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ENVIRONMENT AND COMMUNICATIONS LEGISLATION
COMMITTEE

Reference: Australian National Registry of Emissions Units Bill 2011; Carbon Credits (Carbon Farming Initiative) Bill 2011; Carbon Credits (Consequential Amendments) Bill 2011

WEDNESDAY, 20 APRIL 2011

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SENATE ENVIRONMENT AND COMMUNICATIONS

LEGISLATION COMMITTEE

Wednesday, 20 April 2011

Members: Senator Cameron (Chair), Senator Fisher (Deputy Chair) and Senators Ludlam, McEwen, Troeth and Wortley

Participating members: Senators Abetz, Adams, Back, Barnett, Bernardi, Bilyk, Birmingham, Bishop, Boswell, Boyce, Brandis, Bob Brown, Carol Brown, Bushby, Cash, Colbeck, Coonan, Cormann, Crossin, Eggleston, Faulkner, Ferguson, Fierravanti-Wells, Fielding, Fifield, Forshaw, Furner, Hanson-Young, Heffernan, Humphries, Hurley, Hutchins, Johnston, Joyce, Kroger, Ian Macdonald, McGauran, Marshall, Mason, Milne, Minchin, Moore, Nash, O'Brien, Parry, Payne, Polley, Pratt, Ronaldson, Ryan, Scullion, Siewert, Stephens, Sterle, Trood, Williams and Xenophon

Senators in attendance: Senators Cameron, Colbeck, Fisher, McEwen, Milne and Nash.

Terms of reference for the inquiry:

To inquire into and report on:

Australian National Registry of Emissions Units Bill 2011; Carbon Credits (Carbon Farming Initiative) Bill 2011; Carbon Credits (Consequential Amendments) Bill 2011

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Committee met at 8.04 am

CHAIR (Senator Cameron)—I declare open this public hearing of the Senate Environment and Communications Legislation Committee in relation to its inquiry into the Carbon Credits (Carbon Farming Initiative) Bill 2011, the Carbon Credits (Consequential Amendments) Bill 2011 and the Australian National Registry of Emissions Units Bill 2011. The committee's proceedings today will follow the program as circulated. These are public proceedings. The committee may also agree to a request to have evidence heard in camera or may determine that certain evidence should be heard in camera. I remind all witnesses that, in giving evidence to the committee, they are protected by parliamentary privilege. It is unlawful for anyone to threaten or disadvantage a witness on account of evidence given to a committee, and any such action may be treated by the Senate as a contempt. It is also a contempt to give false or misleading evidence to the committee. If a witness objects to answering a question, the witness should state the ground upon which the objection is to be taken, and the committee will determine whether it will insist on an answer, having regard to the ground on which it is claimed. If the committee determines to insist on an answer, a witness may request that the answer be given in camera. Such a request may, of course, also be made at any other time.

[8.05 am]

AHAMMAD, Dr Helal, Chief Analyst, Australian Bureau of Agricultural and Resource Economics and Sciences

HEYHOE, Ms Edwina, Section Manager, Climate Change Strategy and Analysis, Australian Bureau of Agricultural and Resource Economics and Sciences

KEATING, Dr Brian, Director, Sustainable Agriculture Flagship, Commonwealth Scientific and Industrial Research Organisation

McKENZIE, Dr Neil, Chief, Land and Water, Commonwealth Scientific and Industrial Research Organisation

MORRIS Mr Paul, Deputy Executive Director, Australian Bureau of Agricultural and Resource Economics and Sciences

POLGLASE, Dr Phil, Research Program Leader, Agriculture and Forest Ecosystems, Commonwealth Scientific and Industrial Research Organisation

CHAIR—I welcome representatives from the Australian Bureau of Agricultural and Resource Economics and Sciences and the Commonwealth Scientific and Industrial Research Organisation. Thank you for talking to us today. As Commonwealth officers, you will not be asked to give opinions on matters of policy, though this does not preclude questions asking for explanations of policy or factual questions about when and how policies were adopted. The committee has received your submissions as submissions 33 and 35 respectively. Do you wish to make any amendments or alterations to your submissions?

Dr Keating—No.

CHAIR—If not, do you wish to make a brief opening statement before we go to questions?

Dr Keating—Thank you. CSIRO welcomes the opportunity to appear before the committee. While we had no formal role in the preparation of the CFI bill, we do have an active portfolio of scientific investigations that are relevant to the CFI goals. These activities focus on science that can assist in reducing greenhouse emissions from agricultural activities, and science that is relevant to the storage of carbon in long-lived sinks such as forests, soils and biochar. Activities cover a broad range of topics, including measurement of greenhouse gas emissions; management options that can mitigate emissions or increase carbon storage; sensing and predictive tools to aid in the assessment of carbon stocks; and support for the development of national carbon accounting systems. We have highlighted some key reports in our submission, and we have experts here today who can comment on work that is currently underway. I would add that this is an active area of research as we speak today.

In our submission, we made some general comments, from a science perspective, on the approaches taken in the CFI bill. There are seven very quick dot points that I will flag that summarise that. These are science perspectives. The CFI does address important sources of greenhouse gas abatement. There are significant sources of greenhouse gases in the agriculture and land sector, and the CFI addresses those important sources. While forest carbon and soil carbon sinks are opportunities worth pursuing, current research would suggest the abatement likely to be achieved in the short term, at least, is likely to be modest. Environmental integrity is the core of any successful carbon marketplace, and the CFI is firmly focused on environmental integrity. The science is complex and continuing to evolve. A science strength of the CFI is that it is designed to be able to take on board new knowledge as it becomes available. Another strength is that it allows more broadly based engagement and innovation from industries and land managers. There is always the risk of unintended consequences in anything to do with land management and land use, and the CFI does attempt to address such consequences. Finally, successful carbon marketplaces are going to require well-informed markets as well as well-informed policy instruments, so continuing investment in the underpinning science is going to be needed to support a successful CFI should it proceed. Thank you.

CHAIR—Thank you, Dr Keating. Mr Morris.

Mr Morris—ABARES welcomes the opportunity to appear before the committee. ABARES is the research arm of the Department of Agriculture, Fisheries and Forestry and is responsible for providing research, analysis and advice for government and private sector decision-makers on significant issues affecting Australia's primary industries. ABARES' work program on climate change economics and sciences is

currently focused on the portfolio industries of the department and on analysing potential land-use change under evolving policy settings.

Our most recent publication of relevance was presented at the March 2011 Outlook conference and was titled *The economics of Australian agriculture's participation in carbon offset markets*. This has been provided to the inquiry as an exhibit. The paper considers a number of key issues associated with the proposed offset credits under the carbon farming initiative. Importantly, it concludes that the initiative would be most effective if it is linked with a domestic carbon pricing scheme, in the absence of which there is likely to be insufficient demand for CFI offset credits and would be most effective if land-holders can see a clear economic benefit from participating in the CFI carbon offset activities and that any land-holder's participation in the carbon farming initiative eligible offset activities is voluntary.

ABS is also presently updating its 2007-08 work entitled *Analysing the economic potential of forestry for carbon sequestration under alternative carbon price paths*. It has been prepared for the Treasury as input to its policy analysis in this area. ABARES' 2007-08 work examined the potential agricultural land available for conversion to forestry activities, both commercial timber plantations and environmental plantings, under alternative carbon price paths and was used as input to the 2008 Treasury report *Australia's low pollution future: the economics of climate change mitigation*. The reason for the update of ABARES' 2007-08 analysis is that the estimates did not factor in possible restrictions on forestry expansion for conservation reasons, the potential negative environmental impacts of afforestation such as reduced water run-offs or other important socioeconomic factors which might affect land-holders' resistance to any land-use change. The current ABARES update work for the Australian Treasury will provide new estimates for potential land-use change under specific carbon price paths based on a more plausible set of assumptions regarding water interception, water pricing and Kyoto Protocol compliant available land, among other things. I might note here that we are working with CSIRO on that work. The timing of its public release will be determined by the Treasury.

With that we would like to conclude our statement and we are happy to respond to any questions the committee may have.

CHAIR—Thank you, Mr Morris. Senator Colbeck.

Senator COLBECK—I go to the last point you raised. You talked of the 2007-08 work you did to consider potential uptake of forestry under the CPRS. There was quite a bit of discussion around that at the time on its accuracy. I remember having a number of discussions at estimates over that and the work was actually updated. Although the numbers did not change at the end, the concession was made that the numbers in that place of work were at the upper end of what was likely. You indicate you are doing some more work on that. I would have thought that would be pretty critical to our consideration of this process because it is the work that is going to give an indication of what potential uptake might be if this piece of legislation were passed. So you are saying to us that the timing of that is to be determined by Treasury.

Mr Morris—That is correct. We are being funded at the moment to undertake that work by the Treasury, so we do that work as part of their policy analysis and will provide that to them fairly shortly, I think. Then they will determine how that feeds into the policy process and when they release that work.

Senator COLBECK—It is a bit late to feed it into the policy process if we are going to be asked to pass this legislation before the end of the financial year, which is what I understand.

Mr Morris—As I say, that is a decision for Treasury to make.

Senator COLBECK—How government manage their processes is their problem, and we will deal with that as part of the parliamentary process. We talked about that last piece of work, for 2007-08, that was subsequently updated. I do appreciate the fact that ABARES did go back and do some additional work on it. I think that was worth while given the concern that we raised, but it did raise an enormous amount of concern in the rural sector about the potential for incursion into agricultural land. It did have some reasonable analysis about costings and figures and that sort of stuff, but my recollection is that it basically said that all of Tasmania's agricultural land would go to trees, which I did not believe. I accept the concession that that is now considered to be an upper end estimate, but it still does not give us anything decent to go on as far as what the possibilities are for this process.

Mr Morris—What you say is correct. Our view at this stage is that that is an upper end estimate. A lot of the alternative assumptions we are considering under the current piece of work would tend to push that number down. That is why we are relooking at that and building in some other assumptions on water pricing and so forth. But in terms of the release date, as I said, that will be a matter for Treasury to decide.

Senator COLBECK—I will come to CSIRO, who have obviously done another piece of work. I have unfortunately not had the opportunity to have a look at that at this stage, but it is referred to in the NFF submission, which talks about how, at a \$36 a tonne carbon price, the entire food-growing area of the lower Murray-Darling would be converted to carbon sink forests. This sort of work is being referenced to us as part of submissions to this inquiry expressing concerns about the operations of the proposed legislation, and yet we do not have the latest data from ABARES. I would like Dr McKenzie or somebody to give us some information on that particular piece of work and where these numbers come from.

Dr Keating—I am aware of the reference that was in the media recently. I think the original source of it was some conference proceedings in Cairns recently. That is part of a broader piece of current activity in CSIRO. That is another extreme situation, where you could get a combination of assumptions that would lead to that outcome. But CSIRO is not saying that we believe that that combination of assumptions is likely to come together and play out in that way.

Senator NASH—But it is a possibility. That is what they are saying.

Dr Keating—It is a possibility, but only if, for instance, the capital cost, or the discount rate, for any upfront capital investment is very low. So it is highly unlikely to be a commercial reality. We do have expertise here today. My colleague Dr Phil Polglase is working in this very area at the moment. If you would like to unpack a little bit the issues we think are the key issues in determining the extent to which carbon forests would be promoted by a carbon offset price, we could go there now.

Senator COLBECK—Thirty-six dollars a tonne is a huge change from the figures that we were looking at in the initial ABARES stuff. We were talking between \$160 and \$197 as the range where you would start to see conversion in some of the sheep country and things of that nature. That is a relatively high number in the overall scheme of what is being considered at the moment, but \$36 is much more within the realms of what is going to be more immediate, and so that obviously raises a whole heap more concern. We do not have the upgraded work because it is still being built—the ABARES stuff—but it is pretty pivotal to our consideration of this piece of legislation, I would have thought. With the number of \$36 that is being referenced from CSIRO, it makes our job very difficult to do a decent analysis of what we are considering.

Dr Keating—I understand that. There are really three pieces of work going on here. There is the work ABARES is doing for Treasury, which Dr Morris has mentioned. CSIRO is having some advisory input into that work around some of the technical issues of forestry, so that is the second thing. The third one is some work CSIRO is doing itself. Perhaps I could pass to my colleague to explain what we are currently doing and the time frames we are trying to meet to get that work out.

Dr Polglase—If I could perhaps just bring my perspective to it. As Brian says, we are doing some complementary type of work. That is in progress and I expect that it may be available and published for public release in a matter of one to two months.

Senator COLBECK—That still does not fit within my time frame.

Senator NASH—Nor mine. We know it is not your fault, Dr Polglase.

Dr Polglase—We can take advice on that.

Senator COLBECK—We are not having a crack at you over that.

Dr Polglase—That is okay.

Senator COLBECK—Those who we are having a crack at know who they are.

Senator NASH—It is a glaring anomaly, I would say.

Dr Polglase—But I think we can say some things already from the available evidence that may help inform the discussion. The first one is to point out that all of these numbers you have seen—the previous Treasury analyses and the CSIRO analyses—are economic modelling. I do not consider them to be predictions or projections of land use change. I do consider them to be estimates of areas of opportunity for land use change given certain model constructs and certain model assumptions, particularly input assumptions. The models are particularly sensitive to such things as establishment costs for forestry, financial discount rates and carbon price. They are not social models in the sense that they do not actually take into account all those factors that are pertinent—the various investors and their willingness to change land use, and whether those land investors be the landholder, the farmer, or the third-party investors. You would know much more about this than I do, I think, but there are a whole bunch of factors that are not really taken into account. We use this information to

test the sensitivity of those models with different assumptions and see how that produces different results in terms of what I would call areas of opportunity, rather than areas of likely land use change.

That is coming from the top down, if I can put it that way. The other way to look at it is from the bottom up, which is what is practically possible given all the constraints with regard to seed supply, labour costs, infrastructure, capital investment and so on. Just to give you an example: at the height of the managed investment scheme blue gum industry, the maximum area of plantations that could be established was about 100,000 hectares in any one year. Over a five-year period, it averaged about 76,000 hectares. That puts a useful context and constraint on what is possible. If you figure a number of about 100,000 hectares per year as being towards the upper limit, that kind of sets a constraint as to what is logistically feasible.

Senator COLBECK—What were the parameters that put those constraints in place?

Dr Polglase—It was land availability—increasingly the MIS companies found it difficult to acquire land; it was definitely seed and seedling supply, so the infrastructure to get the seedlings to plant those things; and it was labour costs—to name but a few.

Senator NASH—Can I just ask very quickly—

CHAIR—Senator Nash, can I just indicate that the coalition have got five minutes left, so you can divvy that up how you like.

Senator COLBECK—I will just ask one more question then, and it goes to the work that you are doing, Mr Morris, in updating that 2007-08 stuff. My recollection—and I may be wrong—is that a lot of the inputs to that information were directed by Treasury as part of the discussion. If I am wrong, please tell me. And that occurred through a lot of the process. Some of the assumptions that went into the analysis around a lot of the modelling for the previous emissions process were inputs that were directed by Treasury. I just want to know whether that process is continuing or whether it specifically relates to the work that you are doing.

Mr Morris—We probably need to distinguish between what are policy parameters and assumptions that go into a model and what are the assumptions which we believe are representations of the world or other things. Clearly, we do our work in an independent fashion, so assumptions which are not policy related or are in some way things which the government might determine or influence are things that we would provide. Other assumptions which are more policy related would tend to be provided by the agencies which are developing policies.

Senator COLBECK—My question is: how do I identify that? That was very difficult and took a lot of time to draw out during the last process, and that is an important part of this. For a long time we were told that, for example, there would be no employment implications from the CPRS. After time, and after drawing a lot of teeth, we discovered that that was a policy input to the process; it was not an output of the model. So is it possible for us to be provided with information that gives us an indication early in the process of what the policy inputs are versus what are, if you like, the real-world applications?

Mr Morris—Just to further answer the first question, my colleague was telling me that the main assumptions came from the department of climate change last time rather than from Treasury, and then we had some scientific assumptions from the former Bureau of Rural Sciences. I think it is a fair question and as part of the research process it would be appropriate for us to say where our assumptions are coming from. We will certainly take that on board and in preparing the report for Treasury; I think we could certainly identify specifically in the report which assumptions are more policy related assumptions, I suppose, or determined more by other outside sources and which ones are our own assumptions.

Senator COLBECK—Okay.

Mr Morris—Mr Chairman, could I just add something on the question you asked earlier regarding the numbers in the 2007-08 report. The discussion we just had focused on the upper end. They were the Garnaut 25 assumptions, which are requiring a 25 per cent reduction in greenhouse gas emissions by 2020, so they are at the upper end. But within that report quite a range of scenarios are looked at, including what we label here as the CPRS 5, which is a five per cent reduction in greenhouse gas emissions by 2020 from the 2000 level, and those numbers are much lower than those bigger reductions. So in that report there is quite an indicative range of alternate scenarios that can be quite helpful. On those numbers the impact on Tasmania, I might note, is far lower than at the upper end of the scale.

Senator NASH—I have a number of questions I will put on notice because I only have a couple of minutes. I have two quick questions now. Dr Polglase, you referred to establishment costs as part of your modelling. Did you factor into that the current legislation that provides for tax breaks for carbon sink establishment?

Dr Polglase—No, we did not. These are broad economic models not financial models, so that is another deficiency, if you like, in the modelling. They cannot and they do not pretend to describe and encompass everything and every condition.

Senator NASH—So we should take into account that that has not been factored into the work that you have done.

Senator MILNE—Can I just follow up that up. CSIRO has not taken it into account. Did ABARES?

Senator NASH—Yes, can we just ask that, Mr Morris?

Mr Morris—No, no.

CHAIR—No, you can't!

Senator NASH—It know it's early—and thank you all for getting up so early!

CHAIR—Mr Morris, that is the most decisive I have ever heard!

Mr Morris—You caught me out there, Senator. I was just reconfirming with my colleague that I told Senator Colbeck the correct advice on those assumptions and, yes, that is correct.

Senator NASH—So on that issue of the tax breaks for carbon sink establishment: has that been taken into account by ABARES in any of your modelling?

Mr Morris—No.

Senator NASH—It appears you were right in the first place. Is there a reason why not? It would have an effect on the input costs that Dr Polglase was talking about in the first instance.

Dr Ahammad—Our focus was long-term potential, until 2050, and also there was a review undertaken at that time, if my recollection is right. We tried to steer away as much complexity as possible at that time, so we have not undertaken that on the modelling side of things.

Senator NASH—I would venture that it is incredibly complex and I do not think we can get around the complexity by just avoiding things like this.

Dr Polglase—Can I just add that what we have done is again test the sensitivity of the system to certain assumptions. Rather than pretending that we know exactly the establishment cost of every single forestry system in every place, what we do is vary the establishment cost from, say, \$1,000 per hectare to \$3,000 per hectare. That encompasses something like tax breaks, and the system is incredibly sensitive to that. So rather than say that the establishment cost is \$2,334 per hectare and that we will discount it for a tax break we actually try to demonstrate the sensitivity of the system to varying it by quite a large margin, which presumably would encompass those sorts of things.

The other thing is that there is no single investment model for these things, and it does vary from third-party investors. They all have their own different financial models and things, and we just cannot pretend to model that, so we are deliberately keeping it quite simple to demonstrate some concepts.

Senator NASH—Dr Keating, you mentioned 'unintended consequences' in your opening address. What do you see that those unintended consequences are?

Dr Keating—The ones that have been explored in CSIRO research would be things like relationships between forestry plantings and water flows, and negative biodiversity impacts potentially of forestry plantings or, for that matter, positive biodiversity impacts. Some of the consequences could be positive as well as negative. The issue that we have really been skirting around are the land contests, if you like, for agriculture and forestry—

Senator NASH—I do not think we have been skirting around that.

Dr Keating—Yes, sorry—trade-offs with food production and all those sorts of things. Land use is obviously a complex and highly interconnected issue. At one level, it is amazing that it changes so slowly. My colleague would tell me that the entire plantation forestry estate in Australia is two million hectares, as we sit here today—

Dr Polglase—Yes.

Dr Keating—and it has taken however long to get to that two million hectares, but while it does change slowly it has very far-reaching consequences.

Senator NASH—Okay. You also mentioned that this legislation ‘attempts’ to address it. Can you give us some more detail on notice on what ways you think it attempts to address it and also what ways, if any, you think that falls short?

Dr Keating—I can take that on notice.

Senator MILNE—I want to take up where my colleagues have left off because there is a common interest here in parliament recognising that we have a global food crisis, water crisis, climate crisis and energy crisis all happening at the same time. What we have seen in the past is that when these issues are taken as silos there are perverse outcomes on the others and it takes years to sort them out. My perspective in coming to this is to see that we have a mechanism which enhances agricultural productivity, protects carbon in the landscape, uses water in a sustainable way and so on. In my view this as a gap in the agricultural research because everybody has been off on their own thing. We need to see this as an integrated whole. I see that CSIRO is now recognising this is an area of work that desperately needs to be done.

Our problem here is that we have got legislation before us without the research base to inform the decisions. We have got competition between food, fibre, energy and carbon, and this Carbon Farming Initiative strikes all of those. Whether fibre for pulp, energy for biomass or carbon stored depends on the nature and size of the market and the price, because a farmer is going to grow what can maximise outcomes, hopefully in a sustainable way. The ABARES paper says that the nature and size of the market—and I would obviously add the price—is going to determine what actually happens under this initiative. So would like to ask you, for a start: are you assuming that the Carbon Farming Initiative is linked to the carbon price mechanism that will be coming through the parliament? If so, what is your thinking on the nature and size of the market in that context?

Dr Keating—I do not think CSIRO has any assumptions on linkages between the Carbon Farming Initiative and other carbon pricing policy considerations. I am going to defer to ABARES here because they have done some more explicit work than we have on trying to estimate the likely size of the supply for carbon offsets.

Mr Morris—There are a couple or different aspects to the question. One is that you could go ahead with the Carbon Farming Initiative without a carbon price, but as we say in our opening statement—

Senator MILNE—There is no demand.

Mr Morris—there will not be strong demand for those carbon credits that are generated by the Carbon Farming Initiative or other schemes without having some price on carbon, whether that is a carbon tax, a CPRS or whatever. We highlight in the 2011 paper, as well as in our statement, that the demand side is quite important.

Turning to the other aspect of your comments, one of the reasons why we are trying to update the numbers is to take account of some of the things that you are talking about, including the effect of afforestation activities on water run-off and so forth. That will have an impact on some of those water issues in the Murray-Darling Basin, for example, and other things. There are also other factors such as economic factors in landholders’ decision making on whether they plant trees, grow crops or whatever. So we are explicitly trying to take more of an account of some of those things in this additional modelling we are doing.

Senator MILNE—To follow up on that, are you making an assumption that plantations for harvest are going to be allowed under the Carbon Farming Initiative?

Ms Heyhoe—The assumptions around the policy specifics of the Carbon Farming Initiative are being worked out with the Department of Climate Change and Energy Efficiency, and a final decision has not been made on that yet.

Senator MILNE—So really your numbers about what is possible and what is not possible are going to be very significantly affected by the positive list of what is in and what is out, clearly. Let’s just go to the methodologies, because there are a lot of people out in rural and regional Australia who think this is going to be a bonanza for rural and regional Australia. My concern here is on methodologies, and that relates to the transaction costs and therefore the potential benefit. So I ask you: which methodologies exist already for the practices that have been listed that would be Kyoto compliant, for example? What I am trying to work out here is, if there were a linkage to the carbon price and if that favoured Kyoto compliant permits, which activities

could benefit from that straightaway because they have a methodology that is internationally recognised and therefore compliant?

Dr Ahammad—We have not done a comprehensive analysis of the various methodologies, but whatever we have come across suggests, given the current state of scientific research and the existing methodologies in various schemes, that manure management, methane flaring, directing to electricity generation, savanna burning and reforestation are very well established.

Senator MILNE—Did you say ‘reforestation’?

Dr Ahammad—Reforestation is very well established internationally. Our department policy area and the DCCEE are working together to look into various methodologies.

Senator MILNE—This gets to my point as to who will benefit here. If the Carbon Farming Initiative got through now and it was assumed that Kyoto compliance was fundamental to it, then the activities that would be immediately available are reforestation, manure management and savanna burning. In the scheme of things manure management and savanna burning are in relatively small numbers. I agree they are very important but relatively small. So the big push is on reforestation and the question then is: what are the restrictions on reforestation? Is it plantations or is it biodiverse plantings for carbon credits? Is that a fair assessment of first in, best dressed?

Dr Ahammad—If I may add to my previous answers to your earlier questions and subsequent question, there is a temporal element to all this. Immediately, with the current state of knowledge, these are the three things about which we are showing most promise but, over time, scientific development and research will open up a lot more opportunities for other activities.

Senator McEWEN—I have a question for ABARES and it is about Australia’s position with regard to international carbon markets. If we do not proceed with the CFI, what position does that put Australia in with regard to participating in the international market?

Dr Ahammad—This is probably not our area of expertise as such; it is more a question for the Department of Climate Change and Energy Efficiency.

Mr Morris—I think it is fair to say, though, that we need some sort of recognised system of carbon credits in Australia in order to effectively participate in those international markets. Unless there is a recognised system of carbon credits here, then it will be very difficult to actually participate in those markets.

Senator McEWEN—You obviously keep tabs on what is happening internationally?

Mr Morris—Yes.

Senator McEWEN—Are other comparable countries doing more than us to establish—

Mr Morris—There is a very good summary of that in the paper that we submitted to the inquiry. It lists quite a number of different schemes that are happening internationally in a number of different countries around the world. In the interests of time, I would refer you to that. If you would like us to go through it, I could get Dr Ahammad to go through it.

Senator McEWEN—No, it is okay, you do not need to go through it. But where does Australia stand in relation to those other countries that you have listed?

Dr Ahammad—At the national level, I guess it is the New Zealand scheme which is allowing a mandated market. The European Union has a mandated market. As for the agricultural and policy related offsets, it is mostly a voluntary market that Australian land managers can target. But, as Mr Morris suggested earlier, if we do not have a credible mechanism within Australia, then for land managers and farmers it will be a lot more difficult to explore international markets.

Dr Keating—Could I just add one comment to ABARES response, which I agree with entirely. Another dimension of the CFI is that it allows innovation in non-Kyoto markets. It is reasonably up there in the world and world-leading in terms of trying to encourage innovation more broadly across the land sector in ways that will have some atmospheric greenhouse mitigation benefits. So it opens up that possibility to break out of some of the perhaps restrictive Kyoto principles that have been limiting opportunities in the past.

Senator McEWEN—Just following on from that, Dr Keating, I understand that you are on the Domestic Offsets Integrity Committee. Is that right?

Dr Keating—That is correct. I believe that CSIRO, under the legislation, nominates a government member to the committee on an interim basis and that is currently me. The committee is operational on an interim basis. Of course, its future depends on the future of the legislation.

Senator McEWEN—The principal role of the committee is to ensure the environmental credibility of the methodologies that are considered under the CFI. Is that right?

Dr Keating—I think the only role for the committee, as far as I can see, is to provide public advice to the minister on the environmental integrity of any methodologies that are put forward against defined criteria.

Mr Morris—Just for the record, I mentioned earlier to Senator Colbeck that it was mainly a policy assumption that had been provided in our earlier work. There were a couple of additional assumptions that were provided from other agencies. The long-term commodity price assumptions in the work we did were provided by Treasury. Some information on the assumptions relating to biomass growth and sequestration rates was provided by DCCEE as well. In the next piece of work we do we will try to specify where the assumptions come from.

CHAIR—Thank you very much for your evidence this morning. Thank you for coming along this morning and helping the committee.

[8.46 am]

HANSARD, Mr Allan, Acting Chief Executive Officer, Australian Forest Products Association

NIEDERKOFER, Ms Marion, Manager, Climate Change Policy, Australian Plantation Products and Paper Industry Council

STANTON, Mr Richard, Chief Executive Officer, Australian Plantation Products and Paper Industry Council

STEPHENS, Mr Michael, Manager, Strategic Policy, Australian Forest Products Association

CHAIR—Welcome. Thank you for helping the committee today. The committee received your submissions as No. 17 and No. 41 respectively. Do you wish to make any amendments or alterations to your submissions?

Mr Stanton—No.

CHAIR—If not, do you wish to make a brief opening statement before we go to questions?

Mr Hansard—We would both like to make a brief opening statement.

CHAIR—Can I put the emphasis on ‘brief’.

Mr Stanton—Thanks very much for the opportunity to appear before you this morning. I should just make you aware that our two organisations are actually in the process of merging at the moment to form a single entity to represent the forestry, wood products and paper industry at the national level. We are in a transitional phase at the moment and, as you are aware, we have made separate submissions.

CHAIR—An amalgamation.

Mr Stanton—However, our submissions are consistent and we are happy to appear together today. From the A3P point of view, though, we consider that commercial plantation forestry has significant potential to contribute to climate change abatement via an increase in the storage of carbon in an expanded Australian plantation estate and in wood products where carbon is permanently stored in use. I should emphasise that I am dealing primarily with the planting and harvesting of trees to produce wood, paper and renewable energy products. I am not expressing a view about carbon-only plantations, which are not intended for harvest. It is our considered view that the Carbon Farming Initiative, as detailed in the legislation, is unlikely to attract the interest of commercial plantation growers and therefore it will not realise a substantial, low-cost carbon storage opportunity.

There are essentially two reasons for our conclusions about the Carbon Farming Initiative. Firstly, the government has not provided a clear link between credits that may be created under the Carbon Farming Initiative and any credible and reliable carbon pricing mechanism. Commercial plantation growers will not incur the substantial risks and costs associated with developing a CFI project and having it approved unless they are confident that they will be able to access a reliable market. The demand and price in the domestic voluntary market is not sufficient and the linkages to international markets are uncertain at best. We would agree with Professor Garnaut’s conclusion in his recent paper on rural land use where he suggested that the government should link the CFI to any emerging mandatory carbon market.

Secondly, it appears that the government has gone to great lengths to make it as difficult as possible for commercial plantation growers to meet the requirements of the Carbon Farming Initiative. Regulatory risk, the additionality test, the permanence provisions and the negative list of excluded offset projects, along with a number of technical issues which are detailed in our submission, will all conspire to make the Carbon Farming Initiative unattractive to commercial plantation growers. In our view, the CFI is a substantial missed opportunity to increase the storage of carbon in commercial timber plantations and in wood products in use.

Mr Hansard—I will keep my comments fairly brief, but what I would like to say is, firstly, that it is a pleasure to be here on behalf of the Australian Forest Products Association. As Richard said, we have just recently merged. Our view at AFPA is perhaps a little broader than Richard outlined. We look right across the whole sector of the forest industry. The forestry and forest products industry can make a significant contribution to climate change mitigation given the right policy framework. However, given the proposed design of the Carbon Farming Initiative, there remain significant impediments for the realistic uptake of the wider forest industry for carbon sequestration, particularly for commercial timber products, as Richard has just said.

Without substantial amendment, the current bill is a missed opportunity for recognising the full potential of the forest industry to provide cost-effective land based abatement which can also provide a broad range of other economic, environmental and social benefits. In fact, we feel this legislation is a backward step from where our key issues were for the 319-page Carbon Pollution Reduction Scheme legislation, and we are very disappointed about that.

The main issues with the current bill include the complex additionality requirements, the lack of recognition of wood products as a significant carbon pool, ambiguity regarding the scope and eligibility of native forest management incorporating periodic timber harvesting, regulatory interference through a proposed negative list of certain project types, and relatively high transaction and compliance costs, particularly for smaller forest growers. Furthermore, it is imperative that the carbon offset projects are recognised under a future carbon price mechanism to promote an efficient market and demand for low-cost abatement options.

AFPA is particularly concerned that the bill fails to adequately recognise the scope for sustainable forest management practices in native forests—that is, the renewable management of these forests for timber and other values on a periodic harvesting and replanting cycle, which has been acknowledged by the international scientific community as providing one of the most effective ways to maximise mitigation from forests. Any unwarranted restrictions on for-harvest native forest projects compared to forest protection projects could lead to large perverse outcomes given their generally higher sequestration potential compared to reserved—that is, unharvested—forests over the longer term. It is therefore disappointing to see little progress on this issue in the bill.

These issues are described in more detail in our submission, and we would be happy to take questions and elaborate on these matters. AFPA remains committed to working constructively with the committee and other stakeholders to provide a valuable contribution to the inquiry, but also to help realise the valuable contribution the forestry and forest products industry can make to climate change mitigation.

CHAIR—Thanks, Mr Hansard. We will go to Senator Colbeck.

Senator COLBECK—It appears, from what you have been saying, that the government has effectively got the cart before the horse in respect of how it might interact with a regulated carbon market, because that does not exist and is still being designed and then it still has to get through the parliamentary process. It almost sounds as though you are saying that the thing is not going to work anyway. From a plantation harvest perspective, there is likely to be not much uptake. That would go across to what you are saying as well. On top of that it sounds like that is also a bit like a backdoor way of trying to lock up any access to native forests by restrictions around that in relation to native forest harvesting. It looks like that is pushing everything backwards rather than actually providing any incentive to do anything.

Mr Stanton—We certainly do not see the Carbon Farming Initiative creating any new additional incentive for people to establish plantations. As for our view, our members have been working for at least 10 years to explore the opportunities that carbon could create, because if we can expand our plantation resource that is carbon that is stored. We face significant challenges getting capital into plant plantations. Carbon could be one additional market that could improve the economics of commercial plantations, but we do not see this mechanism providing access to a meaningful market and therefore we do not expect it to change the economics of investing in timber plantations. It really just will not make a material difference to plantation growers.

Mr Hansard—I think what Richard has just said is right. This is very much a missed opportunity for the government to really place a foot forward in relation to setting good land based policies for climate change. Richard has said that he does not think that the uptake would be great. I would have to endorse that. We cannot see how this can work to facilitate not only the uptake of plantations for wood but that for carbon. It just will not work. Therefore it is a missed opportunity given the potential that the land based sectors have to provide a positive offset to emissions from other sectors in the economy. It is a missed opportunity for not only farmers but the broader community as well. We note that the agriculture sector is the second largest emitting sector in the economy. Here is a real opportunity for the farming sector to help address those emissions, so to still continue to grow food but to offset their emissions through trees. We see that this legislation would not enable them to do that effectively. In relation to your comment about native forests, our concern is that the detail before us here does not make it clear as to what they really intend. We would not like to see this as a threat to our sustainably managed native forests in Australia.

Senator COLBECK—But if it actually inhibits the process of sustainable management and harvesting and recognition of carbon stored in timber products—another point that you raised earlier—then effectively that is what it is, almost a backdoor way of trying to close down the native forest sector.

Mr Hansard—We hope it is not. This is an issue that we have been raising with the department. We have been seeking clarification in relation to how the native forest projects would actually work.

Mr Stephens—The issue is that the bill refers to forest protection projects and there are some design parameters around those, but the bill is silent in terms of the scope for improved forest management outcomes particularly as to private native forest, for example, as it does not recognise wood products and there is uncertainty about whether those kinds of projects would be recognised even if you had an approved methodology. So there is a lot of ambiguity and uncertainty about that. As Allan mentioned earlier, with the CPRS there was already a framework being developed for harvested forests and non-harvested forests which had gone a fair way. But the explanatory memorandum and the bill are silent on this issue. So at this stage we cannot say whether it is going to provide those adequate incentives. It is just too ambiguous.

Senator NASH—Can I ask this, given the very good point that Senator Colbeck has raised about the potential locking up of native forest, if state and territory entities can receive an ACCU for the avoidance, through locking up native forest, in your view wouldn't they be inclined to do that?

Mr Hansard—That is a missed opportunity if they do, because internationally the scientific community has agreed that the best way to get the best mitigation from managing forests is to sustainably manage them, not lock them up.

Senator NASH—I agree with you. I am just asking for your view. Given the way it is contained in the bill, is that likely to create an incentive for state and territory governments to lock up forests?

Mr Hansard—I think what Mr Stephens is saying is that it is unclear as to what the real intent is in relation to the legislation and it is very difficult for us to therefore comment on what the actual effect would be. This is the difficulty with the legislation as we see it: it is unclear as to what the intent really is in relation to projects as to native forests.

Senator COLBECK—Going back to your comments in relation to establishment costs and the effects in relation to mitigation on farms, I agree that there is enormous capacity for the right trees planted in the right place to make a huge difference and give an opportunity for farmers to offset some of their own emissions and also benefit from a revenue stream for assisting with broader offsets. Can you give us some expansion on how the current process is actually restricting the capacity to access that, as you see the design of the proposal at the moment?

Mr Stanton—There are two aspects to it. First of all, there is the lack of a clear potential market, so anyone sitting down and saying, 'Okay, I'm going to establish a new plantation and I want to get some carbon credits,' is then going to have to go through certain processes of documenting a methodology, having that methodology approved by the committee and jumping over the various hurdles. It will cost them money just to do that, money over and above what it would cost them just to go and establish a plantation and harvest it for wood products. So that is an investment, and at the moment our members who have interests in this area do not see a potential to earn a return on that investment because there is a very limited market for any credits even if they could get them. So that is the first point, the lack of a market.

The second thing is this. When they actually say, 'Well, assuming we think this might get connected to the carbon price in the future, we are prepared to take a risk on that so we'll go ahead,' and then, when they come to look at the details of what they would actually have to step through to get it approved, they see the various tests that have been included and the uncertainty around a lot of the decision making—a lot of it is deferred to regulations or to subsequent decisions. Once again, for a grower looking at this the current position is too complicated. It is highly questionable whether we would be able to convince the committee that our project is additional and whether we would be able to convince our investors that they should take on the permanence obligations that are likely to be included in any project—so too much uncertainty and too much risk and they will just not do it. Therefore they will not be able to access this opportunity and they will keep growing trees for wood products only or for whatever other products they intend to produce, not for getting recognition of the carbon that is stored in them, hence a missed opportunity.

Mr Hansard—I would have to support that. At the moment the cost of compliance, going through those things that Richard has outlined, would not make this a profitable venture for farmers, particularly given, as he

said, additionality—they have to prove that—and permanence, as they have to align with that. That makes this a very restrictive scheme.

Senator COLBECK—Going to the additionality aspect of it, I am aware of a number of farmers who have set themselves up with, say, a 25-year whole-of-farm management plan that includes rotations on their farms for forestry and other aspects of the farm. So someone who has done the work at the leading edge of managing their property on a sustainable, environmental management system, whole-of-farm management plan would effectively be locked out of that because they could not prove any additionality.

Mr Hansard—The really disturbing thing about additionality is this. Additionality was worked through in the CPRS legislation. We spent months with the department working through how to make the CPRS work in relation to these issues, yet now, some months down the track from the CPRS, we see additionality back in there again. We are now seeing ourselves go through the same process as before, arguing the same arguments in relation to additionality. It is quite disappointing, really, because it took a lot of time for the industry to go through these issues during the CPRS and now it is taking a lot of time for the industry to go through these issues with this legislation. We thought we had it worked out. We were quite happy with the way that it was dealt with in the CPRS legislation, only to see that we have to revisit it again now.

Mr Stephens—Picking up on your example, Senator, the detail here is the additionality test of common industry practice. I think the farming community and, I guess, the forestry community share very similar concerns. What is common practice and what is not is very subjective and very complex because there are a whole range of factors involved in any investment decision. That is where we are saying that the costs of compliance in dealing with that complexity really need to be thought out properly. Don't get us wrong; we really see that the original intent of this bill is to be broad based and promote sequestration—we are all for that—what we are saying here is: this is not going to deliver that without some major modification.

Senator NASH—Revisiting what we have already covered, in your view—and correct me if I am wrong—a voluntary market is not going to work. There is not going to be the incentive there for people to jump through these hoops, with all the bells and whistles, if it is going to be voluntary. Are you saying that any effective outcome from this legislation or any effective implementation of this legislation is absolutely predicated on having a carbon tax or some kind of mandatory mechanism?

Mr Stanton—We would not necessarily want to comment on how you access the carbon price, but unless, in this instance, a forest grower has access to a reliable carbon price and there is significant depth in that market, we cannot see them being prepared to invest in projects of this nature. The voluntary domestic market does exist and there may be some people who are willing to plant trees for that voluntary market, but we think that is a fairly shallow market and it is not going to attract large-scale plantation growers to be interested in it.

If you look at the situation in New Zealand, plantation growers there have been given access to a market by their government—the government is essentially, I guess, sharing the risk by saying it will issue tradeable international permits to plantation growers in New Zealand who meet certain requirements around their projects. They are going ahead and making decisions about expanding their plantations or managing their plantations in a different way and they are selling their credits on international markets.

Senator NASH—One of the things that is very unclear, I think, in the legislation is the issue of the methodology and existing methodologies that may well be acceptable and this issue of additionality. From your perspective in your industry, in a perfect world what would you like to be able offer up to government that is constrained because of what is in this legislation?

Mr Stanton—As Mr Hansard said, I guess we were more comfortable with where the CPRS was heading with an involuntary opposite in mechanism. So a plantation grower or someone who is considering planting a plantation on land which was cleared in 1990 would meet the requirements of Kyoto. They could measure the amount of carbon stored there. They should be eligible to be given credit for that. They would also take on the risk that if that carbon were emitted at some later date they would have to buy back credit to compensate for that, but that would be their business, whereas the proposal we see here is much more complex in terms of, as you say, methodologies and getting projects approved. It is a much more complex test than what we were envisaging certainly under the CPRS, which would have simply been a matter of Kyoto compliance: was that land cleared; can you now demonstrate that it has more carbon on it than it had previously?

Senator NASH—I should have asked this at the outset—and Senator Colbeck will be well across it. Can you for the record outline the potential carbon sequestration process sequence: how much per year over what period within the forest industry and what you do?

Mr Hansard—What do you mean actually, Senator?

Senator NASH—How many tonnes of carbon will you be able to sequester through your process and what you do, and in which years is it most beneficial? Could you just outline the process for the committee.

Mr Hansard—I can tell you what the situation is now, as we understand it. The plantations that have been established over the last 10 or so years—since 1990; the Kyoto start point, if you like—deliver 20 million tonnes CO₂ equivalent, which is taken into the national accounts. I think it is also included in the Kyoto account and helps us meet the Kyoto target. That is based on the plantations that have been established since 1990.

Senator NASH—What sort of acreage is that?

Mr Hansard—As to the actual Kyoto compliant plantations I would have to check the number, but off the top of my head, if I remember correctly, it is about 600,000 to 700,000 hectares. The potential here is to continue to expand the plantation resource in the future and to be able to capture the carbon that is associated with growing trees for our future demand of wood.

Senator NASH—On what sort of land were you talking about expanding the plantations?

Mr Hansard—Cleared agricultural land because, as per the Kyoto requirements, it needs to be on cleared agricultural land.

Senator NASH—Within the industry, is there any preference for a type of agricultural land?

Mr Hansard—Yes, there is. Some areas of agricultural land grow trees well and some do not.

Senator NASH—What are the conditions that make the trees grow well on some agricultural land and what are the conditions that make them not grow so well?

Mr Hansard—Forestry is very broad and variable. You do have a lot of tree types that can grow in low rainfall right through to high rainfall. At the moment, the wood plantations—the trees that are grown for wood—are usually grown about the 600 to 800 millimetre rainfall mark. Do you agree with that, Richard?

Mr Stanton—Yes.

Mr Hansard—But there is obviously opportunity to grow trees outside those bands. There is a lot of potential here to put trees in the landscape in such a way that it does not substitute for agricultural food land but actually enhances agricultural productivity if we do it correctly and properly. So the opportunity here is to work with the agricultural sector to get an outcome where we obviously get carbon from the trees but we also get good environmental outcomes as well as good food production outcomes for the economy and the associated communities.

Senator NASH—Finally, you talk about doing that co-jointly and that it enhances agricultural productivity. How can it enhance agricultural productivity?

Mr Hansard—Mr Stephens used to work in this area so I will pass it to him.

Mr Stephens—There are a whole range of levels. If you look at whole farm planning, in terms of the configuration and design of planting there are a whole range of options as to how you might do that: shelter belts, strip planting, riparian areas. The main productivity benefits are through shade and shelter for stock, wind and soil erosion and enhanced soil nutrient cycling. Those kinds of factors can help enhance productivity on-farm and provide broader diversification for an enterprise when you are diversifying your activities at a farm level. There is a whole suite of science and literature around how you may use trees smartly in the landscape and those types of benefits.

Senator NASH—But to get the benefit from this, from carbon sequestration from putting trees on farming land, you are going to need a carbon tax or some sort of mechanism—I am just trying to paraphrase that very quickly—to put to the market.

Mr Hansard—One of the things we should not miss about this legislation, which we have got some problems with, is that we support it because it actually is a mechanism to recognise the carbon from growing trees and other activities. So we support it in that way. This is recognition of land based mitigation activities, and we have to remember that. That is a positive thing about this. It is just about how we make it work correctly so we can get the maximum opportunity out of it. That is what this is about.

CHAIR—Senator Nash, we have to move on. On this issue, I note that Mick Keogh from the Australian Farm Institute is quoted as saying the amount of carbon that can be sequestered is between 0.6 and an upper

limit of two tonnes per hectare. Given your calculation, and if we use the Keogh calculation, that would be a maximum of 14 million tonnes available. If you go to the bottom end, which CSIRO are saying, it would be far less. What is your comment on those figures?

Senator COLBECK—He is talking about soil, not trees.

Senator NASH—Yes, he is talking about soil, not trees.

Mr Stanton—He is talking about the storage of carbon in the soil rather than the storage of carbon in, say, forest biomass. If we are talking about converting an area from cleared land to forest, which may have a volume of timber on it of 200 to 300 tonnes—can you convert that to carbon for me?—

Mr Hansard—Five by 100 hundred—

Mr Stanton—It is 500 tonnes of carbon in a standing hectare of forest. He is talking about soil carbon, not soil.

CHAIR—Okay, thanks.

Mr Hansard—The figures I used there in relation to plantation mitigation were actually from the government.

CHAIR—So that is stored in the trees?

Mr Hansard—It is stored in the trees. It is net of harvesting as well, because what the Kyoto rules actually say are that we count the carbon in the trees but when we cut them down it magically disappears. That is not correct and we would like to see that changed, but that is the way the accounting is done.

Senator MILNE—Mr Stephens, I just heard you talk about the benefits of agro forestry on farms and whole-farm plans, and I agree with that. But do you think that the managed investment scheme project led to sensible outcomes in the rural landscape? Mr Stephens, you were the one making the comments about trees and the landscape.

Mr Stephens—Sure. At a landscape scale, there are a whole range of options and I talked about broad based plantings and agro forestry type plantings. What the MISs have done was promote some investment in planting at a relatively large scale. In terms of some issues around the collapse of some of those companies in the industry, the industry is very aware of looking at some due diligence in corporate arrangements around that. But the fact is that those plantings occurred quite fast and in the landscape. At an industry level, we are very keen to look at smarter planting and working more at a community based level with landholders in regions to make sure that the development of those plantations occur for the right reason and balance a range of outcomes both commercial and non-commercial.

Senator MILNE—The issue for us, as you can appreciate, is the conflict that has occurred between food, fibre, energy and carbon. We are trying to avoid another debacle of that kind, which led to a whole lot of perverse outcomes in terms of water, land allocation and so on. I think that is where Senator Nash was coming from in terms of which land you were talking about in relation to this conflict. Mr Hansard, I would like to come to you on the issue of ‘additionality’. What do you understand by the notion of additionality in carbon accounting processes? What should it mean to be ‘additional carbon’ to what would have occurred anyway?

Mr Hansard—If you go to what the CPRS—

Senator MILNE—No, I am not going to the CPRS. I am asking you: what is additionality recognised as being in international carbon accounting?

Mr Hansard—Okay. Then the way I will say it is this: if you have an area of cleared land and you plant a plantation on it, the carbon that is sequestered in that plantation increases the carbon of that hectare of land; therefore, that is additional to what would have been there if you would have left that hectare of land cleared.

Senator MILNE—Yes, I understand that absolutely. But you know exactly where I am coming from, and that is you would plant that plantation anyway if it were a productive and economically viable thing to do. That is what people who use landscapes do; they make decisions about maximising the profit on the land they have got, and that is a decision that a landholder makes. The issue is the plantation forest industry is out there planting plantations for profit, for harvest; that is what they do. Why should you get a windfall gain for something that you intended to do anyway? Surely our objective here is to add to what would have been done anyway in terms of a carbon response.

Mr Hansard—But don't we have to look at what we are doing anyway and try to also enhance that? The plantations which we have planted over the last 10 years that provide the 20 million tonnes of carbon that

allow us to meet our Kyoto target were planted for wood but they also provide a positive climate change and carbon benefit. Yes, we do want to get more carbon into the landscape but shouldn't we recognise what we are also doing? I will give you the example—

Senator MILNE—The question is: if you were going to do it anyway, why should you be given a windfall gain?

Mr Hansard—Senator, where is the windfall gain here? This is recognising carbon.

CHAIR—This is not a debate. If you cannot answer the question or you do not want to answer the question just say that, but do not—

Mr Hansard—Could I ask for clarification from the senator?

Senator COLBECK—It is clear that it is not the answer that the senator wanted.

Senator MILNE—Additionality is an important issue.

Mr Hansard—Mr Chair, could I ask the senator to clarify what she means by 'windfall gain'?

Senator MILNE—I mean the plantation sector makes a decision to plant plantations on the economic viability of that decision. If you are going to plant that anyway, aren't you expecting to get an additional financial benefit by generating Kyoto compliant credits from that activity to sell into an international market and, therefore, benefiting in addition to the financial outcome of the plantation? Isn't that what you are talking about? That is what you want. You want access to an international market with a price that allows you to sell those credits.

Mr Hansard—What is wrong with that?

Senator MILNE—The point I am making is additionality, and that is the debate. You know it is the debate. We know it is the debate.

Mr Hansard—But isn't that good for the environment? Isn't that what we are trying to do here? Aren't we trying to address the emissions budget here?

Senator MILNE—What we are trying to do is make sure we get additional carbon and use the market to get additional carbon, not to do what you are going to do anyway. Do you think that people who have put a covenant on native forests or have national parks should, in the same manner as you are arguing for plantations, have access to permits for sale in this market?

Mr Hansard—A covenant on?

Senator MILNE—Let us assume I have a property and I have put a covenant on a couple of hundred hectares of native forest, because that is a decision I made. I have already done that, just like the plantation industry is going to make decisions about planting. Should I get an additionality benefit in the same way as you are suggesting for plantations?

Mr Hansard—Were they going to clear it?

Senator MILNE—Were you going to plant the plantation? Anyway, additionality is a key question here but I appreciate the time pressure.

CHAIR—Okay—

Mr Stanton—If I could comment to put a different perspective on that perhaps, whoever the land owner is, whether it is a farmer or a forest grower, they make decisions about what they grow on that land and how they manage that land, whether it be as to trees or an agricultural crop. What we are talking about here is saying that, of all the land use options, different ones have different carbon storage impacts, everything from growing trees to cropping and different cropping methodologies. I think what we want to do, through this mechanism, is recognise those different carbon storage options in each land use decision and factor the price of the carbon decisions into the overall economic decision. It is not necessarily going to change the decision but if I am a land owner and I want to grow wheat and I have the choice of two different cultivation options I want to take the one that has the most positive impact in terms of carbon, so there should be a price signal to encourage me to do that. It might not be sufficient to overcome other signals but it should be factored in. Equally, if I am making a decision—do I grow wheat or do I grow trees?—most of that decision will be based on the value of wheat and the value of trees and how much it costs to establish them. We are just asking that a small proportion also include this: what impact will that have on the relative carbon storage or carbon release in those different land use options? So it is not necessarily a case that you were going to grow trees anyway;

instead you were going to use that land for whatever you thought was the best use, and we want carbon factored into that decision.

Senator MILNE—As an indication of size—and let us assume you did get credits for lengthening rotations if it were allowed or whatever you chose to do—to what extent do you think you would increase the size of the plantation industry if you got credits for doing so?

Mr Stanton—It primarily depends on the price.

Mr Stephens—I would make the comment that, yes, it depends on price and there is a range of management options you can do that the Senate has identified. We are working with CSIRO on a number of projects to look at those types of issues. On the additionality question, the issue here is that we have to recognise, although you would not recognise this, that forestry produces in joint production a whole range of products simultaneously, which is one of its advantages. The common practice test of additionality is, as we mentioned, complex but, in terms of looking at if you would have done that anyway, due to the fact that you now have a scheme with permanence and these other requirements you will be modifying the way you manage that plantation. So it is really not business as usual if you are going to go down that track.

Another issue we have is this, that we have really had a lack of investment in long-rotation plantation forestry in the last 20 years. You could make a pretty strong case in terms of any new commercial investment and the real barriers to that. Now this mechanism may be one means of really providing some dual outcomes as to wood production and carbon. They are the kinds of opportunities we are really keen to look at, and the additionality question is one of those key issues that are going to be part of that mix. But, given the fact that you are producing joint products and embracing a scheme that is going to be managed for that, they are really additional activities.

CHAIR—You indicated that one of the issues is a price signal. I suppose the best price signal is a price on carbon. Do you agree with that?

Mr Hansard—That is a good price signal. There is no doubt about that. We understand that, through whatever mechanism goes forward, there will be a price put on carbon. What we are actually saying is this: just as polluters should be responsible for their emissions in relation to a market mechanism, you should also recognise the fact that our sector, which actually sequesters carbon, should be recognised for that. It is a flip side of the polluter argument, as we are actually the guys in the industry that can produce carbon products and we should be facilitated to do so just as emitters, on the other side, are discouraged from polluting.

Senator MILNE—Providing there is full carbon accounting.

CHAIR—That is another argument. But I am trying to get clear in my mind where you are coming from, Mr Hansard. The best price signal is from a market process; would you agree with that?

Mr Hansard—If the market works well, yes.

CHAIR—So it is the market process. And that would mean getting a price on carbon would overcome some of the issues that you are raising or would be complementary to bringing about a better price for the work that you would do. Is that correct?

Mr Hansard—It would facilitate it in the way that Mr Stephens said. Basically, what we are looking at is a recognition of another product for our industry and therefore appropriately pricing that product would obviously assist.

Mr Stephens—The market mechanism is important. What we are saying is that it needs to recognise the offsets or these other project credits under that scheme. I think that is the main point. The market mechanism is the overall framework, but if you separate the two it is going to remain a voluntary market and not be very effective.

CHAIR—Do you support an appropriate price being put on carbon?

Mr Stephens—We support an efficient market mechanism. As Mr Hansard said, if it is designed appropriately and effectively we would support it.

CHAIR—Which would be a price on carbon? So in shorthand it is a price on carbon. Is that correct?

Mr Hansard—I think globally we are seeing a recognition of carbon as a form of a product, therefore markets will revolve around that. We are seeing that now. So with that comes a price on carbon in some way, shape or form through the mechanisms that are put in place.

CHAIR—So you support a price on carbon?

Mr Hansard—I think anyone would have to support a price on carbon, recognising that carbon is a product in that way. Now how that price is actually determined is another debate.

CHAIR—Thanks very much for your evidence this morning.

[9.31 am]

KIELY, Mrs Louisa, Vice-Chairman, Carbon Farming and Trading Association

KIELY, Mr Michael, Chairman, Carbon Farming and Trading Association

CHAIR—I welcome the representatives of the Carbon Farming and Trading Association and thank you for coming to the hearing today. The committee has received your submission as submission 29. Do you wish to make any amendments or alterations to your submission?

Mr Kiely—No, nothing substantial.

CHAIR—Do you wish to make a brief opening statement before we go to questions?

Mr Kiely—I would like to make a brief opening statement, Chair.

CHAIR—Please proceed.

Mr Kiely—Firstly, my wife and I are also directors of Carbon Farmers of Australia. I have a booklet with me and in it are printed slides that I prepared to register with you a key point—and that is passing by the slide that describes who we are. With them I want to show you what climate change is on the farm where we live. We had 75 millimetres in 35 minutes one day when we were crutching sheep. You do not hire a shearer to crutch sheep if there is any possibility of rain, so this was completely out of the blue.

CHAIR—Instead you had a lot of happy sheep!

Mr Kiely—They were bamboozled. My son was managing the shed for us at the time and he took some advice from the previous Prime Minister that we should adapt, so he adapted by kayaking around the pens. Two weeks later, without authorisation from me, he spent enough money to get himself up in a plane to take photographs of our property and the result is really a clear indication of what we mean by carbon farming.

Mrs Kiely—Because we had taken our animals off most of the property and we had been feeding them in a sacrifice area.

Mr Kiely—The photograph of the river is the most descriptive, because it is a comparison of two farming styles. Our neighbour has since changed his approach and has a lot more of what we call biomass on the ground—ground cover. The issue that I submit people overlook is that climate events are not being caused by future emissions or today's admissions; they are being caused by the legacy load of emissions that are in the atmosphere and have been for the past century. That is recognised by very senior people in the climate science business.

Senator NASH—Can I just interrupt and ask you where you farm?

Mrs Kiely—We are in central west New South Wales.

Senator NASH—Whereabouts?

Mrs Kiely—Goolma, a little tiny one-pub, two-church town.

Senator COLBECK—An appropriate balance.

CHAIR—And lots of sheep.

Mrs Kiely—And lots of sheep.

Mr Kiely—Not enough sheep at the moment. We have more grass than we have sheep and it is a bit of a problem. We sold at the bottom of the market and need to buy at the top of the market. The draw-down of CO₂ from the atmosphere is the most important role that soil carbon can play. Soil carbon is fully deployed. It is a critical mass and it has maximum capacity, at the flick of a switch, to draw down.

Professor Lal, who is the world's foremost scientist in this field, estimates that we can draw down the equivalent of 50 parts per million over the next 50 years globally. This will allow us time to decide on our response to climate change, to install it and get it up to critical mass. Alternative energy sources, were they given the green light today and as much money as it is possible to spend on them, will not be deployed to carry baseload within 25 years. Those of us living with climate change every day have come to believe that climate years are like dog years—there are seven dog years in one of our years. Change happens that quickly. So soil carbon is not just any old category of sequestration; it has a special role to play, a role that no other source can play. We cannot plant enough forests in the next 10 years to do the job. Our response to the legislation is predicated on that view. Professor Lal describes it as 'a bridge to the future' and 'low-hanging fruit'. He said:

Soil carbon sequestration is a bridge to the future, until carbon-neutral fuel sources and low-carbon economy take effect.

To build that bridge to the future, we need as many farmers as possible to sequester as much carbon as possible as fast as possible. We believe the principles of carbon farming should be considered and all legislation shaped with consideration of that outcome.

Senator NASH—Thank you very much for your presentation. What stocking rate do you use on the sacrifice paddocks?

Mrs Kiely—We sold all the wethers, as you do, so we have just our breeding stock. We had about 1,000 ewes and followers, and that was down from about 2,000 because, as you remember, that drought got progressively worse.

Senator NASH—It did. Those 2,000 are over how many acres?

Mrs Kiely—Over 1,700.

Mr Kiely—We learnt a lesson. Our sacrifice paddock was much too big. An animal with a healthy psychology is as important as an animal with a healthy body, and so more space to roam around in was the consideration.

Mrs Kiely—To give them shade and shelter, all of those things—and water—without building a purpose-built feedlot.

Senator NASH—I was very interested in the recommendations in your submission, one of them being:

We recommend that the ‘business as usual’ rule, which penalizes Landcare farmers and other progressive landholders who have taken up carbon farming techniques early and rewards laggards who continue to degrade their soils.

This is one of the issues that seem to be emerging as a real concern—that those farmers who have already been undertaking good farming practices and have been contributing to carbon soil sequestration are excluded from any benefit under the current legislation. Is that what you mean by that recommendation? Would you like to expand on that?

Mr Kiely—That is true, and it is the ultimate perverse outcome. The impact of that is that there will be property not under contract for carbon farming. By that I mean that these progressive farmers will eventually sell out or pass the farm on and there is no guarantee that that regime will continue. We believe that people would not desecrate a carbon rich environment because of the obvious value of such a thing, but it is not guaranteed. Farmers have a very acute sense of injustice and it could bring the whole process into disrepute. I have a sense of injustice associated with it, and I can see the reason for it: why should anyone be rewarded for business as usual? Farmers are not rewarded by markets very much. Our society chooses not to pay farmers sufficiently for their labour and investment—

Senator NASH—I agree with that.

Mr Kiely—such that land will be treated with the kind of respect it requires. So I would look upon any payment to a farmer who was already engaged in these practices as a stewardship payment designed to right a distortion in the market.

Senator NASH—There is a view that any of the carbon credit units that are going to be allocated have to be as a result of this additionality—something that has not been done before. That is obviously what is contained in the legislation. In your view, what should that be changed to? Should there be a benchmark of stored carbon at which you get paid? What changes do you want to see to address this issue of good farmers who have already been utilising these practices being rewarded? What changes do you want to see in the legislation?

Mr Kiely—I am not shamefaced in saying this. We just believe that the additionality concept is not relevant in light of as many farmers as possible sequestering as much soil carbon as possible as quickly as possible. The additionality principle was designed in another space. In fact, the problem agriculture has is trying to fit an activity that is associated with biological cycles into an industrial model. The industrial model was designed for big power industrial emitters. Forestry barely fitted in, and the Europeans do not recognise forests in the market, but then you try to fix soil carbon in and it just does not work. Given the importance of soil carbon, we believe that without special pleading agriculture has so many roles to play that are the co-benefits, particularly food. We believe they should reform the protocols.

Senator NASH—Are you saying that any carbon stored on farm should be able to be assessed for the purposes of gaining a carbon unit?

Mr Kiely—All additional carbon.

Senator NASH—That is what I am getting at: additional to what?

Mr Kiely—Additional to the baseline. I do not believe people should be rewarded for what they are sitting on; they should be rewarded for what they create.

Senator NASH—Using you as an example, are you going back to pick, say, a point in time at which you would say, ‘This was the baseline for our property until we changed our practices. We have increased the carbon by X tonnes in the soil. Therefore they should be counted.’ Is that what you are saying?

Mrs Kiely—I think we are prepared to start from the legislation. We have a methodology that is 80 per cent developed for the CFI to send to the DOIC. Our baseline is predicated on what is there when you start that process—when you go out and do that baseline. We are doing measurements; we are not relying on the models and we are not relying on estimation.

Mr Kiely—Two of our committee members have increased their soil carbon 2½ and three per cent in the past 10 years. We are not asking that they be paid for that. They are skilled carbon farmers and they can increase their soil carbon.

Senator NASH—So you are saying those practices that exist and under the current rules would not meet the additionality test can use the existing methodology that they have been using but the increased carbon from this point in time would be counted?

Mrs Kiely—Yes.

Mr Kiely—It would not be fair to do it any other way.

Mrs Kiely—Nobody has started to find out how much we can do—only through estimates, and we understand where those figures of Mick Keogh’s come from. We may be able to go further than people have thought of before, because the science has not had a chance to show how we can do this to the maximum, basically putting it on a war footing and saying, ‘If it is really important to the Australian community and the international community that we increase our soil carbon beyond two per cent, Mr Scientist, help us do that.’ At the moment the science has been asked to look at what we have been doing. The figure of six tonnes comes from Peter Grace’s SOCRATES model. He has put in IPCC best practice guidelines to do that. We have that piece with us. It comes up with only six tonnes as the maximum. Those are predicated on IPCC guidelines and data that went into our national accounts which they acknowledge were from carbon-mining techniques. We just have not ever done the exercise in a way to find out what we can do; we have estimated it on previous methods. We believe there are things we do not know yet that we can help people understand.

Senator COLBECK—Your submission says that a lot of the focus has been on avoiding emissions rather than taking up carbon, and a lot of the practices and the designs of protocols have been factored around that and therefore do not properly recognise the opportunities, methodologies or accounting systems there might be for that. I would like you to comment on that. The other thing is the permanence issue that you raise in your submission and how that might limit potential uptake. I am interested in exploring with you other scales of permanence that exist and how they might fit within a process or a system.

Mr Kiely—Permanence is the deal killer. No farmer would be silly enough to agree to 100 years for soil carbon or 100 years for anything. A finance lender would want to know seriously the impact on the value of the property of agreeing to such a thing. We did some research into the 100 years thing and discovered it was a policy decision, not a scientific measure. In some of the peer reviewed literature, we came across this proposition about avoided emissions—which are unquestioned; if you buy alternative energy, you are apparently substituting for burning a tonne of coal. Someone selling abatements for avoided emissions is not asked to guarantee that that tonne of coal will not be burnt any time in the next 100 years. It could quite possibly be; in fact it will be. The Americans call their 700 million tonnes of coal a national security asset, and you know what the Americans are like when it comes to national security. We believe that 100 years is a perverse outcome. The result is said to be necessary so buyers can be confident they are getting value—that is, genuine abatement—so they get nothing. There is nothing available for them. We have found examples where the IPCC and the Verified Carbon Standard have allowed other periods of time recently—20, 25, 30-odd years. We believe we could work within that sort of time frame.

Senator MILNE—Thank you and thank you for your information. It is very well presented in some of the graphics. I have exactly the same concerns as you have about the ability of farmers to take advantage of the Carbon Farming Initiative in the soil carbon space. You might not have heard it this morning, but I asked ABARES and the CSIRO whose methodologies are already accepted and would be ready to go on day one, and they relate to reforestation, manure management and prescribed burning of savannas. Manure

management and savannas are very small. Reafforestation is clearly where the bias will be, because the methodology is there. A lot of the rules you have discussed that you are not happy with are there because of the conflict over land use, about whether to use the land for food, fibre, fuel or carbon. There is an attempt to try and deal with land use conflicts, and soil carbon comes out of that. You are asking for a separate set of offsets. The offsets have to be either Kyoto compliant or in line with international standards. By your own admission, you are 80 per cent of the way there but not 100 per cent of the way there. Might it not be better, at least in the short term, to look to a fund which can fund the additional research methodologies—looking at compliance, transaction and all those issues—so that it is separate from the market and enables this work to get started and some of these projects to be undertaken, given all the co-benefits to agricultural production, such as reduced fertiliser use, better water retention and all those things?

Mrs Kiely—We have done this solid for six years. We are dedicated to this. We have looked at this every which way. We have asked every single scientist we know and we have gone overseas to the scientists. Jeff Baldock has spoken at our conference four years in a row. We were instrumental in helping him get that research money that he has got. He has admitted that to us. When we then go and look at the way that it is being spent, I do not have confidence that, if we go down that route, we will produce what carbon farmers—and there is one really good one sitting behind me right now—can produce in a much shorter time. Our methodology has within it a fund. Whether or not we can mandate it, when we are trading, a proportion of the trade will be going to a research fund. The trouble with the science has been that it has gone out onto farms and has not engaged the farmers sufficiently, and we have Norton's syndrome happening. That is where the science cannot replicate what the farmers are doing. We can see why when we go back to see what their methods were. We want science. Farmers are not scientists, but we believe that, if we take the soil carbon as a baseline and allow innovative practices on top of that, the soil baseline will be approved, according to the hoops that we have to jump through, and that will be the way that the science can then come and say, 'Okay, let's measure that.' Jeff Baldock has stopped part of his research right at the moment on the innovative farmers because of lack of funds. What we are coming straight up against now is this lack of funds. We have spent the time and energy in finding solutions to that. That is how I feel about that.

Senator MILNE—Okay, but the issue here is: do you concede that, with the way it is currently construed, there will be no benefit to soil farmers under the Carbon Farming Initiative?

Mr Kiely—We agree with that, with the way it is currently configured. We are asking for the government to take its campaign to have non-anthropogenic emissions—that is, fire and drought—removed from article 3.4. We are requesting that the government step that up to a complete reformation of the protocol.

Senator MILNE—But, if you are rewarded for soil carbon in a market mechanism and get paid for having it there on the basis that it is permanently there, and then there is a drought and you lose that soil carbon, you will have to pay, in a market mechanism. That is the way that it works. You cannot just get paid for doing something and then not get charged when you lose it. There is a five per cent reversal buffer, and I am yet to be persuaded that that is an adequate buffer. It might well prove to be inadequate and there will be an additional cost. Anyway, that is a scientific question at a landscape scale. I know the government is trying to get the force majeure provisions into article 3.4 on what constitutes an extreme drought or an extreme fire event or whatever, but what I am saying to you is: all that may be the case and it may get proven in Durban; it may get proven in five years time; this is proposed to start now if it gets through. If we have a market mechanism, it would start next year. I believe that will happen. What I am saying to you is: you will not benefit under what is being proposed. I am asking you to come back with a notional view about how you could benefit in the interim while all these things are being sorted out.

Mr Kiely—I would just make a couple of points. Those two farmers that I referred to grew their soil carbon 2½ and three per cent in the last 10 years, which was probably the worst 10 years that we have had, with the drought. The idea that fire and drought will destroy soil carbon has been very much overplayed by the science community. We are very flexible in our approach to this. We would welcome any system, any methodology. What we want to see is the behaviour. What will it take to get farmers to do what is necessary? We are in no position to dictate terms, but we believe we have the strongest argument that, if there are no farmers, there is no abatement and if there is no abatement there is no hope.

Mrs Kiely—Also, the buffer pool within the methodology that we are putting forward is much, much higher than five per cent.

Mr Kiely—It is a one-to-one buffer. A 75 per cent buffer is a 95 per cent certainty interval.

Mrs Kiely—We have done our work around the rules as they currently exist, and we will be doing that. If I have leave to give you our executive summary at some point in time, that would be fantastic.

Senator MILNE—You are very welcome to table it.

Mr Kiely—There is an illustration of the buffer system in the handout.

Senator FISHER—Thank you for your presentation. How many members do you have and how on earth are you funded?

Mrs Kiely—We spent the kids' inheritance. That is the answer to the second one!

CHAIR—I heard a cheer go up around the country.

Mr Kiely—We have only recently established the association to try and get some money in.

Senator FISHER—Mrs Kiely said you had been doing this for six years. Do you mean the association or on your farm?

Mr Kiely—Prior to that we called ourselves the Carbon Coalition Against Global Warming and we were totally unfunded and disconnected. We do not take money from Monsanto or from anyone apart from individuals. Our membership, because we have only just launched, is small but our supporter base is more than 500 or 600 people who have been supporting us for the last six years. We have just spent everything we have owned to do this, hoping that a fairy godmother would turn up.

Mrs Kiely—People have told us that we have the passion, and we say that is great, but you actually cannot eat it.

CHAIR—I suppose there have been lots of people with passion and lots of people hoping for fairy godmothers. I think we are looking for something a bit more tangible—not that having a passion is not tangible. But can I ask you this: in terms of getting the best out of what you have done, wouldn't it be better if there was a price on carbon?

Mrs Kiely—Yes.

Mr Kiely—Yes.

Mrs Kiely—People constantly tell us that unless we have a price on carbon we will be in this voluntary market, which is meant to be very small. I say to that at the moment that there is no guarantee after 2012 that the voluntary market will be all that exists. The voluntary markets are the markets that are starting to grow. We also have evidence within other countries that where you sell domestic offsets into your domestic market you can get a premium of double. So it is about the value proposition that you put around it. We need to help people understand that this helps their farmers. We adopted out our sheep in the drought and we raised enough money to feed them. We believe there is a genuine feeling in the city about helping farmers. If we help people understand that this makes their soils better, our water-holding capacity better and our ability to cope with drought better, I think there would be an uprising that would say to the government: why the heck haven't you done it before this?

CHAIR—Mr and Mrs Kiely, thanks very much for the effort you put into this. Before we suspend the hearing, can I indicate that we have had two documents submitted. One is 'Soil carbon at the speed of science' and one is 'Norton's syndrome'. Is it the wish of the committee that the documents be tabled? There being no objection, it is so ordered.

Proceedings suspended from 10.04am to 10.18am

McELHONE, Mr Charles, Manager, Economics and Trade, National Farmers' Federation

CHAIR—Welcome. Thank you for coming to talk to us today. The committee has received your submission as submission 39. Do you wish to make any amendments or alterations to your submission?

Mr McElhone—No, we don't.

CHAIR—Do you wish to make a brief opening statement before we go to questions?

Mr McElhone—Yes, I will. The NFF has always stated its broad support of the concept and intent of the carbon farming initiative as a system for agriculture to engage in the challenge of abating carbon emissions. We have always believed that voluntary market-based mechanisms using a carrot rather than a stick approach to abating emissions are the most appropriate way for Australian farmers to engage in this whole issue of carbon abatement and the CFI can be described as such a mechanism.

We have been pleased that the government has made significant movements on a number of flaws in the draft legislation. Those include around the areas of financial additionality, avoiding some of the perverse outcomes in relation to the land-use change and reducing some of the uncertainty and administration costs around the scheme. However, despite these positive amendments to the legislation, the land-use change issue remains an area of sensitivity for the National Farmers Federation and we believe it is appropriate that the inquiry closely examine this issue to ensure that the amendments are robust enough to provide the assurances that the farming community requires in this area.

We would emphasise that we are under no illusion that the carbon farming initiative will revolutionise revenue streams for farmers, particularly in the short to medium term. The reality is that, despite the additional flexibilities that have been provided in the legislation, CFI offset credits will still require participants to adhere to very stringent obligations that will deter many farmers from engaging within the scheme. This will particularly be the case in the absence of the CFI being combined with a significant injection of research and development funding into abatement opportunities and their measurement.

Finally, I would like to emphasise the need for a detailed education and extension program to be combined with any CFI legislation and program, utilising both the Landcare networks and other existing farm extension networks to make farmers aware of the roles and responsibilities attached to the provision of offsets. This is particularly related to biosequestration projects that involve commitments that span multiple generations. Thank you.

CHAIR—Thanks, Mr McElhone. Senator Fisher.

Senator FISHER—You have said NFF supports the concept and intent of CFI. What do you think that is in the context of the stated objects of the carbon farming bill? I am talking about its first, second and third objects.

Mr McElhone—The reason why we are providing broad support is because we think that voluntary market-based mechanisms using a carrot rather than a stick approach is the appropriate way of dealing with this issue for farmers. We do not believe that putting financial penalties on the farm community in this respect in dealing with this issue, which the government has made very clear its intention to do, is the way for agriculture. Therefore the carbon farming initiative which uses that type mechanism taps into that opportunity.

Senator FISHER—Proposed section 3 of the main bill that we are talking about sets out the objects. It lists them, I think somewhat unusually, as the first object, the second object and the third object. It lists the first object under the heading 'Climate change convention and Kyoto Protocol'. The second object is related to incentives, to create incentives for people to carry on certain offsets projects. It says the third object is about carbon abatement 'in a manner that is consistent with the protection of Australia's natural environment and improves resilience to the effects of climate change'. I will ask the department later whether those objects are set out in some sort of priority. Given that it says first, second and third it would suggest to me that they are. What do you think of that priority in the view of your members about what should be the intent of this legislation?

Mr McElhone—Clearly my response is around the second element of those objects.

Senator FISHER—But that is not an end unto itself, is it?

Mr McElhone—What we are saying is that if we are going to be taking action or if agriculture is going to be required to take action in this area then this type of mechanism is the type of mechanism we believe is appropriate in doing that.

Senator FISHER—So does that mean that if a government provides incentive for something—let me put that another way. Isn't the primary purpose here for your members to increase carbon abatement? Or is it, as you have suggested, the offsets?

Mr McElhone—It is really to give them options to engage which do not threaten their future viability. Using a voluntary option is not going to be appropriate for all people. We are very open about that fact and we recognise that the opportunities will be limited for most.

Senator FISHER—What I am getting at is that incentives to do something are not an end unto themselves. Don't your members want to know that what the something is going to achieve is the primary aim? Otherwise why are you doing it? You are just doing something for which a government provides incentives because a government has provided incentives.

Mr McElhone—What we are saying is that we recognise that the government has an intention to abate carbon emissions and reduce greenhouse gas concentrations. It has made very clear its intention to move ahead in this area. So from our perspective with that government intention in mind we believe this is a more appropriate way to achieve that outcome.

Senator NASH—You talk in your opening comments about a voluntary environment. A lot of the evidence coming through the submissions and indeed from some of the witnesses this morning is saying that under a voluntary market the carbon farming initiative just will not fly to any great degree, that there needs to be a carbon tax or some sort of mandatory mechanism that is going to provide the framework for this to work properly. Do you agree with that? If so, are you comfortable with the advent of a carbon tax if it means this is going to work?

Mr McElhone—We see these as two very separate issues. We recognise that there is a lot of uncertainty about the carbon markets internationally and domestically. We have stated here that we do believe that there are going to be limited opportunities through linking with some of those international markets in at least the short to medium term with the carbon price the way it is at the moment internationally. We want to make it very clear that we are not calling for an economy wide carbon price in order to generate demand for carbon farming initiative offsets. We want to make that explicitly clear. We see it as a very different issue. In terms of where the voluntary markets go and will there be a viable incentive for farmers to engage in the carbon farming initiative under a voluntary market, at the moment those options are extremely limited. Where that goes into the future we do not know. But from the perspective we are taking, with that uncertainty at least this is a mechanism that will enable us to link in with whatever opportunities might be there, that is presuming that they do emerge.

Senator NASH—You say there are limited opportunities under the voluntary environment. If it were to be shown that that would be an increased financial benefit for farmers for offsets with the advent of a carbon tax, would you support that or would you not support it because it would be predicated on a carbon tax?

Mr McElhone—Our analysis to date suggests to us that in the advent of a carbon tax the opportunities under a carbon farming initiative will not go anywhere near outweighing the additional costs that will come through that kind of mechanism, even through the indirect costs, even with agriculture not being a covered sector. That is our preliminary analysis bearing in mind that we did not exactly know what kind of mechanism is going to come out of that policy discussion. We are not sitting here saying that we need the carbon farming initiative and we need a carbon tax in order to drive demand for those offsets.

Senator NASH—So what you are saying is that, with or without a carbon tax, there is probably not a huge scope for farming soil sequestration because of the costs involved. Am I paraphrasing you correctly?

Mr McElhone—Yes, you are. We are saying there are a lot of uncertainties around this market. There are uncertainties around the pricing. There is uncertainty around the science. We have talked about some of the R&D shortfalls that we have in this space. There is an enormous amount of research and work that we require, particularly around the issue of soil carbon. There are also roles and responsibilities that come with engaging in these kinds of permanent markets, which farmers should go into with their eyes wide open. So there are going to be limitations there. We are just being open and clear about those. We are trying to make it very clear we do not see this as being a panacea to totally revolutionise revenue streams for farmers, but we do think that

it is a mechanism that will start providing clarity to farmers about how they can or cannot get engaged in carbon markets.

Senator NASH—Taking that into account, does it then stand to reason that trees are going to be a preferred option for sequestration under this initiative?

Mr McElhone—We were very concerned about this issue and we are still concerned to some degree. But we were very concerned with the initial draft legislation about the restrictions around financial additionality. They meant that anything that led to a productivity gain or material benefit for those engaging in the project would be ruled out on the grounds of financial additionality. That essentially left forestation and methane flaring as the only two abatement options available under the scheme. We note that that has been changed and that amendments have been made to rule out that requirement around financial additionality, which is positive.

In terms of whether the forestation credits are going to be the only viable options or whether it can lead to significant land use changes, I mentioned in my opening statement that there is still concern there, particularly in light some of the recent analysis that has come out. We note that there is a negative list in the legislation about ensuring against perverse outcomes. We think that is a positive move. We really want the microscope to be put over that kind of amendment to make sure that it delivers on its intended purpose. At least we are seeing an acknowledgement that this is a risk that needs to be addressed to ensure that those perverse outcomes do not arise.

Senator NASH—On the issue of those perverse outcomes, I note that the government has talked about monitoring implications for the scheme where there are going to be adverse impacts on primary agriculture, land, water or biodiversity. In the legislation itself, the bit that relates to that says:

- (2) In deciding whether to recommend to the Governor-General that regulations should be made for the purposes of subsection (1) specifying a particular kind of project, the Minister must have regard to whether there is a significant risk that that kind of project will have a significant adverse impact on—

and it then lists them. That is all the legislation says, though: ‘The minister must have regard to whether there is a significant risk.’ To my mind, that does not give me any confidence whatsoever that there is a legislative requirement for the minister to intervene when there are adverse impacts, or indeed that there is any avenue outside of government recognition of adverse impacts to ensure that they are going to have any bearing at all on the minister. Have you got enough confidence that, under the legislation that we are looking at today, the minister will be able to address those and, if he so chooses, to decide that there are adverse impacts? I would say there would be a lot of concern there from people.

Mr McElhone—Yes, you are right to raise this. It is an area of concern for us and our members. A positive thing about this inclusion is that they have acknowledged that this is an issue that we need to address. We do not feel that we are in a position to say definitively that this will be addressed through the amendments that have been made. We have recommended for that to be made a bit more explicit, particularly around the food production issue. All I can say is that, through this whole inquiry process, we need to get that kind of confidence in that part of the legislation that there are strong remedies available for the minister and industry to ensure that this does not become a managed investment scheme and a broad land use change issue for our people.

Senator NASH—Absolutely, which we will do. That phrase ‘the minister must have regard to’ does not really cut it, does it, in terms of any sort of confidence—

Mr McElhone—We will take advice on that. We really want to ensure that we are as explicit as possible and, if there are openings there where it is slightly ambiguous, we would be concerned about that.

Senator COLBECK—So it is the concept of the negative list that you are content with rather than the specific inclusions at this stage?

Mr McElhone—There is one additional inclusion that we would like to see in the legislation and we put that in our submission. We are pleased that, at least, some kind of legal recourse would be enshrined in the legislation if we were to see some of these things being compromised. But, again, we would urge some more analysis into the technical details around that.

Senator COLBECK—You mentioned ‘permanence’ only very briefly in your submission, but that has been discussed with us fairly significantly this morning. In fact, our previous witness indicated that, effectively, that was the deal breaker as far as take-up of this initiative was concerned. The forestry sector has expressed a concern about it. There are three lines in your submission which indicate that that may be a barrier or will continue to be a barrier. Is it as serious as being a deal breaker?

Mr McElhone—It will be a serious inhibitor for many people to engage in the scheme. Bearing in mind these requirements will particularly relate to biosequestration offsets, the forestation and the soil carbon will be a real issue for many people. From that perspective, we have encouraged the use of the education extension program to ensure that farmers are aware of what these permanence requirements actually require them to do and what they actually mean.

The reason why we have been very brief on that is that we do not have any clear-cut solutions to the issue. If we are wanting to engage in international markets through the Carbon Farming Initiative, while those markets will be largely underpinned by the Kyoto carbon accounting rules where the rules around permanence are quite explicit, those issues will be a real challenge. We are open to ideas about how to deal with that, but I think it is fair to say this is a really difficult area within the whole carbon offset market.

Senator MILNE—As you are aware, I share the concern of the NFF about the conversion of food-growing land to plantation forests. I am interested in the fact that you think the relaxation of the additionality clause will make that less likely the perverse outcome. I would like you to expand on that, given that we heard this morning that the only methodologies which are currently proven are savanna burning, manure management and reforestation. Given that savanna burning and manure management are relatively small in the scheme of things, what will get up first is reforestation. So why do you think the additionality clause changes things? Doesn't it actually make it worse because now it opens the door to not only carbon sink forests but plantations?

Mr McElhone—As I understand it, the legislation is explicit about ruling out plantation forestry under the Carbon Farming Initiative. Our view on financial additionality is that we believe that amendment has provided a better balance, a better suite of measures within the Carbon Farming Initiative for farmers to actually engage so that they are not sitting here, thinking: 'How do I engage in these markets? I am basically left with forestation or methane flaring.'

Senator NASH—Exactly.

Mr McElhone—At least with this amendment, farmers are now saying, 'If I can develop methodologies where I can show methane management, nitrous oxide management and if we can still continue our agricultural production systems and still engage in this market.' That is the perspective. It is more about providing a greater balance, a better balanced suite of measures within the Carbon Farming Initiative.

Senator MILNE—Having said that, you are getting to the nub of the issue: how do you prove the methodologies, the research and development, and the costs of actually doing all that? The sum of \$45 million or so has been allocated to the program and it ends in July next year. Realistically, how much is able to be done in that space so that farmers can take advantage of this in the future with accreditation? I link that to the fact that there is no benefit here to people who engage in weed eradication, feral animal eradication or whatever, which can have considerable benefits in a carbon context. What is your proposal or solution to that?

Mr McElhone—In terms of future abatement options around those productivity linked offsets, this is the big question. It, undoubtedly, will require considerable R&D to be injected into the whole process. There are no guarantees that a large raft of options will be available. But, as you know, we do have a pretty proud record of productivity growth in agriculture. It should also be said that many of those productivity gains have been made which, at the same time, have led to good carbon abatement outcomes. So continuing with that process, with hopefully a new injection into research and development, will hopefully provide some options into the future. But are there any guarantees? No, there are not.

Senator MILNE—Having said that, and knowing that only \$45 million is allocated for one year and nothing in the forward estimates after that, is it your contention that, in the absence of money in the forward estimates to enable this R&D and certification to occur, if this was linked to a carbon price mechanism then a percentage of the income should go to R&D and that part of that should be agricultural R&D?

Mr McElhone—The injection of R&D is a standard line issue. It is not about linking it to any future potential mechanism. It is about saying: 'This is a need. If you want this to work as effectively as it can, R&D will be required. Where you source that is a matter for the government.'

Senator MILNE—Basically, I guess what I would like to know from the NFF is: realistically, if farmers are to take advantage of the broader benefits other than those currently accredited, how much R&D and over what period of time and to whom should the money be directed? That is really what this committee needs to know in order to maximise the benefits. You may want to take that on notice.

Mr McElhone—In terms of actual quantum, I will take it on notice. That \$46 million that is already there has been a welcome opening start, but it is really just scratching the surface.

Senator COLBECK—Does that—

CHAIR—Senator Colbeck—

Senator COLBECK—I asked one question, Chair.

CHAIR—Senator Colbeck, we have not asked one question. I am chairing this committee.

Senator COLBECK—Government has made ridiculous decisions about R&D—

CHAIR—We will ask the questions. Can you make this your last question? We have got to get one question in.

Senator NASH—Chair, maybe a little more time for the whole process might have been—

CHAIR—Maybe. That is a different issue. I am trying to deal with what I have got at the moment.

Senator COLBECK—If the government is prepared to—

CHAIR—Senator Colbeck, just let me ask one question.

Senator COLBECK—Chair, I will raise a point of order if you want me to.

CHAIR—Senator Colbeck, if you want to raise a point of order, raise a point of order.

Senator COLBECK—I just want to make a comment in response to what you just said about the time we have to deal with this matter. If you are serious about the time frame, we will be much more content with the way that we are dealing with it today. Done. Thank you, Chair.

CHAIR—Mr McElhone, you have raised the issue of your preliminary analysis, that the CFI would not outweigh the carbon price. Have you done any preliminary analysis in terms of how much you think soil carbon could provide per hectare?

Mr McElhone—The NFF has not undertaken any work in that area. But it is quite clear that there has been a whole raft of analysis in terms of soil carbon, providing, it is fair to say, a multitude of different outcomes. So there remains a lot of uncertainty around that area—not that anyone does not see the opportunity around soil carbon; it is just a matter of the ability to link those in with ongoing agricultural production systems that require flexibility into the future and also how they can be linked with international and domestic markets.

CHAIR—The Australian Plantation Products and Paper Industry Council, the Forest Products Association as well as the Carbon Farmers of Australia said they agreed that a market based price on carbon is the appropriate way to go. Do you accept that view?

Mr McElhone—For an economy wide carbon price?

CHAIR—Yes.

Mr McElhone—No, we do not.

CHAIR—A carbon price as it is, without a carbon price on farming and agriculture.

Mr McElhone—Are you talking about the carbon tax?

CHAIR—Yes.

Mr McElhone—No. We do not support that. We are engaging in the process but we have real concerns about taking a stick rather than a carrot approach in dealing with the issue of carbon abatement, particularly for trade exposed sectors like agriculture. I know this issue has come up with many different sectors, but I would say that the ability for Australian farmers to pass on costs is poorer than most in our economy. So we have real concerns about that.

CHAIR—You are basically saying a market price is not the way to go?

Mr McElhone—We see voluntary market based mechanisms as a carrot rather than a stick approach for agriculture as appropriate, and that is the context in which we are dealing with the carbon farming initiative. When we talk about a broader carbon price we are talking about something completely different, and we want to make that explicitly clear. We have real concerns about that, even with agriculture not being a carbon sector.

CHAIR—Thank you, Mr McElhone.

Mr McElhone—Am I done?

CHAIR—Yes, you are done.

Senator FISHER—Thank you. You are dismissed on this occasion!

Mr McElhone—Thank you.

[10.47 am]

EYRE, Mr David, Policy Manager, New South Wales Farmers Association

CHAIR—Welcome. Thank you for talking to us today. The committee has received your submission, numbered 45. Do you wish to make any amendments or alterations to your submission?

Mr Eyre—No, we do not.

CHAIR—Do you wish to make a brief opening statement before we go to questions?

Mr Eyre—Yes. Thank you and good morning everyone. The New South Wales Farmers Association supports the establishment of a scientifically valid and efficiently administered voluntary market for farm sector offsets and, indeed, any mechanism that would fund the progression to more sustainable agriculture. But we have significant concerns regarding the Carbon Credits (Carbon Farming Initiative) Bill 2011. These are largely related to the timing of the bill in the policy cycle and the dynamic between Kyoto compliant and non-compliant credits. Before expanding on that, however, I would like to acknowledge the work done by the department in developing the initiative in the face of considerable uncertainty regarding the future of carbon pricing in Australia and the entire Kyoto framework post 2012.

Within the limitations set by the desire of government to put the bill before an ETS bill and the Kyoto framework itself, the department has made some progress towards resolving the issues that we have raised in consultation forums, and that consultation has been good. However, some core issues have not been addressed. As I have indicated, the foremost of these is that the CFI has been presented to parliament before a decision has been made regarding the introduction of a mandated carbon price and emissions trading scheme. This decision is crucial to the economics of the CFI and how it will impact the commercial farm sector and regional Australia. I am going to do my best today to expand on that point but that is the theme of what I am going to be saying.

The CFI bill, as you know, allows for the creation of both Kyoto compliant and non-Kyoto compliant credits, with the former potentially eligible for trade in an ETS and the latter restricted to voluntary non-mandated markets. The explanatory memorandum states that the bill is freestanding. The draft bill had some explicit clauses related to linkages to a future ETS. Those have been removed. It is pretty clear that the bill is not really freestanding in the sense that throughout it there are provisions for a future carbon price. In fact, the whole thrust of the memorandum is about the Kyoto compliant credits and credits which will be eligible within an ETS. The focus of methodology development and mechanisms and all the legal framework around compliance is about the CFI operating in the context of an ETS. So I think it is a little disingenuous to say that the bill is freestanding. I guess it is freestanding in the sense that the bill could operate if there is no carbon price in Australia. The department has naturally had a bob both ways. They have written a complicated bill which provides for two different scenarios.

Why is it important that there are two kinds of CFI credits? A voluntary market of CFIs in Australia cannot exist alongside a mandated ETS. If an ETS is implemented, firms with carbon liabilities on their balance sheets will not invest in credits that cannot be used as offsets against these liabilities. That is basic economics. In short, if an ETS act is passed, the non-Kyoto compliant provisions of a CFI will effectively be redundant. Yes, there is speculation regarding a potential international market for non-Kyoto compliant CFIs, and maybe some of the people who have presented to you have talked about that. But the government has provided no factual basis to substantiate such demand. It should be noted in this regard that units in the Chicago Climate Exchange last traded at 5c a tonne and there has been apparently no activity in that market for some time. Needless to say, 5c is a long way from \$60 a tonne that CSIRO has suggested it will cost to establish Kyoto compliant and retain Kyoto compliant soil carbon credits. I understand that CSIRO presented to you this morning. I am not sure whether they covered the cost of soil carbon, but soil carbon is a central issue for the farm sector because it is the aspect of this which has received the most publicity and has been promoted as a panacea for the impacts of the carbon price.

Senator COLBECK—They are still doing their research, which is appropriate.

Mr Eyre—They are still doing that work but it would be good if you could call Dr Jeff Baldock or Dr Martin Peoples, because they have published statements indicating those costs—\$60 plus. They have presented at numerous conferences that I have attended. So there is plenty of information in the public domain making it clear that it is very expensive to retain carbon in soil and to get it there in the first place. If there is time later I can expand on that.

Offering two kinds of credits in the scheme, which the department acknowledges will have different values, embeds a structural asymmetry which favours forestry related projects over projects which are integrated with commercial farming lands. You say asymmetry is created by a number of factors. Forestry methodologies are those most advanced and ready for market. There are, to our knowledge, no established methodologies or economically feasible technologies for delivering projects as a significant part of commercial farming income—things like soil carbon, methane abatement and so on. Considerable R&D is needed to prove methodologies, which would be central rather than marginal to a farming operation. Yes, we can plant some trees and shelter belts and soon on and get credits for that, but that is pretty insignificant.

A third point is that it is far easier and cheaper to monitor and verify to Kyoto standards for forestry based projects than it is for things like soil carbon. You can monitor it remotely by satellite. The fourth point—and this is a very important one, if somewhat technical: natural disturbance is far easier and cheaper to identify and factor out in forestry related projects. Emissions from a wildfire can be estimated by measuring a fire scar shown with satellite imagery. Contrast this with soil carbon projects: there is no existing methodology or Kyoto agreement regarding factoring out natural disturbance to soil carbon. As a result, the department has stated that methodologies will have to rely on averaging. What does that mean? That means that there will be a greatly reduced value of any soil carbon project—again, more cost and risk for less gain for the farmer compared to a forester; in other words, there will be a discounting factor applied to any credit you establish in the soil in your fields.

A further source of asymmetry is the increased demand for farmland by carbon plantation reforestation operations, with already cleared farmland being the most desirable, as it will be eligible for higher value Kyoto compliant credits. This is germane to the point raised by Senator Milne before. It must be noted in this regard that Kyoto forestry credits cannot be established on land cleared post 1990. In most instances—and for fairly obviously reasons—the most productive land for farming was the first to be cleared in Australia and is the land most likely to have been cleared before 1990. What that means is that a savvy reforestation operator is going to look for farmland already cleared prior to 1990, with good soil and good water, where trees will grow easily and carbon will be accrued quickly.

The association notes the projections made by CSIRO regarding the loss of productive farmland to carbon plantations that could occur at a carbon price of \$36—which, by the way, is well below the price needed to establish a countervailing soil carbon market. The net result is that plantation operators and other parties favoured by Kyoto will benefit at the expense of commercial farming, with cascading negative impacts for land markets, water allocation and regional economic stability. Yes, the department has partially responded to these concerns, with the introduction of a negative list—and I note issues raised in relation to that with Mr McElhone before—but this list does not address the general asymmetry of opportunity that I have been describing. Forestry operators will be able to enter the market sooner and more aggressively and more profitably—

CHAIR—Mr Eyre, I do not want to disturb you, but we are really rapidly running out of time to ask questions.

Mr Eyre—I am sorry. I will get to my conclusion.

Senator NASH—Mr Eyre might like to table his opening statement. We would be happy to receive it.

CHAIR—Yes.

Mr Eyre—I would be happy to do that. I will table it. The conclusion is that it is literally impossible for parliament to assess the economics of a CFI and its potential to engage the farm sector prior to a decision regarding an ETS and a mandated carbon price. Further, it seems likely that the department could produce a simpler and better focused bill if uncertainty regarding this issue were removed. It would also make it easier to focus the limited amount of money available for development of methodologies—relating to what Senator Milne said before. At the moment, most of the money is going into Kyoto compliant methodologies.

It should be noted—and this is our position—that such a deferral need not and should not delay work in relation to the detail of methodologies, integrity criteria, accounting systems and so on, and investment in detailed consultation and R&D on these matters would better inform the debate and help resolve the questions being raised by the farm sector and other stakeholders. Thank you.

CHAIR—Thanks, Mr Eyre. Senator Fisher.

Senator FISHER—Does the New South Wales Farmers Association think that the main bill will achieve its third stated object, of increasing carbon abatement in a manner that is consistent with protecting the environment and improving resilience to the effects of climate change?

Mr Eyre—I would like to see some serious economic analysis done on that. There are two possible scenarios. In one scenario, non-Kyoto compliant credits could be found more effective in achieving abatement. The carbon price would be lower under a voluntary market, but more farmers would adopt such methodologies. So, at a cheaper price, farmers would do more, and possibly store a little less carbon, but the risk would be far lower, and of course the administrative burden on government would be far lower—not to mention all the co-benefits of doing things like increasing soil carbon and running your land in ordered, generally sustainable way. If that is the objective, there are other ways of doing it. We do not really know the answers on that.

The position appears to be right now that a high carbon price, one established under a mandated market, is the one that is going to drive abatement and mitigation in the land sector. Well, it may do so, via plantations or via trees, but look at the potential for perverse outcomes. We are dealing with a very complicated policy framework in relation to natural resource management in Australia. We have got the water reforms and drought relief reforms. I do not need to outline that.

Senator FISHER—You say ‘if increasing carbon abatement be the aim’. Do you support this legislation to the extent that that is apparently an aim of it? Secondly, if you think that the legislation will increase carbon abatement, do you think that the legislation will do so in a manner that is consistent with protecting the environment and improving resilience to the effects of climate change?

Mr Eyre—I do not think, in its current form, it will be an efficient way of achieving that, no. My suspicion, in the absence of really detailed economic analysis, is that it will be counterproductive and that we will create complications with other areas of natural resource reform that we are aiming for.

Senator FISHER—Thank you. Time is limited, and I have good colleagues wanting to ask questions, so my final question is about the right-of-entry powers, which I do not think you have addressed in your submission. You might want to take it on notice. Under part 18 of the main legislation, division 3 sets out the monitoring powers given to inspectors. What does the New South Wales Farmers Federation think about the breadth of the powers of inspectors, once authorised to enter premises? For example, proposed section 199 under that division says that an inspector may exercise:

(a) the power to search the premises and any thing on the premises;

(b) the power to examine any activity conducted on the premises;

and:

(e) the power to inspect any document on the premises ...

What do New South Wales Farmers think of the breadth of those powers?

Mr Eyre—We do not have a formal position on those clauses; but, in general, that would seem to be a little out of proportion.

Senator FISHER—Would you expect there to be a requirement to relate the breadth of those powers back to the purpose of entry—that is, in section 198, to decide whether the act is being complied with and for substantiating information for that purpose?

Mr Eyre—I think it is fair to say that we would expect that, yes.

Senator FISHER—All right. Thank you.

Mr Eyre—Can I clarify my answer to your earlier question about whether we think the bill will deliver that outcome. We will not know until we know whether or not there is a carbon price is the correct answer to that question.

Senator FISHER—Thanks.

Senator COLBECK—So, fundamentally, Mr Eyre, you are saying that at the moment we have the cart before the horse in respect to—

Mr Eyre—Precisely.

Senator COLBECK—putting this process through before anything else has been worked out or decided?

Mr Eyre—Yes.

Senator COLBECK—Okay. You made some comments about R&D. What resources do you think should be applied to R&D? The previous witness was talking about, I think, \$46 million being applied under the current proposal.

Mr Eyre—There is no clear R&D plan in this field, and not knowing whether there is going to be a carbon price makes it difficult to develop such a plan. Obviously, the methodologies that would be most used under a voluntary carbon price—in other words, a voluntary market—would be different from those that would be used under a strictly Kyoto-compliant market. There would be much more emphasis, for example, on things like soil carbon. So \$40 million is a fine starting point if it is focused precisely on those methodologies that are going to be the most useful and most attractive to farmers. This is, after all, called a carbon farming initiative. If we want to get widespread adoption in farming, I would suggest we need programs which directly engage the professional farm sector in developing methodologies.

To give credit to the department, we are represented on those technical working groups and we will continue to work with the government in those fora, but it is very early days and there is a distressing gap between what has been achieved for methodologies relevant to farming as opposed to methodologies which are already being used in the forestry sector.

Senator COLBECK—But, in the context of \$40-odd million, that is less than was taken out of R&D with the scrapping of Land and Water Australia—which now looks like a pretty dopey decision, I have to say.

Mr Eyre—Yes. I used to be on the board of that organisation, so you have touched a raw nerve there.

Senator COLBECK—Sorry to do that; it is still raw for me too. But that is the body that ought to be doing that sort of work. I think it would have been very well placed to be the centrepiece for doing that sort of work.

Mr Eyre—Yes. To some degree, the work of Land and Water Australia has lived on, at the University of Melbourne now.

Senator COLBECK—Yes. I understand that.

Mr Eyre—It must be funded and continued. But it must be done in partnership with the farm sector directly. That is the bottom line.

Senator COLBECK—Yes. You mentioned measurements and averaging and discount factors that come in as part of that process. I would have thought that, if the settings for things like discount factors were not right, the market would actually price or discount according to what might be happening in that context if you are not getting the surety that you might be looking for.

Mr Eyre—If you would give me a minute to explain that, if you have a net stop change model for soil carbon where you do not have to demonstrate the permanence of soil carbon in a specific unit of land, you are allowed to substitute across different units of land, and it is much easier to account for the impacts of drought and lack of water and the climatic cycle factors which cause soil carbon to be lost for reasons outside the farmer's control. There is a whole lot of methodological development work that needs to be done on an international scale to allow carbon finance to flow to agriculture. My view is that is one of the things that the planet rather urgently needs. But that work is not being done because Kyoto is extremely rigid about permanence, and that is why it likes forestry. The bottom line there, I am afraid, is that with the environment movement we have seen a synergy between biodiversity conservation and offsets and the only way they will countenance an offset is if it is re-establishing forestry and habitat. So we really need to get the focus of the methodological debate on how you can give farmers full value for their efforts in relation to land management. You are right that a market will discount according to its perceptions of the validity of the credit, but those perceptions are going to be influenced by what the offset integrity committee is saying about the methodology.

Senator COLBECK—You commented about land that might be targeted for reforestation. It appears that the date put into the system, 1990—and I understand why it was put there in the first place—may have the perverse effect of actually preventing the reforestation of some of that more recent deforested land.

Mr Eyre—This brings up the whole Australia clause issue. As you know, Australia quite uniquely has decided to preclaim avoided land clearing, which is a major grievance for farmers. If you look at a business from a sociological point of view, you see it really impedes farmers wanting to get involved in this sort of thing. Yes, the 1990 date is a problem. A lot of really good strategic mosaic style reforestation could be occurring in Australia funded by voluntary carbon markets, but it is excluded because of our adherence to key Kyoto criteria. I think they are missing the thrust of what we are saying. If there is no ETS then there are major corporations who have raised with New South Wales Farmers the possibility of investing in soil carbon

reforestation, trying to make the Australian land sector really sing in that area. But that is under an arrangement where they are providing the money voluntarily, not because they have a liability on their balance sheets.

Senator MILNE—Mr Eyre, you would have heard from my questions earlier that that is where I am going and, to cut to the chase, the market will give value to Kyoto compliant credits and the market will discount non-Kyoto-compliant credits. If, and let us assume we go to a market mechanism and the Carbon Farming Initiative is linked to that market mechanism, the Australian government can buy, under that market mechanism, from the revenue some of the non-Kyoto-compliant credits which would give them value and a market. But isn't it true also that Australia's credibility in the global market will mean that those non-Kyoto-compliant credits still have to meet international standards in credibility so the costs will be the same to get accreditation but the market value will be less? Given that and given that governments want credits that will go to their abatement task and that non-Kyoto-compliant credits do not help, therefore there is a built-in disincentive for governments to spend very much money on non-Kyoto-compliant credits which are the main value sector for farmers, so this is inherently against farming.

Mr Eyre—That is the conundrum facing the department and facing you as a committee. These things may become clearer post 2012. The ultimate layer of uncertainty surrounding this is what is going to happen to multilateral approaches to climate change and the whole Kyoto rule set post 2012. The economics that you have outlined is absolutely right, and that is why the department is focusing on Kyoto-compliant credits. But what ultimately is that going to mean in two years time or in 20 years time? What do we really want at the end of the day in terms of the physical outcome? We want global agriculture to increase the sustainability of its operations; in other words, restore carbon and natural fertility and the water-holding capacity of soils and restore vegetation in relation to that. How is that going to be funded? It can partially be funded by market based mechanisms. It can also be funded by direct investment. But we should not lose sight of what we are trying to achieve in the land sector space.

Senator MILNE—Given that—and I am assuming here it is linked to a carbon price, so let us assume that for the purposes of where I am going with this—wouldn't it be better, under a carbon price mechanism—given what we know about non-Kyoto-compliant credits being the ones that will really open the door to farmers, reduce the level of conflict as to forests and agriculture and actually enhance agriculture—to not create non-Kyoto-compliant credits and to use some of the money in a fund for accreditation and link it to research dollars and, instead, actually pay people for enhancing carbon in the landscape? That would free them up from all the compliance credits. So this is the issue: should it be all market related or should some of it be with a fund not market related to give a leg up to that sector?

Mr Eyre—If you have read submissions made by the NFF and ourselves over the years in relation to this issue, you would note that in the complementary measures space we have made exactly that argument. I think it is a valid question for this committee to pose: do you really need a non-Kyoto-compliant CFI? That is one of the reasons why I have been saying that the current bill is compromised by this uncertainty. We would have a much more elegant and tidier bill if we knew whether or not there was going to be a carbon price on Australia. And stakeholders like farmers, and they are an important group, would understand the bill far better.

Senator MILNE—What is the likelihood of Australia opting in on article 3.4 in Durban on not only forest management but also on soil?

Mr Eyre—Sorry, I missed the beginning of that.

Senator MILNE—What is the likelihood, in your view?

Mr Eyre—The likelihood of what?

Senator MILNE—Australia opting into article 3.4 on forest management but also on cropland management.

Mr Eyre—I think various parties including the minister have made it clear that opting in until you sort out natural disturbance in soil would be very difficult. Force majeure does not work for soil, because of the threshold and because natural disturbance in soil is very diffuse. It is not like a forest fire where you get a distinct instance that you can measure on a satellite. So I do not think they can afford to opt in until the Kyoto rule set is changed, which is why we emphasise the need for international diplomacy on that score.

Senator MILNE—So that is why I make the point too that forestry may well be advantaged massively through all these negotiations but the likelihood of soil becoming Kyoto compliant in the near future under article 3.4 is remote.

Mr Eyre—I totally agree with you. Notwithstanding its merits and everything that—

Senator MILNE—I am not disputing that either.

Mr Eyre—It is a wonderful story. But, realistically, until you fix the Kyoto rules applying to soil there will not be high-value credits flowing to soil.

Senator MILNE—Hence the need for a fund.

Mr Eyre—Yes.

Senator NASH—I have some serious concerns about the land use change, that an artificial mechanism will result in a shift from the use of the land for food production to the growing of trees for the purposes of the CFI. While it is acknowledged that there will be some of these adverse impacts, the requirement for the minister to intervene and address these adverse impacts under the legislation is flimsy, to say the least. I note you touched on this in your opening comments. Could you perhaps expand for us, in the couple of moments we have, the potential outcome as to that land use change and perhaps take it on notice to give us some more of your detailed views on this?

Mr Eyre—MIS plantations are a case in point, albeit on a smaller scale. You have seen land that could be used for farming bought up by operators who can afford to pay a higher price for land. That has quite destructive social impacts at a local level and right through to whole regions. It results in a long-term change in the socioeconomic structure of towns. Yes, MIS have been excluded, and that is a welcome addition to the bill—albeit in an indirect way and we are not entirely clear about it, but we are leaving that aside. The main issue is that not all units of land are equal and there is likely to be a coincidence of demand for best farming land and best carbon project land. As I mentioned before, proponents who wish to establish a vegetation related project are going to be looking for a farm that is already cleared where the soil is good and where the water is good. They will have to pay a premium for that land, but when they do the numbers they will probably find that is where they are going to get their maximum carbon profit.

I would very much like to see the CSIRO and ABARES do some detailed economic analysis of that. It needs to be spatial analysis. This is all about mapping, about figuring out where things are in relation to each other. An important layer of that is the water. I should mention soil in that regard, by the way. Increasing soil increases water holding capacity, which is an interception activity. How do we interrelate that to the Murray-Darling Basin reforms? We have not thought through these cascading complexities. I am not saying we should not do it; we actually want the government to be working through these issues. But you do not want to create a very blunt instrument, that blunt instrument being a very large carbon price, without thinking through how that is going to impact on the landscape. Does that answer your question?

Senator NASH—Yes, it does. Thank you.

CHAIR—You indicated that there was uncertainty, and I think that has been not only in the agricultural and farming industry. There has been an argument that we have to overcome the uncertainty. If a carbon price is implemented and that carbon price works with a voluntary system such as is detailed here, is that a benefit for the farmers involved in carbon soil sequestration and so on?

Mr Eyre—I do not think so, because the methodologies that would be Kyoto compliant will exclude the great majority of farmers. Of course a high carbon price would be great if farmers could buy into it, in other words if they could profitably conduct farming activities without the opportunity costs and the risks that they going to have to swap that unit of land into another activity. If they could do all of that, yes, a high carbon price under a mandated market would be good. But there are not any methodologies that would allow farmers to do that right now.

CHAIR—Does the New South Wales Farmers Federation believe that a market price on carbon in the rest of the economy is the best way to go?

Mr Eyre—No. We are opposed to a carbon price. We think it is poor economic policy.

CHAIR—Why do you argue that?

Mr Eyre—Mandated markets have all the problems of leakage, compensation, bureaucratic and administrative costs. If you will bear with me, the nitrous oxide and sulphur dioxide market in the United States, which has kind of inspired all of this, actually works. It works because there are a limited number of players all of whom want to participate. You can stick a monitor on a chimney and physically measure exactly how much people are emitting, and the owner of the firm can choose whether to change that technology or buy

a credit. It is spatially defined; the emissions are occurring in a particular area of the United States. None of those criteria apply to carbon markets.

CHAIR—So the market does not work.

Mr Eyre—I have become a bit of a sceptic about carbon markets in the current global situation where there is so much uncertainty around what any multilateral response is going to be to carbon. I think we are seeing more leadership in places like China, where people are investing directly in better technologies and activities like that. Has anyone really done any cost-benefit analysis of the costs of establishing a carbon price versus alternative mechanisms? I think it would be really interesting to ask people like Nicholas Stern what they think now about the European ETS and whether it is working.

CHAIR—Thank you. We are well over time. Thank you very much.

[11.18 am]

SWEET, Mr Colin, Chairman, Australian Landfill Owners Association

CHAIR—Welcome. The committee has received your submission as submission 15. Do you wish to make any amendments or alterations to your submission?

Mr Sweet—I do. I have got a three-minute presentation I would like to talk through, if that were possible.

CHAIR—Is that an alteration or an opening statement?

Mr Sweet—That is a very good question. It will be an opening statement.

CHAIR—So your submission stays the same and you will present an opening statement. Thank you, Mr Sweet.

Mr Sweet—First of all, thank you for this opportunity for our association to appear before your committee inquiry. Who am I? I have been directly involved with the waste service industry since 1995. I have managed many types of landfills, from very small council owned facilities to Australia's second-largest landfill located in South-east Queensland. I am also chairman of the Australian Landfill Owners Association, having been elected to that position by the board, and I am a professionally qualified civil engineer and company director.

The Australian Landfill Owners Association or ALOA, as we like to think of ourselves, is the peak representative body for landfill owners across Australia and through its 28 member organisations operates 64 landfills across Australia. These sites receive over 15 million tonnes of solid waste per annum, or about 70 per cent of that generated nationally. ALOA members also provide services in waste collection, waste treatment and resource recovery and employ well over 12,000 people.

Landfill facilities owned by ALOA members have been active in reducing greenhouse gas emissions from their operations over the last two decades. In fact, the waste sector stands alone in its performance at reducing greenhouse gas emissions over this period. It has been the incentives provided largely by green electricity buyback tariffs, the national greenhouse gas abatement scheme and Greenhouse Friendly that have resulted in the reduction of these emissions. The landfill industry has proven that it will respond to such incentives by driving down its emissions. A reduction of 12.6 per cent has been achieved through a combination of an increase in landfill gas capture and combustion and the rationalisation of smaller sites into better managed regional facilities.

Today Australia's larger landfills employ international best practice technologies to minimise their environmental impact. Aside from state-of-the-art leachate capture and management, this includes capturing methane generated from landfill organic waste to produce renewable electricity. Based on industry data, the waste sector now accounts for less than two per cent of Australia's national greenhouse gas emissions. If properly structured, the Carbon Farming Initiative will reduce this even further.

ALOA supports the government in its attempt to reduce Australia's greenhouse gas production and also supports the introduction of the Carbon Farming Initiative as a key initiative to achieve this goal. This support was expressed by way of a press release on 25 March which included an attempt—and I underlined 'attempt'—to explain the preferred mechanism for unlocking further gains in this area. In short, depending on the value of the Australian carbon credit units, over three million tonnes of additional carbon dioxide equivalent gas could be abated.

It is important to understand that the production of landfill gas emissions is dependent on a wide range of factors such as the waste type, the design of the facility, the construction materials used, the capping, the operating procedures and rainfall, all of which vary from site to site. Current national greenhouse gas and energy reporting techniques for estimating the amount of methane gas emissions from landfill are expected to have a margin of error of plus or minus 30 per cent. This is obviously unacceptable. As a consequence, the landfill industry is working with the Department of Climate Change and Energy Efficiency to establish more accurate and precise estimation methodologies that are acceptable to both government and industry. The Carbon Farming Initiative, on the other hand, provides an incentive based on the actual capture and proper treatment of greenhouse gases, which is much fairer to all players and provides the greatest return for the largest capture.

In order to introduce some science in support of ALOA's position on the Carbon Farming Initiative, a group of independent consultants were engaged to quantify the environmental benefit compared to the financial cost. The consultants modelled landfill gas emissions using independently gathered data from a national landfill

survey undertaken by the Waste Management Association of Australia. Once the emissions were calculated, the consultants went on to prepare a sensitivity analysis, assuming a price for the Australian carbon credit units and a cost to install and maintain gas capture equipment.

The consultants also summarised raw data from the Waste Management Association survey and demonstrated that there are 49 landfills that receive over 25,000 tonnes of waste per year that do not currently collect landfill gas—that is, the current arrangements do not provide a sufficient incentive to encourage landfill gas capture. Taking industry standard costs to establish a landfill gas collection system, writing the costs off over the crediting period and including a maintenance cost, the consultants concluded that, with an Australian carbon credit unit value of \$24, 3.2 million tonnes of carbon dioxide equivalent abatement could be achieved.

As an aside to this discussion, the Waste Management Association is a national body of professional waste management consultants, educators and operators. It is worth noting that, while the association funded the initial survey, the federal government has agreed to fund an update on the survey information every two years. The legislation is likely to introduce some regulations around the issue of additionality—that is, not providing additional carbon credit units for landfills that already have a requirement to install a gas collection system. Whilst this acts as a disincentive it also keeps a guard on those operators intending to make a windfall from the new legislation. The consultants determined that, once additionality was applied, the abatement available for Australian carbon credit units would reduce to 2.2 million tonnes. We still see that as an important contribution.

It is reported that there are over 600 licensed landfills across Australia, not all of which will be able to gain from the benefits forecast in the Carbon Farming Initiative. ALOA believes that a significant number of landfills and therefore the waste sector's emissions will remain outside the Carbon Farming Initiative. Typically these landfills fall in the small, 25,000 tonnes or less per annum category. As such, ALOA calls on the government to establish a set of complementary measures to help combat greenhouse gas emissions from these smaller, uncovered sites. These measures ought to include but should not be limited to the introduction of gas capture and flaring incentives for all active sites; the further regionalisation of landfills and closure of smaller sites that do not have properly functioning gas collection systems; and the implementation of proper emission management systems on all closed landfills, especially those closed as a result of regionalisation. In conclusion, please let me reiterate that ALOA welcomes the recent proposed changes to the Carbon Farming Initiative legislation. Again, ALOA is enthusiastically committed to working with government to reduce greenhouse gas emissions from landfills and the waste sector.

CHAIR—Thank you, Mr Sweet.

Senator COLBECK—Effectively, you are saying you would like to be in on this process and, despite your attempts to date, you have not been able to achieve it.

Mr Sweet—We are saying this is an initiative that is going to provide Australian carbon credit units and if they are pitched at a certain level they are going to encourage the collection of methane gas which comes out of landfills. There is a relationship between methane gas and carbon dioxide—that is, that methane has a 22 times worse effect on greenhouse gases than carbon dioxide. Producing a tonne of methane and letting it liberate to the atmosphere is the equivalent of liberating 22 tonnes of carbon dioxide. A carbon credit unit of about \$24 is going to provide an incentive for everyone to capture their methane. However, there are numerous regional landfills across Australia run by small towns that are below the 25,000 tonne threshold. We are also advocating having some additional rules in place so that we capture the rats and mice of the industry—lots and lots of small landfills.

Senator COLBECK—So when you are talking about it in the context of a rural initiative such as carbon farming, which is in some circumstances down to a relatively small scale, those regionally based small town type facilities could fit within the context of that sort of scale?

Mr Sweet—The sort of thing we would further advocate is regionalisation of landfills. Our company manages a landfill in Queensland where a single city council has been amalgamated with numerous shires around and they have consolidated all of their small landfills into one large, well-managed, engineered landfill which is capable of capturing all of those emissions. We would say that where the opportunity presents itself we should be using this legislation to try and consolidate the many small landfills into one large, regional, well-managed, well-engineered landfill.

Senator COLBECK—In circumstances where you perhaps have distance being a—

Mr Sweet—Tyranny.

Senator COLBECK—Yes, a tyranny or a factor inhibiting that, you could also have a combined management process that oversights them to help manage that overall efficacy, if you like, of aid management of the landfills but also collection and certification of the gas capture and storage.

Mr Sweet—That is correct. Our only concern with the very small landfills is that the carbon credit unit is not going to provide enough income for them to pay for all of the gas capture equipment. Some other mechanism will have to fund that process.

Senator NASH—Just on the issue of the methane: what is the process by which you collect it? Obviously, you do not do it at the moment. You talk about it escaping. What do you have to put in place to collect it? In light of what you just talked about, what is the cost for, say, a 25,000 type facility to put in that infrastructure to do what you want to do?

Mr Sweet—I love three questions in one. I will do my best, because I think by the time I have answered the first I will have forgotten the other two.

Senator NASH—That is all right. I might have forgotten the question!

Mr Sweet—Essentially, what we have is a large mound of putrescible waste which rots. When it rots it creates gas. To capture and control it, we generally have an impermeable, which means a clay or a plastic bottom, and then we have a cap, which is a plastic or clay cap. We have a very large mass of waste confined within essentially a waterproof outside layer. As we are placing our waste, we introduce pipe work into the waste mass and then we bring the pipes out to the surface where the impermeable layer is, and we pretty much hook them up to a machine which uses the gas as fuel. I hope I am not over simplifying it, but that is basically as simple as it gets.

Senator NASH—No. I am just trying to get a sense of how it works. What would the cost be to install something like that, say, on a landfill?

Mr Sweet—It is very much a chicken and egg argument as to how big the landfill is and how big all that waste is. But, typically—if I could refer to my notes for a second; I probably have not got quite the right answer for your question—over 25,000 landfills they can get a payback on their capital over the life of the carbon credit. That means for as long as it is producing gas. Typically for a smaller landfill, less than \$200,000 will give them the pipe work and a flaring capacity. The flaring capacity converts the methane into carbon dioxide, so it reduces its harm by a factor of 22. The small landfills do not produce enough gas to keep the engine operating. So what we do under those circumstances is just let it flare off.

Senator NASH—In your position paper, as part of what you have given to the committee, you talk about the introduction of a mix of responsive uniform regulations and abatement incentives rather than a market based or tax regime. I take it from that that you do not support the introduction of a carbon tax. What would you see that mix of uniform regulations to be? Can you give us a sense of what you are thinking of there?

Mr Sweet—One of the great frustrations in moving around Australia is the variable legislations. I have done a bit—

Senator NASH—From state to state.

Mr Sweet—I have done a lot of travelling around Australia. I have seen the education systems vary from state to state and the road rules vary from state to state. And, as one would expect, there are variations in the environmental rules for operating a landfill. What we see is an opportunity within this legislation to just put out some uniform regulations, even if it is just a uniform framework. For example, if you look at Victorian landfills, they have predominantly gas capture in place because the Victorian government pushed in that direction very early on in the piece. New South Wales and Queensland do not have as many landfills with gas capture mechanisms, because they were not legislated by the regulator. So we would see this as an opportunity to try and produce a uniform set of legislation so that when we go from one state to the next it is not like going on an international visit.

Senator NASH—As indeed happens across a range of areas! Harmonisation is something that comes up regularly. Finally, also in the last point of your submission, you say:

... any market or tax response to climate change should initially focus on reducing the use of fossil fuel based missions.

Through what sorts of measures do you see that happening? How would you see the reduction in fossil fuel based emissions happening?

Mr Sweet—We were making a gentle suggestion. Currently, most of the electricity in South-East Queensland, where our large landfill is, is produced from coal. We are saying we would like better recognition for the gas which is harvested from a landfill and then used to produce electricity—and, in that process, offset the use of coal. That is the sort of mechanism we are looking for.

Senator NASH—Thanks.

CHAIR—Senator Milne.

Senator MILNE—I could not agree more about a uniform regulatory application to landfill, across the country. That makes eminent sense, and it is one of any number of measures that need to be regularised around the country. I am interested in your contention that, so long as you can access or sell credits, you do not need a market. Doesn't that just mean, though, that you are then dependent on what the government set as the price for whatever that abatement is, where they will just say, 'Right; you'll get this much per tonne, and that's it'? If there is no market, doesn't that leave you totally vulnerable to governments determining the price of the abatement?

Mr Sweet—Potentially, yes. But our view is that there is going to be a fairly solid market about the level that will encourage the use of—

Senator MILNE—Why would they be in demand without a market?

Mr Sweet—We might be slightly at odds there, because we believe there will be a market for them.

Senator MILNE—But what you are saying here, as I understand it, is that you do not think you need a market based mechanism, a market or tax based response, that you can be part of. So, if you do not want a market, I do not understand where you are going to get your price from.

Mr Sweet—We may be at cross-purposes. What we are saying is that there is going to be a price on the Australian carbon credit units. That is what we are—

Senator MILNE—Yes, that is right, because it will be determined by a market for that. If you are saying, 'Let's forget about having a carbon tax or any kind of carbon market,' the price is going to be what the government is prepared to purchase them for under their international obligations, in the absence of markets—or else you are in the voluntary market, which is a low price.

Mr Sweet—Okay. I might need to get some further advice on that particular question.

Senator MILNE—It does not matter. It does not alter the fact that uniform regulation would be good; capturing the emissions would be good—

Mr Sweet—Yes.

Senator MILNE—and we would like to see it happen. It is one of the Kyoto compliance activities and so it is one that would be captured early to maximise the benefit. So, in the event that this deal went through in its current form, you would be a beneficiary, and that would be good for the climate.

Mr Sweet—That is correct—and what it will do is draw a greater group of landfill operators into collecting their methane gas.

Senator MILNE—Yes, which is good. Thank you.

CHAIR—Thanks, Mr Sweet. One book that I have got here says that methane has about a 14 per cent share of global greenhouse gas emissions and that carbon dioxide has 77 per cent. You are not arguing that we should not deal with carbon dioxide, are you?

Mr Sweet—I am arguing for the lesser of two evils—that, if we are producing methane, we are better off liberating that gas as CO₂, as opposed to liberating it as methane, on the basis that methane has a 22 times greater impact on the environment than CO₂.

CHAIR—But CO₂ is the bulk of the carbon pollution, isn't it?

Mr Sweet—That is correct.

CHAIR—So are you saying you should not deal with the bulk of the carbon pollution?

Mr Sweet—No. I think your figures are 14 per cent for methane?

CHAIR—And 77 per cent for carbon dioxide.

Mr Sweet—Okay. What I am saying is that, if we liberated a hundred tonnes of gas and if 14 tonnes of that was methane and 77 tonnes was CO₂, for the effect of the methane you would get the 14 tonnes and multiply it by 22.

CHAIR—Yes. But nobody is seriously arguing, other than you, that we should not deal with CO₂.

Mr Sweet—Sorry. I am not arguing that we should not deal with CO₂.

CHAIR—I just want to be clear on it.

Mr Sweet—That is a separate issue for me. The important issue for me is landfill gas capture and rendering it into a less harmful form.

CHAIR—Just to explore this and bit more I want to go back to what Senator Milne was saying. All the economists who have appeared at a number of the hearings I have been involved in have argued that a market price is the most efficient and effective way to deal with reducing carbon pollution. Do you have a different view on that?

Mr Sweet—Because we are landfill operators our view probably would be reasonably simple—that is, if the Australian carbon credit unit has a value which would provide the incentive to put in the landfill gas equipment, that will happen. If it does not, then it will not. So I am assuming that the economists are saying that the ACCUs will in fact be of sufficient value to provide the necessary incentive for industry to take the necessary steps.

CHAIR—Yes. Do you agree with that?

Mr Sweet—Yes. If we are in a position where we spend a million dollars on gas capture but we can sell only \$10,000 worth of carbon credits, obviously we are not going to do that unless there is some other benefit somewhere along the line.

CHAIR—From the figures I have seen, there are about a thousand big polluters in terms of CO₂ and you have to deal with them to actually get a price on the carbon pollution. Do you agree with the proposition that you have to deal with the big, what could be described here today as low-hanging, fruit?

Mr Sweet—Senator Cameron, I think you might be drawing me out of my field, out of my secure little cocoon of what I know about it.

CHAIR—I am not trying to do that deliberately; I am just seeking your view on this.

Mr Sweet—I would be prepared to not have a view at this stage.

Senator McEWEN—Mr Sweet, if this legislation does not get up and there is not a CFI, and in the context at the moment where there is not a price on carbon, would your members change their modus operandi to reduce methane gas emissions?

Mr Sweet—That is a very good question because there are other factors that cause you to put in a landfill gas collection. One of the incentives is the production of electricity and the sale of that into the grid. Some other measures, such as the Greenhouse Gas Abatement Scheme, have encouraged that kind of behaviour in the industry. If the price of electricity were to go up significantly, that of course would be another driver for people to recover their electricity in landfills which are big enough to produce enough gas to drive a generator.

Senator McEWEN—But it is possibly not a palatable thing for the community to have to experience higher energy prices to encourage landfill operators like yourself to reduce their methane emissions. So, from your point of view, is the CFI the way to go at the moment to encourage that behaviour change?

Mr Sweet—In short, Senator McEwen, that is why we are supporting the legislation. From our perspective, we think it is a very good way to go forward to capture our greenhouse gases. Some landfills will produce electricity and some landfills will just flare them off but, overall, there will be fewer fugitive emissions of landfill gas and greater consolidation of landfills and landfill gas, and better control can be exerted over them.

Senator McEWEN—I note from your submission that you are very keen for the start date of 1 July. Why is that?

Mr Sweet—We are pragmatic businessmen so the sooner the better. That will give us some certainty and we as organisations can get on with maximising our landfill gas capture.

Senator McEWEN—So certainty about these kinds of mechanisms is important to your members?

Mr Sweet—Certainly where it involves spending hundreds of thousands or millions of dollars in capital, yes.

Senator McEWEN—Thank you.

CHAIR—Mr Sweet, just for the record, the figures that I quoted were from the IPCC, not just my book.

Mr Sweet—I am prepared to accept that without any hesitation, Senator.

CHAIR—Thank you very much for your evidence today, Mr Sweet.

[11.47 am]

AGIUS, Mr Alfred Parry, Director, National Native Title Council

COONEY, Mr Allan, Director, Centrefarm Aboriginal Horticulture

COSTELLO, Mr Oliver, Private capacity

FOLEY, Mr Rowan, Project Manager, Centrefarm Aboriginal Horticulture

JENKIN, Dr Thomas James, Manager, Implementation and Projects, South Australian Native Title Services

MUNDINE, Mr Warren Stephen, Director, National Native Title Council

YARROW, Mr David, National Native Title Council

CHAIR—I welcome representatives of the National Native Title Council and Centrefarm Aboriginal Horticulture. Thank you for being here today. The committee has received your submissions and has numbered them 38 and 48 respectively. Do you wish to make any amendments or alterations to your submissions?

Mr Agius—No thank you.

CHAIR—Do wish to make a brief opening statement before we go to questions?

Mr Agius—We would, thank you. Firstly, whatever the Australian government forms are relating to the market of carbon trading and so on, the issue for us is how Aboriginal people can have a place in carbon trading—for example, if we have a brand name that sits on the boardroom of all corporate companies which says, ‘We buy Aboriginal carbon’. It is a way of thinking of how the corporate world can think about how Aboriginal interests in carbon could be seen to be progressing the social and economic backgrounds of Aboriginal people. We see that aspect of carbon as being a particular tool alongside the mining arrangements that are happening at the moment, and the tourism and pastoral arrangements and so on. So those economies are there. This is a new one that we would like to see in a well-structured, well-progressed and well-managed arrangement. We would like the Senate to think about what that could look like and we will present that information to you in a few moments.

CHAIR—Thank you. Are there any other opening statements?

Mr Mundine—Yes. I want to follow on from Parry’s comments. For us, it is a great opportunity for Indigenous people to be part of this process. We think it is a great opportunity to look at the size of the land ownership of the Indigenous people in Australia, which is about 22 per cent. I am not saying that all of that 22 per cent would be part of this market, but we believe that this is one of the rare opportunities we get in Australia where, at the beginning, the Indigenous people can play a role and be a contributor not only to the Aboriginal communities themselves but also to Australia and the global community. So we take this very seriously and we are very happy to play a big role in this process.

CHAIR—Thank you.

Senator COLBECK—From reading your submission I see that there are a couple of specifics that you are putting before us. One is the way that the legislation actually interacts with your land rights and relationship to title to the land and potentially separating them from that process. Also there are some design issues of the scheme and how it actually physically works that provide some complexity that provide you with some concerns. Have I got that pretty much right?

Mr Yarrow—Could I expand on that?

Senator COLBECK—I would like to go to the first point first so that we can get it on the record and deal with that and then we can go to the design stuff after that.

Mr Yarrow—I was going to reply to each of those points you raised. Perhaps if you ask a question about the first point I can answer it.

Senator COLBECK—I do not pretend to understand specifically, so if you could give me something relatively brief, because of the time constraints that we have, that succinctly puts that to us. I have been through your documentation. I guess what you are looking to do is ensure that there is capacity for a proper connection between the rights associated with the land and the capacity to take advantage of the process under this legislation.

Mr Yarrow—That is right. As Mr Agius and Mr Mundine have said to you, the goal for the National Native Title Council is full Indigenous participation in the Carbon Farming Initiative ensuring full access and ready access. Unfortunately, the Carbon Farming Initiative bill represents a positive impediment to that participation. From reading the bill you might be given the impression that it deals with native title rights with benign neglect. Unfortunately, the truth is that the bill positively discourages the participation of native title holders. The design principle should be carbon sequestration rights on Aboriginal land are for the benefit of Aboriginal people. The bill does not do so. It should provide that on freehold land held by Aboriginal people all emission abatement and carbon sequestration opportunities are for Aboriginal people. It largely does that, but not entirely.

The significant concern of the National Native Title Council is that, by sidelining the treatment of non-exclusive native title, by relegating the treatment of that issue to the Native Title Act, in fact the Carbon Farming Initiative bill is excluding non-exclusive native title holders from participation. In fact, non-native title rights in Australia represent the vast bulk of native title rights at large. Let us take Western Australia as an example. Approaching 20 per cent of the state is subject to an existing native title determination and, of that approaching 20 per cent, probably 90 per cent or 85 per cent is non-exclusive native title. This bill, other than by the mechanism of an Indigenous land use agreement with a state or territory government, provides no opportunity for non-exclusive native title holders to participate.

The bill also says on Aboriginal land rights land that is not freehold land—Aboriginal reserve, 99-year lease in Western Australia, deeds of grant in trust in Queensland—carbon sequestration rights are primarily with state governments. Those propositions are unacceptable. It is unfortunate that the bill does not take this opportunity to address the vast bulk of Indigenous land interests in Australia.

Mr Agius—In simple terms, Aboriginal people own a piece of land and have a relationship to a piece of land and the land has some value to a third party and that third party in this instance could be carbon trading. A local group that has 30,000 or 40,000 hectares of land under a native title claim and so on has the ability to participate in the carbon-trading industry. So that is in a sense a simple explanation.

CHAIR—Senator Colbeck, I am sorry to do this but I missed the opportunity to ask Centrefarm Aboriginal Horticulture if they would like to make an opening statement—so we can get our questions in context. I do not want them to miss out. Did you have an opening statement?

Mr Cooney—No, not at this stage.

CHAIR—Okay.

Senator COLBECK—Is the legislation acting in this circumstance differently from what it might in other circumstances?

Mr Yarrow—I suppose I would put it the other way around. This legislation provides clarity for native title holders and Aboriginal land rights land that is freehold, but then fails to do so for the balance of Aboriginal land in Australia—native title non-freehold land rights land. It lets the chips fall where they may. That is the neglect aspect. There is a positive element—land rights freehold land and exclusive native title are addressed but the vast bulk of Aboriginal land in Australia is neglected.

Senator COLBECK—My question was triggered by the comment by Mr Agius that state governments would retain title to carbon sequestration on certain classifications of land. I wondered whether it was setting a new set of standards, if you like, or whether this was an opportunity to clear up some issues that were longstanding.

Mr Agius—In layman's terms, it would create have and have-not situation. You would have Aboriginal freeholders under legislation and then you would have native title that could not achieve a determination by the Federal Court but had the ability to make an agreement with the state to determine how their interest would coexist with other third-party interests, such as the pastoralists, the mining community and the tourism community. In this case, when you look at land as a package, if we do not have that particular issue considered, we are going to see a group of people who will not be able to use their land in cooperation with those other third parties to take advantage of carbon trading.

Senator COLBECK—It provides a disconnect?

Mr Agius—Yes.

Senator COLBECK—Going back to the complexities in the bill, are we talking about things like the permanence provisions—the complexity of actually establishing systems and measuring processes that have been expressed to us before as part of the evidence we have heard today?

Mr Agius—Let me go back a step. We have a blank sheet and at the moment there is no peak body of any type that is looking after the concept of carbon trading for the Aboriginal community. So we come to the committee saying this: let us create something that realises that there is an Aboriginal land asset out there that could be used for carbon trading, and there is the ability for the community to gain a huge benefit out of it in a positive relationship with the corporate world. The community would be in a position to develop a commercial framework. The second part is that we do not have a national structure within the framework that can guide the Aboriginal community about how to engage in carbon trading, or to guide the corporate world in the area of using Aboriginal land for carbon trading. We do not have, in a sense, a national body or a national broker that could be used in the commercial sense to assist with the corporate world creating a business relationship with the Aboriginal landholders in that manner. We do not have a commercial positive structure that can provide forms of commercial agreements between the two players in this game. We do not have a body that provides, in real layman's terms, information to the Aboriginal community about what carbon trading is and about how an Aboriginal landholder could participate in the carbon trading.

What we do have, though, is a research and development team quite strong in expertise; we do have a legal team with expertise. But we do not have a body such as a statutory authority to look at regulations, obligations, compliance and those sorts of things in this space of Aboriginal carbon. We are presenting a vision here at the table for the committee to think about in the shaping of this particular bill.

Senator COLBECK—I think you are expressing to me what I was asking but again in very different terms. Some of the other submitters today talked to us about the fact that a lot of the research and development into the core fundamentals of the mechanics of this working are still to be done. They are calling for a lot of work on research and development of some of the protocols that sit around this. All that stuff is still quite fluid. You are coming at it from a slightly different angle but expressing similar sorts of perspectives that have been put to us from those others.

Mr Agius—If we had a national peak body that was able to influence the Aboriginal landholders in a way that is well structured, well coordinated, and could provide certainty to the corporate world as well as to the Aboriginal world then we see a smooth running of the carbon trading program in Australia for Aboriginal people to engage in.

Senator COLBECK—Obviously, with that level of landholding there is a significant opportunity there to participate.

Mr Agius—Yes. Multiply that affect for the bush communities and their regional communities and you can see where it could take us. A lot of the land that is out there is out in the regions away from the eastern seaboard and so on. Then, if and when new technology comes onboard about carbon trading, the land that Aboriginal people have could make a significant contribution to the Australian economy and to Aboriginal social and economic development, and so on.

Mr Mundine—We have many years of experience, probably since the early 80s, when you have an absence of that position. We can use examples of what happened with land development in New South Wales and other areas where you do not have that statutory authority working with Indigenous people. You see the number of issues and problems that come out where Aboriginal people lost out with regard to those land development areas, and also some of the corruption issues that came out of those things. So we need to address those issues.

Mr Agius—I would like to make a further comment. I will ask Rowan to provide the committee with an idea of what potential opportunities would exist if a structural arrangement was put in place as a result of the act.

Senator COLBECK—I will just quickly butt in here: is it a matter of actually creating a structure or the recognition of a structure?

Mr Agius—It would be both. One is the recognition of getting a set of rights so that Aboriginal people can enter into the market for carbon trading. But it is also the ability of influencing the community to go down a path of good strong commercial opportunities rather than being influenced by bad people who are out there for their own need. This way a national model or a national tool would have much tighter control over that but still allow for local flexibility to be used within that national model.

Mr Foley—I work for Centrefarm Aboriginal Horticulture. My director, Allan, will speak to you in a moment about some issues as well. We brought people together from all around Australia in the National Indigenous Climate Change Forum about three weeks ago in Alice Springs. A significant level of interest was expressed by all of the Aboriginal participants and all of the land councils that came along to that meeting. Warren Snowdon and Scott Ludlam attended that meeting. Aboriginal people want to engage in this space; we want to be involved. The legislation presents significant barriers to our engagement, and David Yarrow spoke about that. For 22 per cent of the land assets, the benefits that can be brought through carbon trading are significant—not only in terms of employment—Aboriginal people can be employed in this area; not only in terms of the increased tax being paid by the people engaged in this business; not only the carbon that is traded through that 22 per cent of the land assets; but also through participation in a real economy. That is what we are talking about here: for once we have something where bush communities can engage in a real economy—out bush, traditional people. So the benefits are significant.

Those are the stock standard benefits. We want to go one step further. We believe that The Climate, Community and Biodiversity Alliance and international scheme has the right approach—that is, if you value add, if you add social, environmental and cultural outcomes above what is being traded in Australia, people will be prepared to pay for those co-benefits. We could have a scheme where you could have one star, two stars and three stars. One star could be for carbon produced on Aboriginal land; two stars could be for carbon produced on Aboriginal land by Aboriginal people; three stars could be for carbon produced on Aboriginal land by Aboriginal people, whereby a social benefit will go back to the traditional owners. So you are not only buying the carbon; you are also buying a social outcome for Indigenous Australians according to our own industry standards. Corporations will buy it. If you walk into their boardrooms you will see a certificate on the wall that says: ‘I buy original carbon.’ Immediately, that company tells you it is supporting traditional owners and Australian Indigenous people being involved in a real economy.

The alternative to that is to buy stock standard carbon from Indonesia, China or wherever else you want to source it. I can tell you one thing: they will not be putting a certificate up on the wall saying: ‘I buy cheap carbon from Indonesia.’ But if they buy it from traditional owners they will be pronouncing it loud and clear. Qantas are interested in it, Rio are interested in it and BHP are interested in it. They want to be able to say: ‘We have a good corporate reputation and we support the local traditional owners.’ And there are social co-benefits. I note that Ross Garnaut put a price of between \$20 and \$30—say, it is \$25—so you may sell one star for \$26 or \$27; you may sell two star for \$28 or \$30. So it is an increasing value, but it also enables people—mums and dads in Melbourne, Sydney, Brisbane, Perth or wherever—to be able to engage with traditional owners. That is the disconnect. Whitefellas down south have no way of supporting Aboriginal people out bush. How do you do it? What are you going to do? The easiest way to do it is to buy their carbon. If you put in 100 bucks to buy their carbon, that will offset the cost of your vehicle, it will show your support for the local traditional owners and it will allow them to have jobs and long-term social outcomes. The scheme can not only be the base but actually value add. They do it internationally. We just need to bring it to Australia and do it nationally. But there are some ways and means in all this. One thing we need to be aware of is our standards and regulations, because we need to get the industry right. I would now like to hand over to Allan to talk about those points.

Mr Cooney—One of my concerns and probably a collective concern is that, whilst there is a very general and very strong will in the Aboriginal world to participate in the carbon market, the mechanisms are not available to them to participate in that market. There is a very distinct structural barrier between what they are able to do and what they would like to achieve. It is actually filling that gap that causes me more concern than anything else. If a carbon economy is created that is market driven and the opportunity is there but you find your own investment, do your own compliance, do all the project development and all those sorts of things that happen within the creation of a project that will exclude many Aboriginal people who simply do not have the capacity or resources to be able to do that.

One thing missing in the whole process is a lead agency, a regulatory body or some mechanism to actually allow that to happen, to provide the expertise, the quantification and the verification that is required. The upfront capital costs of starting a project are quite high. The admission cost of a small project for an Aboriginal community is probably way beyond the resources of that community. Many of the projects that we are likely to see, particularly in the part of the world where I am from, will be small-scale projects. They will not be projects worth \$100 or \$200 million; they will be more like projects worth \$5 and \$10 million. The entry fee for that for Aboriginal communities is very low. A mechanism needs to be put in place where that development process is encouraged and activated for people in communities to get into the process and the

scheme. I think the will is certainly there. A group of young traditional owners came to me about six months ago and I explained what the carbon cycle was, how it worked and what the economy looked like. I drew a picture on a whiteboard and explained in pictorial terms. They went home and told the senior traditional elders what it was about. Two days later, an old guy marches into my office, sits down in front of me and says, 'Tell me about this carbon stuff.'

The thing that caught his imagination was not the fact that we were going to capture carbon, that we were going to do something about the environment and climate change; what captured his imagination was that young people could be on their country, they could work on their country and could work at something that they were good at, that they were interested in, that they wanted to do and that captured their imaginations. What captured his imagination was the fact that there is a future there on that land for young people. This proposal and the project that we talked about in some detail with these guys and the senior countryman is a small-scale project. It will probably cost in the order of \$5 million or \$10 million to establish and, if the carbon price is \$20, it will probably turn over less than \$4 million a year. The other side of that is the sheer benefit to that community. You have a group of young people which, all of a sudden, have something they are interested in and they want to do. These are the young people who went and told him the story. They said, 'Grandfather, this is what we want to be a part of.'

Senator COLBECK—So this really has the capacity to be a driver for some of the other things that the community generally has been talking about and trying to find ways to achieve?

Mr Cooney—Absolutely. Alice Springs has been in the newspapers a lot lately for all the wrong reasons. This provides a mechanism way beyond the scope of dealing with climate change or anything else to deal with some of those other things. The co-benefits from are far stronger than the actual climate benefit. What I am saying is there are no mechanisms in place to allow that to happen at this stage within what we have so far been presented with. One thing I would like this committee to take back is that there needs to be a mechanism for these smaller scale projects to be able to step into that space and operate in that space.

Senator MILNE—I want to cut to the chase about where we are up to. I am cognisant of the time. There seem to be two separate sets of issues here. The first issue is: what are the legislative barriers at the moment for maximising the opportunity for participation for Indigenous people? The second issue is: what in reality is being offered by the Carbon Farming Initiative if all those barriers are overcome? It still precludes participation for Indigenous communities, simply because those things which are currently accredited are reforestation, manure management and savanna burning. The savanna burning obviously provides an opportunity, but the other two probably do not in the manner in which they are envisaged. Another issue is that if what you will be engaged in is not Kyoto compliant then you would not maximise the benefits notwithstanding all the rest. You have cited in your submission that one of the big issues is the difference between exclusive and non-exclusive land ownership arrangements. You have also referred in your submission to the way the department is treating non-exclusive land. We have not said this, but the tenor of it is offensive because it basically aligns it with a license or a lease arrangement. I have two questions. Firstly, how much land and how many Indigenous people are we talking about when we are talking about exclusive? What is the quantum difference between exclusive areas of land and non-exclusive areas of land and what is the number of people? Can you give us a ballpark figure for the difference between those two things?

Mr Yarrow—I cannot give you quantities at the moment, but I can speak qualitatively. Certainly we can undertake to provide figures if those are available, but the truth is the overwhelming minority of native title land in Australia is exclusive. I would shudder if it were more than five per cent. The populations of communities that hold native title in Australia are widely varying, from some approximating a thousand in areas of the Central Desert and Western Australia to tens of thousands in the north. So the population groups are quite varied, but if you were to look at a native title map of determinations produced by the National Native Title Tribunal you could confidently assume that one in 20 parts of that map were exclusive. So the opportunities presented by the bill are correspondingly limited. The solution to the problem is for the bill to have an apportioning mechanism for non-exclusive native title. Rather than exclude it, have a mechanism by which the sharing of the entitlements can be determined.

Senator MILNE—You have obviously been engaged with the government departments concerned in relation to this matter and also about getting some uniformity around the country in the treatment of CSRs, for example. Could you just tell the committee quickly where you are up to. Are we anywhere near solving this, or is this still a major outstanding area of failure to come together?

Mr Yarrow—I might ask some others to comment as well, but I would say it is a major outstanding issue. It means the bill fails the practicability test and the fairness test, but the solutions are apparent. If there were to be active engagement from the government, we believe the solution could be achieved by small amendments to the bill, and that would be achievable in a short period of time—within a month, we say. The problem—

Senator MILNE—What is the bureaucrats' response to that? I see that you have proposed various things. What has been their response?

Mr Yarrow—I would say there is no active engagement at the moment. The response has been, 'This is as good as it's going to get in the short time frame.' You will see in the explanatory material for the bill that the government foreshadows coming back to mop up. We strongly oppose the idea that this can be fixed up later on. It must be right now to provide for fairness and access.

Senator MILNE—So that is the first thing. We have a whole lot of legal issues to deal with about exclusive and non-exclusive native title and about uniformity of CSRs so we get some equitable access to the benefits as they may currently stand. Let's park that and say that has to be dealt with and now let's get to the issue of what you would benefit from in the event that that is resolved. This comes back to the issue that at the moment the real benefits are to reforestation. Would it not be better for Indigenous communities to look at this outside a market mechanism in the short term—say, in a fixed price period before it goes to a flexible price where there would be trading—but to look at getting some grant arrangements so that issues like feral animal management, weed eradication and those sorts of things are actually recognised as carbon benefits to be paid for, not marketed?

Mr Cooney—I think those sorts of arrangements have quite a bit of value. However, it raises the issue of additionality. We have been given to understand that any of those sorts of programs that are currently running would be considered additional and would not fall under the Carbon Farming Initiative anyway. So it becomes another way of excluding those initiatives.

Senator MILNE—I should have prefaced that by saying that the difficulty for me in dealing with this is not just dealing with it as a piece of legislation on its own; I am also thinking of it in the context of it being linked to a carbon price mechanism and how that linkage would occur. Currently that linkage would occur by way of Kyoto compliant credits and non-Kyoto compliant credits. Kyoto compliant credits in the short term would be reforestation, manure management and savanna burning. So to the extent that savanna burning can benefit Indigenous communities that could happen straightaway.

The non-Kyoto compliant credits come into an entirely different focus, and that is where my issue is. Would it be better to opt, rather than for non-Kyoto compliant credits but some arrangement for abatement outside that? I am happy to discuss this in a different context.

Mr Foley—The problem with savanna burning is that at the moment a lot of equity consider it as business as usual. So, while you have an IPA, and Indigenous protected area, where the government has paid for a management plan and the implementation of that management plan, people could argue that that is business as usual; it is not additional. Therefore, by having a conservation program on your land, in effect, you have signed away your carbon credit rights.

Mr Yarrow—Even though you are doing it.

Mr Foley—Yes.

Senator MILNE—I am just trying to get to how to advance this complicated area that we are not going to resolve in the short term. Essentially, what I am hearing from you is that some money is required to assist the Indigenous community collectively across Australia to form some kind of skilled central focus to be able to deal with all these mechanisms, and that money has to come from somewhere.

Mr Foley—An industry development fund is required in this area.

Mr Agius—The other part of that is that there are some Aboriginal groups who are gaining quite a high level of income from mining agreements. Those agreements can be seen as contributing to local development in this particular area.

Senator McEWEN—Mr Cooney, going back to you: you talked about projects that you would like to see considered under this scheme. What kinds of project are you talking about? Could you elaborate on that for the committee. Also, if either yourself or someone could indicate when we are talking about participation of Indigenous communities in the CFI, are we talking about particular areas of Australia or particular

communities; or is it broad based? Are there many communities that could participate or are we limited by geography, development or anything?

Mr Cooney—You will have to ask me the second part of that question again. I am like the guy who was sitting here before us: I will forget about it when I answer the first part. I will try to be as brief as I can. I will just explain how we see what one of those specific projects might look like: it is the one that I talked to the old countrymen about in the recent example I gave. It is what we would call a reforestation program. There has been a lot of uncontrolled fires across their land trust. That land trust is an area of about 700 square kilometres.

Senator McEWEN—Where is it?

Mr Cooney—It is south-west of Alice Springs. We designed a project proposal for that piece of land and several other pieces of land. The idea of that project was to regenerate the mulga woodlands that were on that land that had been lost to the fire. We got an opinion from the department of the climate change that that would be Kyoto protocol compliant because it is reforestation of land that has been lost. We costed out a pilot phase for that project, so it was 5,000 hectares of land regenerated into woodland that is currently spinifex sand plain that has been taken back by fire. The cost of that was about \$5 million. It would provide upwards of about 80 jobs over a period of about five years that we have planned the project to run. It is based in a community. The young people were to be a part of the program. We designed training programs for that. They are the sorts of projects that we are talking about that would benefit an Aboriginal community.

The actual compliance costs of getting that across the line before we could attract any investment or an investment partner or anything like that when we did the numbers about two years ago when we did the project design was about \$200,000. There is no way of finding that money. There is nothing in the system. There is no grant system. There are no funding bodies that would provide that money. The whole thing basically washed up on the rocks before it ever got up, but those are the sorts of projects.

There are other types of projects. There are fire management projects, which you would be all well aware of. There are tree-planting projects for cash crops on a really large scale. We had a proposition put to us about 18 months ago from a company in Western Australia that wanted to plant great masses of olive trees. That was not really accepted by the Aboriginal community because of the lack of biodiversity and the loss of biodiversity by doing that. They are the sorts of things that are floating around out there. Now you will have to ask me the second part of your question again.

Senator McEWEN—Before I do that, I want to ask about the first project you mentioned. Was it on exclusive or non-exclusive land?

Mr Cooney—It was on Aboriginal land trust land, so it is Aboriginal freehold land. One of the barriers—and we are not sure how we are going to deal with this barrier—is there is no mechanism in the Northern Territory to create a carbon unit.

Senator McEWEN—The second part of my question relates to the kind of example you gave of a project. Are those examples widespread across Australia through different Indigenous communities or are we talking about specific areas of Australia? Is there potential in Western Australia, South Australia, Queensland and really remote and regional areas?

Mr Cooney—The same potential that that project has is probably transferable into other areas. As you go further north the dynamic of the type of project you would do would change. We have had some conversations with the Jawoyn Association about what a project might look like, how it may be designed and all that sort of thing, but we have not gone beyond the conversations stage with that. We have also talked with some Arnhem Land people about the same sort of thing. Our company is proposing to do seven different project proposals for people over the next couple of years. We have a funding submission in the Aboriginals Benefit Reserve that will allow us to do some of that work, but that is off in the future at the moment.

There is widespread acceptance that participation in the carbon economy is probably a good thing for Aboriginal communities; however, a lot of people and the decision-makers in those communities do not understand what it means to be part of the carbon market. They probably do not really care about climate change. Their concerns are much closer to home and are much more about the social issues and problems they face on a daily basis. If they see that being involved in the carbon industry actually deals with some of those problems, it would be a positive for them. But do not go away with the misapprehension that Aboriginal people living remotely care too much about what is happening in the upper atmosphere. They have problems much closer to home.

Senator McEWEN—I do not suppose anyone has done any sort of quantifiable research as to how many jobs we could be talking about or what kinds of revenue streams would be created?

Mr Cooney—We have done some projections on the project proposal we have done, but over a large scale it would be a guess. It would run into the hundreds and possibly even thousands, depending on the scalability of the project.

Mr Agius—There is the opportunity for Aboriginal businesses to be created from that. There are spin-offs that come from that. That means they are local employers as well.

Senator McEWEN—What about the ‘replicability’—I know that is probably not really a word—of a project from one area to another, so that you would save the initial research set-up costs?

Mr Cooney—Some things would be transferable and other things would not be. I think the structures and how you design the way the benefits are delivered to a community and the types of jobs that people do would be transferable. Some things about the specific projects are probably not transferable, but there is quite a bit of transferability within regions. When you go outside a region a lot of the things are going to change.

Senator FISHER—Mr Cooney, you touched on this in talking about the elderly gentleman who came before you who was concerned about community more than carbon abatement and also you mentioned this in your response to Senator McEwen just then. Is it within your expertise to express a view as to whether the bills will increase carbon abatement in a way that is consistent with protecting the environment and reducing the effects of climate change?

Mr Cooney—Sorry, can you ask me that again?

Senator FISHER—It is also more broadly, Mr Cooney. Is it within your expertise—and the answer may be a simple no—to express a view as to whether the legislation will achieve one of its stated aims of increasing carbon abatement in a way that is consistent with protecting the environment and increasing environmental resilience to climate change?

Mr Cooney—It is not within my expertise; however, I do have an opinion, and that is: yes, it is.

Senator FISHER—Nonetheless, is it correct to summarise your collective positions as: if the government is embarking on a program of creating incentives for carbon abatement, you represent people who would like a share of that the same as other people? So, if the government is going to do it, you would like a share of it because you think it will benefit your communities?

Mr Yarrow—I think I would say something stronger than that. The bill in its present form positively excludes certain Indigenous people from participation and in that way does not optimise emission abatement in a way that it could if those exclusions were addressed.

CHAIR—Thank you very much for your submissions here today. They have been very interesting and helpful.

Proceedings suspended from 12.32 pm to 1.08 pm

MALES, Mr Nathan Henry, Chief Executive Officer, Tasmanian Land Conservancy, Conservation Land Trusts Alliance

CHAIR—Welcome. Thank you for coming here to talk to us today. The committee has received your submission as submission 36. Do you wish to make any amendments or alterations to your submission?

Mr Males—No, not at this stage.

CHAIR—Do you wish to make a brief opening statement before we go to questions?

Mr Males—If I may.

CHAIR—Yes, sure.

Mr Males—I represent the Conservation Land Trusts Alliance, which is a newly formed alliance of state based land trusts around Australia. We represent conservation agreements with over 3,500 landowners and close to three million hectares of land. Essentially we are interested in the principles of healthy landscapes around Australia and we are very keen to see sufficient native vegetation retained, particularly in productive landscapes on private land, for biodiversity to persist. We see strong opportunities for the Carbon Farming Initiative to have co-benefits to assist in that endeavour and we fear potential perverse outcomes if the Carbon Farming Initiative is not constructed carefully to allow for that integration.

Turning to the few specific things that we are interested to see and to continue to work through in the development of this regulation, we are very keen to see landowners who are prepared to enter into agreements which contribute to the National Reserve System being able to access carbon credits under this scheme. We are particularly concerned that people who have already entered those sorts of schemes voluntarily, without any benefit, through conservation covenants—early adopters, if you like—may now be disadvantaged because a market is emerging that they did not know about when they were making those commitments. So we are very keen to see those people given some consideration under this scheme. We would like to continue to work with government and support government in the development of this legislation and regulations that go along with it and we would particularly like to be involved in the land working group that was recently announced.

Senator NASH—I am interested in the comments that you make about covenanted landowners—those who have already placed a covenant over their land—and how they are potentially not going to be able to effectively participate. With the additionality rules around this, ones that are already covenanted would be seen as existing practice, I would expect, so how do you see changes in the legislation taking those covenanted pieces of land into account?

Mr Males—It is a difficult technical question. In principle, those landowners have entered into agreements to conserve the biodiversity on their land, so the motivations that they had when they were doing that were all about biodiversity and nature conservation and not about carbon. Some of those landowners that I am aware of in Tasmania have even gone to the extent of including in the covenant agreements that they signed some statements to the effect that they are not considering this to be an agreement that restricts their opportunities under possible future carbon markets. Some landowners have been aware that markets may emerge and have been specific about not wanting to lose their opportunities. Clearly it is hard because once you have already made a commitment not to harvest the forest, for example, it is then very hard to make an additionality case. So I think what we are suggesting is that some thought be given to how those people may be looked after under this scheme.

There is talk of a positive list where these sorts of cases may be dealt with, so potentially we could see them as a special case and put them on the positive list, or potentially we could do something which is not inside the CFI but recognises the commitment that these people have made and rewards them in some other way—potentially through a fund or a particular stream of assistance under the Caring for our Country program or something of that nature.

Senator NASH—It does seem really to be one of the potential perverse outcomes, doesn't it? Those who have actually put in the time and effort and contribution around biodiversity and improving land are the ones that are going to be excluded from having any benefit. If you are somebody who has not done it before and it is not a pre-existing use or anything like that, you are going to be able under the CFI, as I understand it, to take advantage of that, yet those landholders and owners that have already been doing it are the ones left out.

Mr Males—That is exactly right.

Senator NASH—It really does seem a perverse outcome.

Mr Males—We think so. Essentially what we are trying to achieve across Australia is a network of reserves and natural areas which allow native species to persist and provide ecosystem services in private lands and productive landscapes—they are the most important landscapes to apply extra effort to. They are the places where most of the threatened species occur and the places where there are most ongoing threats to biodiversity and native habitats occurring. So, in terms of a healthy landscape, what we are seeing is landowners really beginning to embrace those concepts, and the momentum of the private land conservation programs around Australia is really growing; they have become mainstream rather than fringe. What we are afraid of is that what may happen is that, because private land conservation programs have few resources attached to them and they are largely voluntary, landowners may choose to consider their native areas purely as carbon areas and not necessarily as biodiversity conservation areas, and obviously they can be both. So I guess what we are hoping for is very strong integration where both can be recognised.

Senator NASH—Just on the complete alternative to integration, this issue having been thrown up through the process of looking at the bill, should we indeed be looking at the biodiversity issue separately, outside a carbon construct like the Carbon Farming Initiative, and look at what needs to be in place better for biodiversity, completely separate to this piece of legislation?

Mr Males—Potentially, but it would be a missed opportunity, because some of the best carbon stores in the landscape are the remaining areas of native vegetation. So, at a small additional cost—possibly a zero additional cost—we can shape these sorts of initiatives to deliver both strong, useful carbon outcomes in landscapes and ideal biodiversity outcomes. So, in my view, the Carbon Farming Initiative does not replace the need for additional biodiversity conservation measures, but integration will take us 50 to 80 per cent of the way towards where we need to get to.

Senator NASH—Very simplistically, it does seem odd that, if you have a stand of trees for biodiversity that you have locked up with a covenant where you have said, ‘I’m never going to knock them down,’ you cannot access any benefit, as compared to somebody saying, ‘I was going to knock that down but I’m not now,’ and therefore being able to get some kind of benefit through this process.

Mr Males—Exactly right.

Senator NASH—It is really completely skewed if—

Mr Males—I think that is right. Also, carbon agreements are often medium-term agreements, or 25-year type agreements, and a covenant is perpetual. So, even if you did a carbon agreement and then made a perpetual commitment after that—you had realised some carbon credits—you would then be excluded from the market at the end of that agreement. Trying to establish a very long-term mechanism is something that really needs thinking through—how the integration works with those perpetual commitments that those covenant landowners are making.

Senator NASH—Thank you.

Senator MILNE—To go to the issue of the perverse outcome where people who have done the right thing are not going to benefit; people who have not done the right thing will benefit. That does seem grossly unfair. Having said that, it is difficult to see how you can go back and reward everyone. There would be no money left for anything. The question is: how to deal with this? There is an alternative—and this is assuming that there is a connection between the carbon farming initiative and a carbon pricing mechanism. In that instance, if you created a fund from the revenue stream and used that fund to pay to maintain the existing carbon store and then pay for incremental enhancement of the store, does that go some way to addressing at least some of the issues you have raised?

Mr Males—I think it would go a long way. A lot of this is going to be about perception in that community—perception that they have been considered and the commitment that they have already made has been in some way recognised and is seen as valuable. A mechanism like the one you describe would go a long way towards that perception and could go along way towards assisting those landowners with the ongoing management burdens that they have on those lands, and could assist with sequestering additional carbon into those areas. Solving that perception issue for the people who are already in those covenanting schemes is really important for the future of those covenanting schemes and encouraging other people to continue to consider them.

Senator MILNE—Who would do the baseline assessment? Let us assume that you had a covenant area on your property of a couple of hundred hectares or a couple of thousand hectares—whatever. There would be a separate component for maintaining that carbon and then a component for any enhanced carbon by restoring

degraded forests or expanding the general incremental growth in the forest. Who would you assume should bear the cost of methodologies for establishing your baseline and then doing the measurements and all those sorts of things? That is quite a high transaction cost. Could that be aggregated, say, to the trusts? How do you assume that might be dealt with?

Mr Males—Yes, I think so. There are already mechanisms in place for monitoring those covenants and for doing ecological baseline monitoring. So people with relevant skills are already visiting those properties on a regular basis. Some of the high cost can be absorbed into existing processes. In terms of methodology development, I suspect that cost could be shared. Certainly, the land trusts have already begun looking at some opportunities for developing those methodologies.

Senator MILNE—How far away they? This is relatively urgent. Expressions of interest have been called for to submit methodologies that might meet the criteria. Where are you on that scale?

Mr Males—If 10 was the endpoint we would probably be at two or three.

Senator MILNE—So there is a while to go.

Mr Males—Yes.

Senator MILNE—We have asked a lot of people this question: some of the money in the carbon farming initiative needs to go to assisting the potential certifying or management agencies who might aggregate and take responsibility for some of this?

Mr Males—It would certainly be very useful.

Senator MILNE—Thank you.

Senator COLBECK—Have you seen any impact on the covenanting process as a result of people seeing this coming and hanging back a bit waiting to find out what is going on? Can you give us a sense of scale in that?

Mr Males—Yes. I would say over the last three years we would have seen 30 to 50 per cent of the people who appear to be very interested in doing a covenant holding back and citing uncertainty about potential carbon markets as the reason for holding back.

Senator COLBECK—That is a fairly significant percentage. This proposal provides an opportunity—people have been looking at ways of actually getting some resource into stewardship matters for a long time. There have been government pilots and things of that nature. But this is, hopefully, a market mechanism that provides the opportunity to inject some funds into maintenance, improvement and management of certain parcels of land for a number of reasons. The primary objective under the scheme is obviously for carbon storage but it has the capacity to provide a heap of flow-on benefits.

Mr Males—Exactly right.

Senator COLBECK—People are holding off or are they writing clauses into their covenants to provide baselines as well?

Mr Males—People have done both. I have seen landowners concerned about this asking for specific clauses in their covenants to try to safeguard their opportunities, if you like. I suspect those clauses are not very effective because however you look at it if you have made a legally binding agreement not to clear your forest it is difficult to make the additionality case.

Senator COLBECK—There are some elements around that, as Senator Milne was discussing. It might be that your intention is potentially to improve that forest as well. If you are just not going to harvest it or exploit it, that will have a set of results. But if there is capacity to improve a degraded forest, for example, that has additional capacity take-up opportunities, it might be that someone might say, 'Let us place an initial covenant around to it and we will go to that stage. But we will not go to the stage of saying that we are going to improve it.' As well as slowing down covenanting process, it may also be limiting the progression of improvement as part of that process too. That is one of the opportunities that exists—if you say, 'Okay this is what we've got; this is the measurement. We will draw a baseline and now in anticipation of what might be coming down the track through whatever process.' And then you do have that baseline in place at commencement.

Mr Males—Indeed. I think that is right. A lot of the covenanting programs have targeted areas which are close to pristine—

Senator COLBECK—A standard set of procedures around a process, then. Is that what you're saying?

Mr Males—Yes.

Senator COLBECK—You mentioned a carbon agreement being, say, 20 to 30 years versus covenanting being perpetual. But this proposal talks about 100 years for permanence. How does that impact on that element of it?

Mr Males—The 25-year agreements I was referring to are not really under the CFI but under the sorts of agreements that are emerging under the VCS under Kyoto. So I guess the ideal would be to use a conservation covenant mechanism as the security process for your 100-year agreement.

Senator COLBECK—I think we are still slightly at odds on this. We have been told, and discussions have said, that it is pretty fixed, that 100 years is a Kyoto process specification. That is why that has been put in there. We have heard from other witnesses that there is capacity to have different levels and that ought to be considered as part of this process. One witness told us that 100 years was a deal breaker in respect of soil carbon and farming. I am just trying to explore how that fits in, if there are other Kyoto compliant processes that provide for different time frames in respect of carbon contracts and how that aligns with the permanence requirements under this proposal.

Mr Males—This is not my area of expertise, but I think—

Senator COLBECK—I am sure someone is listening who will be able to tell us later.

Mr Males—I hope so. But as I understand it the permanence requirements come in under afforestation and reforestation measures. Recently in Tasmania there have been projects approved under the voluntary scheme under Kyoto which are 25-year agreements. That is under the improved forest management scheme.

Senator COLBECK—So there are slightly different categories.

Mr Males—They are slightly different, yes.

Senator McEWEN—Mr Males, you said in response to a question from Senator Colbeck that between 30 and 50 per cent of applications for covenants are stalled, if you like, awaiting a decision on the CFI. Is that right, or are they waiting on a price on carbon?

Mr Males—They are not necessarily waiting on a decision on the CFI or a price on carbon, but certainly we have been aware of expressions of interest coming to covenanting programs and 30 to 50 per cent—I think that figure is about right—have gone some way down the track in considering a conservation covenant and decided not to proceed at this stage. There is a general feeling in the community that the native vegetation may be worth something in the market at some point and that a covenant may—

Senator McEWEN—Yes, I understand that. You say it may be worth something in a market. It must be the CFI and/or a price on carbon. What other market is it going to be?

Mr Males—That is exactly right, but this was over the last few years and the CFI is obviously recent. So I was referring to an emerging opportunity to generate income from managing those native areas.

Senator McEWEN—All right, but those expressions of interest are held up pending some kind of certainty about what is going to happen in this space. Is that right?

Mr Males—Indeed.

Senator McEWEN—So it is important to get the legislation sorted out for that purpose.

Mr Males—Yes.

Senator McEWEN—You talked about 30 to 50 per cent of expressions of interest. Are you able to quantify that in terms of hectares?

Mr Males—No. That is me drawing on experience. A lot of these programs are voluntary, so they begin with a conversation between a landowner and an extension officer from a program. The figures are difficult to quantify, so that is my sense of the amount.

Senator McEWEN—I am still interested in what sort of area we are talking about or perhaps even where it is. Are you talking about expressions of interest on covenants equivalent to what already exists? Is it several hectares on a small property, a thousand hectares on a bigger property, or are we talking about Tasmania or South Australia?

Mr Males—I am talking about my experience in Tasmania. I think where there has been an effect is largely with more commercial landowners rather than with lifestyle landowners or smaller scale landowners, who are

more committed to the conservation outcome. So I am talking about on larger farms and on private forestry properties.

Senator McEWEN—So you are talking about organisations that manage land for a profit rather than doing things out of the goodness of their hearts, if you like, as a smaller landowner might do?

Mr Males—Indeed.

Senator McEWEN—So in terms of their business plans for the future it is important to get a market mechanism in place as soon as possible to reward their attempts to abate carbon?

Mr Males—Yes, I think so.

CHAIR—Mr Males, there are land trust alliances in the UK and in the US and there are carbon trading schemes in the UK and in some states in the US. How have the land trust alliances in those countries dealt with this issue? More importantly, I suppose, how have the governments dealt with it?

Mr Males—The answer is I do not know. We are a newly formed alliance. We have some informal connections with the US Land Trust Alliance. I am happy to take your question on notice and come back to you.

CHAIR—That is fine. It seems to me that there is a great problem with the additionality test in relation to land trusts. I suppose you have had a good look at section 41. From your perspective, is there any light at the end of the tunnel in section 41?

Mr Males—For existing covenants there is very little light at the end of the tunnel. But for the future of covenanting—that is, people who have not yet covenanted or entered into a carbon agreement—we would see there being strong potential for covenants to be used as carbon agreements or to create a new mechanism that recognises carbon and biodiversity. So, yes, we see really strong potential in that section and in the legislation generally for going forward.

CHAIR—So it is prospective?

Mr Males—Indeed.

CHAIR—There being no further questions, thank you very much, Mr Males; it has been very interesting.

[1.38 pm]

BLAKERS, Ms Margaret, Director, Green Institute

TAGER, Mr Jeremy, Manager, Political Unit, Greenpeace Australia Pacific

WINN, Mr Paul, Greenpeace Australia Pacific

Evidence from Mr Winn was taken via teleconference—

CHAIR—I welcome representatives from the Green Institute and from Greenpeace. Thank you for coming along today. The committee has received your submissions and has numbered them 7, 20 and 46 respectively. Do you wish to make any amendments or alterations to your submissions?

Mr Winn—No.

CHAIR—Do you wish to make a brief opening statement, with the operative term being ‘brief’, as we have three people here.

Ms Blakers—Yes.

Mr Winn—Yes.

CHAIR—We will go with Ms Blakers first, and then we will come to you, Mr Winn.

Ms Blakers—It is clear from a climate perspective that the landscape as a whole is really crucial for dealing with climate change. It accounts for over 20 per cent of Australia’s net emissions. That is an important point: it is net emissions. So, within that 20 per cent, regrowth is offset against emissions from, say, logging and clearing of native forests. So the actual quantity of abatement that is available in the landscape is much larger than you might think from that net figure. The CFI is a mechanism that the government is putting forward for trying to harness some of this abatement. It is not a market mechanism in the sense that there is no penalty for emissions. It is actually more of an incentive mechanism whereby there is a certain amount of money available to spend in the landscape for the purpose of abating climate change.

If we are looking at incentive schemes we really have two choices about how we set those up. One is in the way that the Carbon Farming Initiative is set up, which is to pay by the tonne of carbon. Using that generically, you pay by so many tonnes of carbon sequestered or you are paid for avoiding emissions. The alternative way to provide incentives is through a fund whereby you pay people or you provide incentives for doing activities which are good for the climate, in the broadest sense, both on natural ecosystems and on agricultural land. The key difference is that, if you pay by the tonne of carbon, the priorities will be determined by the quantity of carbon and by the commercial agility of the proponents.

In my view, the CFI has considerable potential for perverse outcomes, and quite a number of the submissions have put forward ways of dealing with these perceived risks from the Carbon Farming Initiative. I want to briefly highlight two. The first was partly referred to in the previous evidence about the chilling effect of people putting their land under covenant because they do not know whether they might be able to get funding from some sort of climate mechanism if they hold off. More than that, I think another major threat in that arena is that there will be pressure to wind back existing clearing controls, because one of the other unfairnesses in this is that, if you are legislatively prevented from clearing, you have no access to this scheme. If you have a legal right to clear, you do. So I would suspect that, in some states, there might be quite considerable pressure to wind back clearing controls.

The second thing is a kind of reverse possible impact, which is that, as far as I can see, the legislation at least has no provision that prevents the linking of MIS schemes with the CFI, so you can basically financially engineer products that will take advantage of the tax provisions under the MIS schemes, be eligible for carbon credits and, possibly, also link into the renewable energy credit scheme. So you may have financial engineering that enables you to take advantage of all three and, in the process, unleash another wave of tree planting across the country.

So, in my view, I think it is critical to put money into the landscape sector, but it would be far preferable to do it through a fund and to fund that through a portion of the income from the tax trading scheme. Thank you.

CHAIR—Mr Winn, you may make your opening statement.

Mr Winn—I would like to support Margaret’s views; we agree with them generally. Let me begin by saying that Greenpeace believes that the agriculture, forest and land use sector must accept its responsibility

for its greenhouse gas pollution. Polluters should be made to pay for the environmental impacts. Nevertheless, the CFI is an opportunity to reduce our land-sector emissions as well as to improve unsustainable agriculture and forestry practices. We also see this as an opportunity to build climate resilience into our natural ecosystems and agricultural landscapes. However, how you do that is the important question.

CHAIR—Mr Winn, I am sorry to interrupt. Can I ask you to slow down a bit. We are having some problems understanding you, because of the line; your words sound as if they are running together. You will have to make a deliberate choice to go a bit slower.

Mr Winn—Okay; thank you. So generating offsets in one sector to allow emissions to continue in another risks forestalling the economic transition in the energy sector that we require to meet climate protection objectives. Indeed, attempting to reduce emissions from the land sector to offset fossil fuel and industrial emissions actually risks increasing our total greenhouse pollution due to measurement uncertainty in permanence, leakage and climate impact predictions.

Australia's fossil fuel emissions continue to grow, and a substantial price on that pollution and complementary measures are required to meet our international obligations. Greenpeace therefore believes that the CFI should be financed by a percentage of revenue derived from a price on greenhouse pollution or the sale of emission permits under an ETS. However, should our recommendations be ignored, the risks inherent in land-sector offsets need to be minimised. I will just run through a couple of those.

Firstly, the massive uncertainty surrounding measurements of greenhouse gases entering and being removed from the atmosphere by the land-sector activities means that offsets need to be discounted, we think, by at least 50 per cent compared to fossil fuel and industrial abatement, which is much more easy and more certain to calculate. Secondly, due to the lack of permanence of the land-sector emission reduction and sequestration and the increased climate risk that is posed in the land sector, we believe that all offsets generated should be guaranteed for at least 100 years, which is the approximate time needed for the bulk of atmospheric greenhouse gas to be cycled through natural processes. Thirdly, we think CFI's offsets should only be allowed for emission reductions and sequestration that can be measured across a state or territory boundary. This is to minimise the risk that emissions will be displaced or will leak into other areas. So we are opposed to project based offsets and we do not think they should be contemplated. Fourthly, we believe that biodiversity co-benefits need to be maximised by only allowing offsets from rehabilitation of natural ecosystems rather than commercial plantation establishment. Finally, we think that the total CFI offsets captured should be around 10 per cent of the total number of permits of an eventual ETS.

Greenpeace believes that the best way of minimising these risks is, as Marg just suggested, to provide incentives for land-sector mitigation through a fund which should be financed through a price on carbon or the sale of emission permits. Thank you.

CHAIR—Thank you. We will now go to questions.

Senator MILNE—I would just like to cut to the chase. From where we have been in the submissions this morning, it is very clear that those sectors that have measurement accreditation already are the ones that will benefit first, and in this case we are talking reforestation, manure management and savannah burning. The latter two are relatively small, so we are talking about, as it currently stands, reforestation. We are told that the legislation will not include plantations established for harvesting, and yet you are suggesting that there is some potential to link up managed investment scheme forests with renewable energy certificates and with the Carbon Farming Initiative. Can you just explain, because this is a perverse outcome that everyone is worried about: the extent to which covering the landscape with trees under the CFI will be to the detriment of food production, water management, biodiversity outcomes et cetera. Would you like to address that?

Ms Blakers—As far as I understand it, what the legislation says about the relationship between managed investment schemes and eligibility for carbon credits is that you cannot convert an existing MIS into a permanent carbon sink and then get the credits for that. But, in my reading of it, there is nothing that prevents you from establishing a new MIS, and that has all the tax advantages that go with that. Added to that are the carbon credits that you would create by, on a given plantation estate, in effect taking your carbon density from whatever it is under a pasture to whatever it is under the average age of the trees that you are going to plant.

The requirement for an MIS is that you plant trees for felling, or words to that effect. So you would be looking at a plantation estate that would supposedly be felled on whatever the rotation is—20 or 30 years—and you would be looking at the carbon credits that would accrue from going from zero to the average carbon held on that estate at the average rotation length.

The reason I am also thinking that it might link into the renewable energy credits is that you can grow and attract renewable credits for energy crops. So it does not seem to me inconsistent to have an MIS that is for the purpose of felling to create an energy crop to get renewable energy credits and some carbon credits on the way through as well.

Senator MILNE—We had the A3P and the forestry industry people here this morning saying that plantations established for harvest cannot be included so they will be excluded. That is my understanding from what they had to say, so I think that needs some clarification from this committee when we get the department here.

Another issue is the one of perverse outcome being a disincentive that was raised by the representatives of the Indigenous community. In their submission they say that all of their protected areas will not qualify and that is a significant matter for them. As well, a number of their savanna burning initiatives are already paid for under various other schemes and therefore there is no additionality in that. We have just heard from the land trust that people who have covenanted land will not benefit. Can you explain to me, under what you are proposing here with the fund, how you would differentiate between paying people—let us assume you protect an area of forest—for the volume of carbon in that forest and what you are suggesting in terms of paying them for stewardship of that forest? What would be your ground rules?

Ms Blakers—I think that under the CFI there are a number of aspects that are unfair, some of which you have alluded to. It is the fact that if you have an existing protected area, whether it is a covenant, an Indigenous protected area or an existing national park or similar type of reserve, you would not qualify for any funding. The other big area where you would not qualify is where you have existing native vegetation and you simply want to look after it. It is not going to increase the carbon, but by looking after it you are going to increase its resilience in the face of climate change and therefore its ongoing capacity to store carbon. So again that does not get a guernsey under this scheme.

So what I am suggesting is that, instead of looking at how many tonnes of carbon and paying for increases and for avoiding decreases, we should be looking at a far more broadbased landscape scheme which looks both at natural ecosystems and agricultural ecosystems—and, by the way, at marine vegetated ecosystems which are completely out of this picture. You look at what the priorities are on each of those land types and you allocate funding according to the management needs of those different land types. Or if you want to provide incentives to change agricultural practices, for example towards types of management that will increase carbon density or increase the resilience of the landscape, that they also could be paid for from a fund. Furthermore, the whole education-research-training dimension is completely absent from the CFI, and that is crucial because a lot of these changes in landscape management will come about through improved knowledge and applying that knowledge.

Senator MILNE—So if it was linked to a carbon price mechanism, and we are assuming that from this conversation, how would Australia benefit in terms of meeting its international obligations if you are just dishing out money to do good things but there is no measurement or accreditation against the target?

Ms Blakers—I think there are two different kinds of measurement that we are talking about. There is the project level measurement that you are looking at under the CFI, which is a very intensive kind of requirement. Then there is the sort of continental scale measurement which Australia currently does in order to report to the UNFCCC. So I think there are two different levels of accountability requirement.

If you go for a whole-of-landscape approach then you avoid having to go project by project, hectare by hectare measuring in a great level of detail. You will get carbon benefits as distinct from climate benefits by doing the things that are causing the biggest emissions, and that is logging native forests and clearing native vegetation. They are the two biggest sources of emissions, leaving aside animal husbandry. So, on a broad scale, with a combination of regulation and incentives, you can get very big abatement across the landscape as a whole. You do not take on all the details of hectare by hectare measurement requirements and, with the fund, you also have the capacity to increase the resilience and therefore reduce the risk of carbon loss on the large scale across the landscape.

Senator MILNE—A final question: in terms of levels of abatement there is quite a difference of opinion, it would seem, about what is potentially there. The government seems to be implying that under the Carbon Farming Initiative, even if it is linked to a carbon price, there will be relatively small levels of abatement. Yet I just heard you say that on a landscape scale across Australia you could potentially have a huge level of abatement and this will go to the question of an appropriate target in the longer term and the potential difference that article 3.4 could make. Do you want to comment on that?

Ms Blakers—Yes. There are two levels of uncertainty that relate to how the CFI might function. The first is whether and how it is linked to a carbon price in Australia. The second is what the international accounting rules are and whether Australia opts in to some activities that it currently does not report on—and the biggest one there is native forest logging, forest management. I have lost the thread of the question now.

Senator MILNE—Basically, the government is saying that it thinks it will be small; you are saying that you think it will be large. I am asking you how that relates to article 3.4 and how that might impact on the Carbon Farming Initiative and if it will link to a carbon price.

Ms Blakers—The Carbon Farming Initiative, certainly if it is a voluntary mechanism, will be small. If it is a compliance mechanism, if there is no cap on its relationship with the tax or trading scheme, then the Kyoto compliant components—that is, particularly tree planting—then it is hard to say. I have no modelling or any way of putting a number on it, but it is potentially quite large. I suspect that ‘devoided deforestation’—that is, clearing—will be quite small because the transaction costs are just too big. Also, I would think the commitment for 100 years is quite a big disincentive when the amounts of money are likely to be relatively small. Technically, there are quite large levels of abatement in the landscape. The CFI is not an efficient mechanism for getting those made real and, in particular, if Australia signs up to Kyoto 3.4—that is, the forest management component—that will bring in native forest logging. If native forest logging comes in—it is the biggest single source of market ready abatement in the landscape and it is managed effectively by a handful of state forestry agencies—you will have a small number of players; you will have a large amount of abatement. If that becomes a Kyoto compliant mechanism, it will simply flood whatever market there may be.

CHAIR—Can I just come back to this issue of commercial plantations. We have had evidence this morning from A3P and the Australian Forest Products Association that is completely at odds with what you are putting now. I would like to get some clarity or analysis from your perspective. The Forest Products Association basically argue that the additionality clause means that there will be very little investment from the forestry industry to try and get a carbon farming initiative process in place. They say both the explanatory memorandum and the additionality test on 41 make it really difficult for them. Have you read their submissions?

Ms Blakers—No, I have not read their submissions. Ultimately, it is going to depend on what is in the regulations, how the methodologies are put together, what is in the positive list and what is in the negative list. That is all a blank sheet. We do not know what is going to be in there. But, on the face of it, the legislation to my mind does not prevent the scenario that I painted of linking up MISs with the carbon credits.

CHAIR—How about the additionality test—41(3)(a), 41(3)(b)?

Ms Blakers—Yes, exactly. The history of MISs in the last 15 or 20 years is that they have been largely driven by the tax. They are essentially a tax farming mechanism, not a tree growing mechanism. The tree growing is a means to access the tax concessions. They have all virtually fallen over in the last couple of years. On the face of it, that says it is not common practice to be able to carry out that activity in a commercially viable way.

CHAIR—Really?

Ms Blakers—If the MISs have all collapsed because they are unable to find—

Senator COLBECK—That is not true.

CHAIR—I will come to you shortly, Senator Colbeck.

Ms Blakers—They have virtually all collapsed in the last two or three years.

CHAIR—But wouldn't the argument be that the common practice is growing trees?

Ms Blakers—No, it is not.

Senator COLBECK—Of course it is.

Ms Blakers—The common practice, if it were driven by the market for wood, would not be to grow more trees. We have plantations enough in Australia to provide for Australia's wood needs.

Senator COLBECK—That is not true either.

Ms Blakers—I am sorry, it is.

Senator COLBECK—In volume terms I will agree with you, but in species terms it is complete rubbish.

CHAIR—Senator Colbeck, I will come to you. Can I just—

Senator COLBECK—I get frustrated with this stuff being put on the public record all the time without it being challenged. It is simply not true.

CHAIR—I am sure you are going to challenge it. The industry itself goes on to say that there are so many issues they would not be accessing this. There is regulatory interference, the uncertain price in the market, the ambiguity of Kyoto, sovereign risk, the additionality test, compliance problems, higher costs with seeking project approval, unresolved issues and intellectual property. It did not seem to me that the submissions that we got from the industry were saying, 'Just clear the way for us to get involved in this.' They are saying: 'This is really a problem for us. Under this legislation we won't be there.'

Senator NASH—How are they going to do that?

Ms Blakers—If that is the case, that is good news from my view point. But I think the history of these schemes is that you do get some unintended consequences. I certainly have not the capacity to do the kind of financial modelling and so on that I have no doubt many companies are currently doing to see how they can put these schemes together.

CHAIR—Sure. I am not interested in the financial modelling at the moment. I am interested in the legislation to see whether the legislation does as you say, or does as the forestry groups are saying. You are saying that it is a problem because they will get access to it, they will manipulate it and there will be issues. They are saying that it is just all too hard for them. That is my understanding of the submissions we have received.

Senator NASH—Can I just clarify in the first instance the Green Institute. You are like the think tank for the Greens in the same way that the Menzies is for us.

Ms Blakers—Yes, correct.

Senator NASH—How are you funded?

Ms Blakers—From the funding that comes through that program, the Grant in Aid, and through donations.

Senator NASH—We have had a lot of discussion around the CFI and whether or not it would operate standalone under a voluntary market or if there needed to be some sort of mechanism. Are you supportive of a carbon tax straight up?

Ms Blakers—In the landscape sector?

Senator NASH—No, the carbon tax is being discussed more broadly at the moment by government and everybody else. Do you support a carbon tax?

Ms Blakers—I do not think anyone is proposing a carbon tax on, say, land clearing or—

Senator NASH—No, no. Just back a step: I am asking you whether or not the Green Institute supports a carbon tax.

Ms Blakers—We support a price on effectively fossil carbon, which is more or less what is under discussion.

Senator NASH—Do you think that the CFI can actually deliver any benefit in a voluntary scenario or does there need to be some form of market mechanism in place?

Ms Blakers—As I understand it, the price in the voluntary market at the moment is quite low—\$2 or \$3 dollars or something. That will help at the margin but it is not going to make any significant inroads on the emissions or the abatement that is available in the landscape sector.

Senator NASH—So to access that available abatement, you would need some kind of mandatory mechanism carbon tax or an ETS of some sort.

Ms Blakers—No, I think there is a range of mechanisms that would enable that abatement to be accessed of which a price mechanism is one but not one that I favour. For example, with native forest logging, the simplest thing to do, as public native forests are managed by government agencies, is for those agencies to be directed as to what they can do.

Senator NASH—So that comes back to rather than have, say, a carbon tax you would rather see the fund that you talk about in your submission.

Ms Blakers—In the landscape sector, yes.

Senator NASH—Just on that: I think you say in your submission that it could be achieved:

by setting aside a minimum of 20% of the revenue from the carbon price scheme currently under negotiation and allocating the money through a fund (or funds) with defined objectives and priorities.

Given that you are the think tank for the Greens and yesterday Senator Milne was discussing the issue of 50 per cent of that revenue from the carbon tax going obviously to compensation and her concerns around that only leaving 50 per cent for industry, and research and development, you are now talking—obviously, with the support of the Greens—of another 20 per cent coming out of that total to go to a fund. Doesn't that only then leave 30 per cent for the industry, and research and development? Senator Milne was concerned about it only being 50. Isn't it going to reduce it by another 20 per cent?

Ms Blakers—Who I am speaking for is the Green Institute, not the Greens. I am putting forward an argument as to what the landscape requires. How that all washes up with the other sectors is a matter for the negotiations, so I am not making a comment on how much should go to the solar industry, R&D—because they are also looking for a fund—or any of the issues; I have not looked at those.

Senator NASH—But I am looking at it in a very simplistic way and I take that it is just the institute. But if 50 per cent is going to the compensation—or just over 50 per cent—which the government has said, you are talking about 20 per cent of the revenue from the carbon price scheme should go to this fund. Doesn't that only leave in your view 30 per cent for any industry compensation or any R&D that needs to be done under this?

Ms Blakers—I am not making any comment on how much goes where apart from saying that I think if we are serious about the landscape then we need a fund that is of that order: 20 per cent of \$11 billion or so, I think, is the estimate. If the carbon price is relatively low, it would mean about \$2 billion or so for the landscape sector. Whether that comes entirely out of a tax or trading scheme or other sources, I think that quantity of money is the kind of input that should go into this sector. That is the point I am making; I am not making any comment on how much should go in the wash-up of any negotiation. That will all be debated out. That is not what I am giving evidence about.

Senator NASH—So that 20 per cent—what sort of actual quantum funding is that in your expectation? You must have some idea of how much money a fund would need to work in the way you see?

Ms Blakers—As I just said, at the low end of the prices that are being talked about, that would be around \$2 billion. I think that is the minimum that should be going to the landscape sector. I think the investment in looking after the land, both natural ecosystems and agricultural land, is well underdone in this country. I would actually say that there needs to be a re-evaluation of land management across the board in Australia.

Senator NASH—So when you say 20 per cent, you said that that is at the low end. What sort of figure are you saying when you say 'low end'?

Ms Blakers—The estimates that I have heard for a carbon price of around \$20 to \$25 a tonne—CO₂, that is—would be that the total income would be around \$11 billion, and 20 per cent of that is roughly \$2 billion.

Senator NASH—Okay, so you are working around that 20 per cent to 25 per cent area. I was just trying to get a sense of what you actually thought. So in a situation where, say, we end up with an ETS model and the carbon price, for the sake of picking a price, goes to \$75, are you still maintaining that it should be 20 per cent of that overall that goes to this fund?

Ms Blakers—What would that be? Seven times that—\$15 billion per annum? We could do a lot with \$15 billion per annum.

Senator NASH—That is what I am saying—there would be 20 per cent, and that total figure could be floating an awfully long way, so—

Ms Blakers—All I want to say is that there is absolutely a capacity to spend in the order of several billions of dollars per annum in the landscape and that that kind of funding would have climate benefits both in terms of abatement and in terms of increasing the resilience in the landscape to climate change.

Senator NASH—Okay. Have you had any discussions with others about this 20 per cent fund idea? I know that Senator Milne referred to a fund before, but I do not think you mentioned, Senator Milne, any kind of figure; it was just the principle, wasn't it? Have you had discussions with others about this particular proposal? Have you had any discussion with government about this?

Ms Blakers—No—

Senator COLBECK—Mr Winn in Papua New Guinea has that in his submission—the possibility of a fund. That is, if I read his submission right.

Ms Blakers—Maybe Mr Winn would like to comment.

Mr Winn—Sorry, could you ask again?

Senator COLBECK—We were just talking about the possibility of a fund rather than the mechanism that is being considered as part of the CFI. Your submission talks about a fund for the purpose of securing abatement emissions from land use purposes. I just thought you might like the opportunity to expand on that. We just did not want to forget that you are out there in Papua New Guinea and concentrate on Ms Blakers all the time.

Senator NASH—Senator Colbeck is very kind.

Mr Winn—Our belief is that a fund would be a safer option to provide incentive to reduce emissions from land sector, and that is what it is based on—we believe that the land sector offsets are a great risk when trying to mitigate greenhouse gas emissions, and a fund would alleviate a lot of those risks. We have not settled on a figure, a number or even a mechanism for it to be implemented, but funds have worked in other areas where incentives are required, and they require much less scrutiny and much fewer accounting issues that are inherent with land sector offsets.

Senator NASH—Thanks, Mr Winn. Ms Blakers, in your opening statement you were talking about the legislation and—correct me if I am wrong—I am fairly sure you said that there were no regulations, no methodology, no positive list and no negative list as yet that we can access. In the light of all that, isn't it incredibly difficult to pass a piece of legislation were our knowledge of how this is going to work is so very limited, with there being no regulations on how it is going to work, no idea yet about the methodology and how it is going to work and, as you say, no positive list and no negative list? Surely it is very difficult to say whether or not this piece of legislation should be passed with this incredible lack of detail.

Ms Blakers—On the one hand, there is that lack of detail and, on the other hand, there are the risks that I think are evident and the unfairness in the sense of who would be able to access funding through this mechanism and who would be locked out of it. So I think there are a number of reasons for re-looking at this approach to tackling climate change in the landscape sector.

Senator NASH—I know you talk about the alternatives, but are you saying that we should not be passing the legislation?

Ms Blakers—I think the legislation would provide a framework for the voluntary sector. Personally, I think it should be limited to the voluntary sector until we have sorted out some of the other consequences, have some more clarity about what it might do and have looked at some of the alternatives, a fund of being the obvious one.

Senator NASH—Also in your submission you talked about the incentive for large-scale tree planting, which you have covered, similar to the MISs. I note there that it is not just MISs; we also have legislation that relates to the tax breaks for carbon sinks, which is separate—

Ms Blakers—But that is running out—

Senator NASH—It is not running out; it is just the upfront changes to the longer term tax break. You state: ... state and local land management authorities will be ill-equipped to deal with the impacts.

Can you explain what you mean by that?

Ms Blakers—For decades actually plantation establishment has been a really controversial practice. If this drives more of it, it will be controversial again for a whole variety of reasons—the social impacts of taking over whole valleys and areas to put under plantation—

Senator NASH—I understand that. I particularly was interested in that you put in that the state and local land management authorities will be ill-equipped to deal with it.

Ms Blakers—In terms of putting the planning mechanisms in place to prevent any unintended consequences. Carbon does not exist in itself; carbon is embodied in something—it is embodied in soil and vegetation. A price on carbon, if it is going to effectively promote putting more carbon into the landscape, will be driven by the carbon quantity—so the more carbon, the more money; it is quite easy. How that manifests itself on the ground will have to be controlled by planning schemes, state government and local government zoning and other mechanisms.

Senator NASH—You wonder how much power the Commonwealth will have to override that in the case of this legislation. That is another good question.

CHAIR—Can I bring you back to the objects in the bill that we are dealing with. The first object is to:
... implement certain obligations that Australia has under:
(a) the Climate Change Convention; and
(b) the Kyoto Protocol.

The second object is to:

... create incentives for people to carry on certain offsets projects.

And the third object is to:

... increase carbon abatement in a manner that:

- (a) is consistent with the protection of Australia's natural environment; and
- (b) improves resilience to the effects of climate change.

Isn't there any linkage in the incentives to a carbon price and a future carbon price that is legislated? If there is a carbon price introduced then the incentive will be greater.

Ms Blakers—It will depend how it is linked to the Carbon Farming Initiative. First of all, in whatever that price arrangement is, are companies going to be allowed to buy credits or offset their emissions directly by going to a tree-planting company, for example, and making an arrangement between themselves? If that is permitted, to what extent will it be permitted? The linkages will determine how much money goes into the CFI and what activities are preferred under the CFI. That in turn relates to the linkage with the international arrangements because, if it is under the existing Kyoto arrangements, effectively, apart from the bit of savanna burning and methane flaring, it is tree planting or avoided clearing. Tree planting is likely to have fewer barriers in its way than avoided clearing, where people are going to have to make decisions that they will have to live with for the next 100 years.

Senator COLBECK—Mr Winn, you said that a fund would be cheaper and simpler to manage. We have had some discussion today with a number of organisations who have said that there is a lot of difficulty around establishing a lot of the processes that would be required for this current legislation. In terms of actually achieving some abatement objectives you say it would be much easier to go to a fund that effectively purchases the abatement as part of its objectives.

Mr Winn—I do not think I said it would be cheaper and it may not be easier. The issue is it would carry less risk, and that is our main concern. Having a fund that provides incentives to reduce emissions in the land sector alleviates some of the risk of the accounting uncertainties. You do not have to ensure that the emissions are exactly the same as the fossil fuel emissions that you are offsetting. There are fewer issues with impermanence because the incentives can be rolled out in a more creative way. Taking up some of the other submissions, money can be provided as stewardship payments in some circumstances to encourage farmers not to clear their land, whereas under an offset mechanism that activity could not be contemplated. So it carries with it much less risk and more ability to be creative in the way incentives are provided.

Senator COLBECK—You have mentioned in your submission and again today permanence leakage and the discount that should be applied. You are suggesting 50 per cent. I think we are talking about five per cent in the legislation. Are you aware of various ranges for different programs that might exist in different jurisdictions?

Mr Winn—If you are looking at land sector abatement, you need to know that it is an inherently impermanent activity.

Senator COLBECK—Yes, I know. I accept that.

Mr Winn—What I am saying is the reason we arrived at a 50 per cent discount was that it provides for a much better buffer than just the five per cent. As to other areas with other discounts, under article 3.4, for example, on forest management, as it is currently termed the discount is 85 per cent. There are some differences in the way that they have approached that because it is a gross-net accounting process, but discount arrangements of that order have been implemented elsewhere. The 50 per cent discount factor, we believe, would add some certainty that the abatement would be real and some of those permanence and uncertainty issues would be overcome.

Senator COLBECK—Ms Blakers, do you have any comment in respect of that?

Ms Blakers—About the management reliability?

Senator COLBECK—The discount factors.

Ms Blakers—I think it is a huge problem. In some ways I think it is akin to low-doc loans: you are mixing up highly uncertain credits with credits that are far more reliable. I find it really difficult to see how one can equate the measurement reliability of avoided emissions from a coal fired power station with avoided emissions from cows or avoided emissions in the landscape. You have temporal and spatial variability in the landscape which means that your measurement is inherently much less reliable, and that is a quite separate issue from the permanence or otherwise of the carbon in the environment.

Senator COLBECK—I think it was the Carbon Farming and Trading Association this morning who told us that the permanence of 100 years was effectively a deal breaker for people investing in it—not so much for their purpose but for getting investment to come on board. We heard similar things from the forest sector. I think the New South Wales Farmers Association indicated that it was an issue too. How do we balance this sort of stuff? I would be interested in your comment on this too, Mr Winn, when Ms Blakers is finished.

Ms Blakers—Fundamentally, I think if you are after permanent carbon storage in the landscape you go for native vegetation. You put aside the land and the vegetation for good, because that is what the climate needs. That is what the environment needs. Investment in anything which has a high ecological risk, in other words, that does not have the diversity and the resilience of natural ecosystems—is to a large degree a wasted investment. If we are really serious about permanence, let us go for native vegetation. Let us protect first of all what we have got by stopping logging native forests and by ending broad scale clearing. Then let us restore natural ecosystems to the extent that is compatible with maintaining agricultural land for food production.

Mr Winn—I think the permanence issue needs to be addressed if we are looking at an offset mechanism—and we do not support an offset mechanism. The best way to do that is to look at how long greenhouse gases or particularly carbon remains in the atmosphere. That is what an offset is meant to do. If you are going to offset fossil fuel emissions that lead to carbon that stays in the atmosphere for 100 years, you have to make sure that the carbon that is sequestered or the reduction in emissions in the land sector do the same thing, and reduce for 100 years. If that is not able to be ensured, then the length of time that is shorter than 100 years needs to go to a further discount. If an activity could only guarantee emission reductions or sequestration for 20 years, then it would need to be an 80 per cent discount.

Senator COLBECK—You mention the 100 years lifecycle of carbon. That has appeared in your submission. Other submissions talk about a 55-year cycle.

Mr Winn—This is an average, obviously. There are many factors that go into how long a molecule of carbon dioxide lasts in the atmosphere. Indeed, there is a small proportion that remains in the atmosphere for several thousand years. That is the proportion that enters the deep oceans. We are looking at an average, but certainly the bulk of carbon dioxide takes approximately 100 years to cycle through the natural processes.

Senator COLBECK—The information in the submissions that I was reading was quite definitive about the 55. But that is something we can go back and do some further work on. Let us go to our chestnut, and that is native forests. I accept that you have a perspective on this, and a rationale behind it, which I do not agree with—just for the record—for a number of reasons. The accounting systems that apply to native forests at this point in time do not include all of the sequestration that is taken up in solid timber. Let us take solid timber for a start. Under the current accounting processes the assumption is that as soon as a tree is harvested it emits all its carbon—and that is all its carbon. That is the accounting process that exists at the moment.

There is a debate currently going on through Kyoto about the recognition of carbon stored in solid timber products, including paper and furniture and things of that nature. There is a debate going on about that, and an attempt to get that recognised as part of that process. With that recognised as a sequestration of carbon, which it genuinely is, the issues sit, I think, largely around lifecycle. My discussions with the European Union are largely around sovereign risk. They are concerned, particularly in some of the countries where governance is not as strong as it might be, about managing the sovereign risk around carbon stored in solid timber products. That is the conversation that I have had at that level. With that recognised, though, there is a capacity that—and the science is very clear on this—over a cycle with long cycle management in native forests, you will in fact store more carbon with recognition of carbon stored in solid timber products.

That also, in my view, provides an opportunity to meet our timber needs for products that best come from the species and also provides an opportunity for our landscape to take up carbon. I accept that at the initial harvest there is a loss. That is fine, but—and you would have seen the information as well as I have—the science is very clear that you store more carbon over time by having an active management regime in your

native forest. I am not saying go gangbusters in all of it, because we have already made some investments in relation to that. But, responsibly, if you are talking about plantations versus native forest I know what I would prefer to see in the landscape, and that is that there would be a management rotation in native forests that provides for the storage of carbon, the protection of biodiversity, water quality and landscape values. All of those things are much better provided by a long-term rotation management regime in native forests than they are in plantations.

Ms Blakers—Can I comment?

Senator COLBECK—Absolutely.

Ms Blakers—Let us be clear: we are talking carbon stocks. We are not talking rates of uptake or rates of emission; we are talking stocks.

Senator COLBECK—Actually we are not. We are talking about, as part of this process, carbon storage and carbon uptake. That is what this is about. This is about carbon uptake. That is what this is all about.

Ms Blakers—It is about net emissions, which is emissions minus removals. So it is net, and that is a major problem in the way that the accounts are put together. There are a number of issues in what you have said. Let us start with the big picture accounting framework. It is based on net emissions. It does not separate emissions from removals, which means that you lose the picture of what is actually going on behind the scenes—that is, what are the emissions from logging native forests and what is the uptake from the regrowing forest, because they are offset against each other. If you actually stopped logging native forests the net difference, the difference you would get in the apparent emissions, would be some tens of millions of tonnes of carbon dioxide. It is quite a big quantity in the scheme of things.

As to the issue of storage in wood products, in the accounting framework as it stands there is an amount that is allocated for the increase in the carbon stock which takes into account all the pools, whether it is solid wood products or paper or whatever—the short lived pools. About four or five million tonnes per annum increase in the carbon stock in the Australian counts goes into wood products each year. That is against, as I said, some tens of millions of tonnes of emissions from logging native forests. In fact, if you then come back and look at native forests specifically—not wood products and wood production as a whole—the vast majority, 80 to 90 per cent of native forest wood, ends up in short lived products. It mostly goes as woodchips offshore.

Senator COLBECK—But that is like saying that you get 100 per cent of scotch fillet out of a cow. This is an old argument. You have recovery levels that come out of those sorts of things. It also goes into overall economics and management of forestry.

CHAIR—Senator Colbeck, if you have a question, could you be quick. We have just about finished.

Senator COLBECK—We probably are not going to get through this, so we might have to call it quits at some point. We have a difference of view. I am interested in what you have to say, but—

Ms Blakers—Can I just make two quick points. First of all, I think we need to look at the stocks and the stock changes. That is actually what we need to be looking at here over a period of time. That is one point, and I can go through it with you at some other time if need be. The other point relates to that graph that purports to show that when you add in storage and wood products you end up with more carbon stored than in a native forest simply left to grow. If you actually measure the intervals on that graph what you will find is that wood products never disappear. The carbon goes into a wood product. Somewhere there are mountains of tables and chairs growing ever higher each year and there is never any loss of carbon from that source. It is clearly nonsense.

Senator COLBECK—It is not that graph; it is those graphs, because they come from a number of institutions.

Ms Blakers—It is the Forest and Wood Product R&D Corporation graph, is it not?

Senator COLBECK—It is actually not. They come from the University of Queensland, an institute from the United States and also the CSIRO.

Ms Blakers—No—

Senator COLBECK—I have actually spoken to them, but let us not have an argument about it now. I will call it quits there.

CHAIR—Thanks very much, Ms Blakers, Mr Tager and Mr Winn.

Proceedings suspended from 2.35 pm to 2.50 pm

GRANT, Mr Andrew, Chief Executive Officer, CO2 Group Ltd

PORTER, Mr Ian Andrew, Chairperson, Greenfleet

POWE, Mr Tim, Senior Forester, Greenfleet

CHAIR—Welcome, Mr Grant, Mr Porter and Mr Powe, and thank you for attending this hearing today. The committee has received your submissions and numbered them 10 and 27 respectively. Do you wish to make any amendments or alterations to your submissions?

Mr Grant—No.

Mr Porter—No.

CHAIR—Do you wish to make a brief opening statement before we go to questions? As you do, would you like to start, Mr Grant.

Mr Grant—Thank you for the opportunity to present before the inquiry. Our view is that the Carbon Farming Initiative is a good one. It is good because, most critically, it replaces the cancelled government-run Greenhouse Friendly program. To put some perspective on why we have this view, we had a program run by government with these rules. It was shut down and we were left stranded so we need something to replace it. It is also good because it is voluntary so if you do not like it do not participate in it. It provides government backed rules which we need to ensure that we have a credible market that can be relied upon. It enables both consumers and producers to operate with confidence because it involves government backed audit, government backed methodologies and a government backed registry. It will enable companies like ours and other participants to access international trade. Imagine if you grew wheat and you could not export any to the international market. Through this initiative we can.

It provides investment confidence for the market and, importantly, we already know that such schemes work well—for instance, in New South Wales that state's Greenhouse Gas Abatement Scheme has been running for eight years. We are also operating in New Zealand where we have an emissions trading scheme—and carbon forestry is in fact the number one initiative in New Zealand. As well we have put in our submission some specific points which I will not reiterate.

Mr Porter—Thank you also for the opportunity to present to the inquiry. As we made clear in our submission, Greenfleet is Australia's largest and longest project originator of biodiverse carbon forests. We have planted seven million native trees since 1997. Our perspective, echoing Andrew's comments, is that we are very supportive of the CFI per se, and we see it importantly filling a gap in the market that has been left by the Greenhouse Friendly program's demise.

We have raised a number of specific points in our submission. The only ones I want to bring out and emphasise are that we believe that it is very important that projects and methodologies approved under previous schemes be able to be rolled over as much as possible into the CFI to give continuity and certainty in the marketplace. We are also very strongly in agreement with the intent of the bill that carbon only be counted once, that there be no opportunities for double counting. We are very comfortable with the role of the ACCC potentially in this space, although we did raise an issue about the automatic cancellation requirements on a project basis. We see it being far more effective on a carbon basis rather than a project basis—that is, one would not have to drop one entire project. The last comment I would pull out that we made is that we believe the starting date for where project abatement is recognised should be 2008 as the start of the Kyoto accounting period.

Senator NASH—Greenfleet, you are a not-for-profit organisation. Can you briefly run the committee through how your process works?

Mr Porter—Certainly. I will start and then Tim may wish to add some further detail. In essence, Greenfleet commenced as an organisation which initially allowed individual motorists to offset the emissions from their vehicles by investing in what was essentially future carbon. So our commitment to vehicle owners was, 'If you pay us a certain amount of money we will plant a certain number of trees that over a certain period will extinguish the CO2 emitted from your vehicle.' That is the business model that we started with. We have diversified that to some extent. We have some relationships which are essentially extensions of that—for instance, offsetting fleet emissions, much larger ones—and we have some more commercial arrangements that we have made since then.

Mr Powe—And our client base has extended from individuals to now include corporations, various government agencies and larger groups that are not necessarily involved in offsetting just their fleet emissions. Some are choosing to offset their whole business emissions, so it is beyond just transport.

Senator NASH—How many clients do you have?

Mr Powe—Currently several hundred—

Mr Porter—Large clients—

Mr Powe—That includes individuals. There might be 300 or 400 individuals in some states, plus business clients, plus large government departments. Not all are active at any one time. Some people will offset their emissions for a number of years, depending on the profile of greenhouse or carbon at that particular time. Then they might discontinue their donations and then they may continue them in subsequent years.

Senator NASH—How does the process work? I assume you do not buy land but you access land and do it in partnership with landholders. Is that correct?

Mr Powe—Correct, yes.

Senator NASH—What and when is the benefit to the landholder out of this process?

Mr Powe—The landholder gets a biodiverse forest planted on their property to ameliorate a range of environmental issues that the landholder is interested in. The landholder may also get a share of the carbon right, and we negotiate that with individual landholders, depending on their level of interest in securing some carbon benefit.

Senator NASH—That is some sort of dollar figure that goes back to them? What I am getting at simplistically is: apart from the biodiverse issue—they can go and plant trees themselves anyway—for you to go and access landholders to plant trees for you to get a benefit back for these people, there has got to be something in it for the landholder for something they could ostensibly do themselves. Is it the cost of the planting or are there other financial benefits?

Mr Powe—Greenfleet pays for the trees and the labour in planting, the project design. We also undertake the carbon certification process under our particular program, such as Greenhouse Friendly. Then we may also share some of the carbon offset revenue with that landholder at some point in the future. Once our obligation has been met to our supporters, who have paid for the trees, and the particular property will continue to sequester carbon beyond the date that that obligation is made, then we may share in that additional carbon with the landholder.

Senator NASH—What is the trigger for the ‘may’ share? What is the trigger for sharing or not sharing at the point at which the obligation has gone back to the originator of this?

Mr Powe—Interest from the landholder.

Mr Porter—And these are negotiated on a case-by-case basis.

Senator NASH—Interest from the landholder: if it is a case of a dollar figure, wouldn’t everybody be interested?

Mr Powe—No, surprisingly not. Some are just motivated because they want the trees for free, they want the forest planted to fix up a salinity problem or an erosion problem, and they are just happy with that.

Senator NASH—Do they know they can be a financial beneficiary, or does that only start to be negotiated once they have brought it up?

Mr Powe—No, we certainly invite them to participate in future carbon if they wish.

Senator NASH—Is there any downside to them to sign up to do that? I am just trying to get my head around why they would not take it up.

Mr Porter—It is always going to be a negotiation with the individual landholder by Greenfleet. Some may, as Tim rightly says, be interested in the environmental or other benefits that come from some replanting on their land that just comes naturally, and some may be interested in the carbon rights at a future date. It is a case-by-case negotiation. I suspect that most will be interested in a financial benefit, and more and more will see that come up. Remember that many of these negotiations occurred when there was no serious consideration of a carbon pollution reduction scheme or a carbon price existing. Many of these negotiations occurred when we were talking hopefully about future carbon prices, future salinity benefits and so on.

Senator NASH—Just on the measurement of carbon that is contained within the standard trees you plant, how do you measure that? I can go and look!

Mr Powe—In the past we have used the methodology as approved under the Greenhouse Friendly program.

Senator NASH—So you just use the standard set of rules?

Mr Powe—That is right.

Senator NASH—If it is all right I will put some more questions to you on notice; we do not have a lot of time. Mr Grant, do you want to do the same thing and run us through very briefly how CO2 Group Ltd works?

Mr Grant—In terms of the specific question we have 20 clients. We have about 500 agreements with landholders across Australia. That includes New Zealand. I could not give you a precise number because we are in partnership with about 400 Maori communities, so the landholding ownership there is much more complex than it is in Australia.

Senator NASH—You are a for-profit organisation as opposed to—

Mr Grant—We are a listed public company. The way our business model works, in partnership with landholders, is we will either pay them an upfront amount for land—which is typically a greater amount than the market value of their land—and then we meet all of the costs of establishing a forest and managing it. The financial motivation—if that is their sole objective—is to get paid for the deployment of their property. We either pay that amount upfront or pay it as a rental over whatever period the farmer prefers. Most want it upfront. In earlier years we explored sharing carbon revenue with landholders but it triggered the provisions of the managed investment scheme under the Corporations Act and, as a business, we did not support that. We discontinued that.

Senator NASH—Could I ask you both to also take on notice something else. It will be interesting to see—obviously, you cannot give us confidential details—geographically where your plantings are.

Mr Grant—I am happy to share that information. We are as far north as Geraldton in Western Australia, then south-west across to Esperance. Then we are in Victoria and New South Wales. They are in the low to medium rainfall regions, the wheat belt regions of Australia and recently we have gone into Queensland.

Senator NASH—Perhaps you both would be kind enough to provide us with a map.

Mr Grant—I am happy to do so.

Senator NASH—That would be great. Finally, have either of you accessed the tax breaks for carbon sink establishment measures?

Mr Grant—Our clients have rather than us. For example, some of the establishment costs associated with building the sink have been accessed, yes.

Mr Porter—I am not aware that we have.

Mr Grant—No. I owe you another answer to your question about measurement. We have a licensed model with CSIRO where we model carbon yields and then we adopt either the New South Wales Greenhouse Gas Abatement Program methodology or that of the previous Greenhouse Friendly program. We are currently submitting a methodology to the so-called DOIC—Domestic Offsets Integrity Committee. We have also adopted the voluntary so-called verified carbon standards. Our particular business model is to get the highest possible measurement standards. For example, I have a 15-person team of dedicated scientists who quantify, with accuracy, the amount of carbon in the forests.

Senator NASH—The DOIC is not set up—you are just working with—

Mr Grant—The DOIC is set up; it is open.

Senator NASH—In spite of the fact that the legislation has not gone through?

Mr Grant—The legislation refers to the methodology, but it is not dependent upon it. So if you want to take a project under the Carbon Farming Initiative you would first have to have a methodology approved by DOIC. DOIC is up and running, because it needed to be in terms of replacing the Greenhouse Friendly program. This is why we support the initiative. We have approved methodology. These projects continue come what may and they are happening. To date, we have over \$200 million invested in projects. The CFI simply provides a registry and an audit process to give it certainty and consistency in standards.

Senator MILNE—Further to Senator Nash's question about the intersect between your business model, Mr Grant, and the 100 per cent tax deduction for carbon sink forests, can you just explain a bit further how that works. I was not quite clear on that.

Mr Grant—The tax, as you may recall—

Senator MILNE—I recall it well.

Mr Grant—was an issue for another inquiry on carbon forests and carbon sinks. It is not a 100 per cent tax deduction; it is only for the establishment costs associated with creating a carbon forest. That in reality means that about 30 per cent of the costs are deductible at the point of establishment. That is consistent with the building sector or much of industry. The issue leading up to that was that, bizarrely, carbon was treated as horticulture; it was not treated as forestry. So the forestry tax deduction provisions were not applicable and the tax department viewed carbon as a fruit that is harvested from a tree. They gave it no tax deductibility. It was the worst tax treatment of any business activity in Australia. The amendments put forward by the previous government that went through the lower and upper house basically gave equivalence. It is certainly not a 100 per cent upfront deduction that forestry enjoys; it is only the capital costs of establishing—

Senator MILNE—In relation to what you just said previously, you lease the land from the landholder and you incur the costs—

Mr Grant—It is the project developer, so if it were the landholder who was developing a carbon forest, the landholder would enjoy that tax benefit. So it is whoever funds the project and owns the project.

Senator MILNE—I want to get more specifically to how this may work because obviously agroforestry is a good thing in the rural landscape and it enhances a whole lot of productivity benefits et cetera. The concern there is that if you incentivise, given as you rightly indicate the methodology is already there, it is proven, provided it is accepted it will automatically go through. So if and when the Carbon Farming Initiative becomes law, then the first people who would be able to benefit from it are those with proven methodologies?

Mr Grant—Correct.

Senator MILNE—Obviously, apart from manure management and savanna burning, reforestation, afforestation or avoided deforestation are the ones that would benefit first before others with proven methodologies? I am interested to know what you think is the potential for this sector in terms of abatement under the Carbon Farming Initiative. If it were linked to a market mechanism, such as a carbon price, how much greater is the abatement potential then? How do we avoid monocultures and end up with biodiverse plantings in the right place? Maybe you can address that perverse outcome?

Mr Grant—I will try to unpack those questions. Firstly, the initiative does not provide a market stimulus for investment at all, because you need liable parties for that to occur. The initiative does not change the market economics; it just provides a set of agreed rules that you as a participant would adopt where a carbon price starts. So assuming that both parts go into place then it creates demand. We have been a participant under the New South Wales Greenhouse Gas Abatement Scheme since its inception, which was on 1 January 2003. The scheme allows for carbon forestry and, in that time, it has been the most untalked about scheme in the world, unfortunately, but it is the third largest scheme by market volume. Only one private sector company—and that is ours—has created a credit from carbon forestry. The reason for that is that it is hard, it is complicated, it requires quite advanced levels of technical skills and, as an investment, it is very marginal in its own right. So the fear of this being a mass land use change I personally believe is unfounded. We are also operating in New Zealand, which has an emissions trading scheme. Interestingly, in New Zealand forestry is celebrated and advocated and it is the No. 1 priority for the government to help it meet its Kyoto target. All of the carbon forestry has been dedicated towards marginal land, because market economics dictate that pulp and paper and other high-end uses predominate. It is our view that, in Australia, that use will be identical. We as a company do not operate in prime agricultural land because it is uneconomic and carbon would need to be north of \$100 or more a tonne for it to ever be economic.

On questions of scale, we have worked with the Wentworth group, Landcare and catchment management authorities and a whole range of others and we have contributed to the Garnaut review and the CSIRO report. Our perspective is that the level of contribution that land based abatement will make in the hypothetical documents is probably out by a factor of 10. It might contribute possibly several million tonnes per annum but not in the 40 to 50 for a whole variety of reasons. Land turnover in itself, if you analyse rates of land turnover in MIS forestry and you apply those most aggressive assumptions, you still get a very low rate of land turnover in rural Australia.

Regulatory approval is very complex. It takes a period of time to get projects approved. Seed—the simple reality of there being sufficient seed will be a constriction on growth, so whether it is biodiverse or single species, there is a finite amount of seed that has been collected and that will determine the rate. As a consequence of the crash of MIS forestry and the global financial crisis, all of the industry infrastructure has fallen away quite dramatically—nursery bench space and the practical things.

Our view as a company is that it will make a modest contribution—an important one because it is proven and it is here and now—but we do not share the view that it is something that should be feared. We think it is a public good and it will make an important contribution. I am a bit surprised by the level of concern over it in industry.

Senator MILNE—Can you address the issue that has been brought up by the representatives of an Indigenous community who were here earlier and also some of the land trusts of people having done the right thing and covenanted their land or put it into Indigenous protected areas or whatever will not benefit and that this will be an active disincentive for people going into protected management in various ways. How would you address that?

Mr Grant—It is a very tricky area. To be able to credit a project first and foremost, you need to demonstrate that you have legal title for the carbon. Each state has its own set of rules surrounding carbon rights and forestry rights, so it is on a state-by-state basis. For example, only recently did Victoria enable that the Crown retained all the carbon on crown land as in Western Australia. A lot of Indigenous landholders do not have free title to their own carbon, so it is a property rights question rather than a carbon farming issue question.

Senator MILNE—They were arguing that they would like to participate and they cannot because of all the legal complexity around exclusive and non-exclusive use and that sort of thing.

Mr Grant—I think the issue is more the baseline one. We put in our submission that the baseline should be 1 July 2008 and, arguably, the government has got free carriage of all that activity and investment by others. It counts towards our Kyoto target, whereas in New Zealand you have the opposite: the baseline goes back to 1990. Pre-1990, forest owners were allocated by the Crown carbon. We have a kind of interesting situation in Australia where the private sector has funded projects but cannot get recognition for that carbon because the government has included it in its own accounts. That underpins the reason why would like to see the baseline set at 2008, not 2010.

Senator MILNE—One last question: there has been the recommendation that there be a five per cent risk of reversal buffer because of the implication of losing carbon. Given your experience, since you have been in the business for a while, what is your comment on that? You must have lost carbon from projects and so on over that time. Is that a realistic risk of reversal buffer from your experience.

Mr Grant—It depends. In a previous life, I was a partner in Ernst & Young and worked with the New South Wales government in developing the greenhouse gas abatement scheme and therefore developed all their audit methodologies. It is a kind of scale and risk relationship. For a small project that has a low level of quality and a low level of entry, I think you need a more aggressive insurance buffer. For a large-scale project where the project is insured and there is a portfolio of projects, it is a bit heavy-handed. For example, in an earlier question, I think, Senator Colbeck asked, under the New South Wales scheme there is no buffer required but you have immediate consequence if you have a reversal. Similarly, in New Zealand, if there is an emission of any kind—so if you remove the forest or destroy it any other way, whether it be natural or human induced—you have an automatic liability. For a large company like us that is something we are comfortable with and we structure that risk and we insure it. For a smaller operator, that is a difficult thing for them to do and therefore a buffer and a poor concept works well. So it is horses for courses.

Our view is that you should be able to take either a lower level of compliance with a higher level of buffer, or opt out of that and not have the obligation but bear the full brunt of the consequence. In eight years we have had no reversals, by the way—not one.

Senator McEWEN—This question is for either organisation, or both. Could you respond to the arguments that come up in this debate that forestry projects take up prime agricultural land and therefore have adverse effects on water and food security?

Mr Grant—It is a great question. It comes back to the question of what is prime agricultural land. The Wentworth Group's definition of prime agricultural land is land with annual rainfall greater than 700 millimetres. So in our case we do not have a tree in any landscape that has greater than 700 millimetres of rain,

so we are not operating in prime land. We are operating in the marginal, highly cleared, remote landscapes of Australia. By way of example, over 30 per cent—sometimes 40 per cent—of properties we are looking at in Western Australia are saline, and too saline for trees. So not only are they lost for agriculture, they are lost for any land use. They are really stranded landscapes. And billions of government dollars have been expended in trying to arrest dry land salinity. This is like a last ditch opportunity that is private sector funded to make a contribution. I support the principle that prime agricultural land must be protected. It is uneconomic for us to use it, but it is also bad public policy. It is really important that people understand that prime agricultural land is not all agricultural land.

Mr Porter—From Greenfleet's perspective we would echo that. Tim would you like to add anything?

Mr Powe—We plant in, I guess, more humid, wetter areas than what CO2 Group has, and our business model is in the high rainfall parts of Australia. Over 13 years I do not think we have displaced any prime farming or agricultural land. The returns just do not stack up—\$130 per hectare per year over 20 years just does not measure up to wheat, fat lambs or lucerne. Ten tonnes per hectare per year for carbon times the carbon price of \$13 or \$14 per tonne and you get \$130 or \$140 per hectare per year over 20 years. After 20 years that number will decline as the trees mature and growth slows. If the carbon price in the market is \$20 or \$25 we will be at a substantial discount to that because we are planting with the carbon to come in the future. So we need to offer a substantial discount.

Mr Porter—If I may just add, one point to keep in mind as well is that we are talking about several markets, not one. There is a compliance market which will grow in scale as the carbon price and/or trading mechanism and/or whatever we end up with develops, and then there will be a smaller voluntary market which will often be outside of Kyoto compliant land which will address the needs of individuals who wish to offset outside the larger system. These markets will sit comfortably beside each other; they do already. But they have quite different impacts in terms of scale and the other drivers we are talking about here.

Senator McEWEN—Are there benefits for rural and regional Australia from forestry projects on what you have described as marginal land.

Mr Grant—The proportion of our plantings that are integrated with rural land—the 500 landholders who have partnerships—do it not only because there is a financial incentive. They have to live with the trees for 100 year or more. So they have to see intrinsic value in the trees. In large, highly cleared rural landscapes there are improved cropping yields, improved husbandry outcomes from livestock, and better protection against soil erosion, particularly in Western Australia where we are concentrating on the upper watersheds of catchments where dry land salinity is a big driver of rural degradation. It is remediation and getting some on-property insurance about further loss of their cropping land.

There is improved landscape amenity and improved catchment value. Again, this is a complex topic; it is not a binary system good/bad. It is a proportional thing. CSIRO has done some brilliant work in looking at what percentage of catchments could quite adequately carry dryland forestry before it impacted negatively on water catchment value. We are a long way short of that. I think—once having been a chairman of a catchment management authority—that even in the best-case scenario of all this policy we are still 30, 40 or 50 years away from that ever being an issue.

Mr Porter—I add that when we look at biodiverse plantations we get not just catchment benefits but benefits in terms of biological diversity, flora and fauna and landscape values which are much broader and which—as we have explained—in terms of the access that we have to land often without a huge financial return, people still value very highly.

Senator McEWEN—Mr Grant, just going back to the example you gave of forestry projects in land suffering from desalination, what would be the logical outcome of not doing anything with that land—if government did not do anything or—

Mr Grant—Sadly it is degrading before our very eyes. The other tragedy is that often the landholders do not even know it themselves because the salt is like a hidden cancer in the subsoil. The nature of our technical due diligence on a property is that we do a lot of detailed drilling and soil testing. We have had situations where we have brought to the landholder information of which they were hitherto unaware, that in fact their property has a short shelf life before it is not viable in its current use, whether it be for cropping or livestock. So that problem continues. We did have a national action plan on dryland salinity but that program has pretty much stopped. There is a massive reduction in government spending in trying to arrest it. You basically see the biological or engineered solutions—building drains to drain saline water. I commend to the committee a

revisiting of some of the really important government work that has been done in Western Australia in particular but also dryland salinity is the substantial issue in New South Wales. And it does not wait for committees—it is continuing. It is like the forgotten truth in a way.

Senator McEWEN—And a very expensive thing to remedy.

Mr Grant—It is very sad to see. A lot of these properties will not be viable in a short period of time because of this issue.

Mr Porter—And it overlays a huge impact on rural communities that many governments have looked at over time and sought to address. As Andrew has, we would commend that the committee take account of it as much as possible.

Senator COLBECK—Just to follow on from those questions, that process is going to be a lengthy and staged one of actually recovering a lot of that ground with progressive type projects that walk their way through the landscape as the conditions and the landscape actually permit.

Mr Grant—The key thing is that the approach to date has been solely via government funded pilot projects which have not been of sufficient scale to make a meaningful impact in arresting the decline. My great hope with carbon forestry is that, rather than loading it up with more regulation and slowing it down, we incentivise it but direct it towards best end use. So let it be a positive incentive to go to the highest and best social good outcome in a catchment and let the market drive it, because private capital is like water—it will find the lowest point in the landscape; it will go to where it gets the highest return. So if we want to see that dryland salinity mitigation is a benefit or biodiversity is a benefit, provide economic stimuli and then you will get it quicker rather than burden it with a whole lot of regulation and fear of the unknown.

Senator COLBECK—I am sorry that I did miss out on a little bit of your evidence earlier. You talked about \$200 million that you currently have invested. What is the level of abatement that that provides?

Mr Grant—We have about 20,000 hectares under planting at the moment. Over its project life that will produce about one million tonnes of carbon abatement, but the full amount of investment to date will double that. So the number is potentially two million to three million tonnes of offsets.

Senator NASH—What is the length of the project?

Mr Grant—The trees typically have a growth period of 300 years plus. The sequestration growth phase is typically 30 to 50 years and then it reaches carrying capacity in the landscape.

Senator COLBECK—I was going to come to that. It is a case of right species, right place.

Mr Grant—Yes, very much so.

Senator COLBECK—Type of planting is something I am interested in. You get various maturity dates for carbon uptake depending on species and depending on the environment and landscape. My understanding is that in some of those landscapes in WA you can be talking about a 15-year cycle as the period of uptake before you get a flattening off on the curve. Other forests can be 60 years and others are probably higher, but it depends on the species and the overall planting types.

Mr Grant—Absolutely. A lot of our intellectual property is around knowing what species to plant and what they will yield, understanding that because it is an industry in its infancy there is very little data on where people made decisions 20, 30 or 40 years ago to plant carbon forests. Therefore, the measurement data is rich in the high rainfall areas because there is a tradition of forestry, but in the bulk of the Australian landscape, which is low to medium rainfall, there is a paucity of data. So companies like Greenfleet and us are pioneering companies in this market. You can count on your hand how many companies really know with precision the yield data. With the species of eucalypt that we grow, mallee eucalypt, if you plant the wrong species in the same paddock you can get a yield of a quarter of what a high-performing species would give. But you also have to be mindful of longevity because you have to meet permanence obligations and ensure that the forest is long living. So you cannot afford to plant species that might only live to 15 to 20 years and then die. You have to be confident that the species is long lived and can handle the normal, natural climate variation that it would experience in its growing cycle.

Senator COLBECK—In the context of permanence, an issue that has been raised with us today as a matter of concern is the figure of 100 years. Is there, in your view, scope to have varying scales of permanence as part of the process?

Mr Grant—It is a problematic issue in that, from an investment perspective, after the growth period you have a long maintenance obligation with no income off it. Whether that is 100 or 50 years is rather semantic post the growth period. So, for argument's sake, say you have a 50-year growth period. You then have a 50-year permanence obligation. So whether it is 50 or 100 is neither here nor there. My personal view is that in 50 years time we will attribute other values to these forests and society will be sitting around here saying what a prescient move it was to make this investment, and fortuitous. I personally do not fear the downside of it. I think the intrinsic value of forests and the role that they play in society and their broader benefit will be better priced, better measured and better reflected in accounts.

Mr Porter—Can I add, from Greenfleet's perspective, a slightly different view? I guess the most important thing to us is that we are a charity and we require individuals to feel comfortable with the permanence and the effectiveness of the sequestration associated with it. So we are certainly coming from the perspective of being happy with the 100 years.

Senator COLBECK—Mr Grant, I just want to go back to the submission in relation to the reliance on the NRM plans. I wanted to get you to expand on that. What is the rationale behind your concern about that?

Mr Grant—My argument is simple. It is that we already have to be local. For example, to enjoy the tax deductibility of a project under the tax act you have to demonstrate that you have met local, state and federal NRM guidelines and specifications. To get project approval it varies from state to state. It is either local government or state government. For example, in New South Wales they have the Plantations and Reafforestation Act, so you have to demonstrate that you are not threatening any endangered species and you have to undertake a cultural landscape evaluation. There is a very rigorous set of protocols and procedures you have to go through to gain project approval. I am not sure of the efficacy of a federal government adding an additional layer of approval above and beyond what already exists. That is part A. Part B is that NRM bodies in their own right want to be a participant in the carbon market. So I think there is a fundamental conflict of interest in an NRM body as my competitor regulating what I do and what I do not do.

Senator MILNE—My question goes specifically to the question Senator Colbeck just asked. People have drawn to our attention that you can have a negative list or a positive list, but essentially it depends on the catchment in that something that would be negative in one catchment may not be negative in other and so on—so not one size will fit all. People have put to us that, by getting some sort of uniformity across the country in terms of NRM, catchment planning and so on would assist in avoiding some of the perverse outcomes that are anticipated. I just heard you talk about the appropriateness or otherwise of competing against a regulator. I just do not know how you would get the same across the country otherwise.

Mr Grant—I was the Chair of the Port Phillip and Westernport Catchment Management Authority in Victoria for three years. As a business I approached other catchment management authorities on partnering on the basis that you would get matching funds and it would be able to drive their investment a lot further. I think a more powerful approach is catchment management authorities looking at incentivising investors and companies to go to places in the catchment where there is a higher order outcome rather than always using additional regulation as the only means by which you can get a superior result. I think it is more powerful. If you sit down with a landholder and say, 'You are not allowed to plant crop A in this paddock,' the landholder is going to take umbrage. They feel they have a right to use their land as they see fit.

The other thing I find problematic is that the paddock is the unit of regulation when really from a whole of catchment point of view it is better to take some paddocks in toto out of production and they could have better landscape functions. I do not think from my personal experience that catchment management authorities are well positioned to become the regulators. It is just not what their skill set is. They are facilitators, knowledge managers and change agents for positive environmental and catchment health outcomes, and I think they should continue that role.

CHAIR—Thank you for your evidence today.

[3.34 pm]

GIBBS, Mr Mark, General Manager, Climate Change Policy, Department of Agriculture, Fisheries and Forestry

SEARSON, Mr Matt, Senior Research Scientist, Land, Accounts and Analysis Branch, Land Division, Department of Climate Change and Energy Efficiency

STUART-FOX, Ms Maya, Assistant Secretary, Carbon Farming Policy Branch, Land Division, Department of Climate Change and Energy Efficiency

THOMPSON, Ms Shayleen, First Assistant Secretary, Land Division, Department of Climate Change and Energy Efficiency

CHAIR—Thank you for your appearance here today. As departmental officers you will not be asked to give opinion on matters of policy, although this does not preclude questions asking for explanations of policy or factual questions about when and how policies were adopted. Do you wish to make a brief opening statement before we go to questions?

Ms Thompson—The Carbon Credits (Carbon Farming Initiative) Bill 2011 fulfils the government's election commitment to give farmers, forest growers and landholders access to carbon markets. This will begin to unlock the abatement opportunities in the land sectors, which make up almost a quarter of Australia's greenhouse gas emissions. The land sectors have an important role to play in Australia's climate change response. Our natural assets mean that, while we have some of the highest agricultural emissions in the developed world, there are also significant opportunities to increase carbon storage on the land.

Agriculture is also likely to be among the sectors most strongly affected by climate change in Australia. Decreased rainfall in south-west and south-east Australia may reduce water availability and put pressure on water allocation systems. Altered growing seasons may lead to shifts in areas where some crops can be produced, and increased frequency and intensity of floods and droughts may lead to more frequent and extensive production losses and damage to property.

Action taken to reduce emissions or increase carbon storage under the Carbon Farming Initiative is also likely to help increase the land sectors' resilience to the impacts of climate change, protect our natural environment and improve long-term farm productivity. For example, increasing carbon storage in agricultural soils improves soil health and productivity. Revegetation will help restore degraded landscapes, provide biodiversity habitats and corridors, help to address salinity, protect livestock and reduce erosion. We have already made substantial progress in these areas, with more than \$46.2 million invested in research and development of abatement and climate change adaptation options for the Australian land sectors.

The CFI will provide new incentives for farmers to adopt new ways of improving the health of their soils, improving herd efficiency and farming more sustainably. The government has developed methodologies for manure management, landfill emissions, savanna fire management and reforestation. The government is working with stakeholders to develop methodologies for soil carbon, reduction in livestock emissions and applications in the rangelands. Private proponents are also coming forward with methodologies.

The Carbon Farming Initiative provides these incentives in a way that does not see the government itself trying to pick winners. It provides a mechanism for farmers to add value to their actions and to decide for themselves whether there is sufficient incentive to invest.

The Carbon Farming Initiative is a voluntary scheme. There is no requirement on anyone to participate, but those who do will be eligible to receive carbon credits for every tonne of greenhouse gas emission saved or stored. These credits will be able to be exported or sold here in Australia to companies or individuals wishing to offset their emissions or sell carbon neutral products. The scheme has been designed to encourage broad participation without compromising the environmental integrity and market value of the credits generated.

Several improvements were made to the legislation following widespread consultation with stakeholders earlier this year. The changes simplify aspects of the scheme's administration and will further reduce participation costs. They also provide stronger safeguards against potential adverse impacts from abatement projects.

A key change has been streamlining of the 'additionality' test. Individual project proponents will not need to demonstrate their project's additionality to the scheme administrator, rather the government will identify and list eligible activities that are not already in widespread use and deem these to be additional in regulations. The

government will consult with stakeholders to identify activities for inclusion on the list. To be eligible an activity would need to be beyond common practice in an industry or under specific regional or environmental circumstances.

Other aspects of administration that have been streamlined include reporting and some audit requirements. Project proponents will be able to choose a reporting period of between 12 months and five years. Auditing may also be reduced for small or less complex projects.

The bill includes an objective to achieve carbon abatement in a manner that is consistent with the protection of Australia's natural environment and improves resilience to the impacts of climate change. Activities that have a high potential for adverse impacts on regional communities, water and biodiversity will be ineligible for Carbon Farming Initiative credits and listed in regulations. Eligible projects will need to comply with all state, Commonwealth and local government water, land use planning and environmental regulations and take account of regional natural resource management plans.

The government will monitor the implications of the scheme for regional communities and will consider further protections if there is evidence of material adverse impacts. At the same time, the government is making it easier to market the social and environmental benefits of Carbon Farming Initiative projects beyond the carbon abatement outcome by establishing a co-benefits index. This will provide a low cost method for evaluating and reporting on biodiversity and community benefits of projects and enable voluntary buyers to identify premium credits with a positive story.

Because carbon credits are used by individuals or companies to counteract the emissions they create during their day-to-day life or normal course of business, it is important that they represent real emissions reductions. Experience in carbon markets has shown that when consumer confidence in the environmental integrity of credits is lost, prices fall rapidly in response. The Carbon Farming Initiative legislation includes strong provisions to ensure the environmental integrity of Australian carbon credits.

An independent expert committee, the Domestic Offsets Integrity Committee, will assess methodologies and give advice to the government on their approval, ensuring they lead to verifiable emissions reductions. Credits will only be issued after emissions reductions have been achieved, and permanence provisions will ensure that stored carbon is not subsequently released, cancelling out any benefits for the atmosphere.

The permanence arrangements are rigorous yet flexible and well suited to Australian conditions. Landholders will not be locked into the scheme and will be able to cancel their projects and hand back credits at any time should their circumstances change. If carbon is lost through no fault of their own—for example, as a result of bushfire or drought—they will not have to return credits; rather, they will be required to take steps to re-establish the carbon stores.

Further provisions will work to minimize the potential for fraud and dishonest conduct. All project proponents will need to meet a 'fit and proper' person test, all credits will be tracked in a central national registry, and buyers and other interested stakeholders will be able to examine information about abatement projects in a publicly available database. Appropriate enforcement provisions are in place to address noncompliance.

Together, these provisions ensure the Carbon Farming Initiative provides a robust long-term framework for rewarding land sector abatement and ensuring the sector is part of Australia's solution to climate change. The Carbon Farming Initiative will create new, real and lasting economic opportunities and increase the sustainability and resilience of rural communities.

CHAIR—Thanks, Ms Thompson. We will now go to questions. I might kick off. There has been much debate about abatement and how much abatement you can achieve. What is the department's best advice at the moment in terms of soil carbon abatement?

Ms Thompson—We believe that soil carbon—which is, of course, currently sitting outside the Kyoto accounts for Australia—will be, as a result of the Carbon Farming Initiative, delivering abatement in the order of between 0.5 and one megatonne in 2020. So it is, in fact, according to our estimates, a fairly modest quantum of abatement from soil carbon. I should note that there is considerable work going on at the moment, and I will invite my colleague from DAFF to talk a little bit about the support the government has given for investment and research on soil carbon.

I think we would acknowledge that estimates of potential abatement from soil carbon vary quite markedly. At this stage, however, there is not a methodology available for use for soil carbon, although I know a number of people are working quite hard to that end. So the department has estimated a fairly modest quantum of

abatement from soil carbon at this stage—noting, too, that that assumption rests on a fairly low carbon price because the resulting permits would be non-Kyoto abatement.

Mr Gibbs—The soil carbon program has been going for a couple of years now under the Climate Change Research Program, a part of Australia's Farming Future. It is a program that is sampling soil across the country, across different types of farm practices, to get a level of consistency in the way we measure soil carbon and to start to prepare for how we measure soil carbon in terms of what could be the opportunity for a carbon market but also to improve the standards we might use for measuring and communicating to farmers about the potential opportunities out there. That program is coordinated by CSIRO but I point out that, in each state, there are state based agencies, either from universities or from departments of primary industries, although some of the names have changed recently. There are people sampling these different practices. They are trying not only to match practices that have been going for some time but also to come up with a consistent way of sampling. The amount of sampling has increased significantly under that program.

CHAIR—There has been also some debate about how much land you would need to get a megatonne of abatement. Do you have any idea about what that would be?

Mr Gibbs—No, not off the top of my head. I have heard some of the debate going on, but what Ms Thompson just said about the level of abatement that could actually come from soil carbon gives you an idea that, despite what has been happening in the media over the last couple of years, our assessment of what could happen with soil carbon is less than some of the other numbers you would have heard around the place. At the end of the day, a market mechanism or a piece of legislation like the Carbon Farming Initiative will allow farmers to make judgments about whether to go through the process of trying to sequester carbon when they are also trying to grow crops or pasture for cattle, so they do face other economic signals and other business decisions in addition to soil carbon.

Ms Thompson—I would like to add to that. The department's estimate of abatement that I mentioned earlier was underpinned by an assumption of a mitigation action on around one million hectares of land. To pick up Mr Gibbs's point, I think that one of the key values of the Carbon Farming Initiative is that it will give farmers the opportunity to road test approaches to build up carbon in their soil and it will provide, I think for the first time, a really strong incentive for people to take the research and methodologies that Mr Gibbs was talking about and apply them on their land. I think we would all concede that views differ quite markedly on what sort of abatement you would get from soil carbon, but the strength of carbon farming is that it actually gives us the opportunity to test it on the ground.

CHAIR—And your figures run through until 2020?

Ms Thompson—They are a point estimate in 2020, so that is the quantum of abatement that we think will be delivered in 2020.

CHAIR—And that is with a market price, is it?

Ms Thompson—It is with an assumption about a fairly low price because it is non-Kyoto abatement, which means that it is sitting outside Australia's Kyoto accounts at the moment. So the assumption rests on a price of \$5 per tonne in 2020.

CHAIR—Have you done any figures on what you could achieve if there were no market price?

Ms Thompson—No.

CHAIR—We have had evidence here today that the additionality test is a problem. Can you take us to the additionality test and what the definition of 'common industry practice' is? I think it would be in the context of the forestry industry.

Ms Thompson—The first point I would like to make in this regard is that the Carbon Farming Initiative was designed for the voluntary market. Voluntary markets are essentially predicated on environmental integrity standards, and one of those turns around additionality. What that in fact means is that voluntary market buyers will not purchase abatement if they believe it is going to happen anyway. I think most people would concede that the additionality test is one of the more challenging elements of any offset scheme. So in response to quite a lot of feedback from stakeholders the government has worked very hard to streamline the additionality test to make it simpler and easier for people to use. What we have done is say that project proponents will not need to come to the administrator and have the additionality of their project assessed on a case-by-case basis. We are saying that, instead, the government will work with stakeholders through a consultation process to devise what we are calling a positive list of regulation. This will mean that activities

that go beyond current common practice, that are not already in widespread use for a given sector, local area or set of environmental conditions, will be put on this positive list of regulations. We believe that it will be a very good method for ensuring that everyone is very clear about what will and what will not be deemed as additional for the purposes of the Carbon Farming Initiative.

With respect to commercial forestry, I think the obvious point is that commercial forestry is something that already happens a lot in a number of regions. In most cases we do not expect that commercial forestry will be able to meet the common practice test. That said, it is possible to envisage certain sorts of forestry practices that are geared around harvesting and could meet the common practice test in some circumstances. An example we have used in the past is hardwood plantations and low rainfall areas with a long rotation length could in fact meet the additionality test under some circumstances.

CHAIR—We have had evidence from the New South Wales Farmers Association and the National Farmers Federation. The National Farmers Federation indicated that there was great uncertainty on pricing and science and that they felt there would be adverse impacts and significant risks by adopting the approach of this legislation. Do you have any idea what these significant risks would be?

Ms Thompson—No. I think you might need to ask them that question. As I say, it is our belief that the additionality test we are proposing will provide a considerable degree of certainty for industry about whether their activities will be eligible for crediting under carbon farming.

CHAIR—Mr David Eyre, from the Farmers Federation, argued that he did not believe that the market works in this area. Is that a view that the department shares?

Ms Thompson—No. Our view with respect to these issues is that, because carbon farming is a market mechanism, it will allow the market to decide on which activities should be invested in and supported. I think it is fair to say that governments by and large do not have a very good track record of picking winners under these sorts of approaches, and efforts to do so through various grant programs often fall somewhat short of expectations. So it is our view that it is best to leverage the power of the market to try to drive abatement and create incentives for farmers to take positive action to benefit the environment and increase carbon stocks on their land.

CHAIR—I want to ask about Aboriginal rights and the application of native title in association with this. I am sure you have seen the submission from the group that came here today. Do you have any comment on how that would operate?

Ms Thompson—Yes, we do. I will ask my colleague Ms Stuart-Fox to respond on that question.

Ms Stuart-Fox—There are provisions in the legislation for holders of exclusive possession native title, as you might be aware. The government has indicated that it will undertake further consultation in relation to consent, so what sort of consent rights to abatement projects holders of other forms of native title less than exclusive possession native title would have. There will be a consultation process over the next three months. Many of the issues that were raised by groups this morning we hope to address through this consultation process.

CHAIR—Thank you.

Senator NASH—On the issue of soil carbon abatement, could you give me those figures again by 2020 for the soil carbon?

Ms Thompson—Certainly. In fact, we do have a paper that the department has prepared on abatement estimates from carbon farming, and I am happy to table that today.

Senator NASH—That would be great.

CHAIR—Could someone please move that the document be tabled? It has been moved. Thank you.

Senator NASH—Just to recap the figure you gave us earlier, I think it was point—

Ms Thompson—In this paper we have done some work in terms of providing some preliminary estimates of abatement from carbon farming. We have done that according to some high and low scenarios and the paper gives you some explanations of the assumptions that we have used for that. Under the low scenario we are estimating 0.3 of a megatonne from soil carbon in 2020. Under the higher scenario we are estimating 0.5 of a megatonne in 2020. As I said earlier, this estimate is underpinned by an assumption of—

Senator NASH—On that basis then there would be an expectation that the predominance of the abatement is going to come from forestry, from trees.

Ms Thompson—I do not know if you have got the paper in front of you, but we actually go through a number of the activities and provide abatement estimates. In fact, reforestation—and I should be clear that this is non-commercial forestry, so it is what we call environmental plantings. It would include the sort of plantings that Mr Grant was referring to earlier. We look at the abatement from reforestation, avoided deforestation and regrowth on managed lands, reduced enteric fermentation, nitrous oxide from agricultural soils, manure management and savanna, fire management and legacy waste management. We also look at rice cultivation and reduced emissions from field burning residue. Those are the abatement estimates categories that we have looked at from the Kyoto side of the coin. The emissions that are captured via Kyoto are counting.

We have started having a look at the abatement from forest management, which is the pre-1990 forest estate, and concluded that we need to do a fair bit more work on that. We have looked at reforestation on non-Kyoto land, revegetation, soil, biochar and feral camels. So we have got quite a suite of other emissions reductions. We are estimating from reforestation that under the low scenario it would deliver one megatonne in 2020 and under the high scenario it would deliver two megatonnes in 2020.

Overall, for the Kyoto compliant activities, we are estimating just under five for the low scenario and around 15 megatonnes in 2020 for the high scenario. I think the key message here is that the abatement estimates for carbon farming are fairly modest initially. It is perhaps worth pointing out though that if you take the high scenario they are second only to the emissions reductions we are currently getting from the renewable energy target. So even though it is a very small number compared with some of the estimates that have been published over the years, it actually is making a fairly significant contribution to Australia's greenhouse gas mitigation effort.

Senator NASH—I was asking more in the context of which are going to have the greatest efficacy in terms of land use. I will read through that and then perhaps put some questions on notice one we have had a chance to have a look at it.

Back to the issue of the common practice and additionality—I know you answered it in terms of forestry for Senator Cameron—in terms of the soil carbon, and I note that you said at the outset that there are no methodologies yet for the soil carbon sequestration. What are you currently defining as common practice within the soil carbon sequestration field that will be excluded?

Ms Thompson—That is a very good question. I think that is one of the things we will need to look quite hard at when we are preparing the positive list for soil. The question really will be: in a given area is everyone already doing it? If they are then I think the view would be that it would be difficult for it to meet the additionality test under those circumstances.

Senator NASH—Just on that, how can you come up with the abatement figure of 0.3 to 0.5 of a megatonne for soil carbon when you do not know what practices will and will not be allowed?

Ms Thompson—That, again, is a very good question. Of course, in order to do this work we had to make some assumptions. I will turn to the relevant part of the paper so that I can take you through those. I should also point out that this does not include the separate category, which is the emissions from reducing fertiliser on the soil. That is another category. We did draw quite heavily on the CSIRO work on soil carbon that was published in 2009. The CSIRO work assumed a technical potential of 10 per cent of a national potential. We used some extrapolations from that, which were focused on Queensland, and back cast that to come up with a national approach.

With regard to the potential of the soil carbon sequestration rate, we assumed that the sequestered carbon would remain permanently in the soil. This is one of the issues that means that you need to think quite carefully about what you can and cannot include, because some of the practices that people look at doing do not necessarily lead to the permanent storage of soil. That was one of the other things that we looked at.

Senator NASH—Thank you for that. I am still a little intrigued as to how, when you do not know how the carbon is going to be stored in the soil because you do not know what practices are going to be used, you can come up with a measurement.

Ms Thompson—Sorry, Senator. If I conveyed that impression then I was being very unclear and I apologise for that. We are aware of a number of practices that farmers can adopt that will improve the carbon in their soil. We assumed that they were doing some of those for the purposes of this analysis.

Senator NASH—Great. What are they?

Ms Thompson—Can I just—

Senator NASH—Can you just answer that bit for me before we go any further?

Ms Thompson—Sorry, what was the question?

Senator NASH—You just said that you are aware of some of the practices that can be used to store the carbon. I am assuming they will get the tick because they have been used for this measurement. I am just interested to know what they are.

Ms Thompson—One of the ones that people talk about a lot is this idea of flipping between pasture and cropping. That means that you get a permanent vegetation cover on your soil and, under certain circumstances, you can increase the carbon levels in your soil. If I could just go on to pick up on your earlier comment—

Senator NASH—You do realise that you can only do that with native grasses, so it rules out a significant agricultural area.

CHAIR—Senator Nash, could you let Ms Thompson finish.

Senator NASH—They are very long answers and it is important that I get this in sequence.

CHAIR—I am happy for you to do that, but you should be fair with the witness and let her answer. Then you can ask any other question.

Senator NASH—I am very happy for her to answer my specific questions and to add anything else that she would like to.

Ms Thompson—I have heard some people say that it will only work if you use native grasses. I understand that others have a different view. I guess this goes to the point that we were making earlier that views about the potential for soil carbon and the sorts of activities that you can do to increase it do vary quite markedly amongst experts. It is one of those issues that I think will be really good to test through the carbon farming initiative.

Could I just go on and pick up your point about the methodologies. What I am trying to convey here is not so much whether or not people have a reasonable handle on the sorts of activities that you can use to increase carbon in your soil—although there are, as we are saying, some differences of view on that also. What we are really talking about is the need for people to come forward and provide an actual methodology or a mechanism to measure the carbon that is being built up in the soil. Again, views differ about the level of scientific research that is needed to underpin that. But what the department are doing to assist with that effort is that we have set up the group of technical experts and other stakeholders that we are working with, and we are very optimistic that over the next few months we will be able to come forward with a methodology that people will be able to use for soil carbon.

Senator NASH—When you say methodology to measure, I thought the methodology related to the practices that were going to be used to increase the carbon storage. The measurement is fairly straightforward, isn't it? It has either increased or it hasn't.

Ms Thompson—There is probably a bit more uncertainty around it than that suggests. In fact, what the methodologies will need to do is to set the baseline against which you will measure the increases in soil carbon. You are exactly right: you will need to say what management actions you are intending to take to increase your levels of soil carbon. You will also need to show how you are going to measure the soil carbon building in your soil. You will also need to give some thought to an averaging approach to ensure that soil carbon is in fact being sequestered permanently. What that means is that you will have to give some thought to the likelihood of carbon being lost from the soil over time and how you plan to deal with that. The idea with our approach to soil and carbon farming means that you will be able to apply an averaging approach across the whole project that will allow you to have some flexibility, both spatially and temporally, in terms of some possible losses from your soil. All of those things will need to be captured by the methodologies.

Senator NASH—No wonder you do not have a methodology yet! Can I take you to something I am a little curious about. In the explanatory memorandum in relation to the common practice issue, at 5.57 it says:

Increases in emissions can be the direct result of carrying out the project and within the control of the project proponent. For example, soil carbon can be enhanced by increasing use of nitrogen fertiliser, but there could be increased emissions of nitrous oxide associated with this activity.

Obviously that is talking about the leakage. But use of nitrogen fertiliser I would assume would be a glaringly obvious common practice. Reading that it is considering that as a way to increase the carbon.

Ms Stuart-Fox—It was really just an example of how leakage works. There is no implication here that that would be something that would be an eligible activity. It was just trying to explain the concept of leakage rather than suggesting that that is an abatement practice that might be credited under the CFI.

Senator NASH—But it says:

For example, soil carbon can be enhanced by increasing use of nitrogen fertiliser, but there could be increased emissions of nitrous oxide associated with this activity. The methodology guidelines indicate that such increases should be accounted for as part of the project.

That indicates to me that—

Ms Thompson—What I think we are wrestling with here is not as Ms Stuart-Fox was saying an issue related to common practice. What we are looking at is the unintended consequence of taking action to increase the carbon in your soil and that resulting in, if you like, a further emission of another greenhouse gas that needs to be accounted for in your project design. If you did not account for that then you would get an unintended increase in emissions that would not be desirable.

Senator NASH—I understand the principle of what you are trying to say and that is not what I am aiming at at all. It is probably less clumsy to use something that is actually going to be excluded for a project.

Ms Thompson—We are very happy to take feedback on our drafting on that and we will certainly bear that in mind.

Senator NASH—I think that would be quite useful because that relates to things like anhydrous ammonia, MAP and DAP, which are all in common use. In terms of the land use, there has been a lot of comment around potential change of land use from food production to trees and forestry. When I say food production I mean that separate from prime agricultural land, which is a different issue. I am talking about food production on land. I know that has been noted as part of the legislation and is explained in the EM, and that the government is going to monitor the implications of the scheme for regional communities—whether there is evidence that projects are likely to have a material and adverse impact on the allocation of prime agricultural land, water availability or biodiversity. But what will be the definition of a ‘material or adverse impact’?

Ms Thompson—I think you have landed on the sort of future looking review approach to dealing with these adverse impacts. What the government has also said is that in regulation we will establish a negative list of activities that have a very high risk of leading to perverse or unintended environmental consequences and that we will be working to consult with stakeholders to establish, in regulation, a list of activities that are effectively banned for carbon farming. We see that as the key vehicle by which we will prevent the sorts of unintended consequences that you are alluding to. The provision for a review to look at material impacts down the track is, if you like, a second order safeguard. In fact, it is the negative list approach that we do see as the key vehicle for ensuring that these sorts of adverse impacts that you are alluding to do not occur.

Senator NASH—If the minister must, as it says in the legislation, have regard to whether there is a significant risk, what confidence can stakeholders have that the minister’s view of adverse impact is going to be the same as stakeholders? My point is that if there are stakeholders in the community who believe the advent of this is creating some serious consequences, foreseen or unforeseen, but the minister does not share that view, then we are already stuck with the process, aren’t we?

Ms Thompson—I think my answer to that is that stakeholders who have a strong concern about potential adverse impacts will have had the opportunity to participate in the process for compiling this negative list. They will have a very direct opportunity to consult with the government on preparing this quite certain vehicle for ensuring that certain things do not happen.

I would like to take the opportunity to pick up on some of the points that were made by earlier witnesses about the regional plans. The intent of including the reference to them in the carbon farming legislative package and the reference that proponents will need to take account of the regional plans is not so much a regulatory barrier as a mechanism by which local communities can engage with their catchment authorities or relevant body and have their say in terms of talking about that sort of decision making for their local communities. We absolutely take the point that at this time the plans do vary quite a bit in terms of how they deal with climate change mitigation options and with adaptation. For that reason, the government has said that it is keen to work with key stakeholders on ways in which the plans could be improved. We are looking to have a workshop in early June with a number of the key stakeholders, including representatives from the catchment boards, to really look at how the plans can be improved to deal more explicitly with carbon

farming, and for the first time looking to explicitly weave in actions to deal with the impacts of climate change as well.

Senator NASH—When are we going to see the regulations that the minister will use to develop this list of things with a significant adverse impact?

Ms Thompson—The department has started work preparing those regulations and we will look to be consulting with people on them very soon.

Senator NASH—Time line?

Ms Thompson—Very soon.

Senator NASH—Before the legislation comes to the Senate?

Ms Thompson—I can only say at this point that we are working very hard on it and that we are looking to get it moving very soon.

Senator NASH—The reason I ask is that if we do not see the regulations before the legislation comes to the Senate then we have absolutely no idea what is going to be on that list of things of which the minister says, ‘These are things I am not going to accept.’ And that is a fairly untenable position to put the Senate in—having to make a judgment call on a piece of legislation when we do not actually know what the regulations accompanying that say.

Ms Thompson—I take that point. And for that reason the explanatory memorandum does include a number of examples that we consider would be on the negative list. I will just ask Ms Stuart-Fox if she could perhaps take us through some of those.

Senator NASH—Could you point me to those?

Ms Stuart-Fox—It is in the chapter on coverage, and it is ‘excluded projects’ which commences 1.25. It talks about a couple of examples there. One is the conversion of plantations that are established for harvest—so short rotation harvest plantations. The conversion of those into permanent carbon sinks is something that the explanatory memorandum indicates might be on the excluded project list.

Senator COLBECK—Just on that—and we did have a bit of a debate about this earlier—are we talking about ‘that have been’ or ‘that might be’?

Ms Stuart-Fox—That could be. So one of the project types that people have suggested to us is where you have a plantation that has been established for the purposes of harvesting and, rather than harvesting, the person says, ‘No, we’ll keep it as a permanent sink in the landscape.’

Senator COLBECK—No—we had a debate earlier about where it was previously established or to be established. So that clarifies that.

Ms Stuart-Fox—It is a type of avoided deforestation project. The other one is the establishing of a reforestation project on land that has been cleared since 2009, and that is to remove the perverse incentive that might otherwise exist for people to clear land in order to re-establish a carbon sink. It is clearly a perverse outcome for biodiversity, potentially. And there is also the potential to exclude, in some particularly overallocated catchments, establishing environmental plantings where there are particular concerns about water interception. So I think the expectation is that the negative list, or the list of excluded projects, will be specific to regions, noting the constitutional issues there. You would have to describe it in terms of environmental circumstances or conditions. So rather than project types that are excluded across the country, you might say, ‘in these circumstances’. So, for example, where you have a particularly overallocated catchment, establishing plantings that might intercept additional water might be excluded. So we expect it to be quite refined.

Ms Thompson—And actually this is picking up on a point I think Senator Milne was making with the previous witness—that we do see that the negative list could in fact be quite ramified in terms of what can and cannot be allowed in certain particular areas with certain environmental conditions. So I actually think it has the potential to be a very effective and quite granular tool for addressing the potential for adverse impacts.

Senator NASH—The water interception issue is quite a significant one that has not been raised much. But just before I get onto that: I understand what you are saying about the project and that is fine, but that sounds very specific to certain things. What about the impact on a region of the change in land use practices? So within all of that, how would you see land use change from food production to trees, to forestry, which may

well have untoward consequences? How would that be addressed in the context of what you are saying those other very direct projects have not?

Ms Stuart-Fox—The excluded project list makes explicit reference to impacts on regional communities, and that was done precisely to be able to pick up the sorts of impacts that you are talking about. So where it became apparent that, in a particular region or area, there were impacts on regional communities—employment, perhaps, or food production—then you might be able to exclude the types of projects that were having that impact.

Senator NASH—But, at the end of the day, it is going to be up to the minister's discretion, really, isn't it?

Ms Thompson—Well, sorry, Senator, I think that what—

Senator NASH—I just want to clarify that, Ms Thompson. In the legislation it says that the minister must have regard to whether there is a significant risk that that kind of project will have a significant adverse impact. So I am only going from what the legislation says: it will come back to the minister.

Ms Thompson—Obviously, actually making a regulation and bringing it into the parliament is something for the government of the day. But, as we have been saying, the proposal is that we consult very widely on it. We have consulted very widely and, I think, very effectively on carbon farming. We have had more than 280 submissions, we have met with more than 100 organisations and groups and we have had a lot of feedback from stakeholders that the consultation process has been very effective. In fact, as I mention in my statement, we have made a number of improvements to the bill as a result of consultation with stakeholders. I think when we say there is a genuine commitment to consult on this list, then that is what will happen.

Senator NASH—I do not have any disagreement at all about the level of consultation or about whether you are planning to have it; it is the decisions that are made post that consultation that are important. I would say that a number of submissions we have got still raise a significant concerns about the construct of the legislation. The consultation may well have been very effective, but there are still a number of concerns here that suggest that perhaps the consultation process has not addressed as well as it might. That is just from the submissions and the evidence that has come forward.

CHAIR—Senator, perhaps you could wind up.

Senator NASH—I have a lot of other questions, which I will put on notice. But in terms of the \$45.6 million funding over four years, how are those figures for the cost of the program arrived at?

Ms Thompson—My understanding is that that was part of the government's election commitment process.

Senator NASH—I love that answer. I understand that entirely. There is \$4.4 million in 2010-11, \$16.1 million in 2011-12, \$13.1 million in 2012-13 and \$11.9 million in 2013-14. How was that breakdown arrived at?

Ms Thompson—What that reflects is the funding that will be needed to set up the carbon farming administrator and also to do some of the work that is being done on the methodologies and so forth. In addition, there is funding for the communications effort that DAFF is leading, with Landcare facilitators and others. Mr Gibbs may want to say a few words on that.

Senator NASH—Could you on notice just give us a detailed breakdown, for each of those forward years, of what those amounts will be spent on. Mr Gibbs, I think \$4 million is to be spent on providing information about the scheme via Landcare. I am happy for you to take on notice as well exactly how that \$4 million will be spent through Landcare to put that information out there.

Mr Gibbs—I will take that on notice.

Senator NASH—Thank you, Chair. I will come back if there is time.

Senator MILNE—There is so much here and it is a long day. I will start with this document, which I have not had a chance to look at adequately, but I note here that you mentioned in your introductory remarks—and I am looking at 'forest management and revegetation' under article 3.4—you have left that blank, saying that you need to do more work on that.

Ms Thompson—Yes.

Senator MILNE—From that, I am assuming that you are not giving any indicative assessment of abatement at this stage under that section. When can we expect some sort of indicative estimate of abatement in 2020? Under article 3.4, can we have an assumption based on opting in?

Ms Thompson—Could I just ask you to clarify what you mean by ‘opting in’?

Senator MILNE—At the moment, because we have not opted in to forest management under article 3.4, there is no Kyoto-compliant credit access for protecting native forests. In the event that we did opt in to article 3.4, there would be. Therefore the levels would be Kyoto compliant and the levels of abatement are vastly different. I am just asking: when are we likely to get some sort of figures around the levels of abatement we are talking about?

Ms Thompson—As you say, Senator, that is something that we are working on and we will look to do something on that soon.

Senator MILNE—What does ‘soon’ mean?

Ms Thompson—I would hesitate to be much more precise, but ‘soon’ reflects the fact that we are working on it and we would look to get something out soon.

Senator MILNE—‘Soon’ is an interesting notion. The next one is in regard to creating credits from regeneration, in other words a decision to end the re-clearance of land. I am thinking particularly of Queensland and New South Wales—a rangeland type scenario. I am assuming from your list here that you are seeing that as a relatively small volume of credits. Can you tell me: what is the theoretical maximum and what are the assumptions about why it is this relatively small number?

Ms Thompson—I might ask my colleague Mr Searson to take us through some of that material.

Mr Searson—Senator, are you talking about regrowth on deforested land?

Senator MILNE—Yes. I am talking about farmers who periodically re-clear in those areas, every 20 years or so, and they make a decision that they will not re-clear and therefore aim to be credited with that. I am asking what is the potential volume in the best-case scenario. In your list here, can you take me to the figure you estimate?

Mr Searson—We have combined regrowth on deforested land with avoided deforestation into one estimate—

Senator MILNE—Can we separate those, because they are two different things? Can you give me a number for both of those things? One is the re-clearance and the other is deforestation where you are converting an existing forest for the first time.

Mr Searson—It could be done, but that is not the way we have done it.

Ms Thompson—One of the challenges with that analysis is that in some cases the management actions are very similar. The management action might be something like fencing off, removing stock or whatever. We felt that it made the analysis easier to combine the two. Then we could give a figure for that. If, however, there is a policy interest in looking at re-clearing versus clearing of never-before cleared vegetation, then that is not the analytic task we set ourselves; but we could go away and have another look at that.

Senator MILNE—If you would, because I am interested in the basis on which you might get a reference level in relation to the creation of avoided deforestation credits. Is it the historical rate of logging? And wouldn’t that be influenced by the level of panic clearing? Because of things in the past it might actually be an inflated level of clearance than otherwise might have been the case.

Ms Thompson—We can take that away and have another look at that.

Senator COLBECK—On the question about the separation, when you do that could you give a definition of what you mean by ‘never-before cleared forest’? That actually does have some significant implications on the calculation. Never-before cleared forest is effectively old-growth forest, and there are a whole series of classifications down the line from that. I am not trying to complicate the argument, but there may be other implications that flow from it.

Ms Thompson—We are happy to take that on notice and have a look at it.

Senator MILNE—You mentioned in relation to plantations—and this is the vexed issue—in answer to a question from Senator Colbeck, Ms Stuart-Fox, you said that it is not just a plantation which has previously been planted for wood production—an MIS plantation, for example. It is any plantation that is planted for wood production then or now or in the future. Is that correct, on the negative list?

Ms Stuart-Fox—What we have said in the Explanatory Memorandum about the conversion of harvest plantations established for harvest, whether under MIS or under some other type of structure, is that keeping those as carbon stores has a lot of problems associated with it.

Senator MILNE—We accept that. That is what is already done yesterday or before; so I am talking about tomorrow.

Senator COLBECK—That is the question I asked.

Senator MILNE—Yes, I am just getting clarity because the answer was ‘could’.

Senator COLBECK—No, the answer was that it was out.

Ms Stuart-Fox—Yes. There are no time limits proposed here that it would be only past plantations, not future plantations.

Senator MILNE—I wanted to absolutely clarify that. Ms Thompson, you said that there might be some circumstances in which hardwood plantations may qualify. I am assuming from that that you are talking about changing the rotation lengths. What did you mean by that? Does that mean that forest agencies who have currently got hardwood plantations in for harvest, that would have harvested them, that would have come under the definition of a plantation forest, would now be able to get into this if they changed the length of rotation?

Ms Thompson—That is a good question. What I was alluding to was a hypothetical whereby you could envisage some circumstances where a commercial forestry might meet the common practice test. In terms of that applying on a retrospective basis, my colleague can comment.

Ms Stuart-Fox—It would seem very difficult to argue that something that has occurred in the past without any CFI incentive is not business as usual, since it has actually occurred. One example of a long rotation plantation—the sort of activity that is not occurring at the moment and for which CFI incentives could be provided—is establishing sandalwood plantations in parts of WA. It is not happening at the moment but it is an activity that people have identified as something that could happen if there were carbon incentives for it. So there you are selling multiple benefits. The sandalwood is something that could have a commercial application. It is not commercially viable at the moment. CFI credits could make it something that happens.

Senator MILNE—To go back to the question on the reference levels to underpin crediting avoided deforestation, can you give me something specific about what you are thinking about setting that reference level to underpin crediting avoided deforestation?

Ms Thompson—I am not quite clear what you mean by a reference level?

Senator MILNE—On what basis will you set that to calculate the creation of avoided deforestation credits?

Ms Thompson—It will be a matter of settling a methodology and then applying it. Part of the methodology will be looking at the baseline and the carbon stocks that are already there. It would then be looking at the management action in terms of what the proponent is planning to do to increase the carbon stocks on the land. There would also need to be something that is on the positive list for additionality. Are they the sorts of things?

Senator MILNE—So when will we get a set of what might constitute that calculation for the reference level?

Ms Thompson—Are you asking, in terms of avoided deforestation, about the actual abatement estimate that we are looking at?

Senator MILNE—I cannot work out what it could be until I know what the reference level is as to how you would calculate the creation of the avoided deforestation credit. On what basis would you start?

Ms Thompson—As with all sorts of offsets projects, you would need to look at what the business as usual baseline for the land and the carbon stocks would be in the absence of the project. That is the first step.

Senator MILNE—That is why I made the point that those historical levels might well be inflated as a result of panic clearing depending on the period of time. So what I am getting at here is that there are some areas where we know the increase was substantial and not driven by anything other than panic about changes.

Ms Thompson—And the legislation has something on that.

Ms Stuart-Fox—You are absolutely right. We have had some initial conversations with some groups of stakeholders about the way that we might think about baselines for avoided deforestation. We would agree that

there are a number of problems with using historic data as a basis for those baselines. So what you think will or will not be cleared into the future is probably a better indication or a better basis for a baseline than historic data.

Senator MILNE—Okay. I will come back to you on that.

Senator COLBECK—But would that sort of detail be something that would be built into the project plan and design, for example?

Ms Stuart-Fox—It is part of the methodology for avoided deforestation.

Ms Thompson—Which would have to be assessed by the Domestic Offsets Integrity Committee.

Senator MILNE—One of the issues that has been raised consistently during the day by various groups is the concern about the unfairness to people who have already done the right thing—whether it is Indigenous protected areas or private landholders who might have put a covenant on their land et cetera—and who will not benefit. In the case of some Indigenous communities, they may have entered into some agreement with a government grant or agency about savanna burning et cetera and, having done that, they have effectively given up their carbon rights into the future because there is not additionality. What are we going to do about the chilling impact of that? Why would anybody in the future want to protect anything and, if they are effectively giving up their carbon rights by doing so, why would we actually get a reverse where people take things out of covenants and so on? In relation to that same thing, why will we not see local governments and state governments repealing land clearance provisions and maybe some local government planning—zonings or whatever else—because people will be saying, ‘As long as that stands there I cannot benefit, but if you repeal that I can get a financial benefit from now engaging.’ So it actually reverses the trend towards being better.

Ms Thompson—There is a lot in there. With respect to the Indigenous communities and support that they are already receiving from various levels of government, what we have been saying to them is, ‘If you are getting support through an existing initiative what we would be looking at is whether in fact you are already being paid for 100 per cent of the activity.’ In most cases the support they are receiving is for a human resource or an officer to do certain things. So in that example if that person were to take on as new duties, as a result of carbon farming, working on action to reduce emissions from savanna burning then we do not see that there would be any barrier to them being able to do that.

With respect to the land covenanting issue, we have been working with a number of the NGO groups to look at ways that they can take action to further enhance the carbon that is on the land even if it has already been covenanted for a biodiversity reason. So we are talking to a number of groups on that front and I think there is a number of ways forward on that.

In terms of the issue you raised with respect to creating an incentive for people to stop regulating or wind back regulation, I guess that would be one of the things that the government would need to keep under review in terms of the review for carbon farming legislation that is scheduled for 2014. I would note, though, that a lot of the legislation that is in place has been put there to try and address a range of environmental or natural resource management outcomes, and you would be then wanting to look at the extent to which carbon farming—which is a voluntary activity—would deliver you the certainty that regulation that is geared to addressing a range of different environmental or NRM outcomes is actually doing so. So I suppose I am wondering about the likelihood of that actually happening.

Senator MILNE—Well, I think it is happening in Victoria as we speak, so I think it is going to happen. The question I would ask is: what recourse is the Commonwealth going to have, because it seems to me that the actions have to be consistent with state and local regulations—and that is right; it does. But if those regulations are repealed in order to confer a financial benefit or whatever, the Commonwealth, it seems, has no recourse here. That is what I am trying to ask: where is it built into the legislation that the Commonwealth has some recourse in relation to this?

I guess the wider governance issue is the one we raised earlier, collectively around the room, and that is: with NRM plans, I heard you say that there is going to be a conference or something in June or July, to look at some standardising of those, presumably. But they are so different in quality around the country that it seems to me there needs to be a lot of money spent. And the legislation only says ‘has to take account of’; what does that mean? So I am very concerned that there is such unevenness around the country in the quality of the NRM plans and the differences in local and state regulatory environments, and there is really no Commonwealth power here to do anything for local and state government in relation to that or indeed taking account of the NRM plans. So can you just run me through the governance, because I know that in Tasmania it is vastly

different, at a local government or a state level, in terms of what you are permitted to clear and so on, from other places.

Senator COLBECK—Can I just add to that by asking where land cleared since 2009 comes in the context of this? I thought you made a comment about that earlier—that that was one of the restrictions around the process. I just thought that would have been a factor in what Senator Milne was talking about.

Ms Stuart-Fox—The 2009 was just because you have to set a date at some time in the past. So, in terms of what that exact date should be, the important thing is that it is in the past so that it does not generate a perverse incentive. That is perhaps a mechanism that you could use to address the issue that Senator Milne raises, where you could actually exclude a project or could remove the perverse incentive to undertake projects if you have had a removal of regulation by including those types of projects on the negative list in the way that we are proposing to do for reforestation. So I think there is a mechanism there within the legislation.

Ms Thompson—Just to come back to the NRM plan: I think one of the things that is important to acknowledge is that the Commonwealth is in the midst of a review of Caring for our Country, and Caring for our Country is the program that supports the catchments and the preparation of the regional plans. So this work that is kicking off with this workshop or forum is to look at ways to assist the catchment management groups in terms of the work they will be doing on their plans to enhance the plans to address these issues. I would say, though, that we see the NRM plans as vehicles for communities to have their say about what is going on in the catchments. We see the negative list as the vehicle by which we look to address the potential for the perverse outcomes as a result of some of these activities and, as I was trying to explain earlier, we think it can be quite an effective and granulated approach to dealing with those sorts of concerns because we would acknowledge that state and local government regulation around land use planning and so forth does vary around the country—as indeed the plans do, although we do see them as an important vehicle for community engagement going forward. But we do see the negative list as really the vehicle for addressing these things.

Senator MILNE—Going to the question of why anybody would covenant something in the future, because there is no reward for it. Some of the areas I am talking about are pristine native forests. So let us assume I am a generous and rich soul and I can go and buy a couple of hundred thousand hectares of native forest somewhere. There is really not much potential if it is relatively pristine. It is probably reaching its carbon-carrying capacity. Is there going to be potential to access funds to manage that area to maintain the level of stored carbon and to report on that, et cetera, and actually get some management dollars into that, so you would be looking at weeds, feral animals, fencing, fire and whatever else you might be doing. Is there going to be any capacity to assist people in that way?

Ms Stuart-Fox—There are two separate issues. I think the short answer to your question is that we envisage that there would be. There is a difference between covenants that might have been put on land, say 10 years ago, arguing that that activity would struggle to meet an additionality test. It is clearly business as usual. It happened a long time ago. For people who have those covenants placed in the past, we see the main opportunity there being enhancing carbon in those areas that are already protected.

In terms of protecting areas into the future, that seems to be an activity that is not common, that is delivering an additional environmental benefit, that is protecting an area that might otherwise be cleared, and that is precisely the sort of activity that you might have on the additionality list and that might be eligible under the CFI.

Senator MILNE—I think you are going to struggle to persuade people that it is a fair system in that context. There has got to be some stopping at it somewhere. I cannot think of what it needs to be, but there has to be something.

Senator COLBECK—If I were a generous person who had just bought a couple of hundred thousand hectares of stuff, I would find that a lot of it had been logged and there was an enormous capacity for additionality on it.

Senator MILNE—I am talking about pristine stuff.

Senator COLBECK—That is fair enough, but I know that there has been a lot of stuff that was recently purchased that is being described as pristine and it has been pretty well worked over. This process is effectively designed and focused at a voluntary market. In that context, things that are effectively commercially focused and driven by other commercial drivers and processors are, by virtue of that, ruled out through the negative list.

Ms Thompson—No. What we have tried to do with the positive list—I actually am answering your question—

Senator COLBECK—I do not want to give you the wrong impression. A lot of these things are going to have opportunities in the circumstance that there is a Kyoto compliant carbon market. I am trying to make a distinction between the voluntary stuff that you have said that this is targeted at and what might be a commercial opportunity down the track. Obviously there would be a set of rules set up around that.

Ms Thompson—The additionality test will not rule out anything that is, in and of itself, commercially profitable. That was one of the things we tried to do.

Senator COLBECK—You need to include the negativity list in that as well.

Ms Thompson—The negative list, you are right, might in some circumstances include things that are profitable, if there is a view that the risk of a perverse outcome is such that it is not something that people want to be happening under carbon farming.

Senator COLBECK—The reason I am going down this track is that today we received evidence that this whole process has been fairly friendless. Except for a couple of witnesses, everyone has said, ‘We can’t get it and we want it; and it won’t work because of this and it won’t work because of that.’ I am trying to get a sense of what the intent behind it is. There are obvious benefits in having an opportunity to trade and to inject some funding into the rural sector, into farming, through a carbon farming process. I am supportive of that. I am just trying to get a sense of what has happened before us today—and Senator Cameron has asked some questions about it today—and how those sorts of things will fit together, where the delineation line might be and what the rationale behind that is, if you like.

Ms Thompson—Are you asking what the criteria would be for deciding whether or not something should go on the negative list?

Senator COLBECK—I suppose in a roundabout way you might be right about that.

Ms Thompson—Again, I think that is a very good question and it is something that we are working on internally. We will be looking to talk to people a bit further down the track. Could I pick up a little bit on the point that the proposal is friendless, without wanting to sound too sort of parochial about it? I did hear Greenfleet say, for example, that they were very supportive of a number of things.

Senator COLBECK—Those two witnesses were about the only ones. So you happened to be here at the right time. As I said, I support a process, but based on what I have heard today it is really tough. And then we are still deciding what the negative list is going to be and we are also still deciding on the various listing processes. We heard this morning that potential modelling on take-up is not going to be ready for a while from either CSIRO or ABARE, yet my understanding is that the government’s intention is to get this legislation passed by 30 June. You are not meeting with the NRM groups until some time in June or July. None of those things will have occurred, yet the government is saying to us, ‘Please pass this legislation by 31 June.’ I am trying to find reasons to say, ‘Yes, let’s go down that track and deal with it.’ I am just finding it hard, that is all.

Ms Thompson—I think a careful analysis of the submissions not just into this inquiry but also into the CFI bill and, indeed, the paper consultation process that proceeded it, shows that a very high number of stakeholders are very supportive of the bill. That is certainly the message that has been conveyed to us.

Senator COLBECK—It was chosen badly.

Senator NASH—Yes. You and everybody else.

CHAIR—Did you pick this, Senator Colbeck?

Senator COLBECK—I had nothing to do with it until I moved to approve the agenda this morning, chair.

Ms Thompson—Obviously, in response to an inquiry like this, people will take the opportunity to raise issues that they feel merit some further consideration. So I wonder whether some of the comments are in that spirit.

Senator COLBECK—You talked about identifying activities that are not in common use and that you are still working your way through that process. In that context, how do you deal with regional variation? Something might be a common practice in a region. It may be adapted for use in another region based on a range of interactions. How do you deal with that regional variation? If it is listed as something that is in common use in one region, is it a regional basis and how does that impact on another region that might want to pick it up and it runs up against the brick wall: ‘Oh, sorry. It’s listed as a common practice’?

Ms Thompson—Similar to what we are envisaging for the negative list or the ineligible activities, we envisage a situation whereby activities on the positive list that meet the common practice test are also quite regional or specific to particular industries or sectors and how they operate under certain local conditions. What we are saying is that the design of the list itself and the activities on it could be formulated with that in mind.

Senator COLBECK—When we were talking with your friends as part of this process, one of the concerns they had was a potential conflict of interest with NRM groups—we have talked about the variation in NRM plans; we do not need to go back there—with them as potential participants in this process but then their regional plans and that local process being, as you said, the place in which communities can have their input into this. The potential conflict of interest is their having oversight or influence over who is in the regional area as far as investment is concerned.

Ms Thompson—I must say I was a little surprised to hear that view. I would take the view that catchment management bodies and the people that serve on them are engaged in a lot of different activities in the land sector. I would presume that this issue of conflict comes up for them from time to time and that individual catchments would have mechanisms to deal with that, just as every one else who is dealing with matters that have commercial implications have conflict of interest approaches. That is not something I am expert on. I do not know whether Mr Gibbs wants to say anything further on that. I prefer to take the question on notice and we will see whether we can give you an answer.

Senator COLBECK—I think it is potentially a real issue and if you are going to take it on notice, that is fine. Does there need to be something that actually deals with that as part of the process? I do not know the answer to the question; that is why I am asking it. I certainly thought it was an issue that did have some potential to manifest itself.

Ms Thompson—As I say, my presumption would be that catchment bodies have a range of arrangements to deal with conflict of interest, just as any other agency that is involved in planning and other exercises that have implications for people conducting commercial activities in the region would. As I say, this is the first time that I have heard that suggestion. So we would like to go away and do a bit of research and thinking about it.

Senator COLBECK—It did come from someone who had chaired a regional catchment group.

Ms Thompson—I certainly heard Mr Grant say it. It was an interesting point.

Senator COLBECK—You talked about the requirement in circumstances of flood or drought for repair of damage. What is the process that would be used to assess the extent of that? And how is that repair measured, oversighted or dealt with as part of the process? Or does that have to be built into your original design plans?

Ms Stuart-Fox—Do you mean the loss of carbon?

Senator COLBECK—Yes.

Ms Thompson—That is one of the provisions of the bill that would be subject to the administrator's oversight and potentially subject to the compliance arrangements. Maya, did you want to say anything more about this?

Ms Stuart-Fox—The estimation methodology tells you how you measure the carbon or model the carbon in the landscape. What would happen after a bushfire, for example, is that you would get no further credits until your carbon stores had recovered. In most cases that regeneration will happen fairly naturally and your carbon estimation method and modelling tool should be able to tell you what the reduction in your carbon stocks have been. In that case, the project proponent would probably choose not to submit a report until after the carbon stocks had recovered and they were able to get additional credits. They would have to notify the administrator of the event, though.

Senator NASH—On soil carbon, if there is a reduction in the stocks, what is the process then? How long would a proponent have to increase that stock? How does that process work?

Ms Stuart-Fox—The re-establishment is only if there is a reduction in credited carbon stocks. But for something like soil carbon where we know that it varies on natural cycles—

Senator NASH—You have received your carbon credit unit for the increase and then your stocks decrease. How does that process work and what is the liability for the proponent?

Ms Stuart-Fox—When you do your actual crediting, you would take account of that natural variability. If you know that carbon stocks are doing this, you do not credit right up to the peak. You would credit based on

the change in the long-term average carbon stocks based on the management practice. In other words, when you have a drought, you should have factored in that your carbon stocks were going to go up and down—

Senator NASH—It's unlikely predicting one of those!

Ms Stuart-Fox—There is a reasonable predictability to those—

Senator NASH—In the hypothetical, though, that you do not get it right and that you do come in with reduced stock over one period, what is the process? What is the liability for the proponent?

Ms Stuart-Fox—The point is that because you have not credited to the peak, you have actually had more soil carbon generally than you have been credited for. If you are credited to the average, you have actually had an increase in carbon stock that in a way has offset the reduction in carbon stocks for a period of time. So in most cases there would not be a liability—there is not provision for a liability in the legislation if you have had a reduction because of a drought or a bushfire.

Senator NASH—So what happens?

Ms Stuart-Fox—You do not get any further credit until those carbon stores recover. If you changed your management practice or did something to destroy or prevent those carbon stores from being re-established then you would have an obligation to hand back credits.

Senator COLBECK—So it depends on circumstances—natural versus intended.

Ms Stuart-Fox—Yes, that is right. So if, for example, following a severe bushfire you just cleared what was left over and did not take steps to re-establish, then you would have to hand back credits. But if you allowed natural processes to regenerate and those carbon stores to recover you would not have to hand back credits. You would not get any more credits until those carbon stocks had recovered if it was still in a growth phase.

Senator COLBECK—Let us go to the circumstance that you have just described. A bushfire goes through and you do effectively go through and clear it but then replant. Is that something you should sign up to at the outset in your plan or is it something that could be decided based on the individual circumstance?

Ms Stuart-Fox—It is based on individual circumstances. So you do not have to sign up to a management plan ahead of time because no-one is quite sure what is going to happen over time. There are notifiable events: you would have to tell the administrator what reasonable steps you are taking and the administrator would say that that is fine. In some cases you might re-establish just by leaving it alone; in other cases you might have to seed.

Senator COLBECK—We have talked about the opportunity through this process to test some of the methodologies of storing carbon in soil. What are the implications where those things do not work? If you go down a track and the system you are looking to apply does not work and you make a conscious decision to go the other way or another way. In a testing circumstance how does that align with the permanence and potential liabilities?

Ms Thompson—Are you asking about a scenario whereby a proponent comes forward with a methodology that has either been developed by some private individuals or in association with the government process?

Senator COLBECK—You did talk before about the opportunity to test some of the methodologies that are being considered now for their efficacy. If not all of them work what are the implications for those that do not? Some will, and that is good.

Ms Thompson—I do think one of the strengths of the initiative is that it does give opportunities to really look very hard at the approaches being proposed and for people to respond and see whether they think they actually are going to work. The department has issued some guidance on what methodologies need to cover. In fact, we put out a draft set of guidance for consultation and we have since put out a more refined set. Proponents are already beginning to bring forward methodologies to the Domestic Offsets Integrity Committee for assessment. The committee has a process for assessing the methodologies. That process includes a six-week period for public consultation when the draft methodology will go out into the public domain and everyone will get the opportunity to have a look at it. It then comes back to the Domestic Offsets Integrity Committee for further assessment and then the committee will recommend to the minister whether the methodology should be accepted or not. In addition, with respect to soil, the department has set up this expert group that includes technical experts and stakeholders—we have people from the CSIRO involved in that effort. So I think we are doing a lot to guard against the risk that you are mentioning by going through a quite elaborate process for developing these methodologies.

Senator COLBECK—That brings me back to the question from Senator Nash that I interjected on, and the chair instructed you to ignore, which was on entry costs. You were willing to respond.

Ms Thompson—I think it is quite difficult to work out the sorts of costs associated with carbon farming. We do not know of any other scheme whereby the government is doing such a lot to support the process in terms of developing the methodologies. The other point to note is that because it is a legislative scheme and because we have scheme-wide arrangements, like for permanence, the costs that need to be borne by the individual project proponents are much lower. One comparator possibly is the voluntary carbon standard, which I understand actually requires proponents to have a two-step verification process before they submit their methodology. With carbon farming the government has set up a lot of infrastructure and arrangements to assist people with all of that. Until we start getting some projects on the ground and see how the market responds to the incentive that we are putting in place, it is quite difficult to work out the sorts of transaction costs.

Senator COLBECK—Again, I am responding to some evidence that we had earlier in the day that indicated to us that that could be an inhibitor to that. We had several who said that the bill is not going to achieve what it set out to achieve. That is one of the reasons it was put on the table. Thanks for your response; that is fair enough. Finally, going to the discount factor at five per cent, we heard evidence from others—Greenpeace was one—indicating that that should be 50 per cent. I am getting to the rationale of setting it at that level. I think the discussion we had with Greenpeace and the Green Institute was that there is a range of settings that exist in other jurisdictions. I am trying to get a sense around where that lies and the safety of the margin.

Ms Stuart-Fox—The very high discount rates, for example under the voluntary carbon standard, exist because under that scheme there is no legislation underpinning it. So if you lose carbon for whatever reason you have absolutely no mechanism for getting it back. So you withhold a lot of the credits upfront. In this scheme, because there is actually a legislative requirement to re-establish carbon stores if they are lost following a drought or bushfire or some other natural disturbance, and there are provisions for averaging and other legislative provisions in the scheme for compliance and auditing and things like that, you have a much higher level of certainty around keeping the carbon permanently and re-establishing it if it is lost. So you are able to have a much smaller buffer, which is of course a benefit to people doing projects.

Senator COLBECK—The Carbon Farmers of Australia said this morning that the permanence requirement at 100 years was a deal breaker for it and would inhibit investment into the system. What is your response to that?

Ms Thompson—The challenge with permanence is, of course, that if carbon is reversed back into the atmosphere then you are not getting an emissions reduction or an abatement benefit. As I said earlier, carbon farming was designed for the voluntary market, and clearly this issue of permanence is a deal breaker for people who want to purchase carbon credits for carbon neutrality and other purposes. We are aware that some people believe that the permanence obligation is going to act as a significant barrier.

Our sense, though, is that it is an absolutely essential part of the environmental integrity of the scheme. And, again, I would note that other stakeholders have come forward—as did Greenfleet in front of you this afternoon—and said that they thought that it was perfectly fine and quite sensible. So again this is an area where there are differences of views among stakeholders.

Senator COLBECK—We had a discussion about the basis of 100 years being the life cycle of CO₂. I did read somewhere—and I cannot think whose submission it was in—that it was not 100 but 55 years. Do you have any information on that?

Ms Thompson—Sorry?

Senator COLBECK—It was not 100 years but 55 years that was the life cycle of CO₂; that was listed in one of the submissions. I am sorry that I cannot reference it for you.

Ms Thompson—I am sorry but I am not aware of that particular submission. Generally, though, as to the global warming potential of CO₂ in the atmosphere, most people would accept that it lasts for 100 years. But, just to pick up on this issue of the time frame for permanence: really, what we are saying is that, in effect, it needs to be permanent. When we first began the business of consulting with stakeholders on permanence, people were of the view that 100 years was preferable to a requirement that the obligation lasts in perpetuity, and most offset schemes take the view that 100 years is an entirely reasonable proxy for permanence. So that is why we have adopted it in this case.

Senator COLBECK—It was the submission from Carbon Farmers of Australia which said:

The EcoSecurities analysts calculate that removing a tonne of C O₂ and holding it for 55 years is sufficient to counteract its effect on Global Warming.

It went on to say:

The IPCC uses 20, 100 and 500 year periods in much of its analysis.

I was just interested in the basis for the 100 years. I have seen some other stuff that talks about that, but this was a specific thing that talked about a very different time frame.

CHAIR—Senator Fisher?

Senator FISHER—Thank you all. The objects of the act are listed in terms of ‘first’, ‘second’ and ‘third’. What is the policy reason behind that drafting? Are they listed in order of priority? Is any one more important than another?

Ms Stuart-Fox—They all apply equally. There is no priority. So, in terms of the way they operate within the legislation, there is no lower priority given to it just because it is listed third.

Senator FISHER—Then why does it say ‘the first object’, ‘the second object’, ‘the third object’? I am not familiar with many bits of legislation that do that.

Ms Thompson—I think it was really just reflecting the way they appear on the page.

Senator FISHER—Well, with respect, it would be unusual to state the bleeding obvious, if that be the case, in a bit of legislation. Can you get back to the committee on that issue? What is the purpose of the words ‘first’, ‘second’ and ‘third’ if not to prioritise the objects in some form of ranking?

Ms Thompson—I think it is just to give a numerical list.

Senator FISHER—But they are in a list according to the numbering of the section. You have got words as well as numbers, in other words. Why do you need the words when the numbers are there?

Ms Thompson—I think it was just a function of the drafting of the bill and the explanatory memorandum. I am able to advise you quite definitively that there was no more to it than that.

Senator FISHER—All right then; thank you. In respect of the so-called third object—and I hear you saying that the word ‘third’ actually does not mean anything—if the third object is to increase carbon abatement in a manner that is consistent with the protection of the environment and improves resilience to the effects of climate change, will the bill achieve that? And on what basis do you say so, or not?

Ms Thompson—I am sorry, Senator, I am not quite sure I understand the question.

Senator FISHER—It is an object of the act, supposedly, to abate carbon. In the detail that I have just read out, according to the third object, that is one of the objects of the bill. Will the bill achieve that? And, if so, on what basis do you say so, or not?

Ms Thompson—I think what I tried to do in my opening statement was to outline the co-benefits that we see that could accompany action to increase carbon on the land or reduce emissions from the sectors that are also working on the land.

Senator FISHER—You said ‘could’. Will they? If so, on what are you basing that claim?

Ms Thompson—There is probably not a huge debate on some of these things. It is generally accepted that various forms of abatement action in terms of avoiding deforestation will give you a range of environmental benefits that could include enhancing biodiversity, improving water quality and addressing salinity. So I think there is quite a lot of literature and other commentary that does support those sorts of findings.

Senator FISHER—Did the government ask you, in drafting this, whether this legislation would achieve its stated aims? If so, I would have thought you might have a concise statement of why and on what basis.

Ms Thompson—It is certainly our view that the carbon farming bill will achieve those objectives. Again, I am a little bit unsure as to what the intent of your questioning is.

Senator FISHER—Okay, thank you. Do you need a carbon price to achieve the so-called third object?

Ms Thompson—What we are saying is that one of the things that make the land sector unusual if not unique is that action to reduce emissions or improve carbon sequestration outcomes also has the ability to deliver a range of other environmental benefits. So, as I said earlier, there is the potential for them to improve biodiversity outcomes, address water quality and so forth.

Senator FISHER—Do you need a carbon price to achieve the third object?

Ms Thompson—What we are saying is that creating the incentive that carbon farming would deliver also would be able to deliver these other benefits. So if you are asking if there are other policy actions that the government could take to improve biodiversity, address water quality and so forth, I think the answer to that is that there is a range of programs and initiatives by the Commonwealth and the states.

Senator FISHER—That was not my question, Ms Thompson.

Ms Thompson—I am sorry but I thought you were asking whether you need a carbon price to deliver environmental outcomes and I am endeavouring to answer your question by saying that clearly there are a range of other programs and initiatives across all levels of government that seek to address these outcomes and, in fact, deliver some benefits.

Senator FISHER—That was not my question. My question was whether you need a carbon price to achieve the third object, which is to increase carbon abatement in a manner consistent with protecting the environment and improving resilience to the effects of climate change.

Ms Thompson—What we are trying to say there is that the idea with the Carbon Farming Initiative is that it will not only reduce emissions in response to the incentive created by the market mechanism but it will also deliver these other environmental benefits.

Senator FISHER—Okay, I will leave that. I am sorry, Ms Thompson, I did not hear an answer but let us leave that. The third object refers to increasing carbon abatement in a manner that ‘improves resilience to the effects of climate change’. Does the bill define climate change?

Ms Stuart-Fox—No, climate change is not defined in the bill.

Senator FISHER—Why not? Isn’t it normal to define terms in a bill? You have got a definitions section.

Ms Thompson—I think the view was that people understand what is meant by the term, climate change.

Senator FISHER—So what does it mean then as it is used in this bill, Ms Thompson? Would you find it in a dictionary if you looked it up?

Ms Thompson—I actually have not looked up the term, climate change, in the dictionary so I cannot answer that particular question. But I think most people understand that when you use the term, climate change, what you are referring to is the change in the climate that is the result of human activity, in particular burning fossil fuels for electricity and also with respect to the land sector with things like clearing native vegetation and also emissions from livestock.

Senator FISHER—If you are saying that the term, climate change, is not defined in the bill because people know what it means, why does the bill define Aboriginal peoples? I would have thought they would know what that means as much as they would know what the term, climate change, means. Why does the bill define the term, Australia? I would have thought people would know the meaning of that as much as they would know the meaning of the words, climate change. Why does the bill define Australian Police Force? I could go on but I shall not.

Ms Stuart-Fox—Because they have a particular operation or a particular definition within this piece of legislation.

Senator FISHER—Does not climate change when it is one of the three aims of this bill?

Ms Thompson—I am not sure that we can give you more of an answer than Ms Stuart-Fox has already provided on these points.

Senator FISHER—All right, it might be a bit hard to define. I refer to the proposed sections of the bill dealing with rights of inspection. In particular, I am referring to proposed section 199, on the monitoring powers of inspectors, which is preceded by proposed section 198, which says you inspect to determine whether or not the act is being complied with—which is fair enough. Why are the monitoring powers so broadly defined in proposed section 199? For example, it is giving inspectors the power to search anything on premises, any activity conducted on the premises or any document on the premises. Why are those powers not confined expressly to the aforesaid purpose of determining compliance with what would be the act?

Ms Stuart-Fox—In terms of the provisions or the way that you ensure that those powers are correctly enforced, they are subject to the order of a magistrate. So in terms of the right of inspection or of the inspection powers, the project proponent would have to approve that or would have to agree to that.

Senator FISHER—Beforehand or after the event?

Ms Stuart-Fox—Before the event unless there was an order of a magistrate. So these things are subject to a warrant by a magistrate. These are standard.

Senator FISHER—I thought only in some cases.

CHAIR—We will go to Senator Milne in a second.

Senator FISHER—Yes.

Ms Stuart-Fox—No. I will take you to the enforcement chapter and to the enforcement provisions, so to 97 of the explanatory memorandum—

Senator FISHER—Proposed section 198 talks about it being in terms of a warrant.

CHAIR—Senator Fisher—

Senator FISHER—Please take it on notice, Ms Stuart-Fox.

CHAIR—Yes, take it on notice. I think that has been enough. We will go to Senator Milne.

Senator MILNE—I want to follow up the evidence given by the representatives of the Indigenous community. Quite rightly, I think, they were identifying that abatement in the landscape is a big opportunity for Indigenous Australians to see their aspirations fulfilled for engagement with a real market that provides employment opportunities and so on. The point that they made is that there is a legal minefield in relation to exclusive and non-exclusive access to land and to a whole range of things, with carbon sequestration rights being different in the various states. What they were saying is that realistically the Indigenous community is not going to be able to access benefits under this legislation until they sort out the entire legal issues, all that huge amount of issues, and that they do not have the money or the capacity to actually address this. They put to us that they needed an authority or an agency or some money or something to do that. They said that they had been engaged with the department in talking about these issues. Can you tell me how the department intends to address what is very clearly a capacity gap by a significant group of people to access the benefits?

Ms Thompson—I will get Ms Stuart-Fox in a minute to take us through the provisions in the bill and through the forward process for those issues.

CHAIR—I really do not think we have time for all that, to be honest.

Senator MILNE—I just need to know how you are going to address it.

Ms Stuart-Fox—The capacity issue is, I guess, quite a complicated challenge and it is also a challenge that a number of different government departments are involved in addressing. Certainly we are talking to both FaHCSIA and DEEWR about how we might work together to address some of those capacity issues and enable participation. So it is something that needs to be addressed in a whole-of-government way.

Senator MILNE—Is there the potential for some of the \$45 million that is allocated for the Carbon Farming Initiative to assist in that manner?

Ms Thompson—The government has engaged in the Closing the Gap work so there I think what we are wanting to explore with our colleagues in other departments is the best mechanisms we can use to assist with that capacity building effort.

Senator MILNE—Okay. We might ask for a progress report at some point because I think it was a very important matter they raised with us today.

CHAIR—Ms Thompson, I want to come back to the document you tabled. I am just trying to get some clarity on this soil carbon potential. You said in your evidence between 0.5 and one megatonne by 2020.

Ms Thompson—In 2020.

CHAIR—This document says that assuming gradual uptake, it could deliver abatement of between 0.3 and 0.5 megatonnes per year by 2020.

Ms Thompson—That is correct.

CHAIR—What is the difference between them?

Ms Thompson—I believe those were the numbers I mentioned earlier. Sorry, in fact, what we have said is that we think the number will be less than 0.5 and 1. What is actually in the main body of the paper gives a bit more precision around all of that.

CHAIR—Mick Keogh from the Australian Farm Institute said that to reach 150 million tonnes per annum of carbon dioxide equivalence would be 75 million hectares. At the upside that is two tonnes of carbon dioxide equivalent per hectare per annum, or about 500 million hectares at 0.3. Have you done any analysis of this? How many hectares would be required to reach this figure?

Ms Thompson—We have not done any analysis on the work you mention. As I said earlier, our assumption was based on a million hectares being subject to the activity.

CHAIR—There have been figures of 150 million tonnes of carbon dioxide being abated over a million hectares. Is that a reasonable proposition?

Ms Thompson—As I say, the analysis we have done is on the basis that I have indicated earlier.

CHAIR—The Garnaut update has figures saying that soil carbon storage from cropped land and nitrous oxide emissions being reduced is 68 million megatonnes per year. CSIRO are saying 25. It is really quite confusing.

Ms Thompson—It is quite difficult. The abatement estimates included in Professor Garnaut's update paper on the land sector, and that were also included in the CSIRO 2009 report that focused on Queensland, were estimates of technical potential. What that actually refers to is the biophysical capacity of the land to carry carbon; it does not relate to any particular assumptions about the incentives that you might need to drive that level of abatement. What Professor Garnaut indicated in the update paper is an estimate of potential; it is not a forecast of what could be delivered on the ground. This is one of the areas of this particular debate that does cause some confusion because people look at these very big numbers in the CSIRO report or the Garnaut update and think that is what you could get on the ground. In fact, the next step is to try to work out what abatement you can drive through an incentive like the Carbon Farming Initiative. There is obviously going to be quite a significant difference between the two.

CHAIR—We are just about out of time. Could you take on notice some further analysis of all these different figures that are out there?

Ms Thompson—Sure.

CHAIR—Thank you, you have had a long session this afternoon. That concludes today's proceedings. I thank all the witnesses for their informative presentations. Questions on notice should be in by Friday 29 April. I declare the meeting closed.

Committee adjourned at 5.31 pm