REPORT OF PROCEEDINGS BEFORE

STANDING COMMITTEE ON STATE DEVELOPMENT

INQUIRY INTO ASPECTS OF AGRICULTURE IN NEW SOUTH WALES

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At Sydney on 29 August 2007

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The Committee met at 9.30 a.m.

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PRESENT

The Hon. A. Catanzariti (Chair)

Reverend the Hon. F. J. Nile
The Hon. M. J. Pavey
The Hon. C. M. Robertson
The Hon. M. S. Veitch

CHAIR: Welcome to this public hearing of the Standing Committee on State Development inquiry into the Aspects of Agriculture in New South Wales. The inquiry will examine the contribution of agriculture to the New South Wales State economy, impediments to sustaining appropriate levels of productivity, capacity and growth, and initiatives to address those impediments. Before we commence I will make some comments about aspects of the hearing. The Committee has previously resolved to authorise the media to broadcast sound and video excerpts of its public proceedings. Copies of guidelines governing the broadcast of proceedings are available from the table by the door. In accordance with the guidelines, a member of the Committee and witnesses may be filmed or recorded. However, people in the public gallery should not be the primary focus of any filming or photographs. In reporting the proceeds of this Committee, the media must take responsibility for what they publish or what interpretation they place on anything that is said before the Committee.

Witnesses, members and their staff are advised that any messages should be delivered through the attendants or the Committee Clerks. I also advise that, under the standing orders of the Legislative Council, any documents presented to the Committee that have not yet been tabled in Parliament may not, except with the permission of the Committee, be disclosed or published by any member of such Committee or by any other persons. Committee hearings are not intended to provide a forum for people to make adverse reflections on others. The protection afforded to Committee witnesses under parliamentary privilege should not be abused during these hearings. I therefore request that witnesses avoid the mention of other individuals, unless it is absolutely essential to address the terms of reference. I ask everyone to turn off their mobile phones for the duration of the hearing, including silent mode, because they interfere with Hansard recording the proceedings.

MICHAEL ARCHER, Dean of Science, University of New South Wales, Sydney, affirmed and examined:

CHAIR: In what capacity are you appearing before the Committee, that is, are you appearing as an individual or as a representative of the organisation?

Professor ARCHER: I think I am actually entitled to appear as a representative of my organisation. On the other hand, I am quite happy to appear as an individual. I also represent the FATE Program, the Future of Australia's Threatened Ecosystems, at the University of New South Wales.

CHAIR: Are you conversant with the terms of reference for this inquiry?

Professor ARCHER: I am.

CHAIR: If you should consider at any stage that the evidence you wish to give or documents you wish to tender should be heard or seen only by the Committee, please indicate that fact and the Committee will consider your request.

Professor ARCHER: I have no problem with its being dispersed far and wide.

CHAIR: If you take any questions on notice the Committee would appreciate it if the response to those questions could be forwarded to the secretariat by Monday 17 September 2007. Would you like to make a short statement?

Professor ARCHER: Keeping anything short on this topic is very difficult, but I will do what I can. Thank you very much for the privilege of being able to address your Committee. My presentation focuses principally on two things. The first is the need for change with respect to the principles of FATE, which is a program that I began called the Future of Australia's Threatened Ecosystems. It is set out in the book *Going Native,* copies of which I have given to each of you. The second is the IUCNs, which is the International Union for the Conservation of Nature's global recommendations for CSU, conservation through sustainable use. They are globally recommending that this is a strategy that can work more effectively for conservation and current protectionist strategies that most of us have implemented around the world.

My concerns are, of course, that the two most valuable things west of the Divide are currently both under threat of extinction. One is the native biota—the animals and plants—and the other is rural and regional Australia itself—the communities. Currently, extinction rates for Australian mammals are the highest in the world and, by all accounts, increasing. Current land management practices in Australia are costing this continent approximately $3 billion to $5 billion a year as measured in land degradation costs. No matter what is actually being produced per hectare per year, most of this agricultural practice is in decline. We are currently mining the surface of Australia unsustainably to produce non-Australian products that, one, lack environmental resilience. We have seen very clearly demonstrated recently that non-Australian species lack resilience when confronted with some of the environmental problems that are normal for Australia, such as extended droughts. Two, reduce the resilience of the land to be productive; three, consume enormous amounts of water and, four, diminish environmental and community sustainability.

These problems will be exacerbated by the coming of climate change. Everything that is a problem now is likely to get worse. From my point of view and the organisations that I represent, business as usual is simply not something that we can continue to embrace without some serious re-examination. One of the most important strategies we need to embrace is the implementation of all compatible land management that will contribute to increasing sustainability. Like a game of golf, a good golfer who intends to win does not go out onto the field with one club. He has lots of different clubs because he will encounter a lot of different challenges. Agriculture and conservation have exactly the same challenges: they need many clubs in their bags of different strategies because, if they are going to win, one strategy is not going to work. We are never going to be able to replace, in my view, cattle, sheep, wheat and cotton, and other non-native species in Australia. The demand for these products is too high. A proposal to completely replace them by dependence on sustainable harvesting

of native species will not work. On the other hand, we should try multiple use strategies of land as a way of increasing resilience of both the biota and rural and regional Australia.

In other countries—I have been watching this very closely—there have been staggering conservation and rural and regional wins through practices that are focused on conservation through sustainable use, notably some of the countries in Africa, such as, Angola, Namibia, Zimbabwe, South Africa and Cameroon. Countries in North America and Europe are starting trials of this kind. In Africa some of these trials have been going for 25 years. One of the most exciting, to me, is the one known as the Campfire Project. It is on the web, and on the handout that I have given you I have given a website to track some of this data. In a nutshell, what happened in Zimbabwe is exciting. The parks people were losing the battle for conservation primarily because the rural and regional communities did not value wildlife. The wildlife was in their backyards. The elephants were trampling their gardens, and occasionally a lion would gobble up one of the community members. They definitely had a dark view about wildlife. At night the wildlife was being poached, and the poachers were the villagers because they did not otherwise value the wildlife. If they could shoot an elephant and hack of its tusks and get some value for them that is about the only reason they saw any purpose in maintaining wildlife.

The authorities were getting desperate and eventually, learning about the IUCN's recommendations about CSU, they instituted a program whereby, in the natural management process where you have to cull herds that becomes over abundant—when there are too many elephants they basically destroy the parks and areas in which they occur, so the numbers have to be managed—the decision was made to enable hunters, under strict controlled and humane circumstances, to come in and shoot a targeted individual. This appealed to the hunters, who were charged exorbitant amounts of money, 80 per cent of which was given to the villagers. Overnight the poaching stopped because, suddenly, the villagers valued the wildlife. The sustainable harvest was able to continue. The villagers are now building schools. There is a long history now of construction and stability in rural and regional areas that are involved in these programs.

It is a wonderful, wonderful win. I think it is very relevant to us because we have precisely the same situation going on in Australia at the moment. As a classic example, rural and regional property owners—the graziers—do not value kangaroos. In fact, they think of them as pests, primarily, that compete with the stocks they do value—cattle and sheep. As a result, they do not value the native vegetation systems that produce the kangaroos because they do not value the kangaroos and, therefore, we can provide subsidies to try to bribe them to maintain to vegetation, but in their heart of hearts they are really not interested in maintaining that vegetation. They would like to see it cleared because they think it would produce more grass that would enable them to get more cattle and sheep in an otherwise marginal industry. There is a positive incentive, then, to clear the native vegetation in order to expand their introduced species. The kangaroo industry has been going for 30 years and is demonstrably sustainable—it is a vertically structured industry. The shooters are very good. The RSPCA has been over them many times. This is a very efficient industry, very ethical and very kind. The sustainable harvest is done by shooters who feed the product directly into the meat industry. The meat industry indirectly feeds the processors and that then goes on to the market. Graziers are completely out of the loop in this process. This has to change. If conservation through sustainable use is going to be a strategy we implement here, some percentage of the harvest profit from kangaroos taken from graziers' lands needs to return to the grazier whose land produced the kangaroo. At the moment that does not happen. If this starts to happen—and this is one of the things we are working on very closely with graziers—benefits will flow in all directions. These benefits are extraordinary.

First, there would be an increase in rural and regional economic resilience and sustainability because it would diversify rural and regional incomes based on sustainable harvest of all species that will be much more resilient in the face of things like drought. I recall many of the early news stories as the drought began to sweep across New South Wales. While graziers were appropriately bemoaning the dead cattle and sheep around them, in the background there were kangaroos sticking their tongues out, trying to give everybody a message that was not being listened to: they have had 30 million years of experience in adapting to Australia, whereas cattle and sheep have not, and therefore they handle it better.

Second, there would be reduced rural infrastructure costs. To whatever extent graziers could sustainably utilise kangaroos alongside other things they are working on, they do not have to worry

about fencing. You cannot fence kangaroos—unless you are prepared to put up some huge fences. I would argue that that is not the right thing to do in any case. You do not need all the plant, your maintenance costs start to fall away, so managing rural and regional properties would start to get a lot less expensive.

Third, there would be a marked increase in the health of consumers. Kangaroo meat is extraordinarily healthy. It is only 2 per cent fat, most of which is polyunsaturated, and the meat is filled with antioxidants. The cruellest thing you can do to kangaroo meat is to overcook it—as my mother, who was Australian, when I was a child demonstrated to me by what she could do to a hamburger, turning it into something that clanked when you dropped it in the pan. If you eat kangaroo meat the way it should be properly prepared, which is extremely lean and rare, there is less cancer involved, and of course there are no disease problems. There is no such thing as mad kangaroo disease. Everything to do with dependence on kangaroos will lead to increased human health.

Fourth, there are consequent benefits to the kangaroo industry. If there is greater valuing of kangaroo meat by the public, and yet there is a fixed level of sustainable harvest, which is measured every year by agencies that monitor population sizes—normally about 53 million large kangaroos in Australia are able to be harvested. During drought years that number does drop, and the sustainable harvest quota drops accordingly. But the reality is, if you increase the perceived value of kangaroo, the price will rise. We have been seeing that happen. As kangaroo has been going into the major supermarkets now, the price is rising, and it is now on a par with fine cuts of beef.

Fifth, there will be increased environmental health and resilience of the land. Kangaroos have soft feet. Their feet do not cut up the surface of the soil in Australia. As a result of hard-hoofed animals, we lose an enormous amount of topsoil every year to wind erosion. This does not happen with kangaroos.

Sixth, there will be reduced water usage per hectare. Per kilogram of body weight, kangaroos require only one-third of the water that sheep require. This is one of the reasons why during droughts they handle the situation much better; their kidneys are extremely efficient. As well, they manage their own reproduction. Humans—and we are related to cattle, sheep and pigs—are all placental mammals, but kangaroos are marsupials. They separated from us 125 million years ago, and they have been adapting to Australia ever since. They are wonderfully efficient animals.

One of the key distinctions between kangaroos and, say, cattle is that in cattle—and in humans, for that matter—there is no such thing as being a little bit pregnant: once you are pregnant, you are stuck with it. With the kangaroo, it is not the case. If conditions change, and kangaroos recognise that they can continue to reproduce steadily, all they have to do is reach in the pouch, pull out the joey, give it a kiss and say, "It's been fun", and off it goes. They do not have to continue to invest their own resources in raising young. They choose when they reproduce and they match it to the conditions on the land.

Another point I would add—and this is an awkward point—is that kangaroos fart less. I have had pet kangaroos and I can testify to that. The house has never had to have the window open, as opposed to most other pets I have had. This is because the protistans that are in the gut are extremely efficient. Again, 30 million years of adapting to Australian vegetation means they can more efficiently convert the vegetation into usable food for them; they do not waste it in producing methane. The methane production of cattle and sheep is extraordinarily high, and it is a very significant component of the contribution to greenhouse gases in the world. Kangaroos do not contribute to this problem.

Eighth, there will be an increased net reproductive rate of the kangaroo mobs. Ironically, the sustainable harvest of kangaroos tends to focus on surplus males. The surplus males in a mob do not reproduce; only one male is actually involved in reproduction. If the shooter targets a male, they are taking out of that population an individual that will not be contributing to reproduction in the mob but will be consuming resources. To the extent that the males in the population are reduced in number, the net reproductive rate in the population will go up. So, interestingly, it actually increases the reproductive rate through sustainable harvesting.

Ninth, there will be guaranteed conservation of harvested species. No species that we have taken under a wing as something we value has ever gone extinct. Extinction occurs to species we do

not value, that we put on the other side of the fence and trust it will do well. That is when they start to vanish.

The biggest point, point number 10, is the increased conservation of non-target native species. If the grazier is beginning to value kangaroos as a way of increasing their economic resilience, they will value the habitat that produces that kangaroo and that resource and they will not clear the vegetation. When they do not clear the native vegetation, all the other species that are not target species of conservation through sustainable use programs are able to survive in situations in which otherwise they do not survive, because that vegetation will be cleared. So valuing some component of the native vegetation in a meaningful way through a sustainable harvesting process will guarantee that the grazier will not clear that native vegetation. They will not deprive them; they will want to keep it.

I have included in the book many other examples of how we could be exploring strategies through conservation of sustainable use that would have enormous benefits for rural and regional Australia. The bustard, which is currently endangered, was once a colonial delicacy. It was here in the hundreds of thousands; it is now rare. If there was a way of focusing on the potential, or trialling the potential for sustainably harvesting the bustard, we would see an increase in the value of that land and its productivity and potentially an income stream based on a native species leading to guaranteed conservation of the native species and less dependence on those grand, fat turkeys that come in from North America and really have nothing to contribute to Australia.

CSU applies equally well to our native plants. The book gives many examples of this. I would draw attention to the very successful activities of Julie Robbins, who has a product called Outback Spirit, a brand of food products based on native berries and fruits which she converts into cooking sauces and salad dressings. They result from sustainable harvest of native plant materials from many properties around Australia. Coles puts the products on its shelves, it guarantees to do that, and a percentage of all the sales goes into a native food fund, which is then used to reinvest on the land in sustainable use programs, again based on native species. It is a wonderful loop that is leading to millions of dollars of profit for the people involved in this activity.

Another one which I think would surprise all of us is boronia, the flower we all know that every spring ends up on the corners of streets. We tend to think about it as a lovely-smelling flower. In Western Australia a number of sheep properties that have been marginal properties were in trouble. They also had boronia on the properties. One of the smart individuals associated with the landowners questioned how the boronia maintains that wonderful smell. Very simple kitchen chemistry discovered that it was in the oil in the boronia flower. Extraction of the oil, which is basically simple, has now produced a product that sells for $10,000 a litre. They are no longer growing sheep on the property, the land is getting healthy, and they are getting richer.

The Hon. MELINDA PAVEY: Professor Archer, we have only seven minutes remaining for your evidence. Could we go to questions, because a lot of this information I am reading from your book and in your submission as well. Seeing where we are seven years after your book has come out is very relevant.

CHAIR: Would you mind if we proceeded to questions?

Professor ARCHER: Not at all. I have given you a written submission, which pretty much covers the points I have been referring to.

The Hon. MELINDA PAVEY: Professor, are you aware that an abattoir at Brewarrina that deals with kangaroo meat closed in recent times?

Professor ARCHER: Yes.

The Hon. MELINDA PAVEY: Why city people not eating kangaroo, given its health benefits? Why are city people not taking up this wonderful meat? Given the drought, farmers in western and far western New South Wales have resorted to culling goat to survive the drought. They have survived the drought well through culling goat, and it has also benefited the environment out

there. However, why are city people not helping country people by creating a market for kangaroo meat?

Professor ARCHER: I think in part this is our fault, your Honour. There is no question about it. That is an obstacle that needs to be overcome, and it needs to be overcome through strategic marketing. You cannot on the one hand argue the benefits of sustainable use programs on the land and not at the same time to pay attention to the need to market more effectively in the city.

I have had many conversations with Jenice Kirsch, who used to run Edna's Table Restaurant. Eventually the restaurant closed. She said, "Every time I was out in the public talking about not just the health of the kangaroo meat and the fact that there is no mad kangaroo disease, as the rest of the world is beginning to worry about more traditional meats, but because I was arguing the conservation importance of this, and, ironically, you have to eat Skippy in order to keep it." When this sort of message began to sink in, the Australian public, who are basically very bright, would understand that using kangaroo meat was a conservation strategy that ensured kangaroos would do well and the land would improve. So I think it is a marketing issue as much as anything else.

Currently we have a program that the FATE group and the University of New South Wales are exploring. It is about choice. They have been exploring statistically and through interviews with Australians what meat they eat, why would they not try kangaroo, if they would not, and how this translates into marketing strategies. What they found is interesting: 70 per cent of Australians who have been surveyed say they are quite happy to eat kangaroo meat but many of them have simply not tried it. Until recently the availability has not been there, but now Woolworths and many of the other larger food outlets are putting kangaroo meat on their shelves.

I think the marketing now needs to catch up. The product is there, it is in the right places, it is probably taking up as much space in the Woolworths I use, at East Gardens as, say, organic products. So it seems to be popular, but with a relatively small number of people. But it is a steady demand. When the price goes up, the value increases, and the marketing emphasises the conservation importance of this as well as the health importance, I would expect to see the demand rise.

The Hon. CHRISTINE ROBERTSON: Have you had any discussions or interaction with the major farming groups, such as New South Wales Farmers?

Professor ARCHER: Yes, I had many discussions with Rick Farley when he was with the Farmers Federation of Australia, and with Wendy Craik similarly. They are all completely on side about this. Effectively what we are discovering is that the indigenous communities that survived on native product very well for at least 65,000 years have a strategy that should not be in the museum, it should be on the land, and the one we currently practise should be considering whether it should take its place in the museum.

Most of those farmers groups are very supportive. We are currently working with the Farmers Federation group in New South Wales, and they are supporting us in what we call the BARG project, the Barrier Range Landholders Group. They are looking at trials to see how they could get benefit from the sustainable harvest of kangaroos on their property, and this farmers federation is now arguing its case to the Government.

The Hon. CHRISTINE ROBERTSON: Given that these days much of the farming is intensive, can you envisage a possible negative impact in an economic sense?

Professor ARCHER: You are asking the wrong person about that. I cannot see how there could be anything other than positive outcomes, both for the environment and for rural and regional Australia, by diversifying that resource base.

The Hon. CHRISTINE ROBERTSON: Farmers are business persons. Can you envisage they would move into an intensive farming model, like they have with rabbits?

Professor ARCHER: No. We would definitely not advocate farming kangaroos. I do not think there is a lot of gain, once you turn native species into a monoculture. Arguably you are increasing the probability that the species will survive, but on the other hand you are not having the

environmental gains if you go to a farming model. We are talking about free-range, sustainable harvest. Even the most hardened animal liberationist will argue that if we are going to eat meat—and we have been omnivores for five million years—sustainable wild harvest is the best way to do it. Farming is another thing. I see the sustainable harvesting of kangaroos as an adjunct activity to conventional farming, to the extent that it will do less damage to the land that is producing those kangaroos. It is a mix of strategies we are looking for.

Reverend the Hon. FRED NILE: Do we need a kangaroo industry promotion board, the same as we have with the beef and sheep industries?

Professor ARCHER: Yes.

Reverend the Hon. FRED NILE: No-one owns it, I guess, that is why it is not promoted?

Professor ARCHER: It does and this is part of the interesting challenge we have had. There is a Kangaroo Industry Association of Australia, it does advocate. It has websites. To a certain extent it probably has been operating defensively because of animal liberationist groups, who really do not understand the importance of conservation outcomes of this process. In the past it has tended to defend the propriety of the sustainability of harvesting kangaroo, but they are increasingly more aggressively harvesting the benefits, or marketing the benefits, of the kangaroo industry. I think they could be more out there and more open with their marketing than they are at the moment. But that industry does exist and we are working with them.

Reverend the Hon. FRED NILE: Are you confident that there are no health risks from eating kangaroo meat? I understand there were parasites at some point.

Professor ARCHER: No, there has been no demonstration of any parasites in kangaroos that we have to worry about. But I could give pages and pages of risks that we get from eating cattle and sheep. In fact, in the abattoirs that process kangaroo, the kangaroo meat is inspected twice; not only in the normal way that cattle and sheep, but also by AQIS [Australian Quarantine and Inspection Service]. In fact, the rejection rate of cattle and sheep carcasses turning up at abattoirs is far higher than the rejection rate of kangaroo carcasses. With the combined 250 million years difference between ourselves and marsupials we do not share parasites. So what eats them does not eat us, and vice versa. What we risk is our focus on eating species that are far more genetically close to us. With those animals we do share parasites and hence we have these problems.

CHAIR: What interest does AQIS have in that?

Professor ARCHER: I think it is just a requirement, because it is a game meet. AQIS is asked to also step in and make sure that they examine every carcass as well. So they are doubly examined, compared to cattle and sheep, going through the abattoirs.

The Hon. MICHAEL VEITCH: Professor Archer, could we leave kangaroos and hop across to water. Is the national plan for water security a step in the right direction to address the inefficient use of water in New South Wales?

Professor ARCHER: Yes, it is. It is definitely a big step in the right direction, no question about that. What seems to be missing, if anything, from the broad approach is that it also does not simultaneously focus on less water-hungry species that we are depending on out there. We are using many species that require open irrigation when we could use perennial grasses. We do not have to till any more. We know, and are doing research on this continuously, that you can plant marketable products such as wheat directly into native grasslands; you do not have to till it at all. You can get sustainable utilisation of some of the perennials, which also put carbon down in the soil.

There are many better ways of improving water-holding properties of the soil through the types of programs we are talking about, which increases our focus and dependence on using native species that handle water much better. I go back to my point about the kangaroos requiring, per kilogram of body mass, only a third of the amount of water that sheep do. That has to be a factor in developing strategies in the face of ongoing droughts.

The Hon. MELINDA PAVEY: How much? Can you round out the figure for beef, how much water per kilo?

Professor ARCHER: I do not have that figure, but since it is sheep that are primarily in the rangelands where kangaroos occur, comparisons with sheep are probably the most appropriate.

The Hon. MELINDA PAVEY: You do not mention macadamias in your book; that is a success story.

Professor ARCHER: It sure is, but not for us. That is the joke!

The Hon. MELINDA PAVEY: No, it is a success story for us. Are you aware of what is happening on the mid North Coast?

Professor ARCHER: Yes, and it is a great thing. It is rainforest in Australia that we should desperately be capitalised on early.

The Hon. MELINDA PAVEY: We are now.

Professor ARCHER: Yes, we are now, but we are slow. The majority of macadamia production is probably Hawaii. We have continually lost opportunities here. The native flower industry is a $500 million a year industry, and we have $50 million. Israel is producing most of our flowers. New Zealand is currently marketing the New South Wales State flower, the Waratah, as the "Kiwi rose" and making profits that we are not. Traditionally we have been very slow to pick up on this. We now import eucalyptus oil from Portugal. The biggest eucalypt plantations are in Brazil and China. We are not very good at valuing our own species and picking up on it. But I take your point, Your Honour, that we are catching up and I love the thought that eventually we might dominate the macadamia production market.

The Hon. MELINDA PAVEY: In a perfect world ought we have irrigation in Australia?

Professor ARCHER: Ideally, no. I do not think it is required, but getting to that point where we are fully dependent on it and able to do well utilising native species is going to take a long time. That is why I think we have to start, and start by phasing in increasing dependence on the species that do not require as much water. We have to start at some point.

CHAIR: Thank you for attending and for your submissions. The Committee may forward questions on notice to you.

(The witness withdrew)

ANDREW RICHARD MADIGAN, Chief Executive Officer, Australian Livestock and Property Agents Association Limited, Level 6, 2 Barrack Street, Sydney,

DAVID NOEL MOFFITT, General Manager Policy, New South Wales Farmers Association, Level 10, 255 Elizabeth Street, Sydney**,** and

ALEXANDER JOCK LAURIE, President, New South Wales Farmers Association, Level 10, 255 Elizabeth Street, Sydney, sworn and examined:

STEPHEN THOMAS LOW, Grazier, representing the Local Government and Shires Associations, 28 Margaret Street, Sydney, and

RYAN ANDREW FLETCHER, Director, Policy and Research, Local Government and Shires Associations, Level 8, 28 Margaret Street Sydney affirmed and examined:

CHAIR: In what official capacity are you appearing before the Committee?

Mr MADIGAN: As a member of the Rural Alliance.

Mr LAURIE: As a member of the Rural Alliance.

Mr MOFFITT: As a member of the staff of the New South Wales Farmers Association.

Mr LOW: As Vice President, Local Government and Shires Associations. I take this opportunity to apologise for the non-attendance of Councillor Genia McCaferry, President of the Local Government Association.

Mr FLETCHER: As the Director of Policy and Research for the association.

CHAIR: Would any of you like to make a brief opening statement?

Mr LAURIE: I would like to give a brief statement. This basically follows on from submissions that had been put in on behalf of the Rural Alliance. As you will be aware the Rural Alliance is a group of organisations of which the ABL business chamber is not represented today. Unfortunately they have been a bit busy and cannot attend. The Rural Alliance has been put together by a group of organisations in rural areas that work and live in rural communities and have a very good understanding right across New South Wales where the issues are in relation to developing and maintaining communities and understanding the problems that they see on a daily basis. Most of the organisations, especially the Farmers Association, have membership right across the State.

The Shires and Local Government Associations obviously are involved in every town and understand the issues. The Australian Business Chamber and the New South Wales Business Chamber, is exactly the same thing. The New South Wales Livestock and Property Agents group is the same, as is the Country Women's Association, which has members right across the State. The four organisations coming together have employed an enormous number of people in those areas who are on the roads on a daily basis and they understand the issues with infrastructure, social issues, health issues and most of the problems out there, because we deal with them on a daily basis. As an organisation I think we have a very strong understanding of the problems as we see them.

Mr LOW: On behalf of the Local Government and Shires Associations, agriculture is vital to rural communities. Our submission states that it is 80 per cent of the financial contribution. What happens with agriculture is pretty important to us. There are many aspects of the State Plan that affect our communities and looking at delivering services, we want to deliver them as a whole-of-government approach. That is something that we hope you do as well. We expressed concern at the lack of an inter-government agreement that would look at how we would do those things. We see that as very important.

From the range of services and aspects that affect our communities from road accident trauma, which is significantly higher, through to the cost impost upon local government of threatened

rail line closures and the impost on that on the industry generally, when you consider that more than 60 per cent of wheat goes that way. On it goes through to health and from a whole-of-community perspective we see that if agriculture is not vibrant and sustainable, communities will suffer. Where will they move to then?

CHAIR: Mr Laurie, can you briefly outline your views on the sustainability of agriculture in New South Wales?

Mr LAURIE: That is a very difficult question at the moment, when talking about sustainability of agriculture. Obviously we are going through one of the most difficult times that agriculture has seen in the history of Australia. Even in the last day or two I have received phone calls which highlighted very clearly this extraordinary drought and the impact it is having on people. I hear that people have lost about 30,000 acres of wheat in the last week; that is an indication of how bad it is. When talking about sustainability in the short term, there are massive problems with the weather. Talking about sustainability in the long term, obviously there are major issues that we have to address. We need to address the semi-skilled shortages and where we are heading with that in the future, because there are massive problems starting to move now in not only the agricultural industry but also the mining industry in relation to that.

We have to get a very good understanding of the burden when it comes to red tape and the impact that is having. There has been plenty of research done—some just announced only in the past week or two—of the cost of red tape. The difficulties of complying with so many different pieces of legislation at the local government, State Government and Federal Government levels, the duplication of those pieces of legislation and the difficulty that we have with that all increase the cost of running our businesses. The fact that we are dealing on a regular basis with many infrastructure issues in relation to transport, competing against Queensland and Victoria, especially when it comes to road transport of freight and livestock, the inconsistencies across the State. When we get into situations with processing works, for instance, we need to make sure we have a good processing industry in New South Wales in order for them to compete with Queensland and Victoria. They need to have competitive rates when it comes to workers compensation and pay roll tax. The cost of compliance in New South Wales needs to be the same in the other States, otherwise they will not even come and set up in New South Wales. It is critically important that that happens because the cost of transporting our goods to and from those processing works, for instance, all adds to the cost of running agriculture.

The breakdown of some of the communities and the social aspects of some of the communities in regional areas is a massive problem to the extent that—and I have mentioned it many times—in some parts of the State we cannot get women of childbearing age to go out and work in those areas simply because there are no medical services available through that time of pregnancy. So that tends to put an enormous impact back on some of the social aspects. Then, of course, once you have problems in the social aspects you have problems with employment; if you have problems with employment then you have problems getting the job done, which all reflects very much on the sustainability of agriculture well into the future. So we need to set up a framework that is seen as being fair and reasonable.

We have issues obviously with the management of native vegetation and how that is being done, and how individual families and individual communities are wearing the full cost of the native vegetation regulations, for instance. We have not necessarily inconsistencies but difficulties with water. Everybody understands the issues. It is a matter of how we do it in a fair and reasonable fashion well into the future. One issue is inconsistency with the management of water from the top of Australia to the bottom of Australia and the difficulties that we have with those issues. So there are lots of things that need to be addressed. Only just last night I got a phone call in relation to private native forestry [PNF]. Private native forestry is an area where people have been selling some timber into mills off private property for a long period of time without doing an enormous amount of damage, in the views of those people. Now all of a sudden a lot of that private timber will be lost simply because they do not and will not go through the process of putting in a PVP in order to sell off two or three loads of timber.

So there are a continuing number of things or impediments as we see in relation to agriculture. The biggest difficulty at the moment, without any doubt, is the drought, as I started by saying. It is having a massive impact. It is exaggerating the problems that are out there at the moment,

and in some parts of the State we are starting to see some massive problems. Agriculture has been sustained for a long time and will continue to be sustainable for a long time but we do need the help of both State governments especially and the Federal Government to allow that to happen and get some consistency throughout the process.

The Hon. MELINDA PAVEY: One issue you raised is transport costs. The Pastoralists Association of West Darling has presented a good submission to us. It talks about: vehicle registration in New South Wales is generally higher than neighbouring States, especially for farm trailers, and in some instances it is more than double the cost of registering them in Victoria and South Australia. There is inadequate road funding in many areas of regional New South Wales, adding extra costs. Truck loading regulations in New South Wales are different to other States which allow higher weight limits on trucks in other States and also allow the more practical and workable volumetric loading of livestock. To that point, you said that good processing of meat is a very important part of agriculture in New South Wales. I did not notice in your submission from New South Wales Farmers or from the Rural Alliance one of the biggest issues facing the Casino meat works, which employs nearly 200 people in Casino, and Fletchers at Dubbo is that they have an enormous problem with the loading of their containers with export meat. From Casino, as I understand it, they have 25 per cent less capacity in the containers of meat that will go to the Brisbane port than what they could have because of the load restrictions within New South Wales. I see that as a huge problem for our producers and for our manufacturing. What can we do about that?

Mr LAURIE: To answer the question in relation to being competitive, there is absolutely no doubt that if you look at any of the works, and we get into a livestock loading thing, and while we have an alliance going here having a look at the main issues, there will be a difference of opinion. When it comes to livestock loading and increased weight limits on roads, there are issues in relation to the shires because of the cost of maintaining those roads. We freely acknowledge that. By the same token, in order to be competitive across the areas we need to make sure that all of those processing works—if you get a reduction of 10 per cent to 15 per cent in the gross weight that you can carry back into works, and you are killing 1,000 cattle a day, then there needs to be more trucks on the road in order to get that there. In or out of the works, it does not matter. That is the simple reality. If you have 10 per cent less weight on a truck you have 10 per cent more trucks, basically.

So where we have a problem is that we need to make sure that in order to remain competitive we need to have a system that does not do excessive damage to the roads and we need to have a system that maximises the weight in and out of these works. We must do that. There is absolutely no doubt about that. And that works, as I say, both ways. We also have to have consistency because the more trucks that you put into any of those works is more cost to that works compared to the other works. Put on top of that the increased workers compensation and the different rates that are there, and there really are some problems. It makes it very difficult to compete. So payroll tax, workers compensation, increased transport costs all have an impact and make it difficult. If for instance, as we have seen, works close down in New South Wales and move outside the State, then all of a sudden our transport costs to get to those works are more. So when we are talking about sustainability within New South Wales we need to make sure that we are providing the basic services, and that means that we must get those processing plants there, but all the other issues. When it comes to roads funding I will ask Mr Low to answer those issues.

CHAIR: On that point, you would need to comply with the regulations when you are using containers for export as well.

The Hon. MELINDA PAVEY: Yes. The point is that if they were loading the containers in Queensland they could actually fill the containers because it allows 25 per cent extra carriage than what we can on New South Wales roads.

Mr LAURIE: Weight of the container, so there will be a maximum, but there are different maximum limits in New South Wales. The grain management scheme or the livestock loading scheme basically take into consideration some of the things we have done with road premier suspension and different things. They feel they can do that without doing more road damage, and that would then give consistency. If we load a truck in Victoria we can go from Victoria through New South Wales, not up and down the main highway, into Queensland. As it is at the moment we can load a truck in

Queensland, unload a few of them at the border, travel down here and then we can load them back up down the other end. So they are the inconsistencies that cause problems.

Mr LOW: Consistent standards obviously between States is essential, and I think that is said there. It is well known that the overloading of a vehicle has an exponential effect in terms of damage on the road. I think it is a well-accepted fact that one truck movement without being overloaded causes the same damage to a road pavement as 10,000 car movements. So when we are talking about increasing mass limits, and it has already been done many times, local government has been at the table. It is a thing passed from Federal and/or State. The issue of funding is never really associated with the increased efficiency that the road transport industry gains by that increased mass limit. There is also the threat on basic infrastructure like a bridge. I think the independent inquiry into the financial sustainability of local government, of which you will be familiar, has fairly well documented the situation in terms of the parlous nature of road funding—the $6.3 billion hole that they talk about—and at those sort of times we are talking about putting more damage or more reliance upon local roads.

Obviously as rural entities and rural communities we rely very heavily on road transport. There is also the safety factors. If you can reduce the number of truck movements there is an advantage in doing so, from a safety angle alone. In terms of road funding I would ask the Hon. Melinda Pavey perhaps to ask the question again since it was a rather protracted statement versus a question. If there is any specific issue that you wish to have elaborated about road funding, I can certainly provide you with information or we can give you a supplementary submission that would answer that.

Reverend the Hon. FRED NILE: You referred to the problems with the amount of red tape, and in your submission you have made a number of recommendations for reducing red tape. What consultations are you having with the Federal and State governments, and what progress are you making?

Mr LAURIE: I think the easiest way to answer that question is: If all politicians listened to everything we say, we would make a lot of progress. But, obviously, there are an enormous number of difficulties.

Reverend the Hon. FRED NILE: We are here to listen to you.

Mr LAURIE: Everyone understands the issues with red tape and they are starting to impact. There has been a lot of research done into the fact. I think it says in there that the NFF research shows that it costs individual farmers about $20,000 or $25,000 a year to comply with red tape. It is duplication as much as anything. If we have a look at some simple examples, in terms of occupational health and safety, our industry understands that we must have a safe workplace. The issue with occupational health and safety is quite simple. While everybody understands that they need to have a safe workplace for their families and for themselves, we need to do it in a sensible way. Initially, when occupational health and safety came out it was very difficult for a lot of industries to understand it. It put enormous cost into the transport industry. I think it has probably put enormous cost throughout the Local Government and Shires Association in trying to comply in each of their set ups.

In our circumstances each individual family business had to make some pretty radical changes to the way they do things. That is one example of where we need to work. We have been working with the government. We have been working with Minister Della Bosca on that on a regular basis. Certainly in my time we have been highlighting those issues. I have had the Minister out. There has been a review done into the occupational health and safety legislation. We have highlighted the fact that the absolute duty of care made it virtually impossible for agriculture and, as a matter of fact, stopped people in agriculture employing people simply because of fear of the absolute duty of care. There has been a review done. My understanding is that the review is now sitting with the Government. Hopefully that review will overcome that major impediment and put something like a shared responsibility in there. If that is the case, then that needs to come out of it so that everybody has a shared responsibility when it comes to workplace safety. That is certainly one thing.

When it comes to vegetation regulations we have all the different Acts from the Federal Acts to State Acts in relation to vegetation management. There are also Acts within local government that there has to be compliance with when it comes to issues there. So we have to try to get a good

understanding and dealing. Indeed, I have spoken with Professor Paul Martin in Armidale, and he told me there were 250 pieces of environmental legislation in Australia that our industry has to deal with. I do not know who the hell has a handle on all that or how they understand that. That would appear to me to be red tape at its absolute extreme. We need to be able to manage the environment and we need to be able to do it in a proper and sensible way. But trying to comply with those pieces of legislation and understanding those pieces of legislation is probably beyond a joke. They are a couple of issues.

If you get into the water debate, irrigation for instance, there are all the different river systems, all the different types of water, all the different flows of water, the difference between Queensland and New South Wales, where the line is drawn as to who should be regulating what—there are an enormous number of problems. There has been a lot of work done with the native vegetation stuff for both the Federal and State Governments but obviously there are very differing views when it comes to how this can be best managed. Our industry over the last 10, 15, 20 years has probably had a major change in the way it is understanding and managing that process. But because of the way things have been done in the past, there are some pretty stringent regulations that probably do not need to be there. You could have a far more streamlined process to get to where we are. They are some of the issues as far as we are concerned. Andy Madigan from the Australian Livestock and Property Agents Association could tell you some examples of how regulation in his industry has been a major impediment.

Mr MADIGAN: Through the drought we have had agents based in New South Wales and all around Australia. With the drought, at certain times some of the bigger companies, such as Elders and Landmark, have had to say to some of their agents, "You are needed in Wodonga tomorrow." They are too busy there or there is a fire, all sorts of things. For any agent in New South Wales to move to Victoria with a day's notice to go and sell livestock they can do it, no problem at all, because there is no licence requirement to sell livestock. If an agent in Victoria wants to come up here into New South Wales and sell livestock they have to do a course, get a licence certificate, all those sorts of things, which takes months. With the way the drought was going we did not have months, we just had a day's notice that we needed to be somewhere to sell livestock or to move them because they ran out of water or feed or whatever. That is one of the biggest issues in our industry: we cannot cross the border to do our job, even if it is only for a day. We cannot go across and do an auction sale for our clients who heavily rely on the trust that they have built up with their agent. We cannot do that in New South Wales.

As far as loading of trucks and livestock agents, which you brought up, we might go into Queensland and buy livestock for our clients down here in New South Wales. All of a sudden we have got to be able to load the trucks up there at a far more expensive rate than we can in New South Wales because we have come across the border and all of a sudden we are illegal. Through the chain of responsibility the agent is in trouble for loading the truck up. Going the other way, if you are going from Victoria, through New South Wales up to Queensland to some of the major works up there, we are legal in Victoria, illegal in New South Wales and if we make it across the border we are legal again when we get to Queensland.

The Hon. MELINDA PAVEY: Has it always been that way?

Mr MADIGAN: For as long as I can remember there have always been different weight rulings in different States.

Reverend the Hon. FRED NILE: Mr Laurie, you mentioned all the red tape, which obviously causes time and stress. As a practical example, what would it cost the average farm for a property vegetation plan [PVP]? Have you done a rough estimate?

Mr LAURIE: I am not sure whether we have done a rough estimate of that. When we incorporate the time factors that you have to put into it, at the moment we have quite a few PVPs starting to come in and it has been pretty slow for that process to actually start, simply because there has been a period of time we have needed to get a bit of confidence in the system in order to allow that to happen. Depending on the size of the PVP and the amount of work that people put into it, a substantial amount of time goes into it obviously and time is money. We have not actually sat down and costed those. I do not know whether I can directly answer that question.

Reverend the Hon. FRED NILE: Will you take that on notice?

Mr LAURIE: We will go and do some research and we will see whether we can get back to you with more details on it.

CHAIR: Will you also take on notice the question about road funding?

Mr LOW: I would like the question repeated, please.

The Hon. CHRISTINE ROBERTSON: Can we have the known information about the costs of maintaining our roads for agricultural industries? That is what we need from local government who deal with this.

Mr LOW: Yes.

The Hon. CHRISTINE ROBERTSON: It would be useful, according to our terms of reference.

Mr LOW: I would like to further comment about that as we go on and talk about rail. I think that is quite a specific example where we can show cost. Again you can go to any given rail link. I think that might be more useful.

The Hon. CHRISTINE ROBERTSON: The impost on the industry.

Mr LOW: Yes, of course.

CHAIR: The information in response to the questions on notice is required by 17 September, if possible.

Mr LOW: Yes. I would like to comment on the duplication issue. For over 18 months local government has been struggling over the differences in the CMA Act, the native vegetation Act and the Environmental Protection and Authority Act. We have duplication in responsibility between local government and the CMA. We have had numerous attempts at trying to resolve these differences. Fundamentally it was pointed out before the Acts were made—or Act in the case of the CMA Act and the native vegetation Act—that these problems would occur. They are duplicitous and disruptive. From the point of view of any agriculture or agriculturally related industry where the DA [development application] comes in or a rezoning, those problems occur where the CMA has a different responsibility for vegetation management to local government and they can be counterproductive. It is something that is ongoing. We are having another meeting of the CMAs and local government next week to try to resolve this. We are not making any headway.

The Hon. CHRISTINE ROBERTSON: Can you give us a couple of examples?

Mr LOW: We certainly can. I think we would like to take this on notice as well. I have been round and round with this because we have had the issue that if it is a rezoning there are fundamental differences in the way the CMA approaches the no net loss or improve test. It is very rigorous.

The Hon. CHRISTINE ROBERTSON: No net loss to the environment?

Mr LOW: Yes. That is a very rigorous one for them, whereas in local government our approach would be that we weigh up all the issues—social, economic and environmental. For instance, there have been applications where a small loss of vegetation has prevented them going ahead with what would be quite reasonable. The CMAs are limited by their Act and local government has a responsibility. We can certainly provide you on notice with some more information about that.

The Hon. CHRISTINE ROBERTSON: Is this an across-the-State experience or is it happening more in some areas than others?

Mr LOW: No, it has been across the State. I am aware of a West Wyalong issue to do with the no net loss affecting a DA from going ahead. That was to do with some industry supportive of agriculture. It is a problem. When you are talking about red tape it means the customer is confused.

The Hon. CHRISTINE ROBERTSON: To make my question harder, is it about some CMAs and not others?

Mr LOW: No, it is not, not at all. It is about the fundamental fact that those three Acts are not aligned. That is the problem.

The Hon. MELINDA PAVEY: If it went to the council for approval to rezone land near the town precinct for an agribusiness, it was approved by council, then the CMA—

The Hon. CHRISTINE ROBERTSON: They are concurrent.

Mr LOW: For a start there is a problem. If somebody wants to do what you describe, under the CMA Act they have to do a property vegetation plan. If they come to the council to put in a DA, there is actually nothing in the Environmental Protection and Authority Act that makes the CMA a referring authority. We cannot stop the clock because they are not a referring authority. So, in fact, after 40 days they could take us to the Land and Environment Court. There are these dysfunctional aspects of the Act. That is another one, the example just given, where one is looking at doing something on the fringe of an urban area. There is nothing to say that the developer must refer to the CMA from the council perspective, but we cannot prove it unless they do. Which cart goes before which horse?

Reverend the Hon. FRED NILE: Have you had progress in bringing these matters to the attention of the relevant Ministers?

Mr LOW: Not very much, but certainly the CMAs and local government are aware of it. It is indicative of the problem that we have been trying to do it since the end of 2005 and have not really made any headway. It will be resolved.

Reverend the Hon. FRED NILE: It obviously requires legislation.

Mr LOW: I believe so.

The Hon. MICHAEL VEITCH: Last week I hosted a roundtable in Young with 17 shire councils present. At that meeting a number of mayors raised concerns about the increasing levels of debt being carried by farmers within their shires. There was some concern about the triggers for removing EC support, financial support and subsidies from farmers post the drought, once the drought does break. Do you think those triggers and arrangements to remove the transport subsidies and EC support are sufficient? Do you think they need enhancing in any way?

Mr LAURIE: As to the whole drought issue and assistance to the farming community throughout the drought years, the last four or five years, we can safely say we are now in a situation we have never been in before. I remember saying that 12 months ago. I have said on a regular basis that both the State and Federal governments have been dealing with public money in a responsible fashion, as they must do. One of the things that upset the industry as much as anything is the fear of not knowing. When we are in a situation with drought support workers, rural financial counsellors, transport subsidies, rollover of EC, knowing the timeframe is coming up, knowing we are still in a drought and having no government decision until the last minute, it is really frustrating. It is not only frustrating; you are playing with people whose emotions are at an absolute level. We have got increased debt like you would not believe. Some of the figures that I could quote you would frighten you. We have got people at the absolute end of their tether.

We need to have governments at all levels dealing with this issue with compassion. We need them to make good early decisions, announce things early, announce time frames and give people 3, 4, 5 months to understand where they are going so there is not two weeks to go for a rollover. We then get a thousand phone calls into the office saying, "What the hell is going on here?" and we are pretty confident that it is going to be rolled over. Of course, a lot of that is a Federal issue, but it is the same

with the transport subsidies and all of that drought assistance. We need to make sure there are good time frames so that people can sit down and understand where they are going. It is the fear of not knowing what the hell is going on that is the problem.

The Hon. MICHAEL VEITCH: Post the drought, the comment was made that the arrangement to sever the support was a bit harsh because of the level of debt that had been carried to allow farmers, as you say, to plant and reconstruct their enterprises post the drought. Do you think those arrangements are adequate?

Mr LAURIE: I think if people understand, especially with EC support, there are two droughts—the weather drought and the financial drought. The financial drought generally will take 12 months before you can start to get a return—whether that is crop or livestock, by the time you start rebuilding your flock. We are now also talking about the horticultural industry. There are a lot of permanent plantings that are really struggling at the moment. Quite a few of them have been put to sleep simply because they have not got enough water to produce anything. We have what has happened out at Bourke in relation to the horticultural industry, and the impact out there has been staggering. There are going to be sectors of the industry that are not going to survive this. People need to understand that there are two components to the drought. The Federal Government has been saying at an EC level that we need to make sure that we go out 12 months afterwards to have a look at it. When it comes to transport subsidies, once the drought breaks there will not be any requirement for transport subsidies for water or fodder because they will be there and a lot of the livestock will already be back on properties. That will gradually run out as much as anything anyway.

The financial councils, which are now Federal, and the drought support workers, which are State, I can tell you have been an absolutely critical component. We are now getting calls on a regular basis that there is fear around New South Wales that the drought support workers will be removed soon. It is one of the elements I am talking about where we need to get a decision made that they will be in place for another 12 months or so. The role that they play cannot be underestimated. It is absolutely amazing at the moment. That component needs to be looked at. The other thing, we do not need argument between State and Federal governments who the hell is going to fund it. As I said in a press release 12 to 18 months ago, quite frankly, we do not give up. We just know that that service needs to be there. I do not believe there is a government in this country that would walk away and have an argument about who is going to provide the funding. That is not our problem and it is not their problem.

That is behind closed doors. There are time frames for all of those services. Transport subsidies will gradually wear out simply because of the changed circumstances. The exceptional circumstances will go for an extended period until we get into the recovery phase. It is very difficult and we must try to manage it as best we can. Our problem is that we must maintain the funding. In many cases we are ratepayers who fund the local council, so we must ensure we keep them going. Businesses in many towns rely on agriculture, so it is important that we keep them going to retain basic services. If we do not, we are gone. That includes the livestock and property agents, who are throughout the towns. It is interlinked and if we bugger it up in one area there will be major ramifications in other areas.

The Hon. CHRISTINE ROBERTSON: I know your groups do a lot of work collecting and analysing information. The Upper Hunter provides good examples of places sliding in and out over the past five years. Some families have been destitute and have had no grass and have been popped out. Have your groups collected that data? The Upper Hunter is interesting because it would have rain and the grass would grow, and then it would be out or borderline and services would be lopped off.

Mr LAURIE: There have been issues across the State when areas have been declared.

The Hon. CHRISTINE ROBERTSON: It happened in the Tablelands, too.

Mr LAURIE: An area around Glen Innes was declared, but the rainfall stations around read well. However, an area of 20,000 or 30,000 hectares in the middle—

The Hon. CHRISTINE ROBERTSON: But they amended that.

Mr LAURIE: They have been prepared to listen to all the concerns raised. That is why I say that both governments have been handling it responsibly.

The Hon. CHRISTINE ROBERTSON: But the issue was the in-and-out stuff and abject poverty. We had only representations and that is not good, hard information.

Mr MOFFITT: We collected some information in conjunction with the Department of Primary Industries. One of the key problems with the drought rollover process is useful rain. If an area gets 10 or 15 millimetres of rain, that can have a significant impact on whether it is deemed to be in or out or eligible or ineligible for drought assistance. We have been working in conjunction with the authorities to ensure that the rollover process is streamlined at both the state and federal levels. The National Agricultural Monitoring System has been developed to deal with exceptional circumstances. In our opinion that is much more reflective of the actual on-ground impact of drought as opposed to what has happened recently. There have been some reforms.

The Hon. CHRISTINE ROBERTSON: So our nasty five years has taught us something.

The Hon. MELINDA PAVEY: An article in this month's *The Diplomat* refers to agriculture and Australia's performance on the world stage. It states:

> Australia, while demonstrating world-class knowledge in some of the biotech fields, is not well funded or organised at this time for both foundation and transition applications.

That means there is not much crossover between agriculture and biotechnology and research. What is your opinion of the relationship between the Department of Primary Industries and research funding? What is industry itself doing to lead the charge in research and development, which is vital?

Mr LAURIE: Over the past 10 or 15 years there has undoubtedly been a reduction in front-line departmental services, such as agronomists and beef and sheep officers. There has been a shift to user-pays across the State and to a certain extent that has had an impact. The industry trusted the department and took its advice, knowing it was based on extensive research being done across government departments and across the State and Australia. Obviously that must continue. Even though the number of front-line people has been reduced, we must continue to provide those services as much as we can. Because there is that link across the departments, we have a good understanding and that needs to continue to happen. Obviously research and research funding are important.

There is no doubt that the private sector has taken up much of the research capacity. There has been a big increase in the number of private sector agronomists and advisers in many roles that were previously filled by government. In some ways that has generated businesses within the towns, but it is just another area of cost shifting from the government sector.

The Hon. MELINDA PAVEY: Where are some of the strengths in terms of research within towns in New South Wales?

Mr LAURIE: There are strengths and weaknesses. A good example is the Cicerone project being conducted at Armidale. It was designed to fill the research gap. The northern New England woolgrowers formed a board and sourced funding. They did very good specific research that the local growers wanted done. The biggest problem is that the project has folded after five or six years simply because the group had difficulty sourcing funds to continue. That research was very specific to agriculture. The board would have meetings to determine what research the local graziers wanted done, and it would then find a funding stream and organise it, but unfortunately it folded.

The government departments were very good. They had the capacity to keep those things going and to keep driving them. That independent project is one example, but groups around the state also organise field days. Some are organised by private agronomists or companies to stimulate research, so a bit of the slack has been taken up. However, I do not think there is any doubt that when there is not so much government interaction there is a reduction. People are probably not sourcing as much of that information as they once did.

Mr MADIGAN: In my opinion Meat and Livestock Australia was very insular. It now seems to be sharing a lot more of its research and development work with the States. It is also

undertaking much more research and development, particularly about what cropping is needed and what profit can be made from an area being farmed, whether it involves livestock, wheat and so on. That part has been taken up in many ways. Some of the bigger wool firms, such as Elders and Landmark, are doing their own research and development for commercial reasons. They then pass that information on to their clients at field days and similar events, where they present the latest developments in agriculture from a commercial perspective. Department of Primary Industries extension officers seem to have disappeared and there is a hole. That was meant to be filled by the rural lands protection boards, but that is not happening and it is yet another tier of red tape in New South Wales.

Reverend the Hon. FRED NILE: Mr Laurie, are the very low level of unemployment and the growing mining industry having an impact on the availability of employees in the agriculture sector? If so, do you have any strategies or suggestions about how that could be addressed?

Mr LAURIE: That is a very interesting question. This is about agriculture, and rural employment is a massive problem. It affects all the groups in the alliance. The mining sector is paying extremely big money and attracting people out of all our areas and the low level of unemployment is creating enormous problems. I mentioned social infrastructure breaking down and the lack of services in the country. That is not encouraging people to move to rural and remote areas to provide labour for our industries.

How are we overcoming the problem? The local social life is one of the big issues in keeping younger people in the bush. I do not know how we overcome that. We must make communities attractive to people to encourage them to stay; we must offer them good employment opportunities that are reasonably well paid. Many young people have skill levels that we did not have, so they move to the city, where the money and the social life are better and there are many other attractions, especially given what is happening with the drought. It is a major problem. The sons and daughters of people on the land are moving to the cities on a regular basis to pursue their professional lives. Many other people who live in the towns and who provide labour to the partners in the alliance are also leaving. We all have great difficulty getting people to stay in those areas and much of the problem stems from social aspects.

Reverend the Hon. FRED NILE: Are there any incentives or strategies you could suggest that the Government look at or that the committee could recommend?

Mr LAURIE: I did suggest to John Laws that it would be a good to idea to take a busload of girls to some of the towns. That might encourage a lot of blokes to stay.

The Hon. CHRISTINE ROBERTSON: Jock!

Mr LAURIE: That is the reality. Fellows are not going to stay out in the bush by themselves.

The Hon. MELINDA PAVEY: They have in the past.

Mr LAURIE: And they do not like it. We must find ways to improve those social aspects. That means equal numbers of men and women living in those communities and providing opportunities for communities to develop. That is one of the biggest issues. On a Saturday night in towns in the Western Districts there will be a pub full of blokes and hardly a girl in sight. There are reasons that people leave, and one of them is the social aspect. I honestly do not know how we can overcome it.

Mr MADIGAN: Agents find it difficult to match the money being offered by the mining companies. Young guys are leaving the agency industry for the mines, which is a short-term fix. Stock and station agents used to transfer people out west and then gradually move them closer in as they got more experience. They started as stockmen and moved to livestock manager and then branch manager. It is now hard to send people to some towns because of the cost of housing. In one place they can buy a magnificent home for $200,000, but if they go to a bigger place it will cost them $500,000. They are the problems we face when transferring people. People from other States also want to come to New

South Wales, but they cannot afford to take six months to do the licensing course before they get here. They are the problems affecting us in the bush.

CHAIR: Some farmers appear to be experiencing difficulties with servicing. They go to one office and are then palmed off to another office only to be sent back to the first office. Have you had any experience of that and, if so, what can be done about it?

Mr LAURIE: People ring us asking who they should talk to because there are so many different agencies. There is no doubt that establishing the responsible agency and then getting an answer is very difficult.

CHAIR: I can imagine the difficulty confronting farmers who are trying to streamline their operations with minimal staff and who get passed from one agency to another. How can we do things better?

Mr LAURIE: It comes down to the things we have already mentioned with regard to streamlining, cutting out duplication and so on. If this or any other inquiry were fair dinkum it would pick one issue—native vegetation is a good example—and thoroughly examine all the different levels involved and the relevant legislation and establish who is responsible for them and then determine who can answer particular questions. That process would clarify the situation. That is one example. I think that Mr Low stated pretty clearly earlier on, between the CMAs and the local government and talking to State Government still not being able to resolve that one issue about whose responsibilities it was in those areas. That is one example. We could sit down and probably give you example after example in different areas, whether it be in relation to other areas of red tape, whether it be in relation to transport issues or anything.

Mr LOW: I think it is worth pointing out that it has become so complicated for ordinary people now. We have had all of this legislation. Without being derogatory, you people are here how many weeks of the year making legislation—

The Hon. CHRISTINE ROBERTSON: And we do not do anything else, either.

Mr LOW: Of course. But you produce it and you do not necessarily take away something or replace it. It is usually new stuff where we are filling gaps. For the community, I would suggest to you that the average person, if I can make such a sweeping generalisation, has little idea of what is happening until it affects them. In local government we see it when a person comes to submit a DA to put up a carport or to build a house and they find out that BASIX exists and they have not budgeted for it, and away we go. The fundamental point is that we have made it extremely complex. It would be great to be able to simplify that. I know that people could go on a website and go through it, but they just do not get it. They do not understand all of this. I feel that is a crucial element. I think you would see that very clearly in your own electorates: people find out that something has happened and how it affects them. Obviously, there is a need to do that.

In a rural area, a regional area where you do not have a lot of services, if they are not in a town or if there is no easy explanation, people go hunting for the answers. I see this as having two problems to go on with. The previous question and this is that on the one hand we talk about losing workers or services in the bush. When we do that we usually lose something else. If a business closes in the drought because it is not getting enough from agriculture and the one qualified tradesman leaves, there can be no apprentice. It is very hard to start that business up again. Communities find you have that spending where people go to the next place, wherever that is, and they use that service. You are weakening towns. Our submission talks about a dwindling rural population, and this is going to be that continuing thing: As one goes, people move and on it goes.

From the employment side of it, I was in Gunnedah yesterday and its main street was a hive of activity. In fact, the only business that did not seem to be busy in the middle of the day was the Kentucky Fried Chicken outlet, which is probably a pleasing outcome. But the point is that the town was abuzz and the mayor explained to me that it was because of the mines in that area, which injected economic stimulus. The difficulty is that employment becomes competitive. But, of course, you have to look at the wider community impact and you have economic stimulus. It is a healthy community and it is very important. For them, where agriculture has been very bad for five years, the mine

stimulus has actually kept the wider community going. In local government, if we train a plant operator that person is readily available to the mines, that is the obvious one, but so are engineers, planners and environmental specialists. We feel that. We have done many things to try to overcome that. The first of them would be the sharing between councils of skilled workers like that. A lot of that is going on. There is a lot of emphasis at the moment on strategic alliances for that reason, and that is proving successful. But local government has always tended to do that.

Reverend the Hon. FRED NILE: But you cannot compete with the salaries being offered?

Mr LOW: We certainly cannot.

The Hon. CHRISTINE ROBERTSON: We have a submission from a fellow called Mr Bowie, which asks questions about the availability of real financial and economic data in relation to the agricultural industry. Over recent times the information has become more and more Australia wide, and it is very difficult at a local or even a State level to do a real analysis. It is quite a complex, but very interesting, submission. The problem it creates in my head is that when you start to work towards promoting issues like agriculture in the country, you do not really have a baseline. You have a few ABARE reports, or whatever, but you do not have good information to say just how important is that industry for the area. A lot of small towns stay alive, for example, because they are internal, not necessarily because of farmers. You do not have information to actually back up pushing agriculture as a major industry. Do you have any ideas how we could fix this problem with this data, and what do you think of it as an issue?

Mr LAURIE: Obviously, we need to do proper research to find out exactly if you wanted to get into area-specific stuff. I am sure you can do that.

The Hon. CHRISTINE ROBERTSON: But how?

Mr LAURIE: The Australian Farm Institute, for instance, does a lot of research. There are groups around that can do it, but, of course, it all has to be sourced and paid for.

The Hon. CHRISTINE ROBERTSON: Separately?

Mr LAURIE: But your comment about small towns surviving internally, there is a line where that happens and there is a line where that does not happen. When you get agricultural towns that rely on agriculture, if you go into those towns now you will see that internally they are not surviving at all. They are struggling like you would not believe. This all affects agriculture. If you go into a town, and I could name any number of them, and you have two doctors, the agriculture component in the last five years has been tough, so we go back to one doctor. Then there is too much work for one doctor so he puts his hand up because he cannot get any sleep, so he heads off and goes somewhere else. Then people have to go into the bigger towns, and while they are in the bigger towns they do their shopping. When they lose the doctor then all of a sudden they lose the schoolteacher. Then all of a sudden all the other things happen. You are not attracting any new people into those businesses. We do not have some of the DPI staff sitting out there—the agronomists and all those different people.

There is a very clear line drawn between a town that lives on agriculture and a town that is big enough to thrive. I do not know what the population is. These fellows may have done some work on it. But the ones that are relying on agriculture now, we will jump in a car and I will take you for a drive and you can see them. The ones that have enough growth in the town to be able to support them outside agriculture are still struggling. The mining towns are doing exceptionally well. There is no doubt that it is pouring a lot of money in there. Gunnedah is a very good example of that. Inverell is an example of a town that is really developing because it has Bindaree Beef and there is a bit of sapphire mining and stuff. Orange is a town that has developed pretty well on the university and the DPI. Wagga Wagga has the university, but if you go to towns outside those areas that are reliant on agriculture that once had a doctor, a couple of teachers or whatever you will see the problem.

The Hon. MELINDA PAVEY: Like Griffith, Leeton and Deniliquin?

Mr LAURIE: I have not been down to—

The Hon. MELINDA PAVEY: My point is that those towns are actually doing very well and are strong.

The Hon. MICHAEL VEITCH: And Young.

Mr LAURIE: The bigger towns.

The Hon. MELINDA PAVEY: But they are not really big towns. They are smaller than Orange.

The Hon. CHRISTINE ROBERTSON: But they are water towns.

The Hon. MELINDA PAVEY: We have an economic disparity between the north of the State where you do not have irrigation compared to a lot of other areas that have irrigation.

Mr LAURIE: It all depends on the agriculture component.

Mr LOW: It is even more diverse than that. It depends on the assets of that community, and the assets may be irrigation. For example, Gunnedah has the Keepit Dam. It will depend on a lot of factors. A community like Wellington, when it got that jail it made a huge difference to that community. Any injection of an economic stimulus like that goes right throughout the community and helps everybody. If you wanted to answer the question of what was the average town, it is like the average council: We are all different. The answer is probably to pick on a view and look at what makes their economy tick. I can tell you that the Mayor of Cowra can tell you the basic fundamentals of its economy, what industries it has and what they mean in terms of employment, what it was like before the town had it or what it would mean if the town were to lose it. In answering it, it is a bit unrealistic to expect a study across the board to be able to say what it means. But if you go to Broken Hill and a new mine is starting up, which it is, it means a hell of a lot to them in terms of employment and what will flow on.

The Hon. CHRISTINE ROBERTSON: One of the examples is Quirindi, which is a neighbouring town, which also gets some benefit from the mining industry, but not a lot. During the drought there have been big problems for places like Quirindi, but it is moving into a tertiary industry.

Mr LAURIE: The towns that are getting into the mining industry, and there is a lot of contention between mining and agriculture—

The Hon. CHRISTINE ROBERTSON: I am talking about sawmills.

Mr LAURIE: —as we have seen at Caroona. If mining goes ahead in Caroona it will have a very big impact on Quirindi and Gunnedah, and possibly even back up into Tamworth. There was a mine in Peak Hill, but there is not a mine now. It is reliant on agriculture. Go into Peak Hill and you will see what I am talking about. If they are just big enough, it is good. If it is an irrigation town and it does not have water, go and have a yarn to some of the business people—there are massive impacts. Our concern is that when we lose those businesses, and this is one of the reasons we argued black and blue with the EC that we had to get EC into businesses because if we lost the businesses, the same as contracting people, if we lost people who are doing contracting heading, for instance, and they went into the mines and if this year we were going to have a bumper crop, which we all hoped we were going to, but it looks like that is not going to happen, how in the hell are we going to get the work done because those businesses had gone. Not many people would be prepared to go out to borrow that amount of money to start again. We had to make sure we supported local businesses in small towns so that when it does rain they are still there for our industries. We have to have been there for our industries.

Reverend the Hon. FRED NILE: Do you feel the State Government has an adequate decentralisation plan to support those towns that are struggling and to change the declining population in those country areas?

Mr LAURIE: There are probably better people here to answer the question than me, but, obviously, when those things have happened not only in struggling towns but also in towns like Orange, for instance, the DPI out there has made a massive impact and I think that decentralisation obviously works. It means getting employment and generating income. It is getting people there and developing all those social networks. It is having a town big enough to have a couple of doctors who can support each other and the school that has enough teachers rather than being a one-teacher school and all those sorts of things. But these other fellows could probably answer the question.

Mr LOW: Take, for instance, the inland rail line proposal, which will be a big impact on communities. It is a State building exercise. It is an economy building exercise. It is something that we all support and want to see happen. It is in our submission. Places like Parkes will see a tremendous boost. Freight movements will occur that will stimulate various economies where the freight hubs will be on that line. Every one of those initiatives creates something. I can give you an example of what I will call decentralisation, the Tillegra Dam, the proposal for the Hunter region. I am a resident of Dungog shire and that dam to us is a threat because we will lose 50 farming families from our economy, but on the other hand it is an opportunity for us: An injection of $340 million to build the dam. We will see employment stimulus and business attracted, and something will come out of it.

Every community that can receive an input like that, and do not take it for a moment that I am necessarily saying we want the dam or we need it—the point is that people opposed the gaol at Wellington—create that stimulus and they are very important. We have seen decentralisation, but we need people here to realise that if they want a vibrant New South Wales, if they want these communities to survive then we need to do things about it. If you pull the branch lines out of all those communities it will be the exact opposite as if you built them tomorrow. It will have a devastating impact on that community. Hence I say that I would suggest to you that we have too much of a fragmented approach. While the State Plan is saying, "We want to see a rolling-out of services, we want to see access to services", the Rail Infrastructure Corporation is saying, "We don't want to change that. It's hurting our budget." There is no nexus in that.

The Hon. CHRISTINE ROBERTSON: I would like to ask a question about the Parkes inland rail route. In doing so, I remind myself fiercely that I was elected to this place as a member of New South Wales, not of the New England area, from where I come. I was very interested in the decision in relation to the inland rail route, and I know it took many years of negotiation because I was involved with it. Putting the rail route through there totally removes the movement of freight from the east of west of the ranges, and it will therefore make a difference to the development and growth of that area. Realising that these decisions are always very political and difficult to make, when you put something somewhere, how do you prevent taking it from somewhere else?

Mr LOW: In this case, I suggest to you that there is another proposal for rail through Murrurundi to obviate the tunnel there. There has been plenty of justification of the benefit in terms of fuel et cetera, and there is a real threat of that whole north-western area taking the freight route through to Queensland. None of us wants to see that happen. However, on the one hand we have to look at where does the economy work. We talk about Albury. Where is your closest port, and where should freight go? We would like to see it stay in New South Wales. But there are plenty of those links where we are not also doing those, and we need to be looking at that from a whole of State development point of view. I think they balance one another.

Mr LAURIE: It all depends what we are moving and where we are moving it to. If it is ports in Brisbane or ports in Melbourne, this rail route will be the rail route there. As it is at the moment, taking stuff from Dubbo through to Sydney to get it onto a truck from Roger Fletcher, for instance, you have to come back over this mongrel road over the hill. It is extremely difficult. If you put the rail line out there, will it damage communities elsewhere? If you look at the projected figures for road transport over the next 10 to 15 years up and down some of these highways, I suggest that it probably will not damage them too much at all, because they are talking about some massive increases in road transport. The rail will certainly take some of that, but not all of it.

Mr LOW: Again from a whole of State perspective, the North Coast railway line is being upgraded as we speak; they are fixing passing loops and things to make it more efficient. But it is going to run out of steam. It will not be able to handle any more, without a massive infrastructure investment.

The Hon. MELINDA PAVEY: It is getting that, is it not—$1 billion?

Mr LOW: $154 million was the project I just mentioned, which addresses the issue of the passing loops and the balancing to optimise freight movement, but that will run out of steam by 2020.

The Hon. MELINDA PAVEY: What do you mean? I do not understand.

Mr LOW: The freight task will have overgrown the capacity of that railway line. We are talking about a railway line that was built to very poor standards in terms of freight capacity, as we compare it to today. Part of our problem on the North Coast and that railway line is that a loss of freight is going from Brisbane to Melbourne and it is blocking up the line. We need to be thinking this way, as to how we move freight.

The Hon. MELINDA PAVEY: Which is why the inland rail line—

Mr LOW: Yes, it makes a lot of sense. I think every community down the Pacific Highway, the Hume Highway or the Newell Highway would be quite happy to remove that freight task. When we look at peak oil production occurring in a few years time, and the cost pressures that will go on to it, we need to be looking at efficiencies and reducing the cost of freight; in other words, anything we can do to keep agriculture competitive in this country. I believe we have to think this way.

The Hon. MICHAEL VEITCH: In your submission you speak about planning. Last week at the mayoral roundtable an issue was raised about local environment plans by councils and how they are designed on current data and current prime agricultural land use. It was put to me that that is an impediment to the growth of agriculture because it looks at historical use as opposed to possible land use. I would like to hear your thoughts about the definition that is used for prime agricultural land under the planning instruments, and a broader view about local environment plans and their impact on the growth of agriculture as a sector.

Mr LOW: The definition of prime agricultural land is the Department of Agriculture point, so we go from that. In making a local environment plan, of course they have an input into the process, as they do with every rezoning application. With the centralisation of the rezoning panel in Sydney the way it has been working for a year and a half, any one of those government agencies can kybosh a rezoning. If they do not agree with it, it will not go ahead. Within regions and within areas there is a lot of difference in terms of the philosophy of the Department of Agriculture.

I understood that those 13 mid-western councils had settled the pressing issue of land use from the point of view of minimum lot sizes and concessional lots, which again will make a big impact on agriculture. I have always taken the view that the land will remain. Regardless of who owns it, someone will use it. If you have class one land, someone is going to want to use it, even if it is an absentee landholder, and they will want someone to use it, and I think that is a problem. But we have to go with what the Department of Agriculture says.

From the point of view of an LEP, each community has to look to their aspirations and what they see as future opportunities. I think one of the big problems we have, certainly with rezonings, is that you have to then balance community aspiration with whole of State perspective, the State plan and the outcomes. One of the points we are concerned about is that centralisation of decision making. For instance, with a State plan and all the policies we have for any given department, why cannot decisions be made locally by the regional officer according to those policies and plans, instead of having it centralised here? For instance, to be in an area where somebody comes along with an application that needs a rezoning, you will find a lot of rural councils are given a quota. They might make one application a year to the rezoning panel, so they cannot process it. I believe that is an impediment to development in the State.

The Hon. CHRISTINE ROBERTSON: Who is giving them a quota?

Mr LOW: Sydney is saying, "You cannot come in every week with a rezoning application."

The Hon. CHRISTINE ROBERTSON: Do you mean it is a perceived quota?

Mr LOW: No. They are being told, "You cannot just keep asking for spot rezonings." It is a problem. I can speak from bitter experience. Our local environment plan was signed by Frank Sartor in March last year, and within a month he brought in the rezoning panel. Our LEP, very rightly and appropriately, required spot rezonings. Because it is a small rural community, we could not afford to do all the environmental work necessary to rezone the land, and we wanted to put it on the developer to do that.

CHAIR: So what are you suggesting?

Mr LOW: The regional office—regional planning or any regional office—should be able to make decisions. We are centralising it here, there is a bottleneck, and they have a capacity that they just cannot meet. I believe we need to do something about that.

Mr LAURIE: The Central West panel that was held, of which the document was tabled last week—I sat on that panel. Basically the outcomes of the panel were that there needed to be decisions made by local councils. The centralising that has been spoken about in relation to coming down here and having the Department of Primary Industry and the Department of Planning both having control or discussions over what should be happening and then having a statement saying you have to look after sustainable agriculture or something. The criteria they use for sustainable agriculture was completely outdated and did not take into consideration any of the things you are asking about: the changing face of agriculture.

We look at the four or five main enterprises: grain, wheat, wool, beef and lamb. You then have a look at all the other agricultural enterprises. A lot of those agricultural enterprises can be, and will be, on small blocks of land. Yes, you are stifling development in some of these enterprises by having a minimum lot size of 400, 500 or 600 hectares. There is absolutely no doubt about it. You are also stymieing development in those local areas because you are getting expertise coming in, married couples with money coming in, say from Sydney, wanting to set up alpaca, lavender, or whatever—any of those other opportunities. So you bring people into those communities, and they set up small agricultural businesses.

The other thing that needs to be understood is that in lots of places now there are families with two incomes. When you talk about sustainable agriculture, does sustainable agriculture mean that it is only the income you are earning from agriculture, or does it mean that your wife can go out and work, or that you can go out and work and have two incomes? Therefore the whole formula that was being used was wrong.

That document was tabled, I think, last week. That document basically recommends that it goes back to allowing local decision making, and we see that as being a sensible way to go—obviously, following some basic criteria that the Government needs to set up.

The Hon. CHRISTINE ROBERTSON: When they introduced this, it was about addressing a problem, was it not?

Mr LAURIE: Well, that is the issue: Where was the problem?

Mr LOW: With regard to LEPs, it is a vexing issue. If you look at the 152 local government areas we have and at the date of their LEP, when it was last made. We have a shortage of planners in the State, and in our wisdom we have determined that they all have to have a new LEP within a certain time frame, which does not help anybody. All the planning reform we are seeing only exacerbates the shortage.

But we go back to the LEP. A community does the LEP, you consult the community, you consult government agencies, and they all sign off on it. The Minister signs off on it. Surely we should be able to operate that document the way in which it was intended to be operated, by the Minister and everybody else. I am not supporting ad hoc; I am talking about responsible community development. We need it; we have to have it. Yet, the Minister signs off on it. The Minister signed our LEP, and within a month— We have been 18 months with developers trying to do rezonings and we have not had one approved.

The Hon. CHRISTINE ROBERTSON: Have they been knocked back?

Reverend the Hon. FRED NILE: Are the rezoning applications still being considered?

Mr LOW: Yes, they have gone backwards and forwards. The CMA has done us a wonder with all of this. The Department of Agriculture signed off on the philosophy of our LEP. Then, with every application they are objecting to the loss of agricultural land.

The Hon. MELINDA PAVEY: Mr Low, thank you for raising that, because LEPs and planning issues are fundamentally important to the growth of regional New South Wales as a whole.

With regard to vocational education and training, the Rural Alliance submission states that one of the problems is that there are gaps in vocational education and training participation that tend to undermine skills solutions. Can you elaborate on this?

Mr LAURIE: One of the problems we have had with the vocational education and training set up is that the trainers are getting paid basically on throughput. They are going into some of the bigger areas and doing a lot of their training in the bigger areas, simply because that is where the numbers are. This obviously then leaves a gap in some of the more rural and remote areas when it comes to training. The people in those areas who want training have to come back into the bigger areas in order to get training. There are costs associated with getting there, accommodation, and lots of different issues. One of the things we have raised is that while this training is going on, in the big central areas that is good, but how do we overcome the problems in some of the more remote areas? That was the important thing in relation to that as much as anything else, was it not, David? We need to understand how to get the services out there.

It is the same as all these issues that I have raised on many occasions about doing some long-term planning. It is about delivering training whether it is through this program or education in some of the more remote areas, whether it is about health service, infrastructure and all of those things. We do not want people to throw good money after bad, so if there will be areas that will develop in time and nothing will happen there presently, why are we spending millions of dollars trying to prop them up? Long-term planning is important to decide how we are going to deliver medical services, infrastructure and educational services in these areas. What is the long-term plan? If we know, for instance, that a town is not going to have a doctor simply because there is no way they can afford to get one out there and keep one there, but there is a decision to provide medical services into that area, we can say to all of our people in those areas that we know that there will be medical services provided, and we know how it will be done.

CHAIR: That is a good idea.

Mr LAURIE: There are two or three issues in relation to the Central West planning document that has just been produced. That is a review that has been done by the Government. A paper has been handed down. The OH and S review that was handed down prior to the election and possibly at the end of last year is still sitting with the Government. We would hope that there will be some sensible changes made in relation to shared responsibility and different things which will encourage employment. That has had a massive impact on employment right across all sectors, including the agriculture sector.

There is another report that the Natural Resources Commission [NRC] and Professor John Williams have put in on changes to be made to the native vegetation regulations to try to overcome some of the problems there. That is still sitting with the Government too. There are three reports and the question asked earlier by Reverend the Hon. Fred Nile was what we were doing. What we have actually done is lobby the governments. We have reached a situation where we have had inquiries done. The reports of the inquiries have been handed down and they are now sitting with the Government.

Now we are being asked what we see as impediments to agriculture. These things we saw as impediments to agriculture along with this group here, we have had inquiries into those things. Those documents are now sitting on the table. To try to overcome some of the impediments we have seen,

that we have shown, and that the inquiries have shown, let us get them out and start acting on some of those documents.

The Hon. CHRISTINE ROBERTSON: Have these information papers been released?

Mr LAURIE: The Central West panel has the OH and S plans still sitting with the Minister, the Hon. John Della Bosca, and the Natural Resources Commission paper by John Williams, as far as I know, is still sitting with the Minister also. It has not been released.

CHAIR: I thank you all for being here this morning, for giving evidence and for your submissions. I may say that the submissions are of a very high quality and I was personally very impressed, as were other members of this Committee. I thank you for going to the trouble of putting in the submissions, which have been well received. The Committee looks forward to our recommendations going to the Government and meeting with some positive responses. We will probably have more questions on notice that we have not had the opportunity to ask on the record today, and we would like to have your answers to those as well. There may be other questions that Committee members would like to put you on notice, so if you could submit to your replies by 17 September, that would be fantastic; otherwise, liaise with the secretariat who will work something out. I thank you sincerely for your evidence and for your efforts.

(Short adjournment)

BRIAN JOSEPH KELLY, Director, Centre for Rural and Remote Mental Health, University of Newcastle, care of Bloomfield Hospital, Orange, sworn and examined:

NICHOLAS MICHAEL TOLLHURST, Senior Program Manager of Public Health, beyondblue, 50 Burwood Road Hawthorn, Victoria , affirmed and examined:

CHAIR: Professor Kelly, in what capacity are you appearing before the Committee?

Professor KELLY: As a director and as a professor of psychiatry at the University of Newcastle.

CHAIR: Mr Tollhurst, in what capacity are you appearing before the Committee?

Mr TOLLHURST: I represent beyondblue to talk about our interests in rural depression in New South Wales.

CHAIR: Would either of you like to give a brief opening statement?

Professor KELLY: I have received questions from the Committee and I have attempted to address those in my opening statement. As you will be aware, the recent drought in New South Wales has focused attention on some very longstanding issues affecting people in rural and remote areas of the State. They include problems of increasing isolation, difficulty in accessing services, the paucity of health services, and the overall socioeconomic stress that those areas are facing, characterised by poorer incomes, high rates of unemployment particularly for young people, declining population and, in the farming sector, a reduction in the number of farming enterprises which results, from a health point of view, in increasing isolation from people who are actively involved in farming. Our work has also brought us into contact with the sorts of pressures that people are facing in farming around the financial impact of drought as well as the pressures they are facing in terms of meeting various regulatory requirements.

This occurs in the context of a number of problems in accessing health services, particularly mental health services. We know in rural areas there is a lower use of health services for mental health purposes. When people experience mental health problems, they are less likely to get the services that we know they need. The key issues that are reflected in the questions and that are of great importance in rural areas concern the high rate of suicide, particularly among men and even more particularly among men involved in farming. The major factor that contributes to suicide is depression, but it is not simply depression alone. It appears that it is a complex problem that reflects some of the degrees of isolation, the ways in which people deal with depression, and the ways in which they are able to access the services that are required. It needs to be seen in the context of the sorts of infrastructure issues facing the rural communities and the barriers that exists to getting the treatments that we know work.

Depression is important, not just because of the suffering that it causes or because it leads to suicide in some instances, but because we know it has a tremendous economic impact. A number of your questions related to that. In Australia it is estimated that depression costs the country $20 billion per year, which includes the cost of loss of participation in the work force. There are not good data in relation to the impact upon farming in economic terms, but we can extrapolate, given the disability that depression causes, that it is likely to have a substantial impact. The reason that this is particularly the case is that we know that depression causes more days lost in work than most other conditions, including physical health conditions, and hence that leads to the loss of productivity and inoccupation.

Of course, it has a tremendous social and family impact as well. In regards to how we might address the problem, a number of strategies are required. Many of them are reflected in the drought mental health assistance program that has been run in New South Wales over the past 12 months. There are other programmes that the Centre for Rural and Remote Mental Health has been involved with and they include attempts to overcome the stigma, increased willingness and access to services, particularly those related to early intervention, increasing the responsiveness and capacity of health services and other human services in rural areas.

Perhaps one of the major initiatives in this regard has been that New South Wales Farmers Association's mental health network and the associated blueprint document—which sets out a range of tasks to improve the mental health of rural communities and involves a whole range of agencies in those tasks, not just the task of mental health services but also for all people working closely with rural communities—have a role. A copy of that document has been provided to the Committee. It involves education, building service cooperation and having health services recognise that there is a critical role played by those people working at the front line with farmers. They include people such as drought support workers, rural financial counsellors, and stock and station agents.

If we do not work effectively with people who have on-farm contact with farmers and farming families in difficulties, we will not get the right advice to those farmers or be able to help them access the services that they need. One of the biggest barriers to achieving improvements in those problems is the continuity of services. We are facing uncertainty about the future of drought support workers in the Department of Primary Industries; they play a critical linkage role for supporting farmers. There needs to be much greater continuity for those sorts of services beyond any impression of the drought. That needs to be seen as a critical continuing support role for farmers.

Another barrier is the problem of coordination of services. We have seen a lot of interest in supporting drought-affected communities. A great concern has been reflected by the New South Wales Farmers Association's activity of bringing all the organisations together, and a great concern that there will be poor coordination of those efforts, and that the gaps will not be filled and there will be duplication. This is most concerning in regards to how nationally-funded and State-funded programs can work better together. In small rural communities the services need to well understand each other's role and make sure that people have a good pathway to the right level of care when they need it and not set up systems that do not talk to each other. There is a real risk that that will happen.

We need better coordination of the efforts. We need increased capacity of our health services, we need more health clinicians, more GPs, more mental health nurses and more psychiatrists to support those communities. It is not just that alone; it is the way in which people work when they are in those areas and their ability to support others who are working closely with this high-priority group in the farming sector. In that sense we always need new service models, new ways of doing things that overcome some of the barriers that exist to people getting help for problems such as depression. The Centre for Rural and Remote Mental Health has a statewide role in developing new service models as well as conducting some of the research around those problems.

Its role has been to lead some of those programs across New South Wales and bring together a number of agencies to coordinate a fairly considered implementation of programs that recognise the role of the community organisations and services as well as the general health sector in delivering mental health care. That has been an important function for us; an achievement in putting some long-term investment into a centre that can provide that level of infrastructure and leadership.

CHAIR: Is that something new, mental health depression? Why is it happening more and more now?

Professor KELLY: What we have witnessed over the past few years is an increasing recognition of how significant mental health problems are in the community. It may not be that there is an increasing rate of depression or other mental health problems. We know that they have existed for quite a long time, by what we are seeing is a greater comfort in talking about them and recognising that they have a significant health impact and a significant financial impact on the community. There is a need for us to get better services out there. For example, the National Survey of Mental Health and Wellbeing for Adults indicated that the majority of people with a treatable mental health condition do not get any treatment. Findings like that and the work of groups like beyondblue as the national depression initiative and other programs have heightened awareness in the community that mental health problems are important. We now need to match that with services that can help people.

CHAIR: Are some areas different from others, such as country to city? Has any survey been done on that?

Professor KELLY: Yes, the national survey found no difference between the city and country areas, but the problem was that there were not adequate numbers of people in country areas to

look at that in detail. We all know that rural areas are very diverse. In New South Wales we have coastal areas, regional cities and towns, and remote areas. To cluster them altogether as a rural population does not do justice to the differences that exist. Sometimes those differences can be very important determinants of mental health; the change in population, economic stress, the age of the population. All those factors are important. Really there has not been a study that has looked at it in that detail.

Currently one study is underway, conducted by our unit in Orange, with researchers in Broken Hill, Moree and Lismore, looking at those very questions. We know that the findings regarding rural and city-based populations and their differences in mental health levels have been conclusive. Certain findings are very compelling and they are in regards to the suicide rate in rural areas; in remote and very remote areas these are particularly substantial problems. Despite the fact that there has been some cause for optimism in the suicide rates in Australia as a whole, we know that in rural areas the rates are still increasing. So, we have got a major problem here and the problem seems to be around how we get better access to services and encourage people to use those services when they are available.

Mr TOLLHURST: Thank you very much for inviting beyondblue here. In a sense it is true because the major part of our work in New South Wales in terms of rural depression initiatives would be with the New South Wales Government's Drought Mental Health Action Program. We have other programs and initiatives in New South Wales that work with rural populations, which I would be very happy to talk about. But I think the main thrust of our work has been to be partners with the centre and the New South Wales Farmers Association to ensure that our core messages about depression and about its prevalence, about how to get help and about reducing stigma, are taken out to the bush and to people in the rural sector.

At the risk of saying, "Me too", Brian has actually covered a lot of the work that we are working with in that sense. And I would like to add some information, if I may. We have studies that were done in Victoria in the rural sector about depression in farmers and farming families and it indicated that farming families—rural people—may be more resilient than metropolitan people, than folks in the city, but they are under severe stress now with the ongoing drought. So, there is a sense that in the rural sector people are good at pulling together, at getting through a crisis, and in fact that may be one way of staying on top of things, but that that capacity is being severely stressed now with the ongoing drought.

A lot of the work that is being done in New South Wales through the mental health action program is about getting communities back together: farmer forums, service network meetings and workforce training initiatives that address the point that Brian brought up about people who are at the front-line of the workforce—stock and station agents who are finding they are having to deal with, particularly, men who are severely stressed, depressed. So, we have been working with the centre and with the State Government to provide resources for those sorts of contingencies.

Reverend the Hon. FRED NILE: Professor Kelly, you mentioned the cost of $20 billion per year. I assume that is for the whole of Australia?

Professor KELLY: Yes.

Reverend the Hon. FRED NILE: You said it included loss of work. Mr Tolhurst mentioned the word "stigma" a moment ago. Are men now more willing to admit they have depression or would they be concealing absence from work by saying they have got the flu or some other ailment? Or do you find there is now an openness in acknowledging their depression?

Professor KELLY: I think that is still one of the biggest barriers we have for men, and I think some of the studies have shown this for rural men, and particularly men in farming: it is very hard to acknowledge problems like depression, even sometimes to understand that that is what is making someone feel so bad and awful and tired and sick. Hence, it is a very important part of any program to help recognise that early on and help people feel more confident about approaching someone like a doctor, for example, and talking about their health problems. But it is difficult.

Of course, it is also complicated by problems like alcohol issues, which commonly accompanies problems like depression, particularly in men. We know that in some rural areas alcohol misuse is even more of a problem than it is in some city areas. So, we have got a bit of a job to do there to tackle that. Sometimes the depression is sort of hidden behind the drinking problem.

Reverend the Hon. FRED NILE: Would the doctors also be able to diagnose it or to assist general practitioners? Are they equipped?

Mr TOLLHURST: More and more. Part of the work that we do with beyondblue is with the medical workforce to ensure that they understand the signs and symptoms of depression. As Brian alluded, a lot of men who are experiencing depression probably do not think psychologically; they would probably present to a doctor with physical symptoms that could be ongoing and GPs need to be alert to the fact that if somebody is presenting a number of times with tummy grumbles or something as simple as that they could treat them with antacid or they could actually ask a question about, "How are you feeling?"

So, there is work to be done in terms of skilling up the medical workforce. There is a bit of a turnaround possibly with rural men. We run the depression monitor every couple of years at beyondblue, which does a nationwide sample about how people are recognising depression as an issue, attitudes about stigma. We also have an information line that we launched last year with a media campaign directed particularly at rural men and we did not advertise it in metro or regional areas so much. We have had a very strong response; people are calling in great numbers, but the really good thing is we have more men calling that should from the rural sector by population head. So men are actually taking note.

Andrology Australia recently did some research on men's help-seeking, which is one of the big issues about men actually going to a doctor or a health professional in the first place and asking for help about anything, and there has been a bit of a swing around in terms of about 85 per cent of men who were sampled had seen a GP in the previous year, but they were not asking the questions about depression or mental illness or feelings, et cetera. So there is some more work to be done there.

Professor KELLY: Can I add to that? I think one of the biggest challenges that we need to be realistic about in the rural area is that there is a lot that needs to happen before someone gets to a general practitioner with their problem, and once they get there we hope, of course, that the right questions are asked or the signs are detected. But it requires, particularly in some of our more remote areas, an understanding of that problem, the effort that it sometimes takes in isolated situations to get there when transport is not easy, there are not many GPs around. So, there is a lot of work to be done at that level to make it easier for people to get the help that they require when it is needed.

The Hon. MELINDA PAVEY: In your submission you talk about the Rural Mental Health Support Line, a seven-day-a-week service put in place by NSW Health. What sort of call rate have you got at that health line?

Professor KELLY: It varies enormously. Off the top of my head I would say it is around the 40 or 50 a month kind of figure—that is at its peak probably; it varies. It has been interesting to see the varying. I think towards the end of last year, if I remember correctly, we saw an increase in call numbers. But it has also been very encouraging, as Nick was saying, with other lines to see men calling who are farmers, calling about themselves. It has been set up to try and be as encouraging as possible for people to do that.

CHAIR: Are those statistics available?

Professor KELLY: About the numbers?

CHAIR: Yes.

Professor KELLY: Sure.

CHAIR: Is it possible we could get those?

Professor KELLY: Yes, certainly.

The Hon. MELINDA PAVEY: It is a 24-hour service?

Professor KELLY: Yes.

The Hon. MELINDA PAVEY: Is there any relationship, for example, with Lifeline?

Professor KELLY: The Rural Mental Health Network of the New South Wales Farmers Association has been a helpful collaborative group in which to manage some of these things. Lifeline has been involved in that. The line attempts to link with existing services as much as possible, so it is staffed by mental health professionals who are then able to and where possible without the person needing to hang up, through to local mental health services if that is required. We are finding that a lot of people benefit from a brief crisis assistance and direction to other services; sometimes it is to agencies like a drought support worker or a financial counsellor; sometimes it is to a mental health service. But it is meant to link people to other resources.

The Hon. CHRISTINE ROBERTSON: So, it is an action service rather than a counselling service?

Professor KELLY: It provides immediate sort of counselling but guidance about where to next with the problem.

The Hon. MELINDA PAVEY: Also, from your submission, following the drought summit in Parkes there was the establishment of the working groups; you were going around to all the communities and providing meetings. There were 20 of those, as I understand?

Professor KELLY: Yes.

The Hon. MELINDA PAVEY: Could you give us some anecdotal evidence from those and how they have operated?

Professor KELLY: They have also been part of a continuing project of the drought mental health assistance package of NSW Health. The intention behind those is within small communities to get health and human service providers together with agricultural service providers to look at some local planning about overcoming the barriers to mental health care and looking at understanding each other's role, understanding the pressures facing farmers so that people who might be unfamiliar with those become a bit more attuned to those particular people working in health, and then to look at what sort of tasks that group might then take on. It has been using the New South Wales Farmers blueprint as a bit of a guide because I think it does give some good evidence-based strategies for people to work on at all levels—health services, community organisations and so on.

It has been very interesting for us because I have been involved in a number—and my Associate Professor Lyn Fragar has been involved in many of them—talking about farming and its pressures. There is a great deal of interest in trying to do better in delivering mental health services but one of the things that has been apparent is that sometimes in communities people are not aware of the other services that exist or how best to use them. There might be councillors sitting in different government or non-government organisations. So getting people working together to see how they coordinate themselves and then to identify where the gaps are, they can work on together as a community. It has been an important strategy. Mental health services have been involved in that, state-funded mental health services, and have also been providing a deal of leadership around the implementation of that so that there is good expert mental health guidance around that project.

The Hon. MELINDA PAVEY: What is the state of the mental health work force on the ground in regional New South Wales? We often hear of doctor shortages and nurse shortages. What is the state of play?

Professor KELLY: I think it is fair to say that one of the big challenges with improving mental health services across the board, whether it be those delivered through general practitioners or other primary care providers or specialist mental health services, it is around work force. Attracting

people to come to rural areas, to stay in rural areas and being equipped as best as possible to work in a way that is suitable for rural areas, which sometimes means working a bit differently to the way you work in the city. Mental health is an area that has difficulty attracting people not just in rural areas but in city areas there are challenges, too. So a big part of the problem is how we address that.

The Hon. MICHAEL VEITCH: My question is more around the capacity of a farmer who is suffering from depression to be able to analyse the current status of their farming enterprise and make rational decisions to either sustain that or grow that. Also, what would be their capacity to identify new opportunities for their enterprise?

Mr TOLLHURST: It is severely compromised, as you would probably imagine. Some of the anecdotal stories that are coming out of the farmers forum and the work that we are doing in communities is that kids are turning up at school without breakfast, without new clothing or whatever because the very little support that is going into farms is going back into the farms in the sense that decisions are being made about struggling to keep the farm going and the family suffering some neglect. These are the stories that the Salvation Army and St Vincent's are bringing to the table when we have our meetings. Obviously there is a strain on relationships as well within the home. So it is very difficult. I do not know if any work has been done to look at that at this point.

Professor KELLY: The piece of work that I am familiar with that relates to that is a national study of rural financial counsellors. It found that in their work they were finding a lot of stress-related problems in the farmers, naturally because they are going through a lot of financial difficulties. But given that financial counsellors like the drought support workers within primary industry, they are people who are trusted by farmers. They will go to them for advice so naturally they are people who will start to hear about the stress and strain and sometimes even the depression that people are experiencing. In our work, particularly in the small community regions that I have referred to before, we are hearing a great deal of this. As they are talking through some of the financial pressures with farmers they are starting to see and hear about the tremendous stress and strain and the depression in some instances that people are experiencing and needing to know how best to respond to that, how to direct people to the right services and so on.

So in the work that has been done around the sort of stress that farmers face in their work, the financial, family and business side of things are all connected. Sometimes it is through managing or trying to tackle the financial pressures that some of these other problems become evident. We need to link up those people who are trusted in the position of being aware of those problems as well as we can to the right services and support so they can give the best advice to farmers about where to go with handling some of these pressures. It will not necessarily just be solved by financial issues, and the farmers themselves may not feel equipped or confident about managing those financial pressures until they are feeling better in themselves and are able to put some of that stress behind them and think a bit more clearly.

Mr TOLLHURST: I think you mentioned isolation earlier. That is a key issue. When people who are depressed feel isolated they are less likely to seek help or even to understand what is happening to them, so it becomes a compounding effect. They become more depressed, more unhappy, less able to cope and it spirals a bit in that sense. One of the difficult things that has been noted in terms of going out to the communities is the question comes up: How do we get to those isolated farmers who sometimes have not left their property for a year? Often it is only the rural financial counsellors or a stock agent who has the only contact. It is crucial that these people understand what depression looks like so they can just make the call, not to be councillors but to say, "Have you talked to anybody? Do you think you should see your GP?"—something that nudges a person along.

Professor KELLY: We are certainly hearing very good reports in response to our program of the mental health first aid training which is the sort of training that gives people basic confidence in knowing what to say to someone who is looking distressed. It does not turn them into professional counsellors but it just helps build up confidence, reduce stigma and knowledge about how to get people to the next level of care they require. That has been very well regarded and received, I think.

The Hon. CHRISTINE ROBERTSON: Recognising that this may be outside what you are looking at in your research, suicides, of a sociological theory, increase in times of stress and change.

Do you think the current "crisis" relates specifically to the drought or the long-term change process going on in agriculture across New South Wales?

Professor KELLY: I would be drawing upon the work of Lynn Fragar in this regard who has looked very closely at suicide in farmers. Her perhaps most influential work, which was published a couple of years ago, looked at suicide rates up until about 1997. They have since looked at suicide rates from that time but it has not yet been published. It showed obviously the markedly elevated rates for farm managers and farm workers in rural areas and in association with the terms of trade at the time. I think we need to see drought as one of the pressures facing farming but not in isolation from what has been affecting rural communities for some time. The work that is being done in the research and academic field around this indicates that we need to think about complex pathways that both lead to depression but also can help people out of depression, and they relate to community resources and infrastructure, isolation. Financial pressures are one of those added stresses.

The Hon. CHRISTINE ROBERTSON: It would be incredibly difficult for this Committee to put forward a recommendation to continue the drought support workers role if rain descends all over the State and the drought has gone away. Recognising that these persons have taken up a role not necessarily only related to drought in the farming sector and the political pressures and the individual pressures for them to survive, do you have any idea of an extended program that they could become a part of that this Committee could take on for looking at the future of that role within the community, cutting it away from drought support which makes like a charity thing?

Professor KELLY: Yes. I absolutely agree with you. I think there needs to be a role like that. There is great concern that, while being called drought support workers, there is a belief that they will no longer be needed when the drought is over and there is rain. Although I am not an expert in farming, I understand that recovery from drought is likely to take many, many years.

The Hon. CHRISTINE ROBERTSON: It is still limited; it still has a tight function.

Professor KELLY: Yes but what I think we are seeing in terms of this particular health-related function, the linkage they provide, I think that exists irrespective of problems like drought and associated economic adversity because we are talking about isolated populations where these workers have a trusted role to be able to go on to farms and assist farmers and their families. They are a critical part of the community. They are a community agency and a critical part of that. They are able to help identify the services that are needed for people. They help organise important community functions like farm family gatherings that have been an opportunity for people to hear about new information relating to farming or health and social services. In some of the health services we have had drought workers. In some areas they have decided to change the terms and not call them drought workers but farm link workers. We have a major farm link project that identifies that the needs for continuing support of our farming sector go beyond drought entirely.

The Hon. CHRISTINE ROBERTSON: That is a good thought.

Professor KELLY: The work in those service meetings that I referred to in small communities, the work around the training in communities that we have been doing around mental health, the drought support workers have been absolutely pivotal to that. It has been of great concern that they function from short-term funding to short-term funding, which is not good for them or for the services they provide.

The Hon. CHRISTINE ROBERTSON: It is a global issue.

Mr TOLLHURST: It is actually a pathway for us to talk to and work with rural communities as well. While we are on the steering committee and on working groups of the action plan, we are also in independent contact with drought support workers, who will order more materials and seek advice about building an event, which might have a strong depression component. It would be important for us to see that that resource was not lost because it was tagged with drought. Our own drought plan, if you like, of Beyond Blue web we are really formatting as a rural plan because it is very ongoing.

I understand that Centrelink are running their drought-support buses until 2009, so they see it as an ongoing issue that will not go away just with rain. People talked about a green drought nowadays at the last farmer gathering that I was at. I think there are good arguments but obviously you have to find out where to put these people. That is what I think you are saying, is it not?

Professor KELLY: The other thing is that we have learnt a lot from working with them. The knowledge and experience around the needs of farmers has been invaluable in shaping the way we might work around mental health. The fact that they have the confidence, the trust and ability to go and visit people on farms in the way that other services do not means that they are a critical source of social support around farming communities. We cannot underestimate how important any form of social support is.

The Hon. CHRISTINE ROBERTSON: We need the farming back into sustainability rather than maintenance?

Professor KELLY: Sustainability is the critical issue, yes.

Reverend the Hon. FRED NILE: Do rural financial counsellors tie in with that as well? Are you working to get information back from them as well?

Professor KELLY: Absolutely, yes, very much so. Rural financial counsellors and drought support workers, as people who have that level of experience and trust from the farming sector, have been very helpful for us in shaping the sort of programs that we run. As I said before, they are equally people who are working to support and advise farmers, they are trusted by them, so naturally we need to be partnering with them as much as possible.

Reverend the Hon. FRED NILE: Are there sufficient people in that role?

Professor KELLY: No, that is the simple answer.

Mr TOLLHURST: Farmers would say no. Their workload is extraordinary.

Professor KELLY: And they work across huge distances and spend a lot of their day travelling to quite remote parts. When you sit down and talk to some of these people in these roles, it is extraordinary—

The Hon. CHRISTINE ROBERTSON: They are rural practitioners.

Professor KELLY: I know, but they are carrying a big load and we have been very sympathetic to ways in which we can support them. The other thing we have tried to do in that regard with the rural mental health support line that we were talking about moment ago is to have that as a critical source of support for them so if they have seen someone they are worried about, for example, they can phone up at any time of the day or night and say, "What should I do next? How urgent might this be?" To answer your question, no, we are hearing a lot about the need for more workers in that sort of role.

CHAIR: We will meet with Lynn in Tamworth. I thank you both for your submission and evidence this morning. I congratulate you on your important role in this time of drought where people in rural areas face a real struggle. Keep the good work going.

Professor KELLY: Thank you for the opportunity.

Mr TOLLHURST: I brought some materials along, which I will leave with the secretary. In terms of understanding resources, Beyond Blue has just released an online map of resources that people can go to in order to find out what is available in their local town. This just happened today. It will be a work in progress but it is one way of looking at services and also judging service gaps from this perspective.

CHAIR: The Committee may have further questions. If so, please supply answers by 17 September 2007.

(The witnesses withdrew)

DEBORAH GAIL KERR, Policy Manager, New South Wales Irrigators Council, 139 Macquarie Street, Sydney, and

ANDREW GREGSON, Chief Executive Officer, New South Wales Irrigators Council, 139 Macquarie Street, Sydney, affirmed and examined:

CHAIR: Would either or both of you like to make an opening statement?

Ms KERR: The New South Wales Irrigators Council represents approximately 11,500 irrigators right across the State. Those irrigators cover both regulated and unregulated surface water systems and groundwater irrigators. It incorporates user associations, fit and fibre groups, private irrigation corporations and commodity groups like cotton, horticulture and rice. The value of irrigation in New South Wales is just on $3 billion at farm gate value and when you apply an economic multiplier to that of five to six times, then you get a significant production of in excess of $11 billion, notwithstanding the current drought that we have been impacted by.

Importantly, the national land and water resources audit a number of years ago stated that 80 per cent of the net farm profits in Australia was derived from 1 per cent of the land mass or 0.5 per cent of the arable land mass, and that was irrigated agriculture, so it is a significant profit earner in agriculture generally. Irrigated agriculture is a significant contributor to the social and economic wellbeing of regional New South Wales and in some cases is integral to underpinning the vibrancy of rural communities, particularly where they are dependent on irrigation.

The irrigation industry is characterised by innovation and a high uptake of technology. It is a global leader in a number of areas including water use efficiency. At present, though, it is a challenging period for irrigators. Drought is affecting most of New South Wales and for the first time irrigators have been quite markedly affected and that is due to a number of reasons, being full development as well as the drought itself. There are two outstanding issues for irrigators regarding the drought. One is a better model for declaring exceptional circumstances for irrigated agriculture, this being the first drought that is affecting irrigation that it has been quite difficult to get assistance to those farm businesses. The other one is tailoring of the New South Wales Government support for irrigated agriculture.

For many decades the Government has been very clear on dry land agriculture-based cropping and livestock industries and it is a challenge to work out what to do for irrigation. The Irrigators Council supports a review of the application of fixed charges for bulk water where allocation in the water sharing plan area is zero and we believe that would be something that would help all irrigators throughout the drought to find out how to do that better and provide assistance.

Water management in New South Wales has been undergoing water reform for a number of years since 1994, with COAG, the Murray-Darling Basin cap on extractions, the national water initiative and, more recently, the national plan for water security. Irrigators have now been provided with architecture that provides for certainty and security of investment. We thank the New South Wales Government for being the only basin jurisdiction to legislate for the national water initiatives risk assignment to date. No other jurisdiction has seen fit to do so. We thank the Government for their initiative in doing that in a prompt and timely manner. That also provides the ability for irrigators now to invest with security and employ people to do so.

The national plan for water security provides opportunities and challenges for irrigators and the New South Wales Government. However, the drought and its recovery will affect the capacity of irrigators to deal with the pace of that new reform process. Therefore, any targets that are established to implement those reforms will need to be realistic and address the needs of irrigators to recover from drought. After this period of time with this water reform process, the irrigators also need a period of time to recover from a long reform period and re-establish their farm businesses with the security and certainty that has now been provided. With regard to government programs, the Government has invested in a number of initiatives that have delivered multiple benefits to the irrigation industry, the environment and the New South Wales economy. I could talk about the land and water management plans and a number of other different initiatives. In some cases decisions have not been timely. In a specific case, the Menindee Lakes, we have been through a number of different proposals but nothing

has been put on the ground. That is leaving northern New South Wales irrigators bearing the risk of providing for Broken Hill's water supply. That is a situation with the drought that cannot continue indefinitely.

With regard to water planning, we have regulated water-sharing plans in place—they have been gazetted and now enacted for couple of years—and groundwater plans that are completed. Obviously there are some legal processes in place before those processes are finalised. The Irrigators Council thinks that the macro water sharing plan process leaves a lot to be desired and there is a lack of transparency in how those plans are being delivered. In particular, there has been very little community and industry input into that process. We think there are opportunities there to resolve that in a better way. The other issue that goes along with macro sharing plans, which are to do with unregulated systems of the State, is the population migration from the metropolitan areas around Sydney to the north central and south coast areas. That is placing enormous pressure on the infrastructure in those systems, which were set up over a number of decades ago. They are designed more around small irrigation systems and flood mitigation. The demands for water from an increase in population are placing a lot of pressure on those systems to try to cope with that demand. We believe there is an opportunity there for some sort of workshop to try to better plan for those systems and how to deal with that into the future. That is also exacerbated by a provision in the Water Management Act that allows local government to go to the Minister and ask for an increase in water allocations without the requirement these days to purchase that licence entitlement. That is creating some problems, particularly where there is significant urban demand.

The industry, as you are probably aware, does not enjoy great media attention sometimes because some of the environmental perceptions that are out in the community. We believe there is enormous opportunity for the Irrigators Council to work with the Government to try to better promote irrigated agriculture and the benefits of irrigated agriculture, particularly as it relates to the plentiful supply of fresh, safe food in a timely and cost-effective manner. We think that the Government could play a role there in better promoting agriculture, not just for our benefit but also for the benefit of the wider community. Finally, I want to talk quickly about red tape. It is an issue I noticed in the State plan that gained not much attraction, I suppose, in New South Wales. I note that the Productivity Commission is undertaking a review at a Federal level and the National Farmers Federation [NFF] has made a submission to that particular inquiry. I think that would provide some benefit to the New South Wales Government into how to implement a red tape review. It is also an enormous cost burden to farmers. A study undertaken by the NFF has shown that up to 15 per cent of the net profit from farms is tied up with expenditure on red tape. There are opportunities there to look at what can be done from a New South Wales perspective to streamline the regulation and the burden on farmers.

CHAIR: Mr Gregson, would like to add any comments?

Mr GREGSON: No.

CHAIR: We will now proceed to questions. You have already answered a couple of our questions. In your opinion, what are the major impediments to sustaining appropriate levels of productivity capacity and growth in the agricultural industry, particularly in relation to irrigated agriculture?

Ms KERR: The major thing is around recovery from drought and the national plan for water security, how we implement reforms in a drought and post-drought scenario. That is going to create some impediments to farmers—the ability to cope with reform, let alone trying to recover from drought. There are lots of opportunities within the national plan for water security with $10 billion on the table for trying to address that. We know there are some farmers out there who are increasingly getting a lot of demand from their bankers about how to resolve their financial situation, particularly as the drought has gone on. The suggestion has been just to sell off some water entitlement, but that leaves them with less capacity after the drought to cope with recovery from drought, let alone the planning implementation. That is one area. Red tape is certainly an area that would help and assist farmers trying to streamline the process within New South Wales. The process is already under way at a Federal level. Perhaps even to look at it from a local government point of view within New South Wales as well, because the jurisdictions at three levels all impose some of sort regulatory burden on farmers. They are probably some of the main things that I see.

CHAIR: Can you suggest any innovations to better manage resources in a sustainable way in the agricultural industry? What examples could you give?

Ms KERR: I suppose again I will go back to the national plan for water security. Whilst irrigators are very innovative and the uptake of technology is very rapid and quick in irrigated agriculture, the $10 billion that is on the table provides opportunities at an on-farm level to improve water use efficiency on-farm and delivery systems on-farm. It provides opportunities for off-farm delivery systems to be maximised. We know from the example of the Coleambally irrigation program that water efficiency there is 90 per cent, up from some areas that are around 20 per cent and some worse. So there are opportunities there to improve the delivery of water to irrigation farms and then from the farm gate to their use on the farm itself. I know that the opportunities are out there for the New South Wales Government to partner with irrigators and the Federal Government in delivering better outcomes on-farm and in that delivery system.

The Hon. MICHAEL VEITCH: Could you give us one example of an irrigator who is doing something quite innovative and out of left field?

Ms KERR: I will put on my rice hat for this example because it is the one I am most familiar with. The top end of our farmers will look at an irrigation design. Some of the older systems are very antiquated and inefficient. They have windy contours and are labour intensive. They are not efficient in the delivery of water. A farmer will survey that particular paddock, they will put in an irrigation design that has rectangle bays that will cope with what we call bankless channels. So instead of having a single little outlet, there is an outlet across the entire bay. Those bays are terraced so that the water goes on and off very quickly. They will then use that survey design with GPS through the land forming contractor and they will then move the dirt around to where it is needed and cut and fill areas. Within the rice industry specifically, we use satellite imagery to look at the density of the crop to determine if it needs more nitrogen when the plant head is forming. That will be input into the plane, if you like, using GPS so that they can variably rate and apply the fertiliser both at sowing and top dressing.

They are some of the technologies. They are then taken through GPS yield mapping on the tractor. Those maps that spat out at the end of the process will show where yields are higher and where yields are lower. So when we come back to plant the following wheat crop, for example, just after we harvest rice, they can variably rate-apply the fertiliser again. They will try to put more fertiliser where the yields are lower and less fertiliser where the yields are higher. So your objective is to try to get a very even production system. We use that both for wheat and for rice. They are just some examples.

The Hon. CHRISTINE ROBERTSON: This is a difficult question to phrase let alone answer. The Government, Opposition, the State Plan, every politician I know and the lobby groups talk about cutting red tape—which means regulation. Have the farming groups sat down—you are quite a powerful, conversant group, which is why I am asking you this question—and worked out what regulations are essential in your industry? I am talking not about the ones that make you cross but about the ones that you feel are outside what your industry requires. Has anyone ever done that?

The Hon. MELINDA PAVEY: Good question!

The Hon. CHRISTINE ROBERTSON: People say all the time, "Let's cut red tape"—and not just in the farming sector. But I do not think people sit down and work out what regulations have been introduced to protect their industry.

Ms KERR: No in-depth analysis has been done for New South Wales that I am aware of. The NFF in its submission to the Productivity Commission looked through quite a number of different areas—there are about a dozen of them.

The Hon. CHRISTINE ROBERTSON: Did they ask that question?

Ms KERR: Not particularly. They looked at how the regulation could be more streamlined and simplified rather than what is and is not necessary. They looked at it from that point of view in terms of: "There is a requirement for legislation and for regulation but how can we do it better so that

it is more streamlined and more flexible in the delivery approach." They took a different perspective. My submission with my rice grower hat on, which you do not have yet, will contain their full submission. That will give you the ability—

The Hon. CHRISTINE ROBERTSON: So you have permission to include it.

Ms KERR: I have permission to put both their entire submission to the Federal Productivity Commission red tape review and the report that they commissioned on the cost to agriculture of those particular areas. You will get that; I am just not quite finished the submission yet—which I apologise for.

The Hon. MELINDA PAVEY: That would be a good recommendation from us.

The Hon. CHRISTINE ROBERTSON: We can use some of it but Ms Kerr is saying that no-one has really looked at it.

The Hon. MELINDA PAVEY: But there could be a recommendation to New South Wales Farmers to identify it.

The Hon. CHRISTINE ROBERTSON: I see—have a good, in-depth look. Everyone says "I don't want to fill out the form; get rid of the red tape" but they forget to connect it back to the regulation or legislation that often protects their industry base rather than confronts it.

Ms KERR: I can give you a very good example—again, it is a rice industry initiative. If you look at the laws and regulations to do with chemicals used in New South Wales—

The Hon. CHRISTINE ROBERTSON: I know that they have got to get drained and all that.

Ms KERR: Yes. But there are multiple jurisdictional requirements under New South Wales and Federal legislation. There are about six different regulations and protocols about chemical use. As an industry, farmers found it difficult to say, " Which one do I need to implement?"

The Hon. CHRISTINE ROBERTSON: That is about protection.

Ms KERR: Yes, it is about protection. There was no clear, straight answer from WorkCover, for example, because they have a legal obligation and they cannot make that sort of recommendation. So we worked with WorkCover and a number of other organisations and distilled those requirements to about a 12-page booklet for our farmers. It says things like, "If you store this volume of chemicals on the farm these are the things that you need to do that make you compliant." The people who go through our environmental champions program are now compliant with both chemical storage and how they use chemicals. But it was distilled down to plain, simple language for the farmers in a very small book that provided them with the information they needed for what they had to do.

The Hon. CHRISTINE ROBERTSON: So it was taken out of the emotive "red tape" statement.

Ms KERR: Yes.

The Hon. CHRISTINE ROBERTSON: The phrase "red tape" means nothing any more. It simply means getting rid of all the rules that are interfering with a job. We need to work through what is red tape that should go away.

Ms KERR: That is a perfect example. How can you streamline it so that you have—

The Hon. CHRISTINE ROBERTSON: So that it is no longer red tape.

Ms KERR: It is no longer red tape, it is very simple and the farmers are not fearful of not complying because they have a little 12-page book that tells them all they need to do.

The Hon. MELINDA PAVEY: Deborah, as a representative of the rice growers, I think this question is more relevant for you. The rice-growing industry is a vitally important industry in New South Wales, and in terms of exports. I understand that the technological advances in rice-growing regions have produced good world outcomes in terms of less water usage in rice production. We are leaders in that field in New South Wales and Victoria, and we export that technology around the world. But if we were to ask 10 people in Martin Place across the road whether they think we should grow rice in Australia, they will all say no. I think that is still probably one of the greatest threats to your industry despite the movement forward with national water resources plans. In another decade that could change completely and allocations could be removed. What is the rice-growing industry attempting to do to try to talk about the benefits, improvements and world-leading technology that is resulting in less water usage for rice growing throughout the world because of what has been happening in Australia?

Ms KERR: Thank you for that question; it is quite good. The industry spent probably about four years initially developing a communications policy. We decided that we did not have the finances and the resources to target every single Australian so in the first initial phase we looked at key decision makers. We targeted media material and public relations promotional material around what the industry does and we targeted it to politicians and Ministers and their staff.

The Hon. CHRISTINE ROBERTSON: We know.

Ms KERR: You probably all got it. So phase one was to make sure that the key decision makers were informed—journalists and so on. We have just done a revamp of our key messages. Irrigators now have a back-pocket flip thing that contains all our key messages. So if somebody makes a comment about this particular issue, these are your dot-point answers. Our farmers have that now. If they hear someone on the radio they can quickly grab their card, ring up the radio station and say, "Oh, but …" So we have got our farmers on board.

The Hon. MELINDA PAVEY: That is good.

Ms KERR: More recently, we have redeveloped our aboutRice website—which is www.aboutrice.com. This website was originally aimed at delivering the curriculum outcomes for year 9 geography in New South Wales. It has the history of the rice industry and an educational page. We have overlaid that with a key fact sheet. So anybody can go to the website and if they have an issue about water or something else they can get the key facts for themselves. We are in the middle of rolling that out. We had a launch in Parliament House in Canberra last month, noting that the site was now available.

We have also used some of our vibrant, young rice growers, who have all the new equipment. Some of them are our best rice growers. They are telling their story about what they do and why they think they are the best in the world. That was led with a promotion that picked our top cricketers and other leading people. There was a picture of a rice grower and it said why he was leading the world as a world-leading rice grower. We have gone from targeting material to our key decision makers to our rice growers and the general public, so that they can go and get the correct information about our industry. You made a point about exports. The industry works through the International Rice Research Institute in the Philippines and provides researching of co-operative arrangements both in Australia and at IRRI. We also provide a rice check system so that developing countries can improve their rice yields. That involves establishing whether they have sown the rice crop on time, whether the seedling establishment is at the right level to get the right yields, whether they have fertilised properly, is their water management good and so on. It is the checklist of all the things we do here to be the world's best rice growers.

We are exporting that knowledge base through IYR to developing countries and less developed countries to assist them to improve their yields. It is a slow process, but we are putting some of those initiatives in place. From an Irrigators' Council point of view, they are the sorts of things that perhaps we could work with the government to get the message out about irrigated agriculture generally and its valid role in agricultural production in Australia. Importantly, as the world population grows, we have knowledge about growing crops in a very dry climate that could be useful to other countries as climate change impacts on them. It involves exporting food, but it will probably involve exporting our knowledge.

CHAIR: Very well said. Thank you for appearing before the committee and for your submission—and the incoming submission.

Ms KERR: I will get it to the committee as soon as I can.

CHAIR: Mr Gregson, good luck with your new job.

Mr GREGSON: Thank you very much.

CHAIR: Thank you again for appearing.

Ms KERR: It is my pleasure.

(The witnesses withdrew)

(Luncheon adjournment)

RICHARD FREDERICK SHELDRAKE, Deputy Director General, Department of Environment and Climate Change, 59-61 Goulburn Street, Sydney, and

THOMAS ANDREW GROSSCOPF, Director, Vegetation and Biodiversity Management, Department of Environment and Climate Change, 59-61 Goulburn Street, Sydney, affirmed and examined:

CHAIR: Welcome to this hearing of the Committee. Dr Sheldrake, in what capacity are you appearing before the Committee?

Dr SHELDRAKE: As Deputy Director General of the Department of Environment and Climate Change.

CHAIR: Mr Grosskopf, in what capacity are you appearing before the Committee?

Mr GROSSKOPF: As Director of Vegetation and Biodiversity Management, Department of Environment and Climate Change.

CHAIR: Would either or both of you like to make an opening statement?

Dr SHELDRAKE: Consistent with experiences of over developed countries, the importance of agriculture in Australia as a share of overall GDP has declined considerably over the past century. For the first half of the twentieth century agriculture's contribution to GDP was generally 20 to 30 per cent. Agriculture's relative contribution to GDP declined consistently to between 4 to 5 per cent of GDP from 1980 onwards. Recently, the impacts of the drought have reduced agriculture's contribution further, from 4.2 per cent in 2001-02, to 3.1 per cent in 2005-06. These are Australian figures, but they are likely to parallel the situation in New South Wales.

Agriculture and agricultural products are, however, diversifying and the contributions of the agricultural sector to programs to reduce greenhouse gases and contribute to programs associated with climate change, such as carbon trading, have the potential to act as another income stream for farmers. These will be positive contributions to economic development, and are likely to grow in the years ahead. The agriculture sector faces numerous economic challenges in the short and long term, and the challenges may act as impediments to agricultural productivity if not managed correctly. They include climate change, impacts of drought, the ageing rural work force, the resources boom, continued improvements in communication and transport, and environment and land use issues.

With respect to natural resource management, the community expects land to be managed by landholders in an appropriate way. Legislation such as the Native Vegetation Act, the Rivers and Foreshores Act, the Soil Conservation Act, the Water Management Act, the Western Lands Act of 1901, the Water Act of 1912 and the Threatened Species Act all impose conditions on landholders. These Acts all aim to assist in the better management of our valuable natural resources and to ensure the resource is managed and used equitably and in a sustainable way to protect the resource for generations to come.

There is no doubt that decisions made in recent years to manage our resources better are in recognition that previous decisions and practices, while acceptable at the time, are no longer considered appropriate. Date from satellite imagery shows that total woody land-clearing in New South Wales is now only about 30,000 hectares per annum, down from approximately 400,000 hectares per annum in the early 1970s and around 150,000 hectares per annum in the early 1990s. Approvals by catchment management authorities for clearing of native vegetation in 2006 was a total of 3,600 hectares per annum, down from around 90,000 hectares per annum in 2001.

There are a number of initiatives in which the Department of Environment and Climate Change is either directly leading or is a key partner in that will sustain both productive capacity and growth in the agricultural industry, consistent with the State Plan, and the Department of Environment and Climate Change is working hand-in-hand with the Department of Primary Industries and the catchment management authorities on a number of key initiatives.

Access to water is fundamental for the health of the environment and for agriculture. In response to the need for secure water rights for users and the environment, New South Wales has developed water sharing plans that are broadly defined shares for the environment and for consumptive users, such as agriculture. Some 37 surface and groundwater sharing plans have been developed that cover approximately 90 per cent of the State's water use. Certainly it is an essential component in promoting investment in agriculture. Over the past decade the Environment Protection Authority, now the Department of Environment and Climate Change, has been refining its regulatory regime to provide an efficient and pragmatic approach to managing agricultural activities. These approaches have included self-reporting and strategic auditing programs, which have reduced the need for some compliance checking and inspections, collaborative development of industry environmental guidelines and resolution on environmental policy issues, including odour management.

In particular, DECC has worked with New South Wales and Australia Pork Limited to assist the industry to develop environmental management guidelines that assist existing and prospective members to site, design and operate piggeries in an environment in a sustainable manner. Largely arising from DECC's dealings with the intensive agriculture industry, DECC reformed its legislation dealing with the vexed issue of odour management. DECC continues to work with the interdepartmental committee, and agriculture and industry groups to reduce the regulatory burden and to ensure the project is strategic, pragmatic and cost effective. Thank you for allowing the Department of Environment and Climate Change to make a submission. Mr Grosskopf and I will be happy to answer any questions the Committee may have.

The Hon. MELINDA PAVEY: I think there were problems with your submission, which I received only yesterday. It was submitted to the secretariat, then taken back and then resubmitted. The point is that I did not get to read your submission until late yesterday. As you have said in your testimony, the submission says that the importance of agriculture in Australia as a share of overall GDP has declined considerably. But the importance of agriculture in terms of money value to New South Wales and Australia has not declined, has it? As a share of GDP it has declined, but in terms of its economic input to our country it has not declined. It has decreased.

Dr SHELDRAKE: The point I was trying to make is that as a share of GDP it has declined. There is no doubt that agriculture is a key component of the New South Wales economy and it is absolutely critical, and it is particularly critical in rural New South Wales. Agriculture generates about $10 billion worth of income to New South Wales each year. I was not trying to make the point that agriculture was not important. I was trying to make the point that agriculture is perceived as not as important because it no longer represents a large proportion of GDP.

The Hon. MELINDA PAVEY: It depends on how you use statistics. I wonder why you do not have it in monetary terms as a historical value rather than as a share of GDP. Some 20 or 50 years ago tourism was not as important as it is today. We did not have tourism 100 years ago. As a share of GDP of course the services sector in relation to tourism and financial services is very different. I wonder why you do not have the monetary value as a component to show that agriculture has not decreased.

Dr SHELDRAKE: Because I was trying to indicate that as a proportion of GDP it is less, and it is less for the reasons you have just outlined. Some of those reasons are things that impact on agriculture. For example, the resources boom and the pressure that is putting on the workforce in rural New South Wales. The point you make is correct. I was not trying to deflect from that. I was trying to make the point that there are a lot of pressures on agriculture that are unrelated to agriculture, yet agriculture continues to play a critical role in our economy, particularly in rural New South Wales.

Reverend the Hon. FRED NILE: As you know, over a period of time there have been many objections to the Native Vegetation Act 2003. Is the department aware of these objections? What are they in the main, and what are you doing to address them?

Dr SHELDRAKE: The department is certainly aware of the issues surrounding native vegetation. It has been a key issue in New South Wales right through the 1990s and until the present day. New South Wales has endeavoured to address that through legislation. I suppose the key issue for New South Wales was to be seen to be doing something and to assure the environment was protected in the long term. There were certainly a lot of questions raised in terms of protecting our biodiversity

and protecting the environment for the future. Just as an example, salinity and acid soils in New South Wales cost agriculture at lot of money. Some of that is the result of past clearing practices. The Government in New South Wales has taken the view of trying to reduce that ongoing impact. The legislation that was put in place and the controls we now have in place have prevented that ongoing land clearing. We are certainly aware of the issues. We are doing something about it. In terms of native vegetation, one of the key issues facing us is woody weeds, referred to as invasive native scrub. Last year we undertook a complete review of the invasive native scrub—woody weed—component of the methodology around the Native Vegetation Act, and that has now freed up and resulted in a totally different approach to the clearing of woody weeds. That is one of the key issues we are aware of.

Mr GROSSKOPF: I will elaborate on that. Dr Sheldrake is right in saying that we reviewed the methodology in terms of the way that woody weeds were assessed and the process for that. We ran a pilot for the first six months of the Native Vegetation Act coming on line to test the methodology that we had. We then ran an independent review, which took public submissions and ran workshops in major regional centres, including a major workshop out at Broken Hill. We then brought in the revised tool through the regulatory framework, and we have seen a real success with those changes made to facilitate the management of woody weeds. There are now approvals for more than 500,000 hectares of woody weed management, predominantly in the Western Division, and those controls are streamlined. Some of those approvals are accompanied by incentive funding to facilitate the farmers' operations to control that invasive native scrub.

Reverend the Hon. FRED NILE: What other objections have you received?

Mr GROSSKOPF: Woody weeds is one. Another might be the perception that the data that underpins the assessment tools that we use is not adequate or accurate enough. In order to address that issue we have put in place a framework that allows for local data to be substituted, if local data is available which is of better quality. Local data can be substituted into the methodology. We also strongly encourage regional groups to collect that data. Indeed, there is some funding that assists along those lines, through various vegetation survey projects. As well, we have an ongoing commitment to continuous improvement of our data sets.

If that data is used, we pick it up and put it into our data sets that underpin, but we also continue a statewide program of improvements in the data. That would be another example. There are broad objections to the Native Vegetation Act, and of course a number of people have complained about their individual circumstances. That is probably a level of detail that is too fine to go into here.

Invasive native scrub is a big issue in the western areas. Perception about the data would be another, and a third might be in relation to the assessment methodology or the property vegetation plan developer, which is the software decision support tool. A number of concerns have been raised that it is a black box and that people do not understand how it works. The methodology that that software uses is publicly available, it is on the website, and it is freely available for anybody to look at. We are happy to explain it to people, et cetera. It is a very broad question, but I hope they are some examples that will assist.

The Hon. CHRISTINE ROBERTSON: The issue of woody weed comes to us as politicians very often. Could one of you provide a definition of invasive native scrub?

Mr GROSSKOPF: Invasive native scrub is defined in the methodology. Please do not quote me verbatim, but in general terms it is effectively where native species are re-growing or invading areas of open pasture country at densities that are beyond their natural extent. We understand that the western areas of New South Wales were always a mosaic of open grasslands and more densely vegetated areas. It is really about when that composition and that landscape character change to such an extent that it becomes effectively a monoculture, either a monoculture of specific species, such as the pines, or a bit of a hybrid of very densely packed native species.

The Hon. CHRISTINE ROBERTSON: For people to "claim" that they are having an invasion of native scrub, you have ways of looking at that particular invasion, in relation to monoculture and so on, to define it?

Mr GROSSKOPF: Absolutely, yes.

The Hon. CHRISTINE ROBERTSON: It is not the scrub I pass at Coolabah?

Mr GROSSKOPF: No. The nature of the tool and the way we are attempting to manage is to restore that mosaic in the landscape. We recognise that the species that can behave invasively are a native species, that they are endemic to that area. It is when they come out of balance that we wish to interact with the environment and bring it back into balance.

The Hon. CHRISTINE ROBERTSON: What are the control mechanisms?

Mr GROSSKOPF: Control mechanisms range from low levels of what we call intervention, such as burning, right through. You can burn, you can rope, you can chain, you can Caterpillar, you can blade plough, and you can even crop. The methodology allows for three cropping cycles over 15 years, in order to break that cycle and the seed store of the invasive native species.

The Hon. CHRISTINE ROBERTSON: In relation to this issue in the Western Division, has work been done to define the economic benefits for the agricultural industry, and which industry most benefits from the removal of invasive scrub?

Dr SHELDRAKE: There primarily are two industries. There is the grazing industry—primarily in western New South Wales, the sheep industry—and there is the cropping industry—primarily in that part of New South Wales, the wheat industry. There is no doubt that managing invasive woody weeds is important in terms of farmers being able to derive an income from their properties. The review that was conducted last year was targeted to try to put in place mechanisms which allow the catchment management authorities to approve, as a property vegetation plan, the clearing of invasive native scrub.

The Hon. CHRISTINE ROBERTSON: Within the guidelines?

Dr SHELDRAKE: Within the guidelines. That figure is now around half a million hectares.

Mr GROSSKOPF: If I could add to that. The assessment methodology sets some very clear rules and a framework for that. If you use those methods that are set out through that tool, there are no red lights, as we call them. There is no rejection of an application. There might be modification, but there is no rejection. There are also no offsets required.

The Hon. CHRISTINE ROBERTSON: Because it is a specific thing?

Mr GROSSKOPF: Because it is a very specific thing. But there are limits. For example, you can only treat 20 per cent of the area of INS via cropping, yet with burning you can treat up to 80 per cent. There are sliding scales, depending on the degree of intervention, but there are no red lights and there are no offsets required.

The Hon. CHRISTINE ROBERTSON: We received a submission from a Mr Bowie in relation to the difficulty experienced these days in assessing the economic benefits or otherwise of agriculture at a State level, and specifically at local area levels. It is very difficult to get good data on the real contribution that agriculture makes to a region or to the State as a whole. Am I being clear?

Dr SHELDRAKE: You are being clear. I think they are at a regional level. My colleagues from the Department of Primary Industries may have some of that data. But at a regional level there is data which indicates and identifies the value of each of the agricultural industries and the impact that those industries have on regional employment and the multiplier effect through the community. The data would be available, I think, depending upon the sort of region or subregion the letter is referring to.

The Hon. MICHAEL VEITCH: My question relates to the way in which your department interacts with other government departments to encourage and support sustainable innovation in agriculture. Could you explain to the Committee how you do that and how it meets your goals for sustainable management?

Dr SHELDRAKE: At the very highest level, the director general chairs the natural resource chief executive officers committee. On that committee is, obviously, the Director General of the Department of Environment, as well as the Directors General from Primary Industries, Lands and Planning—in other words, at a higher level. At the next level down, if you look at the State Plan, the State Plan brings together the targets that the State wants to achieve, both in terms of natural resource management and in terms of industry and industry development. Our two departments, particularly Primary Industries and the Department of Environment, are working quite collaboratively on a number of projects.

I can list a few, but just as an example: on climate change, we have programs where our soil scientists are working together with a view to looking at the opportunities for collaboration and looking at where soil carbon might become a tradeable item, if you like. A lot of work needs to be done before it gets to that point, but soil carbons are a critical issue. Salinity has been a massive issue for the last 15 years in terms of recognition. Again, the two departments are working on a joint project. With respect to the State Plan, one of the key issues is monitoring, evaluating and reporting on the achievements that the State is saying it will accomplish. Our two departments are working together on river health and on economic assessment. That takes me back to the previous question and the issue of trying to get an economic understanding of the impact and benefit of agriculture at a regional level.

Fisheries and coastal scientists are working together. Coastal scientists from Environment and Climate Change are working with Primary Industries fisheries scientists, and the departments are working together on pests, on animals and weeds. There is a lot of collaboration. There is also some interesting work going on in terms of wind erosion. The department has one of the world's leading scientists on dust and wind. There is a lot of work on the western parts of New South Wales and there is some joint work going on there. Professor Lemerle from the Charles Sturt University may raise this issue. There is some joint work going on between the department and the Charles Sturt University in looking at the impact on human health of burning of rice stubble and wheat stubble and particulate matter in the air around Wagga Wagga. There is good collaboration. The results are the good sharing of facilities. The Department of Environment is in the process of transferring a soils laboratory onto the Yanco campus of the Department of Primary Industries. In that way, instead of having the duplication of physical resources around New South Wales, we are actually looking at loading up the same site and using the skills and expertise at the one location.

The Hon. MICHAEL VEITCH: Do you see any conflict between your department's charter and the Department of Primary Industries charter?

Dr SHELDRAKE: I do not see necessarily a conflict. The departments clearly have two sets of responsibility, but in many of these areas the work crosses over, and particularly at the science level. At the end of the day, good decisions by government are based on good scientific and rigorous work being done at the foundation. Departments are working hand in hand at that level. The data that is flowing out of those experiences is being used by both departments to advise government as best they can.

CHAIR: Dr Sheldrake, what impact will the National Water Security Plan's recent changes to the proposed legislation, the Water Act 2007, have on the State initiatives to manage water? What effect will this have on the environmental flows?

Dr SHELDRAKE: The national strategy announced by the Prime Minister, if it is implemented in New South Wales, identifies approximately $3 billion for the purchase of water from users for the environment and identifies a further $6 billion for on-farm and for improving works that industry might already have—for example, irrigation channels, et cetera. In terms of environmental flows, if it is assumed that that water then becomes available to the environment, it will impact positively on environmental flows. That goes hand in hand with the Commonwealth Government and the State Government's efforts over the past few years to identify water for the environment. Specifically, the Murray-Darling Basin Commission has set a target of 500 gigalitres of water for a number of iconic sites along the Murray River. That is to be achieved by 2009.

The wetlands strategy for New South Wales, which is half funded by the Commonwealth and half funded by the State Government, has set aside $26 million for water largely in the Macquarie Marshes and the Gwydir. The Water for Rivers Program, which came out of the Snowy River

decision, also has set a target for identifying water for the environment. The decision by the Commonwealth Government, if it goes ahead, is in keeping with a trend that has been there for a number of years.

The Hon. MELINDA PAVEY: In your submission you say that to date almost 500 property vegetation plans [PVPs] have been entered into by landholders. Do you know how much these property vegetation plans are costing landholders, on average?

Mr GROSSKOPF: They do not cost the landholder anything. The property vegetation plan service is free to landholders. The business process is that they contact the local catchment management authority who will send somebody out. They will bring the backdrop satellite imagery. They will do the vegetation surveys for the landholder and will go through the process. The point I would make is that—

The Hon. MELINDA PAVEY: So there is a cost in terms of the landholder's time.

Mr GROSSKOPF: Yes. You have well prompted me for the next part of my answer. The process is one of negotiation. It is not an approvals process that you might be familiar with whereby you fill out a form and make an application and then submit it for approval. The process here really is one of skilled people going out and working with the landholder to identify the most effective way to achieve the result that they are looking to get. If there is vegetation of particularly high conservation value, that person might say, "You wish to achieve a particular area of cropping. This has particular value. Can you re-engineer and find another way to achieve a similar result?" That meets the checks and balances.

The Hon. MELINDA PAVEY: How many more do you think will be written within New South Wales?

Mr GROSSKOPF: Property vegetation plans?

The Hon. MELINDA PAVEY: Yes.

Mr GROSSKOPF: Property vegetation plans can be used for a range of purposes.

The Hon. MELINDA PAVEY: One is for clearing.

Mr GROSSKOPF: The 500 includes a range of property vegetation plans. It includes property vegetation plans for the delivery of the incentives as well as the clearing. About half are for clearing. As well they are for the change of regrowth date and for people to conform the existing uses on their property and to give them a sense of security in terms of their futures, if they wish. It is very difficult to say how many more we would have. I think on the incentives side we will see that number continue to grow. In relation to clearing, I would be hesitant to hazard a guess.

The Hon. MELINDA PAVEY: On another issue which is an enormous opportunity for agriculture—carbon trading and greenhouse—I notice that private native forest arrangements have just come into force. Where else in Australia or in the world do we have in existence guidelines for farmers to meet when undertaking private forestry? Or are we world leaders?

Mr GROSSKOPF: There is a range of controls that apply to private forest estates in other jurisdictions. I am not aware of any specific code. Prior to the code that has come into play in New South Wales, we had a range of controls on private forestry through the Threatened Species Conservation Act and the Soil Conservation Act, et cetera. I would have to take that question on notice. I would be happy to provide a written reply.

CHAIR: If you would not mind, and with that, we are hoping to get the answers by 17 September.

Dr SHELDRAKE: You will.

CHAIR: Thank you very much.

The Hon. MELINDA PAVEY: Generally, what areas do you see for agriculture working hand in hand with the environment to have outcomes for farmers as well as for the environment into the future, and what are you working on?

Mr GROSSKOPF: Just in relation to private native forestry, as you know we have a new regulation as of 1 August with the private native forest and property vegetation plans being required from 1 November onwards on a staggered basis, and that is being introduced in New South Wales. But that is a transitional process. The intention is to have a new private native forestry Act within about two years time. I think the opportunity is there for the industries in terms of the development of that new Act to look at some of the opportunities that you are suggesting. At the moment the regulation is built on the Native Vegetation Act. The opportunity to build in carbon trading as a business for a farmer who has private native forestry, or for a landholder who does nothing else other than private native forestry, is not built into that Act, but it has the potential to be built into a new Act. I think over the next couple of years that is the sort of issue in which we want to engage. We have already discussed it with the industry.

The Hon. CHRISTINE ROBERTSON: Many of the small agriculturalists who are involved in private native forestry are overwhelmed by the request for property vegetation plans—really overwhelmed, as in feeling that it is not worth it. Can you tell me what work is happening to pull them into the loop? They feel as though this is the biggest impost ever put on them in their whole agricultural lives.

Dr SHELDRAKE: We have held a series of meetings around New South Wales in the last two weeks—something like 25 meetings throughout regional New South Wales. We have held the meetings and invited people in. We have sat down with them and had one-on-one meetings to help them through the application process. We have been in touch with approximately 240 millers or landholders. We have had already in the order of 90 requests for private native forests and private vegetation plans.

We recognise that for a lot of people this is a new process. We are going from an industry that was approximately 20 per cent regulated through the Native Vegetation Conservation Act and the Soil Conservation Act to an industry that now is intended to have 100 per cent regulation through the code. We know there will be some people operating within the industry who have not been through this sort of process. What we are saying is that we want to make this as easy as we can for them.

The private native forest and property vegetation plan document is a simple document. It basically is a map of the property identifying where private native forestry lobbying is allowed to occur and the details of the property in relation to the owner, et cetera. We have tried to say that this is not a complex task and we are making ourselves as available as possible to help people through, in recognition of that point.

The Hon. MELINDA PAVEY: Dr Sheldrake, is your department doing any work on soil sequestration and the benefits thereof?

Dr SHELDRAKE: Yes, it is. I know that Dr Nick Austin from the Department of Primary Industries is to appear before the Committee shortly. It is staffed from within the Department of Environment and Climate Change working together with staff from the Department of Primary Industries. We recognise that that is something that has potential for farmers.

The Hon. MICHAEL VEITCH: In your submission, you raise suitable water quality as one of the impediments to sustainable agriculture in New South Wales. Can you speak further about what you mean by water quality? Are you working in particular with local government and stormwater inputs and industries on the potential pollutant additions to water?

Dr SHELDRAKE: Yes, we. Water quality encompasses many things. It encompasses the quality of water running off tail drains from irrigation operations from the rice industry and the cotton industry, and it relates to the quality of water as a result of towns along the rivers depositing from stormwater or from sewage treatment works. It is because Australia depends on its high quality and its

image of producing good agricultural products that it is able to achieve premiums in nearly every international market.

From our point of view it is absolutely essential that we help the industry to continue to maintain that. We have been working with local government on stormwater and we work with the industries in terms of protecting the quality of water. The Department of Primary Industries and the Department of Environment and Climate Change have worked really closely with the dairy industry for a long period to ensure that effluent from dairies—dairies are often located next to creeks and rivers which is historically where dairies have been located—to put in place ponding arrangements, et cetera, on farms. That has been an absolute success story.

CHAIR: Thank you very much for giving evidence this afternoon and thank you also for your submission. We may still have a few questions that we will ask you to respond to, before 17 September if possible, and there may be other questions from other Committee members. I do not know how many of them there will be.

(The witnesses withdrew)

DEIRDRE LEMERLE, Director—Research and Development, E H Graham Centre for Agricultural Innovation, Locked Bag 588, Wagga Wagga affirmed and examined:

CHAIR: In what capacity are you appearing before the Committee?

Professor LEMERLE: I am appearing today as the director of the Graham Centre, a new alliance between the Charles Sturt University and the New South Wales Department of Primary Industries which will develop innovative agricultural systems for the future.

CHAIR: Would you like to make a short opening statement?

Professor LEMERLE: I do not have a prepared statement as the previous witness had, but I assume, having been sent questions, that you will be asking those questions which will probably cover most of the things I would like to say. Off the top of my head, I would like to affirm the importance of agriculture for the State of New South Wales, for Australia, and for the world for number of reasons. Those reasons are that particularly in Australia we can create clean and green food that is local to feed the population. We are a solar-powered industry, and that is a very appealing feature at this time when there is such a lot of discussion about resources. We generate wealth for individuals and the economy at the regional, State and national levels. Agriculture supports people living in the country in a clean, pleasant environment, and that is really important. We have seen the recent tree change as a result of that. Finally, agriculture plays a really important role in protecting the environment will stop a lot of people do not appreciate that fact.

The Hon. MELINDA PAVEY: That is for sure.

Professor LEMERLE: That is what I would like to emphasise. I guess at some point during questions the Committee will address the constraints currently facing agriculture. It is really important that we take those seriously but also view them as an opportunity to help agriculture in the State move with those constraints and come up with some positive outcomes. I would like an opportunity, during questions, to explain some of the innovations that we are doing to address those constraints.

CHAIR: Could you outline the purpose and objectives of the EH Graham Centre?

Professor LEMERLE: Yes, the Graham Centre is new. It is an alliance between the New South Wales Department of Primary Industries and the Charles Sturt University that was formed two years ago. The objective is to establish an industry-relevant research capacity or organisation to address the constraints that I will talk about later, that a facing agriculture and the broader community in New South Wales. Our objective is to come up with environmentally friendly, but also productive, outcomes for the State. We want to look after the environment that still makes money for the rural communities and urban people.

There are four reasons that the two organisations have formed this alliance, or partnership. First, over the last few years there has been a decrease in public funding of agricultural research and development, so there are fewer resources to go around. The objective of forming the collaboration is to get better efficiency of scarce resources; we collaborate, we have worked together and we have a critical mass of scientists and also we share facilities, which Dr Sheldrake mentioned in his statement previously. Also, we have an opportunity to leverage Federal funds, particularly at the State level. When the State department and the university get together, the State is able to access some Federal funds that otherwise it would not be able to.

Second, agriculture is an applied science and we are problem driven. By coming together in an alliance we can put a strong emphasis on production as well as environmental considerations and can look for different funding sources for agriculture or environmental research. In the past production agriculture has relied on State governments and research development corporations, which rely on funds from growers' levy. But more and more money is available from the Federal Government through various instruments, such as NLP or NHT, for environmental funding. We want to lock into those as well. NCRIS. a National Collaborative Research Infrastructure, another example of Federal funding. By working together we can address rural problems and we can work from the problem to a

solution, with multi-sources of funding from State and Federal government agencies, plus increasing some in private industry inputs.

The third reason for forming the Graham Centre is that we want to build capacity and retain skills in inland Australia. You would have heard that from Ian Goulter, the Vice Chancellor of Charles Sturt University. The university wants to train people in the country so that they will stay in the country when they graduate; that is both students and professional people beyond graduate level, post-graduate level. In science, Charles Sturt has very high retention rates of its people in the country and that is very important, at both the undergraduate and post-graduate level.

The fourth reason is that the university does not have a well-established extension service but a State department does. New South Wales is one of the few States that still has an agriculture extension service. By joining together Charles Sturt and the New South Wales DPI they have a continuum from basic research, applied research, strategic research, on-farm research and impact on policy. That is a really important break in the chasm between research and application of research. We have effective extension, we must engage closely with farmers and in the past this has been a real problem for research. There could be a high-powered research done, but it never gets out of the filing cabinet. By having an association like this we can make sure that the information gets out there. Also we are listening to the problems as they are emerging so that we are equipped and prepared to address emerging problems as they arise in agriculture.

CHAIR: What proportion of research conducted by your organisation could be considered pure research as opposed to research orientated to a commercial or market application? What are your major research areas and objectives for the next five to 10 years?

Professor LEMERLE: The portfolio for our research is mainly on strategic and applied research; 80 to 85 per cent of our research would be at that level. Probably between 15 and 20 per cent of the research would be of a more pure nature of basic research. That would be the portfolio balance. Could you repeat the second part of your question, please?

CHAIR: What are your major research areas and objectives for the next five to 10 years?

Professor LEMERLE: I will give three broad areas. We want to be able to produce new products for agriculture that will be mainly food products. We want to value add to the products that farmers are able to produce in our environment. That is sort of post-farm gate value adding. We want to produce products that will fill new market niches. For example, healthier foods, developing foods such as spelt wheats. There is a growing demand for organic food at present, and that is the healthy food market. Those types of opportunities available and we are working towards. We have a very strong competitive edge in sheep production in Australia compared to some of our international markets. We are leading the world in that compared to other products such as biofuels.

We should build on our strengths and the opportunities for tracing meat products in particular from the farm, through the sheep to the butcher to the supermarket. That is happening overseas and that is a strength we have and we should be building on that and looking at improving the quality of our sheep products. Also there are opportunities for other niche markets. You may ask me later about native products. The second area in which we can undertake research is to improve our practices. In the past a lot of agriculture research has focused on production, in the future we will increasingly take into account practices that have minimal detrimental effect on the environment and also on human health, as the previous witness mentioned. Do you want some specific examples of our research?

CHAIR: Yes, please tell us.

Professor LEMERLE: New products and practices: We need to improve water use efficiency and reduce constraints such as soil acidity and salinity, and introducing perennial plant species into the landscape is an important way to do that. Also we need to provide groundcover to avoid soil erosion. The introduction of perennial species is an area that we are working in. Previously it was mentioned that there had been work on stubble retention. Particularly in the south of New South Wales, something like 70 per cent of farmers still burn their stubble, and that has detrimental consequences for the environment and human health. We want to help farmers be able to retain their stubble and we are doing research in that area. We are collaborating with a number of organisations.

Agricultural inputs are becoming scarcer and more expensive, that is fertiliser, water, labour and energy. I may have missed something there. Precision farming, site-specific, is using fertilisers more efficiently by putting them on at the optimal time and placing them close to the plant roots. That sort of technology will be more important in the future. Carbon sequestration or carbon farming is an area we have to look at in the future. There is controversy, and I will not go into GM crops, but if GM crops are supported within New South Wales we need to be able to work with the farmers to integrate those into farming systems so that they optimise the benefits of the GM crops, which is reduced pesticide use, but with minimising the potential negative aspects such as the development of herbicide resistance with Roundup ready canola, for instance.

I think there is opportunity for food miles; there is a sort of fringe interest in food miles in Australia; I think we can look at that as a future way to value-add to our products because people are very concerned about the environment and they are prepared to pay more, particularly at farmers markets, for food that is grown locally and I think broadscale agriculture can pick up on that. We need to develop smart ways to measure eco-service benefits of agriculture—that is difficult and biodiversity is really hard to measure; impacts of good agricultural practice on soil, water quality and quantity is really important; good agricultural impacts on the health of the soil; how do you measure soil health? There are a whole range of different ways out there, but we need to develop simple, easy-to-use but reliable ways for growers to measure those eco-service benefits, and we need to work with the environmental scientists and we are doing that.

There is a lot of research out there that has come up with really good technologies and it never gets adopted. As I mentioned, we need to utilise the smart technologies that are available now: things like U2 podcasting, radio field days—there are a whole lot of new technologies that are out there now that can be utilised in agriculture to help disseminate information to improve farmers' ability to do more productive and sustainable agricultural technologies. Recycling waste is another area where there is opportunity, particularly in areas like the high-intensity Murrumbidgee irrigation system. Eco-tourism, we do not do enough, I think, to integrate tourism and when there was a discussion on woody weeds I think the previous witness should have mentioned that woody weeds have a negative impact on the potential of eco-tourism in our country areas because you get mono-cultures of that weed; you do not get that nice mosaic of natural vegetation intermatched with different types of agricultural production. So, eco-tourism has a huge potential for the future as well, I think, that we should be looking at.

The Hon. MICHAEL VEITCH: You spoke a bit earlier about the investment by the Federal and State governments in research and development. In your view what proportion of funding should be allocated to research and development for innovation in agriculture?

Professor LEMERLE: Out of what?

The Hon. MICHAEL VEITCH: Is it sufficient at the moment, because some people have said we are not investing enough on research and development? What are your suggestions on how we could maybe source other funding?

Professor LEMERLE: You are talking to a person who directs research and development and of course I will say that there is never enough investment. I think we need to look at better ways of sourcing our money for our research and development and agriculture and we have started to do that. A number of the organisations that are providing funds are actually looking at the Graham Centre as a model because we are new. They are looking at us because we provide an opportunity for RDCs to come to a table with catchment management authorities, with Woollies. Woollies have got some of their drought money and they want to spend it on stubble retention research with us. Wow, isn't that amazing!

So we are getting them coming to us saying that they want to have a one-stop shop where they can see we have clearly-focused objectives; we are based on strong science; we have got a university so we have got opportunities to access certain money; we have got State departments that have different capacities but it is synergy, it is value-adding. So I would say we need more but we need to be smarter about utilising different Federal, State, philanthropic sources—utilising Woollies

and Visy and whatever other private funding sources we can get money from for research and development as well. Does that answer your question?

The Hon. MICHAEL VEITCH: Yes, it does. Just as a follow-up, if you could: what percentage of the money that goes to the Graham Centre actually goes directly to research? How much is lost in overheads or administration costs?

Professor LEMERLE: I had a board meeting last week that discussed this. It is complicated because I have money from university and I have money from the State Government and I get money from a whole range of different funding sources—RDCs and some other funding sources as well. I can come back to you with an exact breakdown of the funds; I cannot give it to you off the top of my head.

CHAIR: That will be fine, if you would not mind.

Reverend the Hon. FRED NILE: Could you give a rough percentage?

Professor LEMERLE: The administrative costs would be relatively low. I think my budget would be close to $2 million—in fact, it will be more than $2 million including the running costs of me. The administrative component would be about 10 per cent.

The Hon. CHRISTINE ROBERTSON: The core funding provides the infrastructure, does it, in order for you to tender for further research funds?

Professor LEMERLE: The Graham Centre is a virtual organisation. Charles Sturt University at Wagga Wagga and the New South Wales Department of Primary Industries at Wagga Wagga are co-located. I am there bringing together the research activities of both those organisations and both organisations provide my salary and some operating. That amount of money is relatively small compared to the money we get from all the other sources to actually run the research project. Each organisation provides their scientists time to contribute to the collaborative arrangement and the joint research projects.

The Hon. CHRISTINE ROBERTSON: So you can tender?

Professor LEMERLE: We can tender. We do tender.

Reverend the Hon. FRED NILE: I notice you have an industry advisory committee. What is the relationship between what you do and, say, the New South Wales Farmers Association so that all this scientific work you are doing actually gets involved in the practical world of farming?

Professor LEMERLE: The New South Wales Farmers Association would be a key stakeholder. We have consulted with them when we have been setting our strategic direction when the centre was set up. We have consulted widely across a broad range of the sector from farmers who are mainly males; we have consulted with farmwomen. I have a women's advisory committee as well as the industry advisory committee because there are only men on that committee. We have consulted across industry in both the private and the public sector. So research direction has had input from a broad range of stakeholders and their users.

The industry advisory committee was appointed by the board of the Graham Centre and the idea was to have a range of stakeholders on that that would represent the interests and make sure that we were not off on a tangent doing inappropriate things. They met last week with the board and everybody seems to be quite happy after two years in place that we are heading in the right direction and we are starting to gain some traction and really value-add to the research and development that we are focusing on in the early phases of the centre.

Reverend the Hon. FRED NILE: In our inquiries one of the areas we are concerned about is the whole impact of the drought and so on. What do you suggest that farmers in New South Wales could do now to better prepare for the drought in future and is there any other specific research you are doing in this regard?

Professor LEMERLE: Farmers are the best drought managers in industry.

The Hon. CHRISTINE ROBERTSON: Not as good as kangaroos. We heard that this morning.

Professor LEMERLE: Farmers have been managing drought ever since farming started in Australia and they have a lot of experience in doing that. The present drought has been tough. However, it is providing some opportunities because people are questioning what they are doing. As we show them alternative opportunities to manage drought better they are more inclined to consider those opportunities. There are two ways we can manage the drought: We can have improved products—new varieties that are drought tolerant, for instance, and there is work happening to develop drought tolerant wheats, for instance; we can have improved practices that conserve water, for instance. Stubble retention improves water retention and water use efficiency. We can have better practices such as improved forage conservation so that we conserve the present forage peaks at times when animal demand is not peaking, whereas there are big gaps at other times of the year when we still need to keep feeding animals. Forage conservation provides a continuous availability of food, and that is important in times of drought. Those are just a couple of examples.

There will be changes in the crops that are grown. There will be more crops grown in the traditional high-rainfall areas and less crops grown in the more marginal areas. We must help farmers adapt to those changing environments. It is hard to know whether the current changes that we are seeing will lead to catastrophic changes in the environment or just a slow incremental change. If it is a slow incremental change in the climate it is much easier to adapt to that than if it is a sudden sharp, catastrophic change. We will look at ways of dealing with the slow changes which, by breeding for drought tolerance, that is an indication of a slow adaptation to drought. We also need to consider more radical changes for catastrophic changes that could occur. We are thinking about those sort of opportunities.

I guess one would be a continual research and development effort to deal with the problem, and that would require more applied or strategic research, but to deal with a catastrophic change that requires a quantum leap in knowledge to deal with it requires the more basic high-risk research. So that reflects back on the balance in the research and development portfolio that I mentioned earlier.

Reverend the Hon. FRED NILE: In the short term and the long term?

Professor LEMERLE: Yes, that is right.

The Hon. MELINDA PAVEY: In terms of the E. H. Graham Centre, what work are you doing particularly with native species, both plant and animal?

Professor LEMERLE: We are doing a very small amount of work at present. In fact, it is only one project. It is looking at the opportunities for putting wattle seed into wheat to improve its nutritive value. That work is a PhD student that has just progressed from an honours project. How that work will develop remains to be seen.

The Hon. CHRISTINE ROBERTSON: Is it a GM project?

Professor LEMERLE: No, it is just food science, looking at an additive to flour to improve its nutritive quality. In the future I think there is an opportunity to utilise both native plants—

The Hon. MELINDA PAVEY: So the wattle seed would get processed with the flour.

The Hon. CHRISTINE ROBERTSON: It is a secondary industry project.

Professor LEMERLE: Yes. It would be an additive.

The Hon. CHRISTINE ROBERTSON: I thought you were going to cross wattle with the wheat. I was fascinated.

Professor LEMERLE: No, we are talking about utilising a potential resource. I think there will be an opportunity for niche markets for native foods. There is still a lot of resistance to kangaroo meat. I know that the University of New England is interested in better utilising kangaroos and goats. I think it would be great if we could but there needs to be work done on the marketing of that to improve consumer demand because people—I know my family is still resistant to kangaroo meat even when I do not tell them what it is.

Reverend the Hon. FRED NILE: You mentioned native grasses. In evidence earlier Professor Archer talked about letting native grasses grow in wheat farms. Would you agree with that? How do you separate the two?

Professor LEMERLE: There are all sorts of opportunities to integrate native species with introduced species. Diversity is obviously important in agriculture. Monocultures lead to problems with systems. The more diverse a system is, the more stable it is. I guess that is behind the suggestion of mixing native species. There is some work looking at the opportunity to grow perennial native species intercropped with wheat and other annual crops. There is an opportunity for that sort of work to look at improved water use efficiency and more stable farming systems, but that is pretty left field at present. There is still a lot of work to be done in conventional agriculture as well as some of those more obscure opportunities.

The Hon. CHRISTINE ROBERTSON: You have answered all of our questions.

Professor LEMERLE: Have I? Do I get a hit list of wants? Support for research and development in New South Wales, support for more collaboration between universities in New South Wales. I will say Charles Sturt but the University of New England and Charles Sturt can work collaboratively together. We have a different focus. We are tending more towards annual cropping whereas the University of New England is more animals and pastures. There is not a problem in competition there; we are complementary. I guess if New South Wales is looking at new ventures in agriculture, it would be great if you were with us to get those happening because we are bringing in all the players to work together. It is important to maintain for the Graham Centre that New South Wales Department of Primary Industries has a strong extension service and those close links with the farmers are critical.

The Hon. CHRISTINE ROBERTSON: For implementation?

Professor LEMERLE: Yes. We must build on our strengths and that is why I mentioned sheep earlier. It does not sound very dramatic but we are leading the world there, and we are leading the world in a number of other areas and we need to ensure that we are building on our strengths and our capacity as well as looking for future opportunities where other people are not. We do not promote ourselves in Australia enough as clean and green. We have some of the lowest pesticide use in the world in agriculture for both wheat management—and I am a wheat scientist by trade—and control of other pests. So part of our more blue sky work is to look at biological control of pests, and that is an area where we have some new work starting. Support for us in keeping New South Wales money in New South Wales to support New South Wales research and development is where we must build our future.

CHAIR: What do you think of agriculture's future as a whole?

Professor LEMERLE: I think it is very positive. Now that agriculture has realised how important it is—when you talk to farmers, they are much greener than a lot of metro people because they are out in the country and they are choosing to live in the country. There is a huge opportunity for Australian agriculture to have a clean, green future, to develop some niche markets, to have some intensive agricultural industries, using water—even irrigation, dare I say it—to produce some high-value products, in our less productive areas to focus on the NRM natural vegetation, ecotourism but to try to think of a mosaic of a whole range of different enterprises in a patchwork of diversity in our rural environments. That is our vision. We will not be all wheat or all canola. We will have a range of different agricultural enterprises. We want people in Sydney to realise that. We want the people of Sydney to feel proud of the country because at present agriculture has a bad face in the city. Some 80 per cent of voters in New South Wales live in the city.

CHAIR: How would you tell people of Sydney what we are about in the country? What is the best way?

Professor LEMERLE: I have a communications strategy that I am putting together that will target the city people as well as the farmers. It is also targeting schoolchildren because we must think about the next generation. The New South Wales Department of Primary Industries has a very strong commitment to future generations being involved in agriculture in the country, whether it is living or working, living and working and educating. That is why it fits very well with Charles Sturt, because it has the same vision.

Reverend the Hon. FRED NILE: Are you involved with any of the experiments with GM? Do you have any policy on that?

Professor LEMERLE: Yes, because I am a weed scientist, but I am not allowed to in my new job. However, I have people working with me and when a decision is made about the moratorium, if there is a go ahead for GM crops in New South Wales, we will be seeking funds to work with farmers to demonstrate the pros and cons of GM crops within our farming system because there are pros and cons, there are risks with Roundup Ready canola. There is a risk that farmers just use Roundup and not use sustainable rotations. We need to show them that if they do that, they will get herbicide resistance very quickly and we do not want that to happen. We want to work with farmers to optimise the benefits associated with GM crops but minimise the risks.

Reverend the Hon. FRED NILE: You are not involved with the trials?

Professor LEMERLE: I have been in the past, yes?

Reverend the Hon. FRED NILE: But the Graham Centre?

Professor LEMERLE: The Graham Centre only started two years ago. The last trials in New South Wales were in 2003, I think, but when I was working full time as a weed scientist, we were involved with the early development work to do with GM canola, particularly. A number of different herbicides were available for evaluation in the early twenties.

CHAIR: Are there positive signs that it would work here in Australia?

Professor LEMERLE: If you look at the cotton model, where there has been Roundup Ready cotton used for a number of years, their pesticide use has gone down significantly. They are a much smaller industry than the grains industry and the mixed farming industry, so the safe use of Roundup Ready cotton has been probably much easier than in broad-acre mixed farming systems. If you look at the cotton model, and that is put up as showing how much pesticide use is reduced—70 per cent although I cannot remember the exact figure—whether the same happens in mixed farming-grain production areas remains to be seen.

CHAIR: Thank you for you all contribution, submission and sincerity.

Professor LEMERLE: Thank you for the opportunity.

CHAIR: If the Committee has further questions, we will contact you.

Professor LEMERLE: Do you want me to get back to you on the percentage contribution, the breakdown on how money is spent?

CHAIR: Yes, that would be helpful.

(The witness withdrew)

DAVID ANDREW HARRISS, Deputy Director General, Water Management Division, Department of Water and Energy, 23-33 Bridge Street, Sydney,

RENATA MARY BROOKS, Deputy Director General, Agriculture, Fisheries and Regional Relations, Department of Primary Industries, 161 Kite Street, Orange, and

SCOTT VIVIAN DAVENPORT, Director, Industry Analysis, Department of Primary Industries, 161 Kite Street, Orange, sworn and examined, and

NICHOLAS RICHARD AUSTIN, Deputy Director General, Science and Research, New South Wales Department of Primary Industries, 161 Kite Street, Orange, affirmed and examined:

CHAIR: Do any or all of you wish to make a short opening statement?

Ms BROOKS: Yes, I would like to. Firstly, thank you very much for inviting us to appear today. I think you have a detailed submission that we put together so I will not go through that at all. However, I wanted to make a few comments. The first is just to make the point that we believe that the terms of reference of this inquiry are very closely aligned to the business of the Department of Primary Industries. In fact, the focus of the inquiry on addressing impediments to growth of the agricultural sector aligns closely with many of the activities of the Department of Primary Industries. For example, our vision and key result areas require us to contribute to the strong economic performance of primary industries, including agriculture, while at the same time helping those industries operate in accordance with sustainable development principles, ensuring they have appropriate access to natural resources and helping them to manage key risks in areas such as biosecurity and natural disasters.

Because of this close alignment we could have written a book in terms of the terms of reference of this inquiry. However, we have identified four key areas where we see significant impediments and some areas where we have activities within the Department of Primary Industries focusing efforts. The first of those is maintaining and strengthening existing research development, extension and capacity building efforts, particularly in areas such as sustainable farming systems, water use efficiency, drought management and climate change. I wanted to make the point that farmers manage 80 per cent of the State's land area. It is very important that we think of farming systems in their entirety—the economic, physical, social and environmental interrelationships of those systems. As an agency we are very well placed to understand those complexities and to work in research development, extension and capacity building in those areas closely with farmers. The second area is ensuring appropriate access to natural resources and making sure agriculture is able to access quality lands and water and other natural resources. The third area is staying abreast of international market developments and to identify more innovative ways of influencing the policy settings of key trading partners and, fourth, to develop and maintain an increased awareness of the regulatory compliance burden on agriculture and to continue to reduce red tape and pursue innovation in regulatory design.

I want to make a couple of further points. The first is that there have been very significant productivity gains in agriculture over the last century. We go through that in a fair bit of detail in our submission. Importantly, those productivity gains have been underpinned by research development and extension. We think that is an extremely important point to note. The second point I want to make is the relevance of what we are doing in the Department of Primary Industries to the State Plan. It is very significant that the State Plan commits the Government to enhancing knowledge and information infrastructure, creating a stable business environment and strengthening the innovation capability of those sectors with a demonstrated capacity for innovation. As I said, agriculture has certainly demonstrated a capacity for innovation. Being highly export orientated and characterised by very high levels of productivity growth and innovation, it is apparent that agriculture should be identified as a key industry to be targeted under the State Plan.

I want to take a minute to explain our departmental structure and where we three fit. The Department of Primary Industries has seven divisions, headed up by the Director-General. Four of those divisions are very strongly involved in agriculture. I head up one of those—the Agriculture and Fisheries Division, which is responsible for promoting the development of agricultural industries by

working with the industry to improve profitability and sustainability. We deliver extension and training services, build industry capacity, devise production and sustainability solutions and promote animal welfare. We also have a Science and Research Division, again very focused on agriculture, amongst other primary industries research. Dr Nick Austin heads up that division. That division undertakes strategic science and research to enhance the growth, sustainability and biosecurity of primary industries and develops innovative solutions and technologies, as well as coordinating research investment and fostering science alliances and joint ventures like the EH Graham Centre that you have just heard about. It also underpins creative solutions to enhance public policy.

We also have a Strategy Policy and Communications Division. Scott is part of that division. That division plays a lead role in translating Government priorities and industry needs into the department's policy and corporate agenda, coordinates whole-of-government approaches and manages strategic and contentious issues and strategic communications and promotion—for example, promotion of agriculture. We also have a Biosecurity Compliance and Mine Safety Division, which is our lead division on biosecurity issues. It is currently very involved in the outbreak of equine influenza. Doug Hocking is in charge of that division. He is not with us today but I am sure we can cover some of that ground just the same.

CHAIR: Would anyone else like to make an opening statement?

Mr HARRISS: I would like to make an introductory statement on behalf of the Department of Water and Energy. I thank you for the opportunity to give evidence at the inquiry. My evidence comes at a time when much of inland New South Wales, as you would appreciate, is in the grip of probably the worst drought on record, particularly through the Murray-Darling Basin where we have unprecedented low levels of water availability. New South Wales has water management arrangements that have been developed over a century to best suit our agricultural needs. We have a two-tier system of water and entitlements. One is a high security entitlement that until recently has effectively been guaranteed through the worst droughts on record, and we have a more opportunistic general security entitlement which is where water is available depending on the existing climate of that year. It is a variable product that reflects variability of the climate. We are the only State that has a two-tier system. Every other State has only one system of water entitlements. More recently we have introduced water-sharing plans, which have provided clear rights for users over a period of the plan for 10 years and we have provided articulated water for the environment.

New South Wales has led the way and continues to lead the way in water reform in Australia. We are the first State to legislate water for the environment. We have through our introduction of water-sharing plans committed already over 212 gigalitres on average back to the environment of rivers and streams in New South Wales. That will be realised when it rains and we do get flows in the river. Those commitments are separate to the commitments we have agreed under interstate programs such as the Living Murray and Water for the Snowy. We have committed additional resources to the Living Murray and to recovering water for the environment of the Snowy River. We have committed to the initiatives and led the way in introducing initiatives associated with the national water initiative, which includes water trade. The drought is having a significant impact on regional New South Wales. We are likely to see consequences or changes to the way we manage water and the way agriculture operates in New South Wales as a result of the drought.

Currently there is not enough water in New South Wales to enable an allocation of general security entitlements in any valley in New South Wales, which is unprecedented. Special unprecedented arrangements have been introduced to meet our urban and critical industry needs throughout the inland parts of the State. Also, we are undertaking this review and inquiry at a time of political environment where water management is now considered a key issue in Australia and we are operating in an environment where the Commonwealth is seeking to introduce more a national plan for water security and where it is proposed that some of the existing arrangements that are now managed by the States be referred to the Commonwealth. In that kind of environment I look forward to answering any questions that might help you with your deliberations.

CHAIR: Thank you. We will now have some questions.

The Hon. CHRISTINE ROBERTSON: One of the issues raised continually with us, as State politicians who are mostly from country areas, relates to the question of red tape. I know the

State Plan says that we will do our best to reduce red tape. However, we asked some people from the Rural Alliance and the Irrigators Council earlier exactly what that means. We asked them whether anyone had sat down and worked through what could be described as "red tape"—that is, doubling up on different pieces of legislation or red tape that involves regulations that are protecting the industry in some way. When you have looked at this issue in relation to agriculture in general exactly what process have you utilised to work through it? People are always crying out that we should get rid of the red tape. Sometimes they mean that we should let them do whatever they like but sometimes there are regulations that advantage them a lot. Is there a process established for working through exactly what is important and what is a doubling-up of Federal, State or local government legislation? Do you use that process? Are you trying to cut red tape?

Mr DAVENPORT: Essentially you have, as you say, Commonwealth and State jurisdictions that impact on agriculture. The very issue you are talking about was looked at recently by COAG. Post-competition policy they are concerned effectively about quality and regulation making and avoiding duplication. All jurisdictions have made commitments to put in place best-practice procedures in those areas. For example, in New South Wales the Better Regulation Office was recently established. It is there to advise agencies on best practice principles and legislation and regulation making, for example. So the DPI is in close consultation with the BRO about how to do that. Some of those principles have been around for some time though—things like being very clear about your objectives as government, what is really the problem and then going through processes to ensure that you are regulating with the least compliance costs, benefit-cost analysis, consultation with industry to see what the impacts of your proposals might be and so forth. That is certainly a big focus of governments right now.

Other initiatives that we need to be mindful of is that the Productivity Commission, pursuant to COAG initiatives, is conducting regular annual reviews of compliance burdens and quality of regulation by sector. Later this year they will report on the primary sector. So we are very interested to see what they come up with in terms of particularly cross-jurisdictional duplication and where things can be done better. They are probably some of the primary areas. I should add that the DPI has, for example, approximately 48 statutes on the books that apply to agriculture. That sounds like there must be a large compliance burden. But we must be mindful that much of that legislation applies to differential sectors in agriculture—it might be the input sector and so forth—and that much of that legislation only gets enacted when an influenza or some other sort of disease outbreak occurs.

The Hon. CHRISTINE ROBERTSON: You are talking about horses.

Mr DAVENPORT: Yes. We need to be a little careful that we do not just assume that because there are a lot of statutes on the books farmers necessarily have regular, ongoing compliance burdens. Finally, I should mention that the Minister has a task force—an advisory group—on agriculture in place and it has a subcommittee on regulation. That is a pretty good structure, I think, to get first-hand advice from industry as to whether they have problem areas.

The Hon. CHRISTINE ROBERTSON: The rice industry got together and had someone look carefully at the regulations in relation to chemical use. They created a plain English document for rice growers so that they can deliver. That is an example of two different legislative bodies.

Dr AUSTIN: I can add to Scott's comment in relation to the key role that the department plays in developing innovative technologies that substitute for the need for regulation in some respects. For example, nutrients leaving dairy farms potentially can be regulated. Alternatively, changing practices and methodologies to identify where the sources of nutrients and demonstrating the value of that to the producer can have a similar result. So investment in science and research helps to support different approaches to achieve the same outcome. So instead of requiring regulation—I think Professor Lemerle talked previously about stubble retention and the impact of burning stubble on human health—if we can demonstrate the value in terms of carbon sequestration from the incorporation of stubble into soils and develop new technologies so that we can farm in heavy stubble we can achieve the same outcomes much more cost effectively, with benefits for the wider public but particularly for the producers.

The Hon. MICHAEL VEITCH: As to red tape, earlier this morning representatives of the Rural Alliance spoke about overlapping by a number of government departments. There often appears

to be an overlapping of responsibilities. Are there interdepartmental arrangements that identify that overlapping? Are you using any strategies or initiatives to minimise the amount of overlap?

Mr DAVENPORT: Certainly the process by which regulation and legislation gets made within government requires interagency consultation. We have a lead agency that might be proposing something and a lead Minister who might be proposing legislation or regulation change and there is a requirement for them to consult with their counterparts. Certainly we see most Cabinet minute proposals that relate to Primary Industries and we get the opportunity to be very clear about how they might impact on the sector. There are certainly intergovernmental processes that avoid that.

Ms BROOKS: The other thing to say is that when issues are raised—if someone comes with a specific issue of overlap or apparent overlap between two legislative regimes—we would certainly get actively involved in working with the relevant other agency to look at whether that can be streamlined. That is more of a responsive strategy as opposed to what Scott is talking about, which is more the routine review of these things to make sure that we are approaching legislation in an efficient way. We obviously do not have all the legislation that relates to farmers but we do see ourselves as having a role in working with other agencies from the point of view of agriculture and trying to reduce red tape in agriculture.

Mr DAVENPORT: If I may add one more point, there is obviously a review process that governments go through regularly with legislation. We could pick a piece of agriculture legislation that might apply in the marketing area and as part of that we are required to look at all pieces of legislation that might otherwise do that job, be effective or might impinge on it. For example, you might look at the Trade Practices Act, which has a lot of marketing legislation, and ask the question: Is it needed in view of those other powers? There are a number of avenues—three, I think—that we have mentioned through which the overlap issue is looked at.

The Hon. MICHAEL VEITCH: Turning to another matter, is there a strategic plan to grow the agricultural sector? Is there a five- or 10-year plan that the department is aware of to strategically grow the sector?

Ms BROOKS: I am not aware of a state plan for agriculture, if you like. We certainly have departmental plans that include agricultural industry development or aspects of particular agricultural industries. For example, the agricultural commodity research and development organisations, such as Meat and Livestock Australia and so on, would have strategic plans for their particular sectors but at this stage there is no encompassing plan for agriculture in New South Wales.

Dr AUSTIN: In relation to the State Plan, the regional innovation strategy under development is likely to have agriculture as a significant element of a State approach. That is under development at the moment with a draft anticipated by the end of this calendar year; that is, by the end of December.

Ms BROOKS: Another relevant document is the report of the review by Professor Garry West on the Central West rural lands and planning issues in that area. One of the recommendations in that review is a State environmental planning policy on agriculture. The Government has not responded to the review yet, but the notion of a plan for agriculture is current, and we would certainly support it.

The Hon. MELINDA PAVEY: I understand that the recommendations in the review are yet to be taken up by the Government. The Central West is just one area of conflict. I am from the North Coast and there is huge conflict about agricultural prime land and the desire to live in a rural environment. That is particularly so in the Snowy Mountains region. There are great tracts of land and people want to live there and enjoy that environment. Will a full study be undertaken of other regions of New South Wales like the one done by Garry West for the Central West?

Ms BROOKS: As I said, the Government has not responded to that report at this stage. I am aware of a regional strategy for the North Coast and some other areas. The department has had strong input in terms of the importance of ensuring proactive planning to allow continued access to prime agricultural lands and building in the notion of productive agriculture as very much part of that

strategy rather than something done on left over land after they have worked out where to put the houses.

Reverend the Hon. FRED NILE: The Rural Alliance—representing the New South Wales Farmers Federation and others groups—claimed this morning that Australian businesses are at a competitive disadvantage in the global market because many of its international trading competitors are not required to pay payroll tax. It claims that the New South Wales gross domestic product could be substantially boosted by a reduction in payroll tax. That could be seen as a political or policy question. How much does payroll tax affect our export industry? Is it possible for the department to campaign for a payroll tax exemption for the agricultural sector?

Mr DAVENPORT: Payroll tax is a New South Wales Treasury responsibility. Therefore we believe it is inappropriate for us to comment on what is otherwise government policy. To assist with this issue, a very good Treasury paper has been released entitled "The case for payroll tax". Without going into too much detail—I do not want to be seen to be viewing it as good, bad or whatever—the paper makes the case that payroll tax incidences, or where the payroll tax has its final impact, may well be quite different from the legal liability to pay. In other words, while employers may pay it, it may be transferred to end-point consumer product prices or transferred back to employees in lower wages. That is all I would like to say: It is not cut and dried; the final impact is probably a complex issue. However, Treasury is saying that, depending on the transfer of incidence effects, it may be not much different at one extreme to a consumption tax if it is being passed forward or to income tax if it is being passed back.

The Hon. CHRISTINE ROBERTSON: How many people involved in agriculture would be paying payroll tax?

Mr DAVENPORT: I am not able to answer that.

The Hon. CHRISTINE ROBERTSON: Do they not have to have more than 100 employees?

The Hon. MELINDA PAVEY: They must have a payroll of more than $600,000.

The Hon. CHRISTINE ROBERTSON: There would be very few people involved in agriculture with a $600,000 payroll.

Mr DAVENPORT: Perhaps the question is targeted at input industries and so forth that are paying payroll tax and whose costs flow through to agriculture. I suspect that is the case.

CHAIR: Packing houses and enterprises like that.

Reverend the Hon. FRED NILE: What are the implications of genetically modified crops for agriculture in New South Wales?

Dr AUSTIN: That issue is being reviewed at the moment. As members may be aware, the moratorium on commercial production of GM food crops New South Wales expires in March next year. The Government has established an independent review to examine the impact of that moratorium on market and trade. As members are aware, they are State responsibilities and under the intergovernmental agreement human health and the environment are the responsibility of the Commonwealth and the States. Consequently the moratorium deals with trade and marketing matters. The closing date for public submissions is 31 August. I do not want to pre-empt the panel's deliberations, but it will consider the submissions over the subsequent month and will be reporting back.

Literature exists suggesting significant impacts on the industry as a result of the adoption of GM crops. They are currently grown in some 22 countries worldwide and there has been a rapid uptake of GM technologies and food crops. Obviously, it is up to industry what it does if the opportunity exists for the technology to be adopted.

Reverend the Hon. FRED NILE: Is that panel the same as the advisory body or is it a smaller body?

Dr AUSTIN: There are two independent processes. The review panel is chaired by Ian Armstrong, and the other two members are Kathryn Adams and Professor Tim Reeves. Professor Reeves is also the chair of the New South Wales Agricultural Advisory Council on Gene Technology, which was established under the moratorium legislation. Professor Reeves sits on the review panel by virtue of his involvement in the advisory council, but he does not represent the advisory council. There are two separate processes and the advisory council is not making a submission to the review. The organisations represented on the advisory council have been invited and encouraged to make submissions. The advisory council has been deliberating the issues.

CHAIR: What are some of the challenges to retaining rural land for agriculture in the face of competition from other land uses, and to what extent have your agencies worked with the Department of Planning in the development of regional strategies to retain rural lands?

Ms BROOKS: One of the challenges is market forces. Some land users are willing to pay a higher price than the current use of the land in question would attract. For example, demand for residential land, which was raised earlier, is an issue particularly when there are significant population pressures such as in the metropolitan region, on the coast or within three hours' drive of major regional centres or cities. Changed land use in the vicinity of agriculture enterprises can create a greater risk of conflict. There can be lost amenity values such as environmental and aesthetic values and issues relating to infrastructure support. There are also different attitudes about the value of retaining agricultural land. Obviously some people see residential development as more important than agricultural pursuits.

We have a long history of working closely with the Department of Planning. I mentioned the North Coast regional strategy earlier. As with that strategy, we regularly have input at both the local environment plan and regional strategy levels about maintaining access to land for agricultural purposes and the valve doing so. We help to develop solutions to some of the conflicts that might arise in the development of those local and regional plans.

The Hon. MICHAEL VEITCH: I come from Young, where cherry orchardists are liquidating their assets as an exit strategy. The current LEP sets aside land for cherry growing, but there are no orchards there; because of predicted growth, prime cherry growing is now right in the township. Obviously, the new LEP will have a significant impact. Young Shire Council was waiting for the West report before continuing with its LEP development. For the Young community, there is a huge social impact as well because the town is growing, with a 6.6 population growth in the last five years, in a period of drought, and there are 9.9 per cent more residences in the shire. So for some communities with that sort of interface, land use is a quite pertinent issue. One of the issues is conventional use, as opposed to changes to innovative use as well. Do you have views on those issues?

Ms BROOKS: These are very challenging issues, and they need to be worked through with local communities. Obviously, the West review identified some of those issues — the changing face of agriculture, different approaches to land use, proximity to towns that are expanding, and the development of different types of agricultural enterprises. We are seeing, particularly in areas like Young and the Central West, the development of boutique-type agricultural enterprises, such as wineries, whereas before there were apple orchards and so on. This represents the changing face of agriculture. The challenge is to ensure that our planning approaches keep pace with that change and to ensure we have good information to feed into those processes so that we have proactive planning. The real risk is that we are not planning appropriately for agriculture, that we are not thinking about these things and planning for them, and that things are allowed to happen in an ad hoc way. Therefore we are likely to have conflict because residential development is taking place next to an orchardists who wants to spray crops, causing neighbours to complain, and that sort of thing.

Mr DAVENPORT: In our submission we touch on this issue. I think we would all agree that ultimately it is a social call of the communities and so forth; it is very much an issue of the quality of that decision-making process and how much effort is put into including those social dimensions in the decision-making process. Our submission goes into this issue in some length. There is a lot more

literature around to highlight the non-priced benefits, or if you like non-market benefits, associated with agriculture. It influences our whole culture. There are aesthetic values, tourism values and environmental values, and just because they are not in the market place does not mean they are not relevant. That leads to the next point: We need to make sure that those values find their way into the equation. In many cases, I suspect they are not, or that we do not yet have the skills, or we have not thought enough about it.

The Hon. CHRISTINE ROBERTSON: This inquiry has concentrated on the contribution of agriculture to the economy of New South Wales. One submission detailed the difficulties at a regional level of measuring that contribution to a regional economy. You have obviously done a lot of work on the benefits of agriculture to the economy. But at a regional level, and even at a State level, it is relatively difficult to measure the contribution. You have suggested that other issues should be considered along with the benefits of agriculture to the economy. What do you think of the Committee working on some recommendation regarding that issue?

Mr DAVENPORT: I think it is a critical issue because, as was obvious from your previous witness, the importance of agriculture to the economy can be misrepresented if we look at glib, single-point data. Let me deal with that issue first. The nominal value of its contribution is certainly increasing. That data is there, and it is quite impressive. I could refer you to some other data from ABARE and merchandise exports, with agriculture up by about 20 per cent. We need to be careful that we not only use the wrong data, but we do not get a good representative suite of data.

The other fundamental point here is that as society goes forward we are all becoming interested in regional communities, the environment, et cetera, so we have to be careful that we do not just get the ABS data, or ABARE data, and say that is agriculture. We refer to all that data in our submission, and we have brochures that give you good data by industry. I must say that there is probably a tradition of breaking up data by industry, and not by region, so that is potentially a gap. But that is data that can be compiled at certain levels if that is what you are interested in.

The key points here are that, from an economic perspective, there is the direct effect and then there is the indirect effect, and we have gone to some trouble in our submission to highlight some multipliers that have been accepted by different bodies. So agriculture supports input industries. Agriculture supports industries that use agricultural products for further value-adding. It is critically important that we all get a feel for that, because that underpins regional communities, employment and so forth. There is a big, complex picture, with agriculture at the heart of it. A further key point I want to make is the issue of the unpriced value—culture, aesthetics, environmental management and so on. Though the market does not price them very well, the community of New South Wales is critically interested in those issues and values them. I will not go further into that now. But there is an obvious complexity.

In relation to data sources, basically the formal economic data is that of ABARE or ABS. ABARE has small-area data, but because it is a sample it quickly loses it accuracy. ABS has just done a census, and that is the key source of small-area data that can be massaged into different formats.

The Hon. CHRISTINE ROBERTSON: When we do not have the relevant data, there can be emotive argument from different sides about the relevance of agriculture in a local or regional area. It is easy to find out how many people work at the abattoir and what the profit margin for that enterprise is, but it is difficult to get a handle on the whole industry.

Mr DAVENPORT: It is a very good point that you are making, and I think we should probably link the previous question with your question.

The Hon. CHRISTINE ROBERTSON: I picked up on that question.

Mr DAVENPORT: If we are out there trying to do some planning, what is the quality of the decision-makers in terms of their access to data—not to mention just the economic or price data?

The Hon. MELINDA PAVEY: I read recently in *The Diplomat* magazine an article about the isolationist attitude of Australian agribusiness in ring-barking the sector. Basically, it highlights the fact that Australia, not just New South Wales, has been fairly poor in greater integration of the

agricultural industry to manufacturing. For example, New Zealand has got Fontara, we have in Australia Uncle Tobys, Craft, Master Foods, Vontara, Ituchu and Mitsui, Japanese companies, that are manufacturing here, but, apart from maybe Goodman Fielders, we have not been too innovative in moving our produce into product and then exporting it. Knowing that you work directly with primary producers, can you give us your thoughts on what government could be doing to better help in that integration and moving forward?

Ms BROOKS: As you say, we primarily have worked at the primary producer end, but I guess we have always been interested in, and also had a focus on, the supply chain and linking in to the processing of products, perhaps not so much at the agribusiness development end, but certainly looking at how we can work to develop agricultural products that better meet market needs. For example, we have been involved over successive cooperative research centres on the beef industry where we have been looking at how you breed and manage beef cattle so that you get meat that meets the market needs for export to Japan, or whichever market you are trying to target. In fact, that work is being taken up and there have been some terrific cost-benefit outcomes from doing that. The linkages there are very good between what is happening on the farm and what is happening at the processing and exporting end. I guess there has been a level of activity across different commodity areas in those sorts of supply chain linkages, but it is certainly an area in which we see ourselves continuing to work as an important area.

Dr AUSTIN: I mentioned the regional innovation strategy before, and again I mention it in relation to this question. It is unfortunate we do not have a representative from the Department of State and Regional Development because, obviously, regional boards play a key role in there and will do so in providing input into the strategy. Research and development is only part of that. New technology is only a part. As Ms Brooks is suggesting, it is looking at the whole value chain and identifying impediments, and addressing those.

The Hon. MELINDA PAVEY: And seeking out innovation.

Ms BROOKS: I think there are some planning issues around that as well in terms of identifying what the opportunities are likely to be at a regional level and, again, as we have discussed with other regional planning issues, proactively planning for those secondary agribusiness industries at the same time as you are planning for primary industries.

The Hon. CHRISTINE ROBERTSON: It is a bit like the olive industry and all the work it did without producing someone to make olives.

Mr DAVENPORT: If I could finish off there, another initiative that may be relevant to the question is what is referred to as property management systems. Australian Primary Industries agencies currently have an item on their agenda in this area. Essentially it is a question of who drives this, Government or industry. Certainly it is a partnership approach at the moment, but industry certainly has some responsibility here to connect. It is a very good initiative here where many industries, probably the better organised ones, have already started to develop what is called property management systems, or accreditation system is if you like. There has been assistance for that from Government. These might be quality control systems where they have connected with a large manufacturer, or they are connecting with an overseas export market.

They have taken the initiative to look at what the quality dimensions are that need to be in to differentiate themselves in the market, then they have given that back down through the cooperating farmers. One of the good concepts in all of that is this idea that we need industry to be facilitated, helped and motivated to go out there and carve out some of these systems for themselves. In terms of becoming accredited best practice, governments can key into some of those systems, for example on the red tape issue. If they need to know what they have to comply with, those can be part of that system. That is happening. There are several of those already around. We are monitoring as to what is working well and what is not.

Reverend the Hon. FRED NILE: This question might involve Mr Harriss. What are the likely impacts of a fully mature water trading scheme on agriculture in New South Wales? How would a free market approach to water trading affect agriculture in New South Wales? Is there a role for a government agency to make decisions about how water should be used?

Mr HARRISS: There are quite a few aspects to that question. I will try to answer them seriatim, if that is okay. The first thing we need to do is separate the trading facilities we have now, and there are two types. There is permanent trade where you transfer your entitlement, and there is annual trade, which is the list of what water is available. One is a transfer of entitlement on a permanent basis, the other one is an annual lease of how much water is available depending on the season you are having. I will probably use some examples as I go through about how they can provide benefits to New South Wales agriculture. First up, both types of water trade are appropriate where systems hydrologically connect and where water can be transferred between users on those systems where there are no adverse environmental impacts and there are no unacceptable impacts on third parties, for example moving a whole lot of water into one area where we know we cannot deliver.

For example, in the Murray Valley you can get a certain volume of water from Hume Dam going to Echuca above the Barmah Choke, but there is a constraint there if you cannot get sufficient water downstream. You cannot allow water to move from upstream to downstream in the choke because you simply cannot deliver it. It would have an unacceptable impact on a third party. However, with those constraints the benefits to agriculture in New South Wales are that it enables water to move to its highest economic value. Where water is being used in non-economic pursuits and there is some demand for that water by another kind of industry then permanent trade, or even temporary trade, facilitates the movement of that water to another industry. The reason that is so important to New South Wales and, actually, to the rest of the Murray Darling Basing is that we have recognised that we do not have sufficient water to allocate new resources to other developments.

We have to live within our means. It is not a magic pudding. We have, quite frankly, run out of any further water to deliver to agriculture without having an adverse effect on the environment in so much as maintaining our long-term capacity to maintain production. Examples of that would be that if we continue to allocate too much water for consumptive purposes, whether it is agriculture or whatever, you would see an increasing incidence of salinity and an increasing incidence of blue-green algae blooms, which will limit access to agriculture in the first instance. It is certainly self-limiting. With no water resources available to be allocated and no new water resources available the only way to allow new players, new industries, into the market is through the use of water that is already allocated. We must have a trade system. It provides enormous benefits to New South Wales and to other jurisdictions by enabling new players into agriculture where they can access their water requirement from existing users, and it enables water use from low value products to higher value products.

In the short term, to transfer water some growers have been able to capitalise by transferring, say, half of their water entitlement and with the funds they get from that transfer enable them to improve their water distribution systems so they can sell their water and increase their efficiency in their own water use, which means there is more water for production and the efficiency of water use on that particular person's property is enhanced at the same time. It is a classic win-win in that circumstance. It enables people to exit industries where water can be transferred. In many areas today the value of water, which has been separated from land in New South Wales, is worth more than land itself. It can enable people who have been in irrigated agriculture for many years or decades to exit the industry by transferring the water to where it is wanted to meet some other demand.

In the short term through temporary trade it provides substantial benefits to agricultural production because it enables water to move to where it is absolutely needed. At the moment in inland New South Wales, as I said in the introductory remarks, we are going through the grips of horrendous drought and there is not enough water to maintain many of the industries we have in New South Wales without substantial inflows. We are really into the season now, but already people are saying, "We have only a small amount of water available to us. It is probably not in our interest to plant crops for this year, but the only way we can get cash flow is to temporarily lease our water for some other pursuit and that is the only income we are likely to get for the current year." That will enable farmers, or whatever agricultural enterprise, to make a choice about whether they choose to produce this year or to trade their water and they have a cash flow in that way. It opens up a whole lot of opportunities. The likely impact of a full mature water trading scheme is you are going to see water move between valleys, or within valleys and within States in New South Wales where water goes to its highest values. There is always concern by every region when they think water is going to move out of their region, but the reality is that over time we will see water move into and out of particular regions,

depending on what is most viable at the particular stage, and that depends a lot on world commodity prices and all that sort of stuff.

The Hon. CHRISTINE ROBERTSON: Could you define low value and high-value, and who determines that?

Mr HARRISS: It is very difficult to determine. The suggestion has been that high-value crops include things like permanent horticulture, viticulture and stone fruit, where you get a higher return per megalitre or unit of water use, as compared with industries like rice and cotton, which supposedly provide a lesser return per megalitre or unit of water use.

What we are seeing is that a permanent trade of water is moving to those permanent plantings and those supposedly higher-value crops, whereas in the temporary market and the annual leasing, which is probably about 10-fold more in volume than the permanent market, they are moving towards the general-security products, the lower-value crops, such as dairy, pasture production, rice production and cotton production annual cropping.

The Hon. CHRISTINE ROBERTSON: The markets determine high and low value?

Mr HARRISS: Yes. As an example, when there is plenty of water around in good years, most water will be traded into annual crops such as rice to maximise production in that particular year. In a year like this, most people are thinking, "We are not going to get a rice crop, so we would trade our water into some of those areas where even the permanent plantings do not have enough water to get them through the year."

The variation is enormous. In a flood year, the price of an annual lease of water in, say, the Murray Valley or the Murrumbidgee Valley might be as low as $6 per megalitre. Currently in the Murray Valley the annual lease of water is about $800 per megalitre, because of the seriousness of the drought. Under normal circumstances, three years ago the price of a permanent transfer was only $1,000 per megalitre; it is now trading at about $2,000 per megalitre.

There are perceived negatives in the permanent or temporary trade of water. Where too much water leaves a particular area, you might have the result in what is called stranded assets. An area might be a channel system where there might be six people on the spur of the channel, five people sell their water, the one person remaining with the water is at the end of the system, and it is not efficient to deliver that water through that channel system so they are virtually forced to sell out. That is one of the negatives that is being addressed through the introduction of what is called access and termination fees, which is overseen by the ACCC, to facilitate that to be factored into the price of the trade of water so that people remaining in systems are not adversely disadvantaged.

Reverend the Hon. FRED NILE: The point you made a moment ago is that it is realistic that a person could say, "I will not sow a crop; I will sell the water and I will make as much money by trading the water."

Mr HARRISS: Or more, yes.

Reverend the Hon. FRED NILE: It would be a temptation simply to trade water. Although, you can only do that annually?

Mr HARRISS: You can do it permanently, and you accept the price of the market for ever and a day, or you can trade it on a temporary annual market, which is an annual lease of your product and you make a conscious business decision whether you want to go into production that year or trade your market. A lot of people are currently developing businesses where they do not actually own any water, and they trade water into their enterprise on an annual basis every year. Some people are selling their water on a permanent basis to capitalise, and then they are saying, "In any future year we will trade water and we will risk the variations in prices every year."

Reverend the Hon. FRED NILE: Is there any danger that you may finish up with land not being used for crops at all?

Mr HARRISS: Certainly. I think there are some areas where water will be traded out. Those areas might typically be the more unproductive areas. The better examples of those are in Victoria, around an area called Pyramid Hill, where a substantial volume of water has been traded out from Pyramid Hill into the Sunraysia district, which has developed strongly over the last 10 years, particularly in viticulture.

CHAIR: Is there currently any mechanism whereby an organisation such as Macquarie Bank could buy water; you do not need to have a farm?

Mr HARRISS: Absolutely. In meeting our COAG water reform principles in 1994, we were required to separate land from water, so that you can own water without actually owning land; it is effectively any other commodity. In New South Wales we have done that through the Water Management Act, which was introduced in 2000, by the establishment of what is called an access right. Anyone can own an access right, anyone can own a volume of water, but to use that water productively you must have a use licence, and that use licence includes all the environmental conditions that apply to a specific piece of land.

So Macquarie Bank could legitimately buy an enormous amount of water and simply trade that on an annual market every year and take the risk. We have had that facility in New South Wales for about 25 years. Whilst there always seems to be a threat of that happening, it is unlikely, simply because of the variability in the prices. For example, whilst water might be selling at $800 per megalitre now, if we have two weeks of rain it is likely to drop to $40 a megalitre. The investment you have to make upfront, and then the insecurity in the circumstances which enable you to get a return on that, are quite substantial; it is purely speculative. We have not seen that happening to a great extent.

CHAIR: How would an organisation such as Macquarie Bank hold that water?

Mr HARRISS: They would have an access licence issued to them. It is equivalent to a land title. In fact, our access licences under the Water Management Act are being managed by the Land Titles Office on behalf of the department. It is effectively a Torrens title system.

Reverend the Hon. FRED NILE: You could not have a monopoly control of water?

Mr HARRISS: You could possibly have it, but it is unlikely because it is such a variable business. It depends on the climate. If you are going into business with that kind of variability, it does not lend itself to the so-called water barons buying up water and manipulating the market. On top of that, you are only going to pay what you are going to get a return on. The commodity return on water is not huge. Most irrigated agricultural bodies do not get a huge return by comparison with other commodities, such as metal, for example.

The Hon. MICHAEL VEITCH: Has a fair bit of faith been put in the fact that there is accurate measurement?

Mr HARRISS: Yes.

The Hon. MICHAEL VEITCH: Is it accurate at the moment?

Mr HARRISS: There are different kinds of accuracy in terms of monitoring the flows in the river. We are always increasing our accuracy through our hydro-metric network to monitor the losses. There are substantial losses in delivering water, long reaches of river. For example, we have just had quite substantial inflows into south-east Queensland and north-east New South Wales. Some of those have gone across the ranges and will cause some flows into the Darling River, which is about 2,500 kilometres before it reaches Menindee. By the time those flows get to Menindee, they will be a trickle. We monitor those flows all the way down the river and we have quite adequate monitoring of them.

The second aspect of monitoring is the diversion by irrigators or by consumptive users. There is a range of methods of monitoring. In New South Wales we estimate that between 80 and 90 per cent of our total water use is metered, and those metres vary in their accuracy; plus or minus 10 or 20 per cent at times. Deathridge wheel meters within irrigation corporations are probably the worst offenders

in terms of inaccuracy. So we have signed up to the National Water Initiative, one of the major components of which is to improve metering and monitoring standards.

Over the coming years we will move to apply those standards within New South Wales, which will see the majority of users—I am quick to point out that we are not keen on monitoring all users because it is inefficient and would not be cost-effective—but about 90 per cent of all users will be measured and monitored by metres which will have appropriate national standards to within 2.5 per cent in the laboratory, plus or minus, and 5 per cent in the field, which is a substantial improvement. New South Wales is leading the way in that, and we are rolling out a $2.9 million program of introducing metres into the unregulated sections of New South Wales. Most of the regulated reaches, which are downstream of the rivers, are metered, but in the unregulated reaches of rivers and streams in New South Wales we would be rolling that out over the next two or three years.

Dr AUSTIN: In relation to the on-farm metering and aspects there, obviously that is an important part of improving efficiencies; knowing whether the water is moving and once it has entered the farm how it is being used and how efficiently. We have been doing work off-farm in relation to channel seepage. In fact, one of the researchers is part of the team that won the Eureka Science Award, looking at leakage out of channels, channel seepage. On-farm we are doing things like working through the cotton, seed cooperative research and had a look at metering syphons so you can see how much water is being applied to the crop and determine what sort of efficiency you are getting, that it is the best use, and how to improve on that. We have worked between departments on some of those aspects.

The Hon. MICHAEL VEITCH: It is certainly important if you have purchased the water that you get maximum use. Leakages do not maximise the use of purchases.

Ms BROOKS: That is a critical issue. It has been useful in a presentation to illustrate that. Apart from the sort of technology solutions that Dr Austin has spoken about, there is also an issue of farmers needing to have the capacity, the business skills and the understanding of the system to be able to manage the complexities of the variability in water supplies from year to year.

The Hon. CHRISTINE ROBERTSON: Input and outcome.

Ms BROOKS: Yes, and how to manage these systems in a more efficient way. That is why we are very involved in that sort of area as well as the research and development.

Dr AUSTIN: To add to do that again, the Department of Water and Energy and former agencies have been working closely to look at when the irrigators, particularly in an unregulated system, when they access water and when that will have minimum impact on the environment to achieve their objectives. That might entail taking water off high-flow events and storing it on farms. We work on-farm with irrigators to determine farm dam capacities and water management. The Department of Water and Energy looks at those flow events, and allocations on the unregulated systems accordingly.

The Hon. MELINDA PAVEY: A submission from the Gwydir Valley Irrigators Association states that the Department of Water and Energy now requires a hydrological assessment for all groundwater transfers over 100 megalitres, paid for by the entitlement holder. What consultation was conducted with entitlement holders before that requirement was introduced? Is the cost of hydrological assessment also included in the latest IPART determination? Does that mean that the entitlement holders are effectively paying twice for hydrological assessments?

Mr HARRISS: First up, with the consultation that department met with the Executive Office of the Groundwater Association in the Gwydir Valley earlier this month, the 13th I think, to discuss these arrangements. The concern is that our hydro-geological input is usually determining the sustainability of the broader aquifer, over hundreds of square kilometres, if you like. It was not effectively set up nor did we make another submission to IPART to start to investigate the site-specific impacts of water extraction. The answer to your question about whether it is double dipping, is no. We look after the long-term sustainability and determining the sustainability of the aquifer.

In recent years we have found, particularly during the drought, that there is a number of water trades, temporary trades, the ones I talked about on the annual market, that have gone up from about 10 per year to 70 or 80 per year. We do not have the resources to investigate those. Say 60 of those are going into the same sort of area, you will have a substantial impact on that particular site and impact on third parties. We have suggested to the executive officer that that really is a private benefit. So that we can make an assessment of those impacts, he must provide us with hydro-geological advice to demonstrate that it is not going to have an impact on those third parties nor will it have an adverse impact on the aquifer at that site. Our involvement with IPART is that we will have our hydro-geologists review that information provider, but we certainly were not set up to assess each individual trade on a site-by-site level.

The Hon. MICHAEL VEITCH: Do you use that arrangement anywhere else?

Mr HARRISS: Depending on the size of the development. In any water use development we require some kind of environmental assessment. Depending on the size of it that will depend on the amount of information that we require. In the majority of cases, in a new industry or a feedlot, as mentioned earlier, we will ask the purveyor to provide the information necessary for us to make a decision under the Environmental Planning and Assessment Act. It varies in different areas around the State, in some areas we do it ourselves where there are very few trades into those areas and where there is not much likely impact, which is one of the points that was made.

This is only for transfers above 100 megalitres; anything less than that is probably not going to have a significant impact. We do not make an across-the-board policy that the individual must provide the information, where we do not think it is substantial. However, where we believe there is likely to be a third party impact or adverse environmental impact, we will certainly request the proponent to provide that information to enable us to make the determination.

The Hon. CHRISTINE ROBERTSON: This morning the Committee heard from people talking about communities, changes in farming, stresses of the drought, counsellors, financial counsellors and drought counsellors. There is information which shows that there are not enough of those—in the country there is never enough of anything. Has any consideration been given for the drought support workers, as the country communities have really changed, particularly the farmers. There is far less community support structures out there, nothing to do with the drought but how it happens. Those persons seem to have settled into a connecting role that was required anyway. Has anyone given thought to legitimising the role that they are taking? Or is it just an acceptance that the drought will go and they will go away? Really their title does not describe what they are doing.

Mr DAVENPORT: You correctly mentioned drought support workers as being a more contemporary initiative of governments to try to address some will see issues, referral issues, people are under stress and with anxiety and that type of thing. That has worked particularly well in deflecting that. They have coordinated more than 800 farm family gatherings since 2002. That has been well met and very beneficial to get interconnection, to get over some information problems about service provision. They are in place. The question as to whether there is a case for that to be ongoing, I am not aware of a new form of counsellor coming into being to do that.

The Hon. CHRISTINE ROBERTSON: I understand the political case, but I am trying to get some information on how you feel about that role, which was set up called "Drought", because it was an easy way to get the money in. Should it be a more permanent role for farming families?

Mr DAVENPORT: The pressures and changes in agriculture that you identify are quite right; farms are getting bigger, people are getting further apart and community to amalgamating. Within that structural adjustment process there can be better outcomes by better information and connection. The Rural Financial Counselling Program is a permanent counselling service and aside from financial counselling it has a referral role. So they do that in some part. Some of the other agencies in areas such as mental health have ongoing service provision. Your question is a reasonable one, as to whether that could be better coordinated on a permanent basis.

CHAIR: Recently I was approached by one of the farmers in my area of the Murrumbidgee Irrigation Area. He was concerned that with markets opening up in places such as China, New South Wales was missing out on that share of that market. According to him other States had people on the

ground in China, going out and promoting their State. New South Wales did not seem to have a person on the ground in that country. Is there any reason why that would be so? What are we doing to help farmers with agricultural exports to new markets?

Ms BROOKS: We have certainly had a long history of working with people in China, different organisations there. I might hand over to Nick to talk about some of the presenters we have had there from a research perspective.

Dr AUSTIN: Certainly from a science and research perspective we have had involvement with China, particularly in the Gansu province, for many years and have ongoing projects looking at rangelands management in Gansu. There are parallels to some of our rangeland management in New South Wales. So where we have projects we look for those mutual benefits. The director general and Minister were recently in China and signed a memorandum of understanding with the Ministry of Science and Technology in China.

CHAIR: It seemed to me from what he was telling me at the time that people on the ground there were actually promoting their State and putting exporters in touch with the importers there and they were actually on the ground promoting each State, but New South Wales would seem to be missing out.

Ms BROOKS: We certainly have had activity in that area. I could not give you the details off the top of my head but I think one of the issues with China meeting market demand is because it is such a huge market. One of the challenges for a State like New South Wales and for agriculture in New South Wales is actually producing enough of a particular product to meet the market. So that is something to bear in mind with a market like China as well.

CHAIR: I will follow that up.

Dr AUSTIN: But certainly activity within the department in relation to the minerals division as well, so it is a bit outside the agricultural sphere, but promoting opportunities from the minerals development in New South Wales.

The Hon. MICHAEL VEITCH: Just following on from that, in one of the submissions early this morning from Rural Alliance they were talking about the infrastructural capacity of the State to deliver upon their markets. Have you any comments about that and the capacity of our infrastructure to deliver to the export market?

The Hon. CHRISTINE ROBERTSON: Road trains.

The Hon. MICHAEL VEITCH: Road trains, yes.

CHAIR: You might take it on notice.

Ms BROOKS: Yes, we might take that one on notice.

Reverend the Hon. FRED NILE: Trade in China would also be a Commonwealth responsibility, would it not?

Ms BROOKS: Yes, at an Australia level, that is right.

The Hon. MELINDA PAVEY: Were there any other comments or suggestions that you would like to talk about in relation to climate change and opportunities in agriculture? You touched on that earlier, Dr Austin, the soil sequestration.

Dr AUSTIN: Certainly there are a number of issues rolled in with climate change: There are the aspects in relation to increasing variability in climate and the impact for production; there is also the impact that agriculture has through production of greenhouse gases, and depending on the numbers you look at it could be in the order of 16, 18 per cent of the greenhouse gas production in Australia originates from agriculture and that can be methane from ruminants or a range of different aspects—nitrous oxide out of anaerobic rice production, for example. So, the department is looking at

a range of research programs in agriculture, but also in forestry and looking at the role forestry plays in sequestering—so that includes on-farm forestry—and there is the soil carbon aspect that was touched on earlier.

Carbon farming or carbon markets is an area with a lot of potential but it is also an area with significant unknowns and an increasing amount of our research is being directed towards getting a better understanding of how that carbon market might operate. So we are working with catchment management authorities, for example, on a project looking at whether catchment management authorities might be carbon pool managers on behalf of the farmers and how that might work for other players in that field and what the implications are if we are looking at carbon stores that need to be retained for 100 years, what are the implications and what information can we provide to producers about the opportunities there to manage some of that risk. So there are some real opportunities, but there are also risks associated.

The Hon. MELINDA PAVEY: Does identifying a financial value on carbon trading within Australia identify the pace of the take-up of this as well as the science?

Dr AUSTIN: Certainly those signals need to be there for the market to emerge that meets that price signal; it needs to be there to look for those opportunities, and that is one of the most significant uncertainties.

If I could just finish off that comment in relation to the New South Wales role there. New South Wales has had a carbon market; it has led the way in that respect with the New South Wales greenhouse abatement certificates and we would hope that the experience from New South Wales might play out across other States or under a national scheme because I think there is a lot of experience and a lot of positives in the market that has been operating in New South Wales for some time.

Reverend the Hon. FRED NILE: Dealing with this research area, how has the State Government provided research and development budget for agriculture in New South Wales changed over time and how does Commonwealth funding get applied in New South Wales?

Dr AUSTIN: Again, there are some parts to that question. I guess a really key aspect of the department's research is its close integration with extension activities. One of the challenges in answering that question definitively is where you draw the line in the continuum between the pure end of research through the applied end through development, through extension, adoption and practice change. So the department has an integrated program of research development and extension.

Reverend the Hon. FRED NILE: So it is a lump sum?

Dr AUSTIN: Our best estimate of the direct dollars applied on actual on-ground projects is in the order of $100 million per annum. About half of that or just over $50 million is sourced from New South Wales Treasury; the remainder of about $48 million is from external sources. In response to the next part of your question, that includes Commonwealth sources but the largest component of that is coming through research and development levies, through research and development corporations where the Commonwealth matches the input from producers dollar for dollar and then the States typically match that again. A rough rule of thumb for each levy dollar that a producer pays on the basis of their production is multiplied up threefold for the investment in research and development.

Reverend the Hon. FRED NILE: So that Commonwealth percentage of $48 million would be—

Dr AUSTIN: That comes through both in matching dollars through the research and development corporations but also through cooperative research centres—the Commonwealth program and New South Wales Department of Primary Industries as a partner in 17 cooperative research centres both in the agricultural and the environmental sectors. I guess we would have to take on notice the actual unpacking of the Commonwealth contribution, but it would be significant. There are also a number of other joint projects directly with organisations like the CSIRO with co-investment. So there is a whole range of ways in which the Commonwealth dollars and the State

dollars are put together. There is not a project that we undertake that does not involve co-investment of one form or another from the private sector, from Commonwealth sources or through levies.

Reverend the Hon. FRED NILE: If I asked you whether it was adequate I suppose you would always says, "We could use more"?

Dr AUSTIN: We could certainly use more. I think what we are seeing is a much more effective use of the dollars; we are seeing better cooperation between State and Commonwealth programs and between State and Territories. If I use barley breeding for an example: previously—not too many years ago—there were seven barley breeding programs in Australia, which made no sense for the industry, the size that it is. There were many months of negotiation and that has now become a national barley breeding program where are three breeding nodes. New South Wales no longer breeds barley varieties but we have got agreement with Western Australia and South Australia to select from their breeding programs and they feed back in and we evaluate what comes out. So the national program delivers for the national barley industry, but takes into account the particular needs of New South Wales growers.

The Hon. MICHAEL VEITCH: There is a lot of work being done with the agricultural sector, and rightly so, during this rather horrendous, prolonged drought. Is any work being done on a post-drought strategy in the short and longer term?

Ms BROOKS: There certainly has—it is difficult to know where to start. I suppose this links a little bit to the previous question about climate change. A lot of the adaptive strategies the farmers have developed themselves over many years, and we have certainly worked with farmers to improve the decision support tools they have, the technologies they have access to, their business planning skills, all those things to put them in a better position to manage that sort of climate variability is all part of the adaptation to ongoing climate variability, climate change, drought recovery. It is difficult to separate one from the other. We certainly have a whole swag of products that we have developed over time. We have StockPlan, which is a program under our ProFarm banner, which is our training program brand name. We have a bit of information about that in our submission.

StockPlan helps farmers work out whole farm strategies involving how to manage their livestock basically. But that is applicable both in a drought, going into a drought situation and planning out of a drought situation, so I guess it is a drought recovery strategy as well. We are working collaboratively with the catchment management authorities on a particular drought recovery project, which is a $4.4 million project across the State where we are linking a four-day training program, again on aspects of whole farm management—livestock, pasture, water, salinity—and that is linked into incentives that the catchment management authorities have available. We are seeing some synergies between the sort of natural resource management outcomes that the catchment management authorities are keen to see delivered through their catchment action plans and the kind of productivity outcomes that we and the farmers are keen to see delivered. Those are just a couple of examples of the drought recovery things that we are involved in.

(The witnesses withdrew)

(The Committee adjourned at 4.43 p.m.)