

THE LEGISLATIVE COUNCIL SELECT COMMITTEE ON FORESTS MET IN COMMITTEE ROOM 1, PARLIAMENT HOUSE, HOBART, ON TUESDAY 12 FEBRUARY 2013.

Ms JENNY WEBER, HUON VALLEY ENVIRONMENT CENTRE, WAS CALLED, MADE THE STATUTORY DECLARATION AND WAS EXAMINED.

CHAIR - Earlier today we received the email regarding your submission and that is being printed for us as we speak.

Ms WEBER - I can table that here?

CHAIR - Thank you.

CHAIR - We will take that as a tabled document because of the timeframe. That has passed the time so the committee will make decisions about the acceptance of that as an official document for the committee at a later time.

Ms WEBER - Okay. Thank you.

Mr DEAN - I have not read the 140-odd pages yet.

CHAIR - Jenny, if you would like to first of all speak, I presume, to that document. That will open up some questions and we have got two of them.

Ms WEBER - The Huon Valley Environment Centre has created a very strong presence in the community. We are part of the environment movement and the environment movement is out there. It is very strong and we are integral to it. We are part of the global environment movement and we are connected and respected globally.

Our aim is to protect the natural environment and, in the face of accelerated climate change and unsustainable industrial exploitation, we are looking for the protection of that environment.

Our advocacy focus is the protection of native forests in southern Tasmania and it stems from a deep and educated understanding of the values of the environment and the social impacts of its degradation and the subsequent need for that protection from destruction.

Our campaigners are very familiar with the forests in the southern region and their values. Our main points we would like to offer to this inquiry are that there is a need for secure protection of the globally significant forest ecosystems as world heritage-listed national parks.

Further to this, the protection of intact natural ecosystems and the native wild life that depend on these eco systems is needed. Expanding protected areas from resource extraction is one of the best tools in reducing net carbon emissions and mitigating climate change impacts.

There is also a need for a rapid transition out of industrial-scale native forest logging in Tasmania, a need for immediate change in logging practices, and the burning of native forest for electricity needs to be ruled out. The immediate restructure of Forestry Tasmania to create a better management strategy is urgently needed in Tasmania and we do not believe that Tasmania should be dealing with a company such as Ta Ann. We question the ethics of Ta Ann and we're very concerned about the wood source that has been taken by Ta Ann from the high conservation value forests over the past years. Thank you for inviting me today.

Mr DEAN - Did you say that the burning of native forest needs to be ruled out?

Ms WEBER - The burning of native forest for electricity needs to be ruled out, as in biomass plants and bioethanol plants.

Mr DEAN - Meaning the residues?

Ms WEBER - Meaning that logging of native forests will then be used in forest furnaces, bioethanol plants for electricity; yes, that's right.

Mr DEAN - So your position is totally against native forest logging of any type or to any degree?

Ms WEBER - Huon Valley Environment Centre's position is that there needs to be an end to industrial-scale logging of native forest. There absolutely needs to be a transition out of industrial-scale logging of native forests.

Mr DEAN - When you say 'industrial scale logging', can you elaborate on that? I take it that you would accept selected logging or something?

Ms WEBER - The protection of natural intact ecosystems I see as very important. The Huon Valley Environment Centre has the position that industrial-scale logging such as clearfelling, practices that we are seeing in Tasmania, need to be transitioned out over two years. We are not saying that the person who cuts down a tree for firewood must end; we are talking about a transition out of industrial-scale native forest logging.

Mr DEAN - I still don't think that made it clear. Do you support select logging in native forests for timber mills?

Ms WEBER - No. The very real fact we are propagating here is that the natural intact ecosystems of Tasmania need to be protected for mitigating climate change and reducing carbon emissions. The incredible industrial-scale logging of those native forests needs to be transitioned out and we are saying that the timber industry in Tasmania needs to be transitioned to plantation use.

Mrs TAYLOR - We are in a situation where a number of signatories from both sides of the debate are trying to say they would like to have peace in the forests, as we all would - peace within Tasmania and not have opposing sides. It sounds to me like you don't agree with the environmental signatories because they are willing to make compromises between some native forest harvesting in return for further areas being reserved.

Ms WEBER - Certainly not do we agree with the abandonment by environment groups of the end to native forest logging policy. Certainly we are further concerned about the shortcomings of the agreement insofar as they will entrench clearfelling and continue to see large-scale logging in our native forests. We are very concerned about the concessions that have been made from the reserve proposal and those concessions are being made in the Huon district largely for Ta Ann. We are also very concerned that there have been environmental gains that are not certain. We are very concerned that protection of the forests out of this agreement is not certain. The environmental signatories did not have a mandate for our organisation and they didn't have a mandate to promise peace on our behalf.

I do think that peace is an artificial construct out of this agreement because we know there will be continuing practices in the forests that the community will be concerned about. Those practices have in the past brought conflict and we can't promise that those practices in the future will not continue to bring conflict - such as clear-felling and regeneration burns.

Mrs TAYLOR - Over the last few weeks a number of people talked to us about the shortcomings of this agreement from an environmental point of view in that there are areas of high conservation value that are not within the reserves. Also, if you are going to do logging you are better off to tread lightly and widely - that is, selective harvesting or small-scale harvesting over a large area rather than lock up a large area and concentrate your harvesting within a smaller area, which means you're going to overcut and therefore not regenerate the forest properly. We have had opinion from people who have been working within the environmental movement who say that if you did it well then managing the forests by selective harvesting is better for carbon growth and also better for the forests than for them to be locked up and left to their own devices because of weed growth and fire risk et cetera.

Ms WEBER - The first point is that the 572 000 hectares proposed have been verified as having high-conservation-value forest. We accept those independent verification group reports as being independent experts saying these are of high conservation value. I disagree with the concept of not protecting forests in the aim of doing little bits of logging all over the place for ever and a day. It is important for me to clarify that. We don't think that no protection is the answer. We see it as necessary to protect the forests that have been put on the table. Furthermore, we see it as very important to transition out of native forests in Tasmania.

As to your carbon comment, I am aware of the letters between the state and federal governments that there will be a benefit for Tasmania from the protection of the forests and the reduced carbon emissions that will come from that. I am not an expert on carbon in the forests. I take a lot of my information from Peg Putt, who is more than happy to come and talk about carbon in the forests. We are in a climate crisis. We are a community of people in our environment centre, an organisation that really wants to advocate for whatever we can do to mitigate the impacts of climate change. We see that protecting native forests and reducing carbon emissions from logging of those native forests is a very important step forward. I think I disagree with the person you were referring to.

Mrs TAYLOR - What about the risk of wildfires and bushfires being greater if we do nothing to manage our native forests?

Ms WEBER - If we're going to be protecting forests we are not saying we won't be forest wardens and won't have people who are acting on behalf of our community to continue to be wardens in those forests. I would not perceive that by protecting a large area of forest there will be greater risk of wildfires. I wouldn't like to be tarnished with that effect. Wildfires can happen on farm land and in plantations. It is important not to think we shouldn't protect forests because we may have more wildfires as a result of climate change.

Ms FORREST - I am interested in your comments in relation to the agreement and thus the bill and what your views and actions will be if the bill is passed or not passed.

Ms WEBER - We can't predict what our views and actions will be down the line, other than what we actually adhere to right here and now, and what I have seen from this agreement is that we are not seeing a resolution to the impacts on the environment. We will not see a resolution to the impacts on the environment from the lack of change in forestry practices such as clear-felling, as I mentioned before, and regeneration burns. Certainly the Huon Valley Environment Centre is committed to continuing to advocate for those forests that continue to be logged and we will continue to be a community voice, as we have been, for many years to come. We continue to have a commitment to that role we have in society.

Ms FORREST - Are you saying, then, that regardless of whether the bill is passed or not your actions will remain the same?

Ms WEBER - We will certainly continue to advocate for the protection of native forests and its wildlife.

Ms FORREST - The question was -

Ms WEBER - Definitely our actions will remain exactly the same on the issue of Ta Ann. We are very much in opposition to that company and we don't see that we have a future here in Tasmania that is based on ethics with Ta Ann being here. We are very concerned about the future of Ta Ann being here and the environmental endorsement they will receive out of this agreement. Furthermore, we remain committed to being in the forests and seeing what is going on in those forests; that is what we do. We spend time in those forests and assess the values and we will respond as we see what happens regarding environmental threats.

Ms FORREST - This is regardless of whether the agreement is passed or not?

Ms WEBER - If and when there is any forest protection out of this agreement then certainly as environmentalists we will regard that highly. However, there are shortcomings in this agreement for the environment and as an environmental organisation we need to continue to advocate for the protection of the environment.

Ms FORREST - What will you do differently if the agreement is passed?

Ms WEBER - What would you expect us to do differently as an environmental organisation?

Ms FORREST - I am trying to determine whether there will be any change in the activities of the Huon Valley Environment Centre if this agreement is passed and supported or if it will be the same as it is now. What would happen if it was not passed?

Ms WEBER - I'm not sure that I am not going to be repeating myself again but I was just interested in your position -

Ms FORREST - I want to know if things are going to change from your perspective.

Ms WEBER - I think I've made it clear that we will continue. If people aren't aware of what the Huon Valley Environment Centre does, we advocate for the forests. We spend time in those forests. We participate in direct action. We lobby people around the world who are buying those products and we lobby the government, so certainly we have a commitment in our organisation to continue to do that on behalf of the environment. We will certainly assess the conservation gains of the agreement if you do pass the bill.

Ms FORREST - Haven't you already looked at that? The bill has been around for quite some time now. The agreement has been around for a few months now. This committee was established before Christmas effectively, so surely you've had a chance to look at those things and will now have got to a position where you can say that either your actions are going to be the same or they're going to be different? I just want to know whether they are going to be the same or not.

Ms WEBER - Yes, and I think what I have said a number of times is that we have looked at the agreement, we have looked at the bill, we have been following your inquiry and definitely we have seen that there are shortcomings to the agreement and that there will be continued need for environmental advocacy and as an environment organisation we will remain to do that, so, yes. That's what you wanted to me to say; you just wanted me to say yes.

Ms FORREST - It's really a yes or no answer - will it change or not?

Ms WEBER - Oh, I didn't understand it was just a yes or no answer, so yes.

Ms FORREST - On the point of transitioning out of native forest into plantation, do you have concerns about plantation being a monoculture, the use of pesticides and other things that native forests don't - and when you clear it you clear-fall it?

Ms WEBER - I think what's important here to recognise is that of course as an environment organisation we would have concerns about the management of plantations, absolutely, but I am here to say that the shortcomings of this Tasmanian Forest Agreement is that it has abandoned transition out of native forest swiftly enough and it has also accepted that there will be an ongoing forestry industry with clear-felling in native forests, in natural ecosystems. Certainly there are issues around plantation management and they will need to be addressed by the community, but I think it is important to point out that these are the changes that our community needs to make and our environmental organisation will continue to advocate for a robust management system of plantations that will be environmentally conscious and aware.

Ms FORREST - I heard you say at the beginning of your presentation that you support the end of native forest harvesting and a transition to plantation harvesting but now I am hearing you say you have major concerns about the plantation estate, so where does it end?

Ms WEBER - It ends when people continue to threaten the environment with their practices that are unsustainable economically and environmentally. That is where it ends for our organisation and as an environment organisation that is very important for us to maintain our position on.

Ms FORREST - So the way Tasmania manages its plantation estate is not okay in your view, so we will have a fight there as well later on?

Ms WEBER - I guess it depends on whether or not you think it's okay the way that they operate.

Ms FORREST - No, I am asking you.

Ms WEBER - You're saying we're going to have a fight so I'm just pointing out that absolutely my position right here and now has been in the public forests. It is about native forests and it is also about the high-conservation-value forests in the southern region of the Huon. I'm just saying that I'm not going to sit here today and say, 'No, we're not going to have a problem with how they manage plantations in the future'.

Ms FORREST - When you're talking about the transition to plantation as the alternative here you are saying that in your view even though the agreement is deficient in a transition away from native forest harvesting in its entirety, you are saying that the transition needs to be in plantation. Then you are saying you are not happy with the plantation estate either and how it is managed. Is that right?

Ms WEBER - I am saying that it is our position that we will advocate for the environment. We will be aware of what is going on with environmental impacts. I am not here to make an assessment of what the industry needs to do. Whatever form it takes to transition from native forest into plantation that is for the industry to decide and for the community to then assess. It is very important for the community to be able to have a position on what the impacts are.

I've been around long enough to know people who've had poisons laid on their properties or next door to their properties with plantations and when there has been aerial spraying of plantations, and absolutely there have been practices in Tasmania's plantations that are environmentally questionable. I'm not saying that the Huon Valley Environment Centre is going to move on to a plantations campaign. We have no plans for that. All I'm saying is that there is a shortcoming in this agreement that there is not a swift transition out of native forest logging. That is for the industry to decide, not me.

Ms FORREST - You have raised a number of very valid concerns about the plantation sector. Now you are saying that you do not really have a plan for that. Surely you have an idea? You have said you want out of native forest harvesting. Do you support any forestry in Tasmania?

Ms WEBER - We have a plan that the future is for an environmentally consciously-led community. It is not that far-fetched to think that we need to address the issues we have here and now in Tasmania and aspire to being a community that can have an economy and an environment that addresses issues that need to mitigate the impact of climate change and carbon emissions, and that is what I am here for. As an environment advocate -

Ms FORREST - Can you see any forestry industry at all in the future? What I am hearing you saying is that plantation is no good, native forest harvesting you don't agree with, and maybe what we need to do is metal products instead of paper products.

Ms WEBER - I didn't say that plantations weren't good enough. I was saying that in response to you asking me whether or not we would oppose the practices in plantation harvesting because there is going to be clear-felling there and whether I agree with the current practices in plantations now. I was answering that and saying we will continue to advocate for the environment. We assess the situation that we are in. We will assess whether or not there are issues around plantations and that is where our organisation will make that assessment.

What we have to understand here and now is that we are a group of volunteers. We're a volunteer-run organisation and do not have a wide spectrum right now because we have been consistently working on those World Heritage-value forests in the southern region of Tasmania that have been consistently devastated by clear-felling practices. That is really where our focus has been. I think you should cut me a bit of slack that we don't have a plan in the future around plantations even though we're advocating for a transition out of native forest logging.

Ms FORREST - The reason I am asking you - and you might feel I am not cutting you any of slack - is that you said you expected a transition out of native forest harvesting to plantation. You did say that at the beginning, so do you believe that the way Tasmania manages its plantation forests is environmentally sustainable?

Ms WEBER - There absolutely needs to be improvements and I think that's what's important. I think what we have not been able to focus on is the management of plantation system because they have been in these high-conservation-value and World Heritage-value forests for as long as we have been around. We have been around for 11 years and that has been our focus - the high conservation and world heritage forests in Tasmania. In the past years it has expanded to recognise the very really of natural intact ecosystems in the native forests so that is my real focus.

Ms FORREST - If you are saying you also think there should be a transition to plantation, I am sorry to keep going over this but I am getting around the circular argument here, are you saying that is what you said, that is where you want to go. Would you make that statement if you did not believe that plantation was a better alternative for the environment, and a suitable alternative in environmental terms, unless you were sure of that? Why would you say that otherwise?

Ms WEBER- Because I know well and clear that the native forest industry in Tasmania needs a transition. I absolutely have said that it is the industry position -

Ms FORREST - To what?

Ms WEBER- It is up to the industry about what they move to and how they practise in plantations. There are plantations out there that need to be harvested and used. Certainly we should not be continuing what we have been doing in the past of putting new plantations on prime farm land across the north of Tasmania and then wiping out whole towns. Absolutely that is not an environmentally conscious way of living. However, what I am saying -

Ms FORREST - Environmentally conscious is a community thing isn't it?

Ms WEBER- It is not environmentally conscious to be wiping out communities and putting up plantations in prime farm land. Surely when we have an issue of food security we should not be replacing farm land for plantations, which are then deemed unusable because that pulp mill has not gone ahead. There is a whole range of issues here that we can go into about plantations and I am certainly willing to.

I am importantly pointing out that we will continue to advocate for the environment and if the plantation industry that is transitioned into in the long-term is not good for the environment and it is continuing management practices that are hindering that environment then we will have a voice. Who knows where we are going to move to because we are not moving into plantations. We are staying in the native forest industry and we are continuing to clear fell them.

Ms FORREST - Chair, there is one last question I would like to ask and I would like a yes or a no answer if it is possible.

Ms WEBER- Okay.

Ms FORREST - Do you, as the Huon Valley Environment Centre, see a future for the timber industry in any shape in Tasmania in the future?

Ms WEBER- Yes.

Ms FORREST - Thank you.

Dr GOODWIN - Jenny, to be clear on the Ta Ann issue you mentioned that you are concerned about the ethics of Ta Ann and the fact that they source wood from high conservation value areas, is it likely at any stage that you would be comfortable with Ta Ann remaining in Tasmania or is that completely out of the question as far as you are concerned?

Ms WEBER- I think there are a lot of changes that need to happen for Ta Ann to be a natural company and I think what we point out is that we do advocate on behalf of people in Sarawak. We want to have it loud and clear that this is a company out of Sarawak. Not only are they a company out of Sarawak, which has impressionable links to the timber industry there in Sarawak, they are making a composite product and it has eucalyptus veneer from Tasmania, which is added to the tropical timbers from Sarawak. We are very concerned about this composite product that is sold into Japan as an ecofriendly

source of timber. So if there is a composite product that we have a company here in Tasmania contributing to the displacement of indigenous people in Sarawak, and the ongoing logging in Sarawak, then that is something that needs to be changed.

Unfortunately Huon Valley Environment Centre does not see them as a company that is ethical and one that our government should be propping up and supporting. Furthermore we do not see that the environmental signatories should be giving false market assurances on behalf of this company in Japan, particularly when we do not have any protection here in Tasmania.

I would like to point out further that we questioned the ethics of the company because the Japanese customers whom we met with had been misled in that they thought they were buying plantations and they thought they were buying regrowth forests. We have been in the forests that Ta Ann has been sourcing timbers from, which are old growth ecosystems that are being clear felled for Ta Ann.

Dr GOODWIN - So you will be continuing to campaign against Ta Ann in their markets?

Ms WEBER- We have been informing the Japanese customers of the source of the timber. We have been in the forests and we have been seeing that the source of the timber is from old growth ecosystems. The independent verification reports have told us, the scheduler's reports, have told us that Ta Ann has been the key driver of the ongoing logging of the forests that need protection. One of our main problems with the agreement has been the ongoing logging; there has not been a full moratorium. Still today the nomination for the World Heritage protection has been put in place, there is still the intention of Forestry Tasmania to schedule 12 coupes out of that nominated forest to be logged and Ta Ann will be receiving its timber. Ta Ann will be receiving the timber from the proposed protection forests. I made a commitment to the Japanese customers when I was in Japan to continue to inform them about the source of their timber.

Dr GOODWIN - I want to ask you about your policy to transition, out of native forest logging completely, and the fact that you do not agree with the ENGOs around the signatories table who appear to have abandoned that policy, in your view. You mentioned mitigating climate change, reducing carbon emissions and also presumably protecting the conservation values of the native forest. Is that what you believe is important about transitioning out? Is that why we need to transition out, in your view, to achieve those goals?

Ms WEBER - To clarify, it has been clearly stated at this table and newspapers that the Wilderness Society and the Australian Conservation Foundation has abandoned that policy to end native forest logging. The Huon Valley Environmental Centre certainly has not. We are part of a national movement that agrees to the phasing out of native forest logging. We are part of the Australian Forests and Climate Alliance, a group of national foresters who have that same position. So we have the support of those groups around the nation.

Further to the question you asked me, certainly we see that transitioning out of native forests is about mitigating climate change impacts and it is a very important point for us

as environmentalists who have become very aware of the climate change impact that we are having as humans, and the very real need to have change.

I see that it brings for people fear of change and a fear of moving away from their traditional ways of doing things. However, that fear is going to come in the crisis that we are having, such as we are in climate change, and it is really important that we need to embrace it as a community and move forward.

I will not pretend to be an expert on this, and you have a number of people who have come in from the industry themselves, however as a student of this issue there is a problem with the native forestry industry. There is problem with the markets, with the security of the markets and we are seeing a decline in that native forest industry already. So I would not like Tasmania to be held in a state of denial that the native forestry industry is going to be vibrant enough for it to contribute economically to our community.

I think they are important factors that have brought us to our policy, however more so it is about the environmental advocacy.

Dr GOODWIN - In relation to the climate change mitigation and the carbon emission issues, can you explain to me how harvesting from plantation areas will be a better environmental outcome than native forest harvesting?

Ms WEBER - What I will be able to say is that the natural intact ecosystems, keeping them in the ground, will mean that the carbon emissions, the greenhouse gas emissions, will not go into the atmosphere and that is a very important point. A very important point is to keep national, intact ecosystems in the ground. Furthermore the native forestry industry that we have had in Tasmania for a very long time has been contributing largely to greenhouse gas emissions. That is my answer to that question - there is more that I could go into but I probably would not be able to clarify it clearly.

Dr GOODWIN - But won't we still be emitting carbon and contributing to climate change if we are chopping down plantation timber as well?

Ms WEBER - No. It actually takes plantation timber to reach about 400 years to be the same issue as what we have in Tasmania if we are going to be cutting down natural intact ecosystems. It is very important to point out that the natural intact ecosystems and protecting intact wild places is a very important and crucial step to mitigating climate change and reducing carbon emissions.

Dr GOODWIN - So really what you are all about is mitigating climate change and reducing carbon emissions? Are you saying that that is the most important aspect of this whole thing for you?

Ms WEBER - Of?

Dr GOODWIN - Protecting or transitioning out of native forest harvesting?

Ms WEBER - Transitioning out of native forest harvesting is two-pronged as we would like to say is it is very important for the retention of protected lands, for wild life and for environmental heritage and, absolutely, it is in response to the impact that native forestry harvesting is having on climate change.

Mr HALL - Jenny, most of the questions I had regarding plantations have been asked and answered. Just a couple of points you made there - you talked about the establishment of plantations on prime agricultural land, particularly in the north. Were you aware that there was a study done, I think only a couple of years ago, showing that it is actually less than five per cent of the prime land where plantations have been established? It is only a fairly insignificant amount is what I am saying to you.

Ms WEBER - Okay. Thank you for pointing that out to me. I did remember the time and I do not know if anyone else remembers that time when there was a large-scale plantation expansion going on across Tasmania and there really were impacts on prime agricultural land.

Mr HALL - You also made a statement that whole towns had been wiped out or could be wiped out. Can you name any of those at all?

Ms WEBER - You would probably know that better, or someone else in the north who can tell me about where they were.

Mr HALL - I am asking the question. I do not know of any.

Ms WEBER - You do not know of any?

Mr HALL - No.

Ms WEBER - Can anyone help me here on what the towns were? Wasn't it Miena, or what was it? There were places that actually had - surely some of you have it in your electorates. No-one here knows about the small towns that were taken out by plantations?

Mr HALL - No.

Ms WEBER - So am I going to stand corrected?

Ms RATTRAY - Not in my patch.

Mr WILKINSON - There was a question about - it is not in my electorate - Barrington and the plantations that were being planted in the Barrington area. There was an argument that that might have caused some difficulties with townships. It did not in the end, but certainly that was around approximately 10 or 12 years ago.

Ms WEBER - Okay. I can stand corrected. I am interested to hear from people in the community as to what those areas were but I remember that people were talking about having their town halls and their general stores knocked down and replaced with plantations, so maybe my memory is failing me.

Mr HALL - Anyway, we will move on from that one. The second was a supplementary from Ivan with regard to there being a biomass for electricity generation. It would seem to me from what I have read and researched that most other ENGOs and Green parties in other parts of the world actually endorse that practice. Why not here in Australia?

Ms WEBER - What I did provide in my submission were some very important letters. One letter was sent to Mr Oakeshott from Australian scientists and then one letter was sent by US scientists about the very real impacts of biomass plants and our position clearly on that is that the burning of native forests for electricity is harmful for the environment and harmful in its particulate matter release for people.

That is our position. I could not say there is not support for that position across Australia because we do have environment groups that are working with us on that issue. We have people in south-east New South Wales and northern Victoria who are very concerned about the problems with biomass plants.

Furthermore, we have had industry pushing for this sort of way for the native forest industry to go for a long time now and there have also been investigations done and polls taken from people that they do not want to buy native forestry industry biomass. They do not want to buy native forest for electricity; it is actually not really the best power.

What you are looking at now in New South Wales is them talking about it being 'dead koala power'. It is actually going to be continuing to entrench our native forest industry here in Tasmania and clear felling of native forests for bio-ethanol or biomass.

Mr HALL - I accept what you are saying but I am trying to flesh out why other larger jurisdictions than us, particularly in the northern hemisphere, actually endorse the practice, including environmental groups and green parties.

Ms WEBER - What green parties are you talking about supporting the burning of native forests?

Mr HALL - Sorry?

Ms WEBER - What green parties support native forests being logged or burned for electricity?

Mr HALL - As I understand it, in Europe.

Ms WEBER - In Europe? Right.

Mrs TAYLOR - The major government party in upper Austria for instance.

Ms WEBER - Right.

Mrs TAYLOR - It is a green party.

Ms WEBER - What we really need to take on board is that there is not really a future for Tasmania to be continuing to log native forest at an alarming rate to then put it into forest

furnaces and try to sell it as green electricity. That is what our position is at the Huon Valley Environment Centre.

Mr HALL - My third and final question is, Jenny, that you talked about 570 000 hectares that you considered being HCV and you accepted that by the verification group, that was the case. It has been put to us by several people who have given evidence that there are quite a lot of patches that aren't, in fact, HCV and I will just put to you one little piece here. There is a recent Forestry Tasmania advertisement with recently retired forester, Paul Smith - it is one of those ones with 'job well done' or whatever it is. That was actually a coupe which was cleared, burnt, sown in the sixties and now is regarded as having HCV. It is now included in the Australian Government's nominated world heritage area. Wouldn't that seem to you to be a bit incongruous in that we have had a previously clear-felled coupe and that regeneration practices have now put a block of land in as HCV. Doesn't that seem a bit odd to you that that would occur?

Ms WEBER - No, we're very confident with the high conservation value assessment of the forest, particularly for the world heritage value nomination. I would see that our point around those sorts of issues about saying there is a clear fell in there or there is a regrowth forest in there, is that it is very important to recognise connectivity and the importance of connectivity in those forests. It is absolutely clear to me that Forestry Tasmania have pushed roads into world heritage value forests, right to the very end of gullies that they have been able to push and then logged backwards. Certainly it is a tragedy that there have been areas in there that have been lost for their world heritage values.

However, what is important is that why those regrowth forests now have world heritage values, why they have been nominated is because they will regenerate into - it is going to take a long time to reach those 400-year old, 1000-year old ecosystems that I have walked in in those Huon forests - however, the connectivity is what is important. The connectivity from the Weld River up to Mount Weld and those forests all the way in between is what we are talking about as having world heritage values. I think what the people here in the Legislative Council need to understand is that really it is because they are right in the middle of those valleys that have been logged for many, many years that have caused those clear fells, but it doesn't take away the very important fact that they are world heritage values still.

Mr HALL - Would you not agree that an area in my patch, the Great Western Tiers, which has several reserves already in there, which I fully support and I walk there many times, but it has been a multi-use area for 200 years. It has had a history of timber extraction and a lot of other uses. I am wondering why you cannot have the best of both worlds and still retain that as a multi-use area rather than shutting it up?

Ms WEBER - I guess my opinion is that clear felling is not the best of both worlds, so I do not see that the ongoing clear felling -

Mr HALL - No, I was talking about selective harvesting, not clear fell.

Ms WEBER - Sorry, I wondered if you were talking about the current Weld that we're in where we have clear felling in those areas. No, I think that really what we are looking is that these are world heritage value ecosystems and they are globally significant and

absolutely the best protection for those forests are national park world heritage listed areas and I think it will be of benefit to our community to have those areas listed, and for those forests to be expanded; so that is my position on the world heritage value.

Mr VALENTINE - I am just trying to get a handle on a couple of things. Can we project ourselves say 200 years into the future? Say today we just had an area that has been harvested that was a native forest. It is not going into plantation; it is being allowed to regenerate. So in 200 years time or 300 years time, given that it is not in reserve as has been put forward in world heritage places, do you see it would be better for native forest harvesting to be able to get special timbers and all those sorts of things for artisans, for various components of the industry that actually really do need quality saw log? Do you see it would be better to work on a regeneration process than on plantation?

Ms WEBER - There are a couple of points there. I think we've been in a society here in Tasmania where there has been a deep tragedy of the number of specialty timbers that have been burnt in the regeneration burns.

Mr VALENTINE - I understand that entirely.

Ms WEBER - At the outset I think we would be thinking 200 years ahead and still be thinking what a deep tragedy it's been. I just wanted to clarify that very important point before anyone thinks I sound unreasonable when I say the specialty timber industry in the future has lost because Forestry Tasmania has been burning the forests. What's important too is that we had an opportunity to set up regional wood banks where we would have been able to store those specialty timbers and we would have had 200 years' worth of supply for those specialty timbers.

Mr VALENTINE - Are you saying that in order to be able to supply the specialty timbers to the artisans and the like, would it be possible to have native forest regenerating over a long cycle - let's say 400 years - and be concentrating on these areas that are just there for logging, not first setting aside? That stuff has been set aside but we are doing a regeneration cycle of 400 years of native forest that has already been cut and now going into regeneration and in 400 years' time we harvest it. Do you see that as a viable industry?

Ms WEBER - My problem is I can't see into 400 years because I am in a consciousness of climate change and thinking we are right now experiencing climate change and in 400 years, no, sorry, I can't see that we would be looking at continuing to log rainforest timbers for people to make boats. I'm sorry to blatantly say that but I can't see 400 years in advance because I'm seeing that our society needs to change and we need to take awareness right now that we need to stem the idea that we have an endless amount of economic growth that can go on by resource extraction because we are going to be experiencing the impacts of climate change in the community.

We can see there is a future here in Tasmania, absolutely, for people to continue to make their wooden boats and art out of specialty timbers. It may surprise some of you that we have a core number of supporters who are those very boat builders and people who make sculptures and art out of specialty timbers. I'm only taking advice from them that now is the time to be recycling timber, using recycled timbers, and I'm taking advice from them

to say that right now, out there on the forest floor, is a serious amount of specialty timbers that can be salvaged and they should be salvaged.

If you want to go on to your point about isn't it better, rather than using plantations, to just regenerate native forest -

Mr VALENTINE - No, I said, do you see it as a way forward?

Ms WEBER - I don't see it as a way forward to be continuing to log native forests, natural intact ecosystems but I don't know if that answers your question.

Mr VALENTINE - No, I was talking about areas that have already been cut and are regenerating as we speak. They have been cut and disturbed; they are not undisturbed native forests. I'm not talking about undisturbed native forest, I'm talking about native forest that is regenerated. You might just put in a plantation and take the sticks out when they're ready, but you could also have it as a regenerated forest and harvest it on a much longer cycle in a way that gives threatened species an opportunity to relocate and all those sorts of things that are necessary. Don't you see that as a way forward?

Ms WEBER - It's hard to see those as a way forward; no, I don't see it as a way forward right now because I am in the midst of considering that there are still plans to clear-fell and to be using woodchips.

Mr VALENTINE - I understand those concerns. I'm just thinking of the process in order to get to a position where the industry can survive sustainably as well as reduce impact on threatened species and all those issues associated with disturbing native forests, but we are talking about regeneration as opposed to plantation. That's what I'm coming to, I guess. I'm just asking that question. I understand that climate change is an issue and I understand the issue about you not wanting to see biomass because of the greenhouse gas emissions that are produced. I understand that. It might be better to go into more technologically beneficial products like nanocrystalline technology where it's not being sent up into the atmosphere. But I just wanted to get to the base issue of being able to use native forest that is set aside specifically on a regeneration, long-term cycle to be able to continue to provide specialty timbers and good sawlog provision rather than using plantations which are just monocultural and - no values whatsoever.

Ms WEBER - From my understanding of natural, intact ecosystems, if a forest is logged and then re-seeded with a diverse range of species and then left 400 years, it probably turns into an old-growth forest, and so my position is probably the same about no longer harvesting the natural, intact ecosystems.

Mr VALENTINE - But you don't get your specialty timbers though, do you? You can't use specialty timbers at all if you go down that path. You'll eventually run out. That then finishes.

Ms WEBER - If you go down the path of regrowing -

Mr VALENTINE - If you don't go down the path of regrowing you simply go to plantations. You are not going to get celery-top growing in a plantation environment as opposed to a natural native forest environment. Well, it's less likely - I won't say it won't happen when

it can; I suppose blackwood can but I think some of those other specialty timbers are the way they are because of the environment they grow in.

Ms WEBER - Yes. I guess my only answer to that, Rob, is that I think it's good that the specialty timber workers are coming out and starting to speak up for themselves. I think it's good that they are finding their voice and they are finding the very real point to say, hello, we have been sourcing these timbers, albeit with a lot of trouble, because I have had so many people telling me about how hard it is to get specialty timbers off Forestry Tasmania. We've had people come into the Environment Centre aghast at the burning of specialty timbers. I guess it's up to our society to look forward and see what the answers are for the specialty timber users but I'm not going to be able to come up with the answer here and now as to what the future of forestry should be because, as I said before, while I think that the environmental signatories have taken that on and they have embraced thinking about what the future of the forestry industry should be, we aren't going to go there.

We are an environment organisation and we are going to just advocate for the environment and coming up with the solutions for people who want to continue to log those forests and regenerate them, there are better people out there to come up with those solutions than I am. I'm hoping that there are people out there who will find the voice to promote an industry with a lot better practices than what they have now and with a conservation concept in mind.

Mr VALENTINE - The last question, Mr Chair, if I can. The current Forest Practices Code, what is your position on that? Do you think that is sufficient? Do you think it needs updating? Have you got any understanding in that regard?

Ms WEBER - The Huon Valley Environment Centre's position is that the Forest Practices Code is insufficient. The biodiversity upgrade needs to be implemented and we are certainly concerned that this agreement does not necessarily spell out that the Forest Practices Code will be increased in its protection for biodiversity. Certainly we see that the Forest Practices Code is something that, through negotiation, has really lost its way and we are very concerned about what this agreement means for the Forest Practices Code.

Mr VALENTINE - Thanks, Mr Chair.

Mr GAFFNEY - I am wondering, what is the current membership of the Huon Valley Environment Centre?

Ms WEBER - I guess we have got a range of different ways that we measure the support of the Huon Valley Environment Centre. Our membership at this stage is 100 people, though we also measure our support of the cyber-action, for example, that we have been running to Japanese customers which has been supported by 8 000 people. We've got a mailing list of more than 1 500 people out of the Huon Valley Environment Centre. We measure our support of our relationships internationally and nationally with other environment groups, the community support that we do have. That is really how we measure what support we have in the community.

Mr GAFFNEY - I might come back to that. If you look at Tasmania, 44 per cent of Tasmania is already in reserves. I know that you guys are concerned about communities, as you have stated on many occasions, but we've also had three decades of community anxiety with the forestry wars, as they call them. My question to you is: do you think that the actions of the Huon Valley Environment Centre, and your exposure in the world markets is truly reflective of the environmental concerns of the majority of people in Tasmania? As you have stated, there are 100 members in Tasmania, and at the moment many Tasmanians see that your group, and other environmental groups of your persuasion, are having a greater impact on the world stage than the majority of Tasmanians, and people feel that is unfair.

I know that you have your point of view, but how do you contend with it when you see people leaving because there are no jobs and they believe it is because of your work in the market, which is very effective by the way - I have to give you credit for having a well-oiled machine? I think that is where the angst is. This arrangement with the TFA is not perfect, and all groups and signatories recognise that, but they believe it is a way forward, which will address some of the environmental concerns and some of the industry concerns. How do you think your members come to terms with that sort of scenario, or that sort of thinking from quite a lot of communities in Tasmania?

Ms WEBER - The Huon Valley Environment Centre does not see that we are to blame for job losses. It has been long-term history here in Tasmania that job losses in the native forestry industry have occurred because there has been an industry decline, and it has not been because of environmental organisations solely and their impact on the markets. I question your suggestion that because we have a small number of members, we don't have support in the community. Further to that, we have a committed, passionate number of people who will continue to advocate for the environment, and we believe that we have a very important role in society. We also see that we are connected globally with a supportive environment movement.

We measure our support, as I said, from our liaisons with Bruno Manser Fonds in Switzerland and with the SAVE Rivers Network in Sarawak. We absolutely get a lot of support and we work from that support. While people may think it is unfair that we have had some influence in the Japanese markets, I would like to reiterate that I was invited to Japan for an international forest summit and while there working with Japanese NGOs, who see that Tasmania has a future outside of selling high conservation value forests as Japanese flooring, I was invited by those people to meet with Japanese customers. I went into those meetings with the Japanese customers thankful that they were buying plantations and regrowth. I was absolutely there to tell them the story from the forests. It is not unfair that I have been to Japan and informed those Japanese customers; it is unfair that Ta Ann misrepresented their source of wood and it is unfair to have seen a consistent loss of World Heritage value forests here in Tasmania - forests that have been sold as eco-friendly wood.

Mr GAFFNEY - In your presentation, when you go overseas, do you say how much of Tasmania is already in reserves, compared to percentages in other parts of the world? I think it would be the right thing to do. Do you talk about the practices that are already world-class, by Tasmanian Forestry - about how they have looked at carbon storage and all those things? I am just wondering, when you are on that world stage, is it a balanced approach that you give or do you say, 'No, that's another native forest gone, they are just

taking it,' when, really, 40 per cent of Tasmanian forest is locked up. What message do you convey, when you have the opportunity to say, 'These are the things Tasmanian Forestry do, these are the best practices, this is how much land we have locked up, these are the things we do, but we still do take it from native forests.' That is a bad thing, I suppose, in your eyes. I am just wondering - is it a balanced account at that level, because you can influence those markets and those people by the way you present your material?

Ms WEBER - Sure. My presentations are based on the fact that I don't see it as a drag that we have 44 per cent, or whatever people want to say is protected. I don't see it as a problem in Tasmania that we have a large area of protected wilderness - I see that as a benefit. Absolutely, I sell Tasmania as the incredible place that it is, with large-scale protected lands. The need to protect more - absolutely, that is my stance. Furthermore, I sell Tasmania as an incredible place that can survive and thrive without continuing to clearfell and log the natural intact ecosystems, and I present that to the people.

I have only been to Japan once, and I have only had one time where I have been able to present in person the fact that this is very important, and point out that we have incredible species in the Tasmanian devil and the wedge-tailed eagle, and absolutely I balanced it by saying how positive it is in Tasmania. However, I have to bring to those people the very real fact that we are losing World Heritage value forests and I must disagree with you that we have world class practices. I am sorry, but we just disagree on this. When forestry practices are continuing to clearfell forests and we see large swathes of natural intact ecosystems lost, with species on the brink of extinction, I need to be able to present that as well.

Really, I was saying that I have been in these forests and we have seen them go on the back of log trucks to Ta Ann, and they are not plantations, and they are not regrowth, and that was really what we were saying to the Japanese customers. I would like to add that we then asked that Ta Ann move away from receiving that timber, and that Ta Ann supply a timber to Japan that is acceptable to their markets. We were saying that there needed to be a change. While Ta Ann has presented to this committee and the environmental signatories and the industry signatories have said that Ta Ann is willing to change, the Independent Verification Group reports tell us that the plantations are not suitable for Ta Ann yet, and they won't be for a long time. It is a big concern for us that we will continue to see a source of timber for Ta Ann that will not be eco-friendly. The Japanese customers were advertising it in that way, so obviously people wanted to buy flooring that was eco-friendly.

Ms FORREST - Just on that point, Mr Chair. When Ta Ann made a decision to stay, and put a range of processes in place to be able to stay while this committee process unfolded, they made it very clear that they would only accept wood from Forestry Tasmania from outside the areas identified in the protection order, or the proposed reserve areas. They didn't receive any timber for the six weeks over Christmas - they were shut down, and they have only just started up again now. Part of that agreement was to only receive timber from outside the reserve area. What do you say to that?

Ms WEBER - What I say to that is that we're very aware that 50 000 hectares of high conservation value forest was excised from the final reserve ask. We were informed by the environmental signatories that this was largely for the old growth sawmillers and Ta

Ann, so we are very concerned about that shortcoming. In the Huon region, we will still see high conservation value forest logged for Ta Ann.

Ms FORREST - Ta Ann agreed not to receive any timber in that whole area.

Ms WEBER - If they have been excised then they will still be high conservation value forests outside the proposed protected areas. Ta Ann will receive those.

Ms FORREST - That is not the expectation of Ta Ann according to what was published.

Ms WEBER - We will have to see from the forests and that is why we see our role as really important in continuing because we are the ones who are out there in the forests, who are feeding the information to fellow environment groups and others about what is actually going on and where the timber is going. We will see and we know that in the legislation there are coupes that have been exempted or that Forestry Tasmania is hoping to continue to log. Exemptions from the proposed reserves are not something that we supported. We will not accept that high conservation value forests need to be logged into the future for Ta Ann.

Ms RATTRAY - Jenny, I represent and live in a number of those small communities that are probably in some respects winding down, not from plantations but from the demise of the timber industry and where we are today. Does your group have a view on what would be the economic driver for Tasmania and some of those communities? What might replace locking up more forests and the inability to use that resource?

Ms WEBER - I am a young woman living in a rural regional area who has exactly the same concerns as other people about what the future will be for the economy of Tasmania. Right now we are at a position where we need to look at what that transition will be. There needs to be a transition in employment out of resource extraction of the environment.

Ms RATTRAY - Into what?

Ms WEBER - That is what our community needs to work out together. We need to recognise that there is a strength in some very real issues that our community has, like producing our own food in light of the situation where we are going to have issues with food security, and relocalisation of our communities where we can start looking to one another for sustainable economies. We have not at this stage been able as a community to look forward to providing an economic system that is not based on resource extraction. However, I look forward to that and I look forward to being in a community where we can be providing employment. I look to my government to be providing employment for people and for our community to be sharing together.

In the Huon we have organic farming, fantastic businesses thriving from selling and producing organic food. The positive stories coming out of the Huon are cider making and organic farming. While people laugh at me for saying things like that I advocate a future in which communities are living in harmony with the environment and finding the economic bounty out of such a livelihood.

Ms RATTRAY - So you are convinced that that way forward is going support health, education, law and order - the basic services for which the government can generate enough funds to provide for communities, particularly ones as decentralised as Tasmania has? Do you honestly believe that?

Ms WEBER - The native forestry industry is not doing that so we can do better as a community. The native forestry industry and Forestry Tasmania are only draining the economy, draining money from health and education in Tasmania. We are not a rich state so why on earth would we be saying that we need to continue to drain pockets with subsidising the native forest industry and Forestry Tasmania? That is what I do know is not happening.

Mr WILKINSON - With the climate change issue that has been going on for some time people tell us to be guided by the science. Do you agree in relation to matters like this that we should be guided by the best scientific evidence we can obtain at the time? That might change in years to come but all we can do is make a decision on the best scientific evidence that we have at the time.

Ms WEBER - I guess it depends on who the scientists are paid by, what interests the scientists have and who is standing behind the scientists to prop them up. There are very real issues when you are faced with making a decision whether or not science is absolutely the tell-all. That is something you need to question. As well as scientists, there are many other people in our community we need to listen to and make decisions based on their advice.

Mr WILKINSON - Can I ask who?

Ms WEBER - Members of the community who aren't scientists. Your initial point is about climate change and is it only scientists we listen to on climate change? I am here to talk about the future of Tasmania without a system of degrading our environment. I think members of the community need to have input into the future of Tasmania, as well as scientists. That is what I was alluding to.

Mr WILKINSON - So both scientific and social aspects should be looked at?

Ms WEBER - Yes.

Mr WILKINSON - Are you saying in relation to social aspects that people should be guided by scientific evidence? You can get a lot of opinions that aren't backed by anything other than perhaps gut feel or whom you spoke to last?

Ms WEBER - Absolutely. I guide myself through scientists, though I am also quick to question the philosophy behind the financial backing they have and what their position is. While not taking completely everything a scientist says, I am always questioning them.

Mr HALL - Jenny, when you talk about native forests per se, are you just referring to the public native forest estate, remembering that on something like 26 per cent of Tasmania's land mass there is a private forest estate, or are you referring to that as well, encompassing the whole lot?

Ms WEBER - I am encompassing the whole lot. Living in Lucaston, we had clear-felling proposed in a private timber reserve by Gunns. We were going to have log trucks on our rural-residential road that was being used by the children of the community. I think that comes back to our notion of peace and the notion of environmental organisations being able to suggest they are offering peace and that this agreement will be peace in our time. We need to remember there are communities out there that have been impacted before by the clear-felling of private timber reserves, by 1080 poison where their dogs have been killed. Thankfully we're not using 1080 poison anymore, but I think this is an important point. We are talking about the more natural impact on forests.

Mr HALL - Leaving alone Gunns, there are a lot of private landowners who use private native forests on their farms as part of their integral farm management. You're saying they shouldn't be harvested either?

Ms WEBER - I come from a private wildlife reserve; it is where I live. I come from a place where we see that private land also needs to have conservation covenants over it. I come from a place where I see that natural, intact forest ecosystems in Tasmania need to have a transition out of industrial-scale logging.

Mr HALL - For the public record, the town of Barrington is alive and well and kicking.

Mrs TAYLOR - As an environmentally friendly building material, we are told timber is much more environmentally friendly in the long term than concrete or steel. Tasmania and Australia are currently buying more timber products from overseas than we are producing ourselves. The less we produce here the more we are going to buy from overseas, particularly as many building and architectural firms believe that even engineered timber products are better building materials than concrete or steel. The timber that is coming into Australia is in many cases from far less sustainable practices than we would be practising here if we managed our forests properly. Where do you see our timber products coming from if we don't produce them ourselves?

Ms WEBER - The information I have is that the majority of Australia's timber use for building is from plantations. It would be good to have a look at what Judith Adjani has written over the past years. She has some very good insights, as an economist, into the use of Australia's plantations. We have hundreds of thousands of hectares of plantations in Tasmania that need to be managed and looked at for what they can be used for. It is a sad situation that it is appearing they will not be useful for anything other than a pulp mill. There should be some further investment into that and looking further into how we can be using plantations more.

CHAIR - Thank you very much, Jenny.

THE WITNESS WITHDREW.

Mr JOHN HICKEY AND Dr MARTIN MORONI, FORESTRY TASMANIA, WERE CALLED, MADE THE STATUTORY DECLARATION AND WERE EXAMINED.

CHAIR - Can we start with a presentation by you or do you want to speak specifically to the computer document, which you wanted to go to?

Mr HICKEY - We can have some opening remarks and then I will give you a few suggestions. We understand that the committee has requested that Dr Moroni and I appear in our capacity as forest scientist and in my case a former forest scientist, and that Forestry Tasmania has facilitated that request. So Martin has extensive knowledge of forest carbon and I have some knowledge of forest certification through my membership of the Standards Review Committee of the Australian Forestry Standard. I had a short visit to Europe in 2011 to observe how PEFC and FSC systems operate in the forests of Germany and Sweden.

We haven't prepared a submission because we understand that the committee may wish to explore a range of science aspects relevant to the Tasmanian Forest Agreement Bill. Topics that we thought may be of interest would be forest carbon and I would suggest that we lead off with that, science perspectives on conservation evaluations of the proposed TFA reserves, FSC certification of state forests, high conservation values, a hobby horse of mine - maintaining the viability of the Warra long-term ecological research site and importantly maintenance of biodiversity in the proposed permanent timber zone. To address that last point we asked if Dr Marie Yee could offer a presentation on how FT would seek to maintain adequate mature habitat across the proposed permanent timber zone.

Marie and colleagues have developed a coupe context planning system, which would guarantee provision of mature habitat at the local landscape level while being consistent with the wood supply levels specified in the existing or proposed legislation. To that extent we are at your disposal given that there is a bit of uncertainty about whether we can have an electronic presentation or maybe a paper handout. Can I suggest that we explore forest carbon and then see where we are at with the presentation, and then I can pick up the forest certification?

CHAIR - Just on that, John, Ruth was just talking to me a moment ago, and Marie and Ilise will work through this. It may be that Marie has her flashdrive -

Mr HICKEY - She has.

CHAIR - She can give it to Ilise and email it to all of us. Most of us have an iPad somewhere close to us and we can at least bring up that electronic presentation.

Mr HICKEY - That would be a really good option.

Mr HALL - I will go straight to Martin and to carbon. It is complex and we have had a lot of conflicting evidence. One proposition put to us last week, and that was from a person who has a significant private estate locked up at this stage in different scenarios. The bottom line was his premise was that if this 500 000 hectares or whatever was locked up in World Heritage and/or national park, reserved from harvesting, from timber

production forever and a day, then there was no mechanism to claim carbon credits; is that the case? Can you explain that to us?

Dr MORONI - As far as I understand it now there isn't a methodology accepted or a market that has been demonstrably open for carbon credits. It is a matter that a number of people are thinking of but currently URS and CO2 Australia and other various parties that have looked at this in detail have determined that more or less the probability of carbon credits is low.

Mr HALL - I might follow that up with a question, and you may or may not be able to comment on it but I believe that Jan Cameron bought a lot of former Gunns' land and placed a covenant over it. The story I get is that she has discovered she may not be able to claim credits, so now that land is all back on the market.

Dr MORONI - I don't know much about that but Jan would be probably selling into the voluntary market which is quite fickle. From what I understand from reading the URS and [inaudible] Australia reports, there are more carbon credits available than people are willing to purchase. So that was probably where Jan was running into some problems.

CHAIR - Can I go to an area on carbon? You heard Jenny Weber talk about climate change, and the like. We were over time, and I could have put it to her, but am I right in understanding that organisations like the Intergovernmental Panel on Climate Change, the Food and Agricultural Organisation, the United Nations Framework Convention on Climate Change, and the International Energy Agency, to name but a few, have a position on forest management that we should use a portion of our forests to provide society with low emission products and make energy from waste? If I am right in understanding that, then could I ask you to address your mind to how that positions Tasmania with regard to such a policy, which seems to be widely accepted on the word stage?

Dr MORONI - The short answer to your question about the organisations is 'yes - that is my understanding of their position. The Tasmanian response and that implied from the previous speaker is contrary to that. I see the issues essentially around a time frame. There is a trade off that occurs in forest carbon. That trade off is, if you extract water from a forest you drive that forest cover stock down, especially at the site you located it at and you do tend to drop forest carbon stocks down in a managed forest because you are introducing a disturbance.

But the long-term gain is that you get products from that forest and those products, when used, have lower emissions and in fact the whole objective of the Intergovernmental Panel on Climate Change is to substitute fossil fuels with alternatives like wood. If you don't use wood you can't realise that substitution effect, which is where the scientific literature and those agencies recognise the greatest long-term carbon mitigation benefits to lie.

CHAIR - On the back of that then - and it probably would have been a productive position to have put to Jenny but nonetheless I chose not to, given the time - is storing carbon in our forests the best possible use which we could put the forests to, as far as greenhouse gas mitigation is concerned?

Dr MORONI - I think it comes back to the time frame issue. If you look at it in the short term - the shorter the time frame you look at, the better it is to leave the forests alone because they will continue to grow. Most of our forests, and the wet forests that attracted particular attention from the environmental groups, are disturbance driven forests which means they tend to be growing very, very quickly or being disturbed and dying in which case they grow quickly. Many of the wet eucalypt forests would still be young enough to be growing relatively quickly and those forests, until the next wild fire, will probably be accumulating carbon. The problem is that wild fire eventually comes into the game and drops the cover stocks down. Because we haven't had much wild fire activity in recent history, including the recent fires in Tasmania, as catastrophic as they have been, they haven't burned large areas of the forest, especially compared to some of the mega fires that we have seen in the past.

When we hit the next mega fire, and the fire ecologists that I speak to tell me that we are ready for it, somewhere in the vicinity of a million hectares of forest could burn according to the forest ecologists that I speak to. The forest cover stocks will drop below what they are now. They will drop way, way below what they are now and it will take many, many decades for those forest cover stocks to be replaced. That is the gauntlet that you run if you want to store carbon in our forests. You will get a benefit. That benefit will be until the next wild fire - the next mega-fire. The distance in the future for that to occur is unknown. That is the gauntlet you run. The problem that you face in that is not only is there a risk that all of the carbon that you attempt to store will be lost, and then some, but you lose the opportunity to provide a wood resource to society. That lost opportunity is both a carbon mitigation opportunity in storing carbon in wood, and also the substitution factor. There is also an economic and social opportunity in the economies and the social affects that industry could have.

CHAIR - On the back of that then, Martin, how do we in the parliament get our minds around whether we are storing more carbon, or not, in the forests identified for reserves?

Dr MORONI - I think it would be fair to say that if you reserve forests in the short term you will get a carbon gain. In the long term I suspect not. In the long term it comes at quite the cost - quite a large carbon cost in that you will end up with a larger net emission from the flow on effects of that reservation. The flow on effects being that the forest could have provided society with wood products and those wood products could have substituted or prevented more emissions.

The really concerning thing in this regard is that wood products are undergoing an engineering revolution. We are seeing wood products catch up in the attention they have been given in engineering to the degree that steel and concrete have had in the decades preceding this. There are tremendous opportunities being brought forward on the world stage where new products, new engineered wood products, nanocrystalline cellulose and related products, can provide an even greater degree of benefit from what would have otherwise been a residue.

CHAIR - Going to the title of the bill - the bill indicates that one of the great purposes of creating the reserves is to benefit economically from the carbon in Tasmania's forests. How will that be the case, from what you have just said now? If we are creating reserves for that purpose, is that an oxymoron?

Dr MORONI - I think it is fraught. From what I understand, that wording had to be in place for the proposed reserves to be eligible for carbon credits. If that wording were not there the carbon benefits would be ancillary, and therefore not eligible for any of the markets. I suspect that is why that wording is there. From what I understand of all the various legislation that is being considered at the moment, any carbon accumulation in those reserve forests will be available for credit. The question has to be asked about what will happen at the next wild fire when that carbon is lost. It is highly likely that the credit flow will cease at that point, at least until the forests regrow to current carbon stocks, should they ever do so.

Mr VALENTINE - Mr Chair, could I ask a supplementary there. Isn't the possibility of wild fire built into calculation of the price that you get?

Dr MORONI - It is, in so much as you have the entire market. Normally what they do in these market situations is they reserve a portion of the credits that you would be given into a pool, like an insurance pool, so that you do not get debited for the wild fire that would occur. What happens with that wild fire is you no longer receive any credits because your carbon stocks are way, way down below what they would have been. That is one of the proposed mechanisms. The proposed mechanism, at best, would be that you might receive credits for any accumulation of carbon, and then the wild fire comes, and there would be some consideration as to whether or not you should be paid. There are mechanisms where that might not necessarily be the case, but the wild fire will end the credits.

Mr VALENTINE - Is that voluntary, or involuntary, or both?

Dr MORONI - These types of mechanisms are present in both. Each have their own nuances and they are all evolving.

CHAIR - I am trying to get my mind around this lost opportunity - if there is a lost opportunity. Addressing this notion of wild fire and the fact that you lose it all at that time, at the same time as that wild fire hits, we are emitting carbon that has been stored back into the atmosphere. I suppose that can never be quantified because it depends on the age profile of the trees in any given forest stand, so it is all a bit of moving feast as to what might be emitted and what lost opportunity there is.

Dr MORONI - There are some publications where people have back-of-the-envelope level guestimates based on inventory stocks. Peter Atwill is an example of someone who has published estimates of emissions for the Victorian fires. They are estimates because we lack a lot of the data that is required to get a precise estimate. I cannot remember exactly but there were two large fires in the early 'noughties' in Victoria and he estimated that they had emitted 150 million tonnes of carbon back into the atmosphere. Emissions from fire can be very large and if you consider what we have had with this recent fire season - the one we are in, then 2009 and in the last 10 years other fires in New South Wales and West Australian, enormous emissions come from wild fire, not only from the burning but also from the subsequent decomposition of organic matter.

A megafire in Tasmania has the possibility of releasing enormous quantities of forest-stored carbon and if we have a succession of wildfires, the forest will not regrow and restock that carbon. One of the consequences of climate change is a greater fire danger.

So what we actually risk is that the climate is going to change and Tasmania's climate will change more slowly than in many other places in the world. But it will eventually change, and when you are talking about forests that can live for centuries, over the course of those centuries the IPCC's projections are quite scary for these forests. It is highly unlikely that they will store lots of carbon in them in the future because the trees in the forests will become maladapted to the changing climate. The climate change is likely to drive our forests to be younger, which is likely to result in a net emission from them over time.

CHAIR - If we were trying to get our mind around what we have in the bank at the moment with regard to our current forests in Tasmania, do we have high, medium or low levels in the bank? Are we at a reasonable capacity at the moment and so therefore are we in a position where we need to continue with a sustainable harvest regime and therefore capture that and then start capturing some more with new-growing trees? Is it high or low at the moment?

Dr MORONI - My estimation from talking with a range of people would be the forest is relatively old now and therefore relatively carbon-rich, just because we have not had mass-level fires in recent times. The 1934 fire of 800 000 or 900 000 hectares is approximately equal, or perhaps a little short, of the aggregate of the entire area harvested in Tasmania's history. In 1898, there was a fire of approximately one million hectares. CO2 Australia estimated, without supporting rationale, that that fire was two million hectares. In the 1900s and 1800s there were large landscape-level fires frequently - a lot of them were human-lit. Humans still live in our environment and -

Mr VALENTINE - We still run that risk.

Dr MORONI - We still run that risk. So, given that we had a myriad of fires up until, say, 1934, that were really large, and we have not had one since - even 1967 was only a small to medium size fire burning around 200 000 hectares - it leaves me to believe that in the current environment, our forests are relatively old and therefore the risk of a very large emission is high. While forests would still store more carbon, I think they are in the upper range of what we would see under the current settings, and I think the risk of a large emission is a real concern.

CHAIR - Was FT at any stage during the IVG process or the signatories process asked to give any advice as to that carbon storage?

Dr MORONI - I personally was not and I am not aware of anyone else in the organisation being asked that.

CHAIR - From your understanding of the process, if the tracts are converted to reserves, as is being proposed here, does Tasmania qualify for carbon credit access?

Dr MORONI - According to URS and CO2 Australia, they talked about there being a real probability that perhaps maybe there could be some eligibility. The language does not rule it out but the language says there is a real possibility of credits being made available; but when you read it, it makes it seem unlikely. URS went so far as to say that they felt there was not a realistic market.

I have no reason to believe that there is new information that makes it more likely. I am aware that the Tasmanian government is chatting with the Australian government about thinking through the methodology for this situation under the carbon farming initiative. There is a range of challenges in that process and I do not know how it will play out and what the discussions between those governments mean for that process.

CHAIR - To wrap this area up for me, you mentioned a moment ago the effect of climate change. What is the likely or possible direct effect on the carbon storage in our forests with emerging climate change?

Dr MORONI - There are a number of factors to consider. One is that there will be changes in temperature and moisture regimes. Where our forests are temperature-limited, we will see an increase in growth.

We will see changes in the forests as the climate changes according to where forests can survive. There might be some instances, especially earlier on where we see increases in growth, but there will be some areas where it becomes too dry or too hot where we see decreases in growth. It is very hard to evaluate what the short-term impacts of those things will be.

Recent reports from the federal government suggested relatively minor effects when they just considered changes in physiology. I think the largest driver for forests and climate change will be the changes in the fire regime. The fire regime is expected to go up for the risk. The high fire risk is expected to increase, though slowly in Tasmania. So there will be a period where we should not expect a particularly large change from the fire pattern that we have now, though we do not know what the fire pattern is that we have now.

We should not expect a large change in that but in the course of time it will go up; we can expect it to go up. That will mean that our forests are disturbed more frequently and eventually the changes in temperature and moisture will become so profound, according to the IPCC's projections, that it is difficult to see forests growing as they do now and being distributed as they are now. Under such catastrophic changes, you would expect trees to die and regeneration to fail; you would expect a younger forest.

I would expect that in the short term, fire will change the system; in the long term, the combination of fire and the environment will just make our forests maladapted to their current situation, and young.

CHAIR - In ecological terms then, with regard specifically to carbon capture, I am getting the feeling that to lock up more forest into reserves than we currently have is not a positive ecological outcome.

Dr MORONI - The longer you look into the future, the worse the case becomes for the carbon cycle - not only in terms of what we have just been talking about but the missed opportunities for the use of wood.

The longer you look into the future, the more and more difficult it becomes to justify making these reserves for carbon. It does not take particularly long future views,

especially if you consider when the next megafire will occur - which we are frankly quite ready for - to really cause problems with that approach.

CHAIR - How then does one come to a landing point to somehow reconcile that issue with regard to an aspiration for protection of what some would call 'high-conservation values', and they have values which need to be either protected or managed?

Dr MORONI - If I can refer to earlier presentations made by forest scientists who were talking about high-conservation values and other matters, I would put it to you that this process is not a scientific process. It is a political process. So it would be up to this parliament to decide to what degree you shall re-land your decision on scientific argument and to what degree you should land your decision on the political processes that are pushing you to make various decisions.

CHAIR - That leads me to one question - if I can go to John then - on the matter of science and the IVG process, the Brendan Mackey assessment of HCV et cetera. Either in *Branchline* or on your website at some time there was what I might refer to as a scathing criticism of Professor Mackey's IVG assessment. The first question is, and I haven't been able to see it on your website of recent times, is my recollection right it was on the website or did I read it in *Branchline*?

Mr HICKEY - It is still there.

CHAIR - It's still there, so I can go to your website and pull up -

Mr HICKEY - You can.

CHAIR - the criticisms which Forestry Tasmania as an organisation made of Professor Mackey's assessment and heavily criticised the science?

Mr HICKEY - Yes, the review was done by Forestry Tasmania scientists including me, Martin and others. I call it 'scathing' but we tried to be measured and we tried to comment on it as if it was coming to us as a piece of research and we were peer-reviewing it. We criticised it on some fundamentals.

The key issue we had was that the conservation assessment didn't put the lands in the context of all of Tasmania; what the ENGOs did was present a subset of state forests which they called 'high-conservation value', and then Professor Mackey said how much of that land has one of 10 conservation values and came up and said all of it has at least one conservation value - tick. We would have said, firstly, that if you took the other 500 000 hectares of state forests that probably would have had similar value and you need to look at all of Tasmania in your first look to find out what are all the values and what are the thresholds of those values, and that wasn't done. I don't want to be too critical but it was a set of favourite places and they were deemed yes, they all have some conservation value and I would agree with that.

What the assessment did do is set aside the HCV question; they said that wasn't particularly relevant to the terms of reference of the IVG but I would have thought it was particularly relevant.

CHAIR - Why would you have thought that, John?

Mr HICKEY - The high-conservation values framework has thresholds in it so it's concentrations of threatened species and when you have to apply a framework it's rather frustrating when we look at FSC certification that FSC, to its credit, has developed a toolkit for evaluating high-conservation value and we now need to, I believe, apply that toolkit which will look across all of Tasmania. It will give us a gap analysis and tell us that the gaps are largely on private land.

Perhaps so that we don't end up in too much disarray, I think Martin's comment that while we were particularly critical but I thought fairly critical, when you take the position of no, this isn't a science-based process, it's a negotiated settlement between deeply divided parties, about 90 per cent of my problem, and many others', falls away and your job becomes easier. You don't have to get across all that science, you have to say, 'Is this a reasonable negotiation between deeply divided parties?' It's when people pretend it was a science process that all that gets amped up.

CHAIR - Except that, if I go to attachment A of the agreement, under the heading 'Conservation', the aspiration is:

A protected area ... on public land of a quality, scale and tenure, compatible with the National Reserve System that protects areas of National and International significance...

...

[It] optimises conservation functions...

Doesn't that suggest to a mug like me that there's a whole heap of conservation expectation in the space they've landed?

Mr HICKEY - Perhaps. There is certainly plenty of valuable land in the proposed new reserves. A lot of it comes not so much about gaps in the reserve system but they are old, and in many cases, majestic forests. They have value, they certainly have social value, but they don't have a science imperative.

It was interesting when the World Heritage committee came out in 2008 and looked at the question of whether additional lands should be put into the World Heritage area. The reason they came was that it had been asserted that World Heritage area forests were being damaged, particularly by forestry. They sent out a committee and spent much of their time with the environmental groups to work through those assertions. Their report in 2008, which wasn't referenced by the IVG assessment, said there was not a major threat to the World Heritage area; there are additional forests such as tall *E. obliqua* forests both inside and outside the World Heritage area. Those inside the World Heritage area are well managed; those outside the World Heritage area are also well managed but their uses included wood production. I thought they explained that very well, but they didn't go so far as to say, 'Don't consider putting these additional areas into World Heritage. That's a decision for the Australian government and the Tasmanian government and their parliaments'. There is no science imperative to put them on. If you choose to do that, fine, the World Heritage committee would probably be pleased.

Mrs TAYLOR - While we are talking about megafires, will our current improved firefighting detention methods not help to control a fire so it doesn't become a megafire?

Dr MORONI - I am not fully over the things you imply in that.

Mrs TAYLOR - I am talking about things we are currently using - helicopter bombing and things like that you couldn't use in 1934 or whenever the last megafire was.

Dr MORONI - In the West we have decided we shall wage war against fire. As the fire threat becomes larger we amass a larger and larger set of assets to fight the fires. Particularly in America they started converting Boeing aircraft into water bombers and they have found that when a megafire comes it is so hot it doesn't matter what you throw at it. I read a report that said that a water payload from a Boeing jumbo jet didn't even hit the ground; it was volatilised while it was falling from the aircraft. That's how hot they are.

With a very large megafire there is very little you can do. What you can do, in an attempt to reduce the intensity of the fire, is to reduce the fuel in the forest. If you do that, you won't change the occurrence of fire necessarily but you will change the intensity of the fire when it burns, which will give you a greater probability of saving assets, protecting lives and perhaps avoiding a crown fire or a fire that is going to be a standard-replacing event in many forests. If you don't do that and your fuel loads become high enough, in the literature they say that beyond a certain point it is unfightable.

I have talked to some people about Tasmania's forests and they think a large proportion of the forests in the Parks system and the state forests are at or beyond that level. We have a fuel loading in our system that is unfightable, so if we should get a megafire or ignition in those forests there is very little we can do. In fact we have seen the result; the fires of this last fire season, some of them have been uncontrollable for a period of time. We have quite sophisticated things at our disposal today.

Mr WILKINSON - So if we look after that aspect now, Martin, they can become fightable fires as opposed to unfightable fires or are you saying it is too late?

Dr MORONI - It is very hard to know. There are a range of things that need to be considered if you were going to [inaudible] in the field down in your forest. First of all you have to do it ecologically appropriately, and I think we have some things to learn about that. Certainly if you were to want to protect assets you would probably want a road infrastructure into the forests around your assets. You would probably want to have a fuel reduction burns around your assets. Beyond that you have to ask how much of a fuel reduction burning process you want. Do you want to go into the national parks and if so what is the ecologically most appropriate way to do so? When you go there, there is a range of scientific questions that are debatable at the moment.

All I can say is if you read Adams and Atwill on fire, they will give you targets that you should get your fuel loads down below. They will talk about the frequency of burning about 5 per cent of the mass every year to get the fuel levels down to a level that is

fightable by human fire suppression. It then becomes a challenge for where you want to do that and what resources you should deploy.

Mr WILKINSON - My argument would be that it should be done because if you leave it it is only going to become worse, therefore it should be done in a managed way as opposed to letting it go unmanaged where there could be damage far greater than what would otherwise be the case.

Dr MORONI - I think you are basically alluding to the choice we make. The forests of south-eastern Australia are analogous to a bomb. They go off with such intensive fire they are literally like having a fuel reservation or a fuel reserve put next to your house or your infrastructure and that can go off. If you live next to a bomb you would do all you can to stop it from going off. In a forest you would try to remove the fuel, try to provide access. If you don't do those things you allow the fuel to increase and you end up with infrequent very high intensity, very destructive fires. In our landscapes they can actually be very destructive ecologically.

If we had a 2 million hectare fire in Tasmania, that would be the opposite biodiversity. We could reset entire landscapes to age zero and have vast areas of single age class, which may not be what we want. We also may find ourselves with a fire that we cannot fight, that takes a lot of lives and burns a lot of infrastructure and has a social and economical cost that we would like to avoid. So you have a choice. You leave it alone and let it take its course or you try to intervene and reduce the intensity of that fire, particularly around the assets that you want to protect.

Ms FORREST - In relation to that it is often said that we never used to worry about these sorts of things in the past, but we didn't live in the bush and co-exist to the extent that we do now. What you are saying is if we leave it and let nature look after itself, which was obviously done 200 years ago to an extent, and Aboriginal people managed with fire on the land anyway, but you can't live in the past like that. If you take that risk you end up with a massive big fire that resets everything.

Dr MORONI - If we speculate from the literature as to what may have been the case before Aboriginal times, we would have had infrequent high density fires and they would have burned the landscape. The landscape is value neutral. It doesn't value whether a fire is good or bad; it just happens and the system evolves. We have come along and we have decided to place values on the environment and a fire can really affect those values, so with the reservation process, whoever is reserving them has a rationale behind that.

Ms FORREST - They place a value on it.

Dr MORONI - They place a value, but not just on particular things they are reserving. Fire could damage those values. It could remove them or change them or the distribution of them. As you have indicated, we have now lots more people living in Tasmania than we did 100 years ago and we tend to live on the fringe. I myself live in the fringe. I basically tell people that it is not a matter of if my house will burn down; it is a matter of when. That is the concern you face in that we like to live amongst the trees and we love to live in the forest. We haven't had a catastrophically damaging fire for at least 50 to 60 years, possibly 100, so most of the people that are around today aren't aware that they living next to a bomb.

Mr WILKINSON - Originally, we were told that this agreement is about scientific values, about conservation of forests with conservation values. It was to take full advantage of carbon benefits and therefore we should agree with it. That was the original. As I understand it, the weight of evidence before this committee at the moment says there is no real scientific behind the agreement. Would you agree with that, or otherwise?

Dr MORONI - No, I would agree with that.

Mr WILKINSON - There is no real evidence to suggest that what we are doing would assist us in gaining massive benefits as far as carbon is concerned because whether we have an agreement or not does not make any difference, as opposed to where the trees are and whether they remain and whether we get any carbon value from them.

Dr MORONI - I think there are major challenges with receiving carbon credits.

Mr WILKINSON - Therefore it has got to a stage that it is just a gut feeling that this bill is hoping to end the antagonism between the environmentalists and our present forestry practices.

Dr MORONI - At least the signatories.

Mr WILKINSON - That is right. In relation to the signatories, the environmentalists keep arguing that the RFAs, which had all the scientific rigour, did in the end have the environmentalists coming on board and therefore we should forget about it. Now a lot of people not involved as being the signatories but having a large piece to play, such as the independent foresters and the Tasmania Farmers Association et cetera, can say that just as the environmentalists have said previously that they did not have any real skin in the game, likewise we can say we have not had any real skin in the game and therefore we are not going to accept it. Do you see the difference, how the pendulum has swung the other way?

Dr MORONI - Yes.

Mr WILKINSON - If that is the case, who else has not been a signatory to it that should have at least been spoken to?

Mr HICKEY - I think you have picked up many of them in your hearings - the Aboriginal view, the private forest owners' view.

CHAIR - We will suspend for a couple of minutes and then come back to that matter.

The committee resumed:

CHAIR - [inaudible] to complete the question and then we will go to Marie for the presentation. I think that might be the way to go.

Mr HICKEY - Forest scientists come in many shapes and sizes obviously, and through these hearings you have had an insight into how they feel about it, but as a group it has not been well sought. We suggested, when we gave our peer review report which was sent

to minister Burke, that rather than take a Forestry Tasmania's scientist's view of it they should seek a fully independent scientific review of that work. As far as I know that has not been done.

Mr WILKINSON - Was that was your recommendation?

Mr HICKEY - Yes it was. As far as I know we did not receive a reply.

Mr WILKINSON - I do not want to put words into your mouth and please do not think that I am but the evidence which we have, which you probably know, during this inquiry from a number of scientists is saying that it is not a good result. Is that consistent with your information from experts in the field? It is not a good environmental outcome.

Mr HICKEY - As a conservation analysis to fill gaps it is definitely not. I think there would be plenty of people who would say that reserving some additional tall majestic forests is a nice, feel-good conservation measure but is there a science imperative to do that and are there higher priorities to spend taxpayers' money and resources for conservation? I think most of them would say there are higher priorities.

Mr WILKINSON - If, as in the original agreement, the 155 000 cubic metres of sawlog became involved again, do you believe that would be an acceptable and a suitable outcome that would cover all bases - the environmental side and the scientific side?

Mr HICKEY - It is an interesting question. Personally I was attracted to a number of positions that allowed more wood supply than the 137 000 that is now in the agreement. Because we have some really good resource analysts and technical people we were able to dial up several maps and we did dial up one around the 155 000 position which would have allowed about 400 000 hectares of reserves. To me, given that this is largely about feel-good conservation rather than science imperatives, this is possibly a better position. The risk that you run - and you are in a much better place to judge it than me - is that you tick the agreement and you do not know whether all those other important elements will still be back.

Mr WILKINSON - Even considering that there would be 400 000 extra hectares into reserves.

Mr HICKEY - Yes. You might recall that for a long time Forestry Tasmania was saying, and some of that was coming from me, that we believed there was a 300 000 hectare reserve solution that could be consistent with the wood supply and still give a pretty good conservation outcome. To be honest, it was very frustrating to be a technical person close to the signatories process but not part of it and to be in some cases going beyond my role to say, 'Have you considered this?', and maybe even saying they should consider this, but it was very much a negotiation between deeply divided parties rather than seeking some technical solutions.

I do not really think it was Forestry Tasmania's position to come up with a solution and any solution it did come up - to verify the reserve claim and to come up with a reserve solution that was consistent with the wood supply. Some of what the IVG did was excellent, particularly the work by Professor Burgman and Andrew Robinson and I think

that really clarified a lot of issues including for Forestry Tasmania but I do not feel the same way about the conservation assessment.

Mr WILKINSON - Thanks, John.

CHAIR - Would it be productive now to go to Marie's presentation?

Mr HICKEY - I think it would.

Ms MARIE YEE, FORESTRY TASMANIA, WAS CALLED, MADE THE STATUTORY DECLARATION AND WAS EXAMINED.

Ms YEE - Before I begin I would like to quickly tell you about myself. I came to Tasmania in 2000 to do a PhD in saproxylic ecology, beetles that for some part of their life depend on dead wood. After completing that I took up a position as FT conservation planner and I have been involved in developing practical ways to manage threatened species habitat at the landscape scale. Since 2008 my colleagues and I have been developing a landscape biodiversity planning tool called the coupe context planning system.

I thank the Legislative Council for giving me the opportunity to update you on this planning system. I am very conscious that you have a Tasmanian Forest Agreement before you and that you may have concerns about future biodiversity management in the proposed permanent timber scene. I hope that with the information that I present some of your concerns will be allayed.

I would like to provide you with some background information. For the past two decades there have been important leaps in our understanding of forest ecosystem management. In particular we have a greater appreciation for the role that natural disturbances play in maintaining biodiversity, in maintaining our ecosystem. In Tasmania our forest ecosystems are wildfire burnt. Fire affects the forest at varying intensities and varying spatial scales. We have intense landscape fires where there are few surviving trees and here we can see the dead stags towering over a standard, even-aged young forest. These represent the biological legacies of the forest and over time they will start to fall over, become dead wood on the forest floor and enter a new stage of habitat. We also have wildfires that are patchy in nature.

In the centre of this photo we can see where a spot fire began and spread across the landscape at low intensities. As we have wildfire events periodically occurring affecting some part of the landscape at varying intensities at some point in time, the resultant landscape is one that is heterogenous and patchy.

One of the ways species adapt to this everchanging habitat dynamic is through their ability to disperse across the landscape. They do this at different spatial scales, for example through the territorial raptors and values [inaudible], while for the flightless invertebrates the forest floor is their scale.

Since 1985 native forest management has been regulated under the Forest Practices Act and since 1997 under a regional forest agreement. Through the implementation of these policies, areas of forest have been retained for the long term - that is, not to be harvested.

They include the large conservation reserves and the smaller informal reserves and others set aside as prescribed by the Forest Practices Code. These can include, for example, the linear wildlife habitat strips, localised stream-side reserves and threatened species habitat reserves. As we can see, in this managed landscape of the Picton Valley, there is the long-term retention forest from different shapes and sizes and together they play a vital role in connecting up the managed landscape for biodiversity - a land for individuals to move and genetic flow to occur.

Individually these patches of long-term retention native forests also play an important ecological role locally. They provide habitat for local [inaudible] to live and they also influence the landscape around them. This is through providing sources of animals, plants and fungi to disperse, for example, into the regenerating forest. As the animals, plants and fungi move in they can then begin to re-colonise the growing forest as habitat features within that forest start to develop, such as a closed forest canopy, deep litter leaf layer and decaying logs.

We are at a time in Tasmania where landscape science, policy and native forest management are coming together. Our landscape science has evolved such that it can inform policy and management. We have science-based forest policies underpinned by a mandate for continuous improvement.

Through decades of working in the forests, living in the forests, studying the forests and the advancements made in [inaudible] technology our native forest management is more ecologically sustainable than before. It is from this context that the coupe context planning system evolved. Simply, coupe context concept is a formalised way of ensuring that ecological values in a managed local landscape are maintained. This is done by considering the coupe's context illustrated here as a circular area centred around a coupe. This could be a 1 kilometre scale or greater, depending on the ecological values you consider. Rather than just focusing on the effect harvesting has on the area within the coupe boundary, coupe context considers how harvesting could affect the broader landscape.

Landscape metrics are then applied as a means of maintaining a certain ecological objective. For example, the amount of native forest in long-term retention at the local scale is an important measure of ensuring mature forest habitat and the biological legacies within are located. Because under the acute complex planning system these metrics are applied everywhere for every native forest operation, the values that you manage at the local scale are also managed at the broader landscape scale, thereby maintaining a heterogeneous and patchy landscape of long-term potential forest emulating natural fire disturbance burns.

To ensure adequate mature habitat is maintained across the production forest estate we at Forestry Tasmania have been testing a mature habitat metric, and this prescribes that at every native forest operation a minimum of 20 per cent of public native forest within a 400-hectare landscape, which is a 1 kilometre context or thereabouts, is retained for the long term. That is one-fifth of the native forest within a 1 kilometre radius of the coupe essentially is permanently excluded from harvesting.

While determining how much forest is retained for the long term is still a matter being discussed, the 20 per cent minimum is supported by a recent Tasmanian landscape study

conducted in the greater Warra area. We have assessed the impact of a fire in this metric [inaudible] and so far we are confident that this operates within a 10 per cent parameter.

Let me demonstrate how this will be applied. (*Showing slides*) Here we have a production forest landscape of Tasmania showing the native forest areas in green, areas currently in long-term retention in orange - and these areas include CAR reserves as well as all the other set-asides that we will take for the long term - and plantations in blue. The overlaying black hatching is where the mature forest would be.

This is a coupe in the Esperance Valley, and 43 per cent or just under half of the native forest within this coupe's context is managed for long-term retention. That is on the eastern side of that strip. This 43 per cent captures both mature forest and regrowth forest, which will provide mature habitat recruitment as well as recolonisation sources into the local managed landscape. As this exceeds the 20 per cent minimum, no further retention of native forest aside from what would be required by the Forest Practices Board would need to be retained.

In this next example the long-term retention percentage falls below the 20 per cent minimum. This doesn't mean that the coupe is unavailable; rather, additional native forest will need to be identified and zoned for long-term retention. The shortfall could be made up through the standard forest practices planning process which, on average, results in about a quarter of the coupe area being retained for special values or operational reasons, or the shortfall could be made up by retention outside the coupe boundary where, in this example, it may be more practical, appropriate and beneficial ecologically if you widen the wildlife habitat strip and capture more mature forest in the long-term future.

Before I finish, I want to summarise some key messages about coupe context. I want to remind you that this is a system that has been developed over a long period with significant FT investment. It is one that we intended to implement with the board [inaudible]. It recognises and addresses landscape middle thinking that, from Tasmania's perspective includes the forest practices code biodiversity review, the original forest agreement requirements and the recommendations from various visiting scientists. We believe that coupe context puts current science into practice and enhances biodiversity management within a 10 per cent [inaudible].

Last, I believe that it has the potential to help bring native forest management into an ecologically sustainable 21st century.

Thank you for listening and I am open to any questions you might have.

Mrs TAYLOR - If this TFA is passed and therefore the workable forest is a significantly rationed area, can you still do this?

Ms YEE - Yes.

Mrs TAYLOR - Because we are talking about it having to be a quicker rotation as a result.

Ms YEE - The modelling that we have done so far to assess every coupe and calculate whether or not we can meet this metric has been done. We know that through the

standard operational planning process where we mark out streamside reserves in the field, landscape reserves, scenic reserves or areas we just cannot harvest because they are uneconomical and they have environmental or social values, that we are confident we can achieve applying a metric like this with a reduced estate.

Mrs TAYLOR - And still manage to produce 137 000 cubic metres minimum of sawlog and all the other categories out of that as well, long term?

Ms YEE - I would say the long-term modelling of that hasn't yet been done. I guess what the context allows, though, is if 20 per cent is too much to work within a [inaudible] it can be adjusted to 18 per cent, or if it needs to be more it can be adjusted to 30 per cent if the science is telling you that. What we have is a system to now explore future scenarios.

Mrs TAYLOR - I suppose one of the things we have been told over the last couple of weeks is about treading lightly more widely, that in fact for forest management and harvesting it would be better to have a bigger area harvested more lightly than to have a smaller area. Have you got a comment on that?

Mr HICKEY - I think the answer to that is yes, although it comes down to a land-sparing versus land-sharing argument - certainly forest scientists have been arguing this forever and in the community you'll have an even longer debate about it. Some scientists say, 'If you are contemplating putting another 10 per cent of land into reserves, give me that 10 per cent and I'll sprinkle it all around your managed area and we'll fit in more plants and animals doing that.'. Another person, and he or she might be a scientist as well, could say, 'No, I'd rather have that 10 per cent as a single aggregated area with really high integrity.'. I think the first person will fit in more biodiversity by spreading it around - lighter footprint, larger area. If you're wilderness-driven - and I'm not using that in the pejorative sense - or World Heritage expansion-driven, you go the other way.

Mrs TAYLOR - We have also been told over the last couple of weeks that there are areas that probably should be reserves, small areas of high conservation value that are not in the proposed reserves but are not going to be if we put the current proposal of 500 000 into that and then say the rest is working forests. That is because there has been no scientific basis for this.

Mr HICKEY - We will have the continuing evaluations under the code and define such areas and set them aside, but it's all getting very constrained. I think everyone understands the 10 per cent headroom view now. I think we can just get there with this sort of measure, but then if we have continual social unrest and if we go down the FSC path that says, 'Well, we weren't actually part of the agreement - you will have to do a HCV evaluation, and, look at that, you have a whole lot of HCV areas in your residual estate', then it is going to be very difficult. We do have high conservation values in the rest of our state and I was just thinking this morning - and let's not be too frightened by that - we have 200 000 hectares of formal forest reserves. If you take the important relic rainforests of north-eastern Tasmania they sit happily in the Mount Maurice, Blue Tier and Mt Victoria forest reserves, which aggregated all that land and they have high conservation value.

CHAIR - Any more questions for Marie?

Mr HALL - Through you, Chair, just following on from Adriana, John, if you don't mind or Marie - do you think the existing HCV forest you were just talking about, that we have in reserve at the moment, have adequate representation? I think we called it the CAR reserve system under the RFA and I think we've had other witnesses in talking about it. Somebody said that there wasn't adequate representation in what we had, so we had to have this additional area to make it up. What is your view on that?

Mr HICKEY - I think there is some room for some addition, and also when that 1996 valuation was done, it was done considering Tasmania as one region and using the mapping of the day, which had 50 forest types. Scientists keep on dividing, so we now do it according to eight sub-regions and 150 Tasmanian vegetation types. When you do that, you start getting little chinks and gaps. Even then, it's not a big ask to try to fill those with informal reservations. Essentially you could do that, although what the signatories have done is say - because the ENGOs have wanted them to do it - let's ratchet it up, and get the biggest reserve outcome we can get, which means that you will be left with 10 per cent headroom for future decision making. That doesn't leave a lot. I would rather have a smaller reserve be asked - there would be more headroom for us to find these things.

Mr HALL - Should we go back to what you mentioned a while ago? I think it was a 300 000 hectare solution. Is that what you mean?

Mr HICKEY - Yes. That to me would have been -

Mr HALL - Would have been the best outcome all round?

Mr HICKEY - I think there could have been some really exciting reserve extensions, and the industry would not have been under the same pressure and would also have had some more headroom to allow ongoing discovery, science, and evolution of thinking.

Mr WILKINSON - As I understand it, John, you are saying the idea would have been 300 000, but in relation to still allowing your 155 000 cubic metres of sawlog, that could still be done with 400 000 hectares placed into reserves. Is that correct?

Mr HICKEY - I am not quite a human calculator, but that is roughly the equation. The other thing that must be said is that even though that makes sense to me, sitting in Tasmania, it may not send a sufficient message to those people in Japan and other places that say, 'We keep hearing these ongoing arguments from Tasmania,' and if that doesn't resolve it, they will still see it as contested wood.

Mr WILKINSON - Wouldn't they see that there are areas that already have World Heritage protection, which we have no say on because that is up to the commonwealth government? About 170 000 hectares have been tied up with that. That was the major wish, as I understand it, for the environmental groups. It would seem that anything over and above that was just a wish to have as much of Tasmania tied up as they can. Do you agree with that, or are you saying I'm taking it in a bit too general a way?

Mr HICKEY - I think you have put it quite well. There are two big settings in what you have put forward. Getting the native forest supply level from 300 000 to 155 000 - a very big delivery - and then the other one is adding to the integrity of a magnificent World

Heritage area which for many people in Tasmania, and beyond it, would be seen as a remarkable achievement.

There is still a bit of reserve tuning to be done beyond that. Species like swift parrots and so forth, and filling the gaps arising from having a more finely divided view of regionalisations, but, yes, it is worth exploring. But, will you still get the other elements of the agreement to come through?

CHAIR - Marie, do you want to come down and join the panel at this end? At least you need to commandeer your computer.

Mr HICKEY - We thank you, Mr Chairman, for allowing that presentation to be given because it does bring a lot forward.

Dr GOODWIN - Martin, I want to ask you about any feedback you might have had. I do not know if you saw Jenny Weber when she was talking about carbon emissions, and protecting native forest, and plantations, and all of those sorts of issues and how we might be better off if we switched to plantation. Do you have any comment you can make on that?

Dr MORONI - When it comes to the carbon cycle, you have trade offs whether you go for plantations or native forestry. A lot of it would depend on how you do the sums and what portion of the carbon cycle you are looking at. I think the focus of the argument Jenny was putting forward is on NASDAQ carbon storage, which in a fire-driven system is fraught, especially when you remove the supply of wood products. I really think the big question about whether or not you should have native forests or plantations is more a biodiversity argument. I do not think carbon really factors into it. The impacts of those decisions - it would be so hard to evaluate.

Dr GOODWIN - She seemed pretty clear on it in her own mind.

Dr MORONI - As I listened to her comments, I found my biggest problem was she was talking solely about one portion of the role of forestry in greenhouse gas mitigation, and she was not open to entertaining other roles. It seemed to me that she would - well she more or less said it - that she would rather not see native forest managed at all, so she is using that portion of the carbon argument that supports her assertions and ignoring the remainder. I think the biggest gains are to be found by looking at the system as a whole rather than in a piecemeal way, so I do not find that approach that attractive because you are not looking at the whole system.

Dr GOODWIN - John, you said this proposed lock up is more about 'feel good conservation'. I was interested to hear it expressed that way. We have heard other comments about it, rather than science imperatives. It raises a lot of concerns with me, to hear it expressed in that way - as feel good conservation - because we have heard lots of other evidence about not taking a science-based approach, and if you did you would look at the whole of Tasmania, including private forests.

What are the implications of having this feel good conservation approach, rather than a comprehensive look at the whole of Tasmania?

Mr HICKEY - Thanks for that. I am wondering whether I might have used the right term. I think I probably did to be honest, and I do not mind feeling good.

Ms FORREST - We all like to feel good.

Mr HICKEY - Yes, feeling good about World Heritage areas and stuff is actually important. It is not all about science. I agree with some of those comments but what the forest scientists and conservation biologists offer, along with economists, is giving some guidance on how to best spend your effort, whether it is financial or otherwise. The way to protect reserves of the swift parrot or the masked owl or whatever is not by adding a large area to the World Heritage area it is by doing something, particularly in private land and in parts of eastern Tasmania, where there are gaps. Assuming that society has not unlimited land or money resources for conservation, you have to question how much effort you put into feel-good conservation, which is worthy, and into addressing the protection and reservation of threatened species functioning and persisting.

CHAIR - Could I go to the matter of the Warra and the importance that it has had not only to the state but to the national and international scientific information-gathering exercise because of what has happened there. With that being included into World Heritage - if it is through the nomination process and comes out at the other end as World Heritage - I understand from evidence last week by Tim Wardlaw and Mark Neyland that that will pose some significant challenges to the ongoing ecological research which has thus far been undertaken there.

John, you have probably had a longer history with Warra than anybody else, so what is your take on that possible threat if it ends up in World Heritage?

Mr HICKEY - That is a good question. The Warra area is about 15 000 hectares of which just under a third is currently state forest and the other two-thirds is World Heritage area. There are about nine site partners that contribute to the research but while their efforts have been much appreciated, the underpinning of it has been mostly driven by Forestry Tasmania. Interestingly, even the researchers who come there nationally and internationally when you say, 'Why don't you use your control out in the World Heritage area?', they say, 'Come on, I have to get there for a start'. It is particularly the roaded, accessible parts of the site that have been used for all sorts of things both productive and non-production uses.

My concern is that if the full reserve claim - and it is also a World Heritage nomination - is to overlay the 4 000 hectares of state forest, there would be a rapid wind-down of the search effort there and Warra is one of the few places in Australia where forest monitoring and long-term ecological research is really done. Everybody says that we should do more of it. A bunch of people like Nick Brown and Humphrey Elliott and others really got the passion and pushed it and they have created that site. It has nearly been going for 20 years. It has generated about 180 science reports. It has given Tasmania a network for scientists all over the world and yet if we don't provide for it, then it will just fall away.

There probably is a bit of scope for compromise. You could have some additional reservation and some additional World Heritage nomination and I understand that Tim Wardlaw has proposed an amended boundary which might leave about 2 000 hectares of

state forest for adapted management research. You are then left with the question: is a much-reduced Forestry Tasmania still able to put in \$500 000 a year and have the scientists to underpin the work? The answer to that is that it is going to be pretty difficult. Does somebody else want to provide some ongoing funding to UTAS to do that through the federal government or to hand it to DPIPW? You could do that. I have a lot of respect for DPIPW people. They tend not to do adaptive management research; they tend to do caring, no-intervention-type research. I think the opportunity at Warra would largely wind down to not much at all.

CHAIR - What are the implications then for that in the world of forest science?

Mr HICKEY - Tasmania's current position of punching well above its weight would change to punching well below its weight.

CHAIR - The CRC for Forestry has had its funding withdrawn and hence closed up, so that significant collaborative research has come to an end.

CHAIR - Yes, although there is some hope in the agreement, but not yet clarified with funding, that the National Centre for Future Forest Industries may get some funding. That would be focused largely on future forest industries which are about reconstituted wood, peelers, CLT, et cetera. It's always hard to get funding for biodiversity research and long-term monitoring, so I can see a gap looming.

CHAIR - You have indicated that Tim Wardlaw has put together a submission to excise some of that nominated area. Was FT consulted in any way about the boundaries for nomination for World Heritage? How did Tim's proposal come about? Was it his own initiative or was it an FT policy position?

Mr HICKEY - FT wasn't consulted on the World Heritage nomination areas. I am not sure whether Tim came to me or I went to him, but I said, 'This is going to cover most of the research infrastructure at Warra. Can you talk with your technical and science colleagues to have a think about what you're going to do about that?' To his credit, Tim did that and came up with a moderated proposal, which he sent off to people at DPIPW who were working on the boundary and also to people in SOPAC, the Australian Government department that is considering the boundary. We don't know whether they will take up that recommendation but I hope they do.

CHAIR - If FT had been consulted as to the boundary nomination, is it likely FT would have asked for the whole 4000 hectares to be excised from that area?

Mr HICKEY - I am trying to think of the land involved. I think it would probably have moderated a bit. FT is trying very hard, and it is very much the view of the board that we should be trying to do what we can to make this peace agreement stick rather than to find ways to undermine it. Tim, in coming out with this boundary, has done that - rather than ask for the full 4 000, he has asked for 2 000.

CHAIR - But you weren't ever asked in the first instance?

Mr HICKEY - We were never asked in the first instance.

CHAIR - You would be aware that a couple of weeks ago when the federal minister was in Tasmania, it was put to him that there was a significant dolomite deposit in the southern forests. With the stroke of a pen he excised it and said, 'That's not going in the World Heritage nomination'. It seems quite bizarre that there was not any dialogue with FT as to the impact on that as an internationally-significant site for long-term ecological research. You would be aware that the federal minister excised that dolomite reserve area, so did that motivate FT in any way to get on its scooter and go down this path of suggesting -?

Mr HICKEY - We did act quickly on the Warra. We were horrified that all this infrastructure, and a new carbon flux tower that was still being completed, was not necessarily going to be guaranteed - even the road that is already there, so we were pretty surprised. You pointed out that normal processes have been bypassed into the test.

CHAIR - In addition to that then, given Tim's astute work, I do not know what the process is. Is there an opportunity for the federal minister to new go to the United Nations World Heritage Committee and suggest an amendment to that which he has submitted to them?

Mr HICKEY - I understand that he put out a broad nomination, the finetuning of boundaries is being done now and that a final nomination will be put up at the end of February. Also my hope is that this Warra boundary issue is resolved in the right way by the end of February but not part of the decision-making here.

Ms FORREST - As I understand it part of UNESCO's approach is to do the community engagement and whether so much of it should be done earlier. It was referred to last week as well but in that process do you seek some way of having some input into that? Being a key stakeholder, you would think it would be a given.

Mr HICKEY - Far better that it is resolved.

Ms FORREST - Before February.

Mr HICKEY - Before February. If it is not resolved at that point, yes, we would seek to draw that to the attention of the World Heritage committee.

CHAIR - In terms of high conservation value forest, I am referring to a presentation which Bob Gordon gave us back in June 2010 and it identified a number of coupes. I think they are in Picton PC30D, E, G and there would be others. There was claimed high conservation value forest by the Wilderness Society and yet, on proper analysis, no identifiable FSC by conservation values - and ditto, ditto, ditto for a number of coupes. Am I right in presuming that they would have found their way into the expected reserve areas?

Mr HICKEY - I am not sure on those particular ones but some of them in similar areas have. In about 2009, ENGOs nominated about a third of the coupes on our three-year plan as HCV forests. FSC Australia at that time backed that view. It translated into a Japanese verification team coming to Tasmania - and Forestry Tasmania was included - in saying, 'Is this the case that a third of your coupes that you are putting up for logging are high conservation value?'. So we did a bunch of work - Marie was involved, in fact - and we used all the RFA criteria about threatened species, wilderness and all the nationally

agreed reserve criteria. We went through all those coupes and virtually none met it. What I did not know at the time but I what I imagine was the case is that they a 'favourite places' map which came out in 2010 and these coupes were within the favourite places. So unbeknown to us we were trying to use nationally agreed reserve criteria and a favourite places map and that is why a third of the coupes were inside that.

FSC Australia is an improving organisation and the organisation that is there now is in better shape than it was in 2009. We have had some preliminary discussion since the agreement with the CEO and chair of FSC Australia. FT is seeking membership in the first instance and then would seek to go through the accreditation certifying process.

CHAIR - So when FSC fell in behind the Wilderness Society's proclaimed HCV in a number of coupes, what did that do to your confidence in the FSC process, when on proper and thorough analysis it was discovered clearly there were no FSC HCV in those forests?

Mr HICKEY - My confidence was very low at that time. What FSC Australia has been able to do, in the face of quite a lot of criticism, is develop HCV evaluation framework toolkits for various parts of Australia. Rod Knight, who was also at one of your hearings, developed the toolkit for Tasmania. It incorporates a lot of nationally agreed reserve criteria thinking. I think it's probably a fairly coherent process and it would be interesting to do that for all of Tasmania. It would be interesting to do it for the existing state forests of Tasmania. What we particularly need to do is do it for the residual state forests of Tasmania if the TFA goes ahead, but at least that is a coherent framework. You can see what the rules are. It is not a secret map under the table. It was pretty terrible in 2009 but it's going down a better path in 2013.

CHAIR - What is the worst case scenario for forest carbon storage? What impact will there be on greenhouse gas concentrations by protecting large areas of forest?

Dr MORONI - The worst case scenario for Tasmania's forests would be that we lock the forests up into reserve. We'd get no wood products from them so there is no carbon stored in the wood products and we'd get no substitution effect from the use of those wood products. Then we have a wildfire burn through the reserve area, which I think is a very big challenge to the thinking on this whole process. It emits large quantities of carbon back to the atmosphere, leaves us without the wood products and without the carbon stored in the substitution, so in the long term you would have a larger net emission than had you managed those forests, due to the wildfire and loss of the wood products. It would also be the worst case for society and the economy because of the effect on society and the economy from an industry that would have otherwise been lost.

The impact of greenhouse gas emissions with the reservation, globally it will be very small. If you think back to the problem at hand, it is to do with fossil fuel emissions. We have recent publications that suggest that since the Industrial Revolution around about 15-20 per cent of the accumulated emissions in the atmosphere are from deforestation and land use over several centuries. The remainder is from fossil fuel burning, so the real problem is fossil fuel burning. What we do with the biosphere is second fiddle to that. What the biosphere can do is help us get off fossil fuels by providing products that are easily replaced when the plants regrow. The impacts on greenhouse gas by this reservation process I think is probably negligible, particularly when the next fire comes; the impact will go away.

Mrs TAYLOR - How do you feel about biomass?

Dr MORONI - Biomass for energy?

Mrs TAYLOR - Yes. We were told today that it is the particulates it puts out - so you are suggesting biomass would be better than fossil fuel?

Dr MORONI - Yes. Again you are in a place where you have a trade-off. You either leave the biomass out on the forest floor to rot and decompose or burn in a wildfire, in which case it becomes greenhouse gases, and in that environment it creates an enormous quantity of particulate matter, as you can see when you step outside today. Or you can take some of that -

Mrs TAYLOR - I haven't had that luxury today unfortunately.

Laughter.

Dr MORONI - Or you can take some of it, and no-one is advocating taking it all and no-one in their right mind is going to harvest a forest for a biomass plant, which is what some are suggesting would be the case. The sawmills have actually taken their residues, as we have seen in our own inability to remove residues, sawmills reduce capacity and close for periods of time because the residue has built up. You can take that and make energy. We are trucking it back out into the forest at the moment; they're digging and burying sawdust in holes just to get rid of it. We could burn that in a modern biomass energy plant. They can do that without producing much particulate matter at all because of the modern technology. Europe is using it in high-density urban areas. We could use that energy instead of fossil fuels. Some folk suggest that in Tasmania that is not the case because of our hydroelectricity but we have Basslink so we could sell it to the mainland and displace coal fire.

Further to that, if we were to then consider harvesting a portion of the residues after a forestry operation, one of the problems we face in forestry is that we have to do a regeneration burn in the wet forests to regenerate the forests. We burn residues and it causes a lot of smoke and is a big problem for us. We really wish we didn't have to do that but we do. If we could remove some of those residues the smoke problem would be diminished, the particulate matter from regeneration burns would be diminished, we could put it into a very efficient wood burning kiln which doesn't produce particulate matter or doesn't need to, and generate electricity.

I think in the long term, just as environmental groups laud a green position based on our hydro energy, which is on the back of the dams that they once opposed, we might find ourselves in a place where we are lauded for our green energy where we become much like North America, Europe and Asia which have embraced this. Sweden shall be largely off fossil fuels off the back of biomass energy, largely from these forest residues, by 2050 or thereabouts.

Mrs TAYLOR - Is it just that our extreme environmentalists like the Huon Valley Environment Centre, for instance, are just not up with the science, or is it a philosophical position that they don't want to see any native forest cut? Today you have explained to

us what makes logical sense to me from the scientific viewpoint that it is actually better for our forests if we do these things. I guess they're saying if you can't cut any trees therefore there wouldn't be any residue.

Dr MORONI - I suspect it's more consistent with if you use native forest residues for biomass energy you will generate an income from that and that will support the industry which they don't support, so why would they support a mechanism that supports an industry they don't support?

Mrs TAYLOR - Are they just behind the times?

Dr MORONI - They have their objectives which, for them, are important and those objectives are running headlong into some reasoning and thinking from science and a lot of the international agencies we mentioned earlier like the Intergovernmental Panel on Climate Change. Where those objectives conflict they have decided that they will maintain their position.

Mrs TAYLOR - When you look at the green parties and green politics in other places like upper Austria and Sweden, it is these same environmentalists, isn't it, so are we just going to have to wait for our environmentalists to catch up?

Dr MORONI - It will probably be the international environmentalists who will have a look at Australia and ask us what the devil we are doing.

I think the discrepancy or the gap between good science, good international policy settings and directions and those that are coming from the green groups are becoming problematic. They need to really reconcile their thinking with this international position. They like the IPCC when it says there is climate change but they don't like the IPCC when it says to use a portion of your forest resource products. They're picking and choosing and it creates a very difficult and untenable position, I think. It becomes very problematic, as you would expect.

Mrs TAYLOR - For them, too?

Dr MORONI - I don't know for them, they have their own position and own rationale, but the outworkings of their position in society becomes increasingly difficult to justify, especially when you are a decision maker such as you are here. When you are asked to do something that is so different from the science and policy settings and directions from most of the developed world, it is very difficult, I think, to follow down that pathway because eventually the problems will become exasperating and you would suspect that somewhere along the line there must be a correction.

Mr VALENTINE - I think they just want the least impact and that means no burning. That's the way they look at it, isn't it?

Mrs TAYLOR - But if that doesn't make sense in line with international environmental -

Mr VALENTINE - I'm just saying that's their bottom line, isn't it - if you burn it's bleeding and in some ways if you don't burn find a use that doesn't involve burning maybe. I don't know.

Dr MORONI - Perhaps their objective is more to do with the fact that they would rather not see any forest management despite the economic, social and environmental costs.

Mrs TAYLOR - Then what have you got left?

Mr WILKINSON - No more fires, if you follow what Rob was saying.

Mrs TAYLOR - But we will get more fires if you listen to the scientists.

Mr WILKINSON - Some of the wood fires - global warming.

Dr MORONI - I did find it interesting when [inaudible] put forward that they would support the use of firewood which is bioenergy.

Mr DEAN - This question is in relation to the slide that Marie put up on the wildfire, where you had different colourations, and the blackened area, I take it, was a very intense fire at the beginning and then you have the browning of the leaves and then you had some green patches in it as well. Was that an area that had been previously burned out or what was the reason behind that, Marie?

Ms YEE - Fire is a very chaotic element.

Mr VALENTINE - It most certainly is.

Ms YEE - We don't know when it will happen or what weather conditions will fuel it or dampen it. I guess through the chaos of nature that we have diversity out there. The Aboriginal people who lived on this landscape sustainably controlled and used fire as a tool to manage their landscape in order to survive, and we, too, need to understand the role that fire plays in order for us to be part of this managed landscape. I showed that slide to show how the forest structures that arise out of these disturbance events result in a very patchy landscape and that we are able to be resilient and disperse through that because of diversity. I guess that's what I was trying to show.

Mr DEAN - It is reasonable that there needs to be burning off, and a number of people out there today - environmentalists and so on - are stopping us from burning and we have a number of people who suffer from inhaling smoke and so on; that is an issue and I understand that. A ferocious fire will kill eucalypt but if it is cleaned out on a reasonably regular basis and whether it is every four or five years you burn out, or three years, whatever it is, you can maintain the growth of those eucalypt trees and so on. Is that a fair -

Dr MORONI - I think it would be fair to say that you would reduce the intensity of the resultant fire. As Marie indicated, the weather and circumstances of the day govern how a fire is going to behave. I have talked to people who have dealt with fires in catastrophic conditions. They had it cross farmers' fields, they have had the wind blown up the chase from the field. I have seen a site out of Montreal in Quebec where a wildfire crossed a very large clear-cut by burning the soil organic matter.

There comes a point where the conditions are such that it would be very hard to stop a ground fire and a catastrophic fire, but if you had done fuel reduction burns and reduced the fuel, the chance of that happening diminish and the chances that you might be able to fight that fire effectively increase. We won't be able to stop fire, we won't even be able to stop dangerous fire, but we will decrease the probability of it occurring and increase our ability to fight it.

Mr DEAN - Some evidence has been given that there will be less opportunity probably for the burning-off of these reserve areas and so on, and there will be less opportunity for controlling of fires once they get going because of the withdrawing of the equipment and the contractors, so that will all add to the risk that we have out there in relation to wildfire and so on. Is that a reasonable statement or a reasonable position that has been put forward?

Mr HICKEY - It can be mitigated by -

Mr DEAN - What is the answer? Is there an answer to it?

Mr HICKEY - One of the answers is that Parks and Wildlife Service and FT do work very collaboratively and in some cases there is shared fuel reduction burning. There are just so many social pressures - maybe not this year - but some we've had to not do fuel reduction burning, to not generate smoke. If you have a burst of activity and managers are proactive in this area for a year or two, and then we haven't had a bad fire for several years it just becomes very difficult to do.

Dr MORONI - Further to what you said, as we lose capacity within the industry we lose a lot of the machinery that is often deployed to fight fires. I believe we've found some challenges this fire season.

Mr DEAN - Thank you.

Mr VALENTINE - Just going back Marie's presentation, I noticed you were talking about the old stags and fallen old trees then becoming habitat. How do you ensure that you have enough of the dead material on the ground to form that habitat at the same time as doing the rotation that you are talking about, and also at the same time doing low-intensity burns to keep the fuel load down? It is a bit of a catch-22, isn't it. If you are going to reduce the fuel load on the ground every three years, or whatever it is, at that time you are actually going to burn out a lot of the habitat as well, like the old trees for the masked owl or whatever.

I am very conscious of the Dunalley fire because I was down there and I saw how it just absolutely decimated, almost burnt, the organic matter in the soil, it was bald as, but the leaves were still on the trees. I can show you plenty of photos - I have them on my iPhone now. How do you get that balance in the system that you were talking about: maintaining dead material on the ground for habitat for threatened species at the same time as keeping your fuel reduction burns going?

Ms YEE - I suppose when I think about the managed landscape you have areas that are managed for production - the coupes, and they will undergo rotation of being harvested, regeneration-burned, grow back again, being harvested, regeneration-burned, grow back

again. In those areas that are maintained for long-term retention, those areas will allow for the trees to grow and fall down and undergo that natural succession of the tree falling down, the habitat on the forest floor. As you know, after clear-felling or these kinds of harvesting events, there is a lot of dead wood left on the forest floor. That's very important for biodiversity still.

Mr VALENTINE - So it's not burnt?

Ms YEE - It is burnt just as a wildfire would burn debris. These logs, over time, will decay. Often in a big old tree that has fallen down and burnt, inside there is a rot where the moisture can accumulate and become important habitat. Even though these rotting logs that are on the forest floor, particularly in these wet eucalypt forests, are burnt outside - the char, inside they are teeming with life. You have your sources of animals and plants in these long-term retention areas and as the forest in the harvested area can grow back with dead wood on the ground from the harvesting event that has been burnt, those animals can recolonise and then they will be able to disperse out and will continue to disperse out.

Mr VALENTINE - That's your masked owl that relies on those areas that are standing with stags while other areas are rotting down.

Ms YEE - That's right.

Mr VALENTINE - So you are getting this movement of species between the different coupes. Is that what you are saying?

Ms YEE - Yes.

Mr HICKEY - Marie did an interesting study on the velvet worm recovery after the 2006 St Marys fires. Some of what she has described is backed with some good results - the persistence of some of these interesting species after what seems to be a vaporising fire.

Ms YEE - Fire is an interesting element. It's fuelled by the wind and we often can feed it through different ways. It's also a renewing element to getting rid of the old dead wood. We often view it as something catastrophic and devastating but it's also so valuable in rejuvenating in a new chain, a new order.

Mr VALENTINE - I guess I find it difficult to understand how those Gondwanaland forests have survived all this time without any fire going through them. It's an interesting situation -

Dr MORONI - They are a different system. Once upon a time they suggested Australia is largely covered by rainforests and gradually the dry eucalypts migrated, and I would suggest that they continued to migrate as Australia moves north and dries out. So those Gondwanan forests are in retreat.

Mr VALENTINE - Thank you, Mr Chair.

CHAIR - Okay, we are done. I don't have any questions lined up so to the three of you, thank you very much.

Dr MORONI and Mr HICKEY - Thank you.

THE WITNESSES WITHDREW.