the native forest sector but the volumes are comparatively tiny because there's not many of those trees left and my sense, as someone who's worked on this issue since the early 1990s, is essentially there's been a race, right. Like, my argument about high quality sawlogs is there is a race to get them out and turn them into products before they run out and we're seeing that across a number of jurisdictions.

I think the issue around substitution really requires two things. It requires governments, both at the Australian and state level, to understand what are the products they want into the future and that the consumers and the economy are going to need into the future. So that's a future demand piece of modelling around what does our economy need in terms of wood products. And then there's an overlay there which says what is the available supply? When you get to that point, you have to look at two pathways, one is around okay, what have we still got that's sustainable but the second one is really a question around imports.

You know, like "imports" is a dirty word in this debate and I can understand that and as someone who was involved in rainforest advocacy in the 1990s, I certainly don't want to see rape and pillage of developing world's forests. But the majority of the imports we're getting are not from those jurisdictions, they're from jurisdictions that have the same or higher environmental credentials as ourselves. I think it's very worthwhile for the panel, if you get the opportunity, to go and look at the transition that's happened in the Heyfield hardwood mill in the Latrobe Valley in Victoria, which until the Victorian Government - [non-transcribable].

MR DUNCAN: Lyndon, we're losing you a bit but we're going to need to wrap up because we've got a –

MR SCHNEIDERS: [non-transcribable] native forest logging was –

MR DUNCAN: We've got to wrap up, we've got a 4 o'clock meeting.

MR SCHNEIDERS: Yes, sure. I was just going to say have a look at Heyfield and how Heyfield has dealt with the transition. You know, they largely – okay, mate. No worries.

MR DUNCAN: We've lost you. Amit, maybe you can help? Are you going to share any of these slides with us? I know there's some that have gone in the submission.

MR SINGH: Yes, we're happy to share that through ACBF, to share it with you, yes.

MR DUNCAN: Whatever you think is able to be made public because we will publish it on our website. So have a look at it and share what you feel you can share. Okay.

MR SINGH: Yes.

MR DUNCAN: But I'm sorry, we have to wrap up because we've got a hard finish for another meeting but really appreciate the presentation, so thank you very much to all of you today.

MR SCHNEIDERS: And thanks for the opportunity.

DR TONG: Thank you.

MR SCHNEIDERS: And good luck and look forward to engaging in the future.

MR DUNCAN: Thank you.

MR VEITCH: Thank you. Thanks very much.

MR SCHNEIDERS: Cheers. See you all.

MR VEITCH: See you, Ken. See you, Lyndon.

MR SCHNEIDERS: Bye.

>THE MEETING CONCLUDED