



LEGISLATIVE ASSEMBLY OF THE NORTHERN TERRITORY
Sessional Committee on Environment and Sustainable Development

Committee Members:

Ms Lynne Walker, MLA	Member for Nhulunbuy (Chair)
Mr Peter Chandler, MLA	Member for Brennan
Mr Michael Gunner, MLA	Member for Fannie Bay
Mr Gerry McCarthy, MLA	Member for Barkly
Mr Peter Styles, MLA	Member for Sanderson
Mr Gerry Wood, MLA	Member for Nelson

PUBLIC HEARING, MONDAY 24 NOVEMBER 2008

**Department of Regional Development,
Primary Industry Fisheries and Resources**

Witnesses:

Mr Rod Gobbey	Executive Director Primary Industries
Mr Alister Trier	Director Pastoral Production
Ms Christine Long	Director Primary Industry Services
Mr Glenn Schipp	Director Fisheries Development
Mr Matt Darcey	Director Crops, Forestry and Horticulture.

Madam CHAIR: I declare this open this first public hearing of the Sessional Committee on Environment and Sustainable Development.

Our inquiry arises from a reference to the Committee by the Honourable Alison Anderson MLA, Minister for Natural Resources, Environment and Heritage.

I welcome officers from the Department of Regional Development, Primary Industry, Fisheries and Resources: Mr Rod Gobbey, Executive Director Primary Industries; Mr Alister Trier, Director Pastoral Production; Ms Christine Long, Director Primary Industry Services; Mr Glenn Schipp, Director Fisheries Development; and Mr Matt Darcey, Director Crops, Forestry and Horticulture. Thank you very much to each of you for appearing before us today.

I note that the Committee Secretariat was advised that it is NRETAS and not your department which carries responsibility for environmental issues, including but not limited to climate change; licensing requirements for sustainable farming of native and introduced flora and fauna, and programs in respect of pigs and other feral animals. The Committee will pursue these aspects of the inquiry with the relevant agency.

Although the Committee does not require you to give evidence under oath, these hearings are formal proceedings of the parliament and consequently, they warrant the same respect as proceedings of the House itself. I remind witnesses that giving false or misleading evidence is a serious matter and may be regarded as a contempt of Parliament.

Whilst this meeting is public; witnesses have the right to request to be heard in private session. If you wish to be heard *in camera*, please advise the Committee prior to commencing your answer.

Today's proceedings are being recorded by the Hansard unit. To ensure the accurate transcription of the recording, I ask that officers and members identify themselves prior to speaking and, in the first instance; I invite officers of the department to state their full names and positions before commencing their briefing. Who are we commencing with?

Mr GOBBEY: Rod Gobbey; Executive Director, Regional Development, Primary Industries, Fisheries and Resources. What I would propose to do, with the agreement of the Chair; is to give an overview of the document that has been presented for you. That document itself is divided in to a number of sections that myself and my colleagues will address. I would propose to give an overview and answer any questions in response to that.

Mr Trier is then to talk about the pastoral industry in general, with a particular emphasis towards the Indigenous Pastoral Program within the pastoral production area because it is, for the time being, a separate program. It has been operating only for a short number of years in its current form. Then we would seek for Mr Darcey to talk in relation to Crops, Forestry and Horticulture, the past, the present and the future if that is suitable to the committee. As with the pastoral production presentation, there is some new and emerging work that we are engaging in, in relation to Indigenous plant industry production and Mr Darcey will talk about that. After those two industry development presentations, Ms Christine Long, within the primary industries group, coordinates our responses to drought policy both at a national and at a Territory level. So Christine will, at your convenience, talk of the current drought situations from both a Territory and a national policy perspective.

I propose that we conclude with Mr Glenn Schipp who will give an overview of the aquaculture industry in the Northern Territory. It would seem to me that those sectors, as described; fit within your Terms of Reference.

Madam CHAIR: Thank you, Mr Gobbey. That sounds fine unless any members have any different views.

Mr GOBBEY: My opening remarks, I think, I can keep reasonably short by making what I think are succinct and high-level points. To state the obvious, growth, in the view of myself and experts within the agency, can only be sustained if there is appropriate land and water. We would suggest that those things also need to be in reasonable proximity to infrastructure because, as many of us would be aware, production also does require, in many cases, harvest and transport to market and logistics associated with those things.

I also make the point from the document, that much of the Territory is an intact land base and, in fact, less than one per cent of the Territory is currently cleared. For information, within the early parts of the document, it talks of the obvious weather conditions. They are, as we all know, quite different in the Top End versus Central Australia, but given that this presentation will become part of the formal record and transcript of events, we thought to include that for completeness.

Mr Darcey might add later we would argue that unlike other places, the water availability via irrigation here is largely from bore fields. As far as we can determine, whilst there may be a few minor dams, there are no large scale privately owned dams for the purpose of agricultural irrigation in the Territory; which is quite different from other places in the country.

We make the point that whilst Regional Development, Primary Industry, Fisheries and Resources are not the responsible agency for the allocation of water resources, we do understand that that issue needs to be managed to give confidence to all parties and we would assume that NRETAS will provide that information to the committee.

The last issue I would like to mention is climate change. There are a number of models of predictions for the future and whilst there is some variation among those models, it is generally accepted that in the central part of the Territory, there is likely to be longer periods of dryness with increased temperatures. In the Top End, whilst there is likely to be an increase in temperature over time, by the modelling that I am familiar with, there is likely to be some increase in rainfall. That is based on evidence of the last decade of so when there actually has been a noticeable and discernable increase in annual rainfall over the Top End.

The concluding remark that I would make is that we have a solid working relationship with NRETAS in relation to their responsibilities and ours and, whilst our focus is on development activities, I make the point it is on sustainable development activities within the Primary Industry sector.

I would be delighted to take questions or hand over to Mr Trier at the convenience of the committee.

Madam CHAIR: Do any members have questions for Mr Gobbey?

Mr WOOD: Just a general one: what do you see as the definition of 'sustainable agriculture'?

Mr GOBBEY: I would be loath to differ from - there is a national definition of agriculture and I understand my colleague Christine Long has that definition at hand.

Ms LONG: Christine Long Director Primary Industry Services. Sustainable agriculture is the use of farming practices and system which maintain or enhance: economic viability of agricultural production; the natural resource base; and other ecosystems which are influenced by agricultural activities. The definition has five principles: farm productivity is sustained or enhanced over the longer term; adverse impacts of the natural resource base of agriculture and associated ecosystems are ameliorated, minimised or avoided; residues resulting from the use of chemicals in agriculture are minimised; the net social benefit derived from agriculture is maximised; and farm systems are sufficiently flexible to manage risks associated with the vagaries of climate and markets.

Madam CHAIR: Any other questions from members?

Mr TRIER: Alister Trier, Director Pastoral Production. I will first talk about the pastoral industry overall and then I will sort of move in to the Indigenous pastoral sector. I have outlined two separate documents, so I am going to repeat largely what is in there, but just to point out some highlights.

You would be aware that the pastoral industry has been doing pretty well over the last few years, especially in relation to live cattle exports, but on a number of levels the markets in the Territory have been held up by the prices received for live cattle and that has directly affected those markets and indirectly affected the alternate markets to the east and south. That being said, the pastoral industry has also being fairly challenged by drought in the south for a number of years and in the Barkly for the last year.

I am trying to frame this up in my head as I go. I have been involved in the industry since the mid-1980s and I think there has been a real change in industry recognition and responsibility to sustainable production and becoming actively involved in areas that back up those sorts of principles.

Where we are now is we have got an industry that is, I think, cognisant of the facts of the need to embrace sustainable production and they need to be economically viable as well. I think on an overarching scale, that is justifiable and you can see it through industry.

Just breaking the industries in to the sectors of the Territory, where they are now and what the potential is in the future; there are some figures there split up in to the Top End, Katherine, Barkly and Central Australia. What I have done there is split them up into what they currently contribute in terms of value, but what is possible in to the future. Then if you look down at the bottom of the document, there are some points as to what the considerations would be to reach those possibilities.

So just to summarise that quickly, the Top End it is very hard to put a real concrete value around because they act as a sort of staging post for a lot of cattle out at VRD that go overseas so trying to get an accurate value is difficult. The Top End and Katherine values are arguably not correct, but the sum should be pretty close.

The Top End has got considerable potential to expand its production albeit due to intensification and intensification would require a number of underpinning security

blankets to alleviate the public concern for use of natural resources, and I concur with Rod's views on that.

The Katherine region being the other part of the main supplier into the live export industry also has considerable potential to expand. Some of that is due to intensification and we have proven work on that in research projects already undertaken, that is the Pigeon Hole and Mt Sanford projects where we have shown that current industry utilisation in that area is around about 13 per cent, and we have shown that you can have sustainably lift utilisation - when I say 'utilisation' that is actual usage of grass available - up to well over 20 per cent. So at a conservative figure of 20 per cent, it has shown that it is sustainable. There were studies in that project undertaken by NRETA, or NRETAS as they are now, looking at the biodiversity and it has shown that biodiversity is still sustainable at those 20 per cent utilisation figures.

One thing to bear in mind is that study was done on a particular land type and is relevant for that land type so those figures are not immediately transferable to other land types, but it does indicate that there is room to intensify our current use of land and intensification would mean greater investment into infrastructure on property and it would also require a change of management practices and paradigms and a range of industry change, but certainly it is there.

Moving in to the Barkly, there is also room for intensification, but more of a higher note than in the Katherine region or at least the same. There are some productivity gains to be made there. By productivity, I mean you have a total number of cattle in the Territory and you have a total number turned-off and we just do our productivity ratios as that. At the moment, we are turning off somewhere around 550,000 head of cattle for a herd of 1.8 or 1.9 million so your productivity is about 27 or 28 per cent. It is down at the moment because of the drought. We believe that productivity can be lifted up into the region of 35 per cent, which would increase not the total number, but increase the number of cattle turned off.

Moving down to Central Australia: intensification in Central Australia, I do not think there is a lot of room there. I think because of the nature of the seasons there, you get absolutely some of the best country in Australia when it is good, as it probably is now, as opposed to some of the worst country in Australia when it is bad and you need to have a management system that can cope between the lot. Intensifying I do not think is the answer, but certainly there are huge gains that could be made there in productivity through research and extension.

So that is just a very quick overview. Those intensification and productivity changes are underpinned by research and extension. There are some other greater policy thoughts there, and I have noted those down, but just to talk about them briefly: Political and corporate timeframes which have an influence on long-term investment from a corporate point of view. There is a perceived, at least, notion that corporates have to achieve a similar return on investment as to a corporate investing their money elsewhere and business/corporate timeframes are measured in annual years or two or three year time cycles whereas a pastoral entity really needs 10 year type investment so that you take advantage of the full seasonal cycles and there is that long-term investment.

There are some other financial investment concerns such as land values and finance. I think this year will be quite interesting in the pastoral sector due to the financial uncertainty and I think we will really see the measure in that regard.

Markets are extremely important. The live export market is underpinning the Northern Territory at the moment and the Executive Director Primary Industries' reference to investment into infrastructure is absolutely sound in that regard. Our main market is into Indonesia. That is an Islamic market. Their main demand circles around Ramadan, the Islamic festival. Ramadan comes forward in the calendar year each year and our supply into the next five to 10 years will be moving straight into our Wet Season which is going to put some strains on infrastructure to supply. As I said, the other areas are research and education that will underpin those.

I have looked at the Northern Territory, if you like, particularly from intensification, so increasing utilisation on currently utilised land and from productivity, which is better management practices and better turn-off.

The other area, and one of great significance, is using unutilised land, which predominantly is Aboriginal Land Trust and the Indigenous Pastoral Program has been looking at that. The figures are in front of you, but to run through them: the Aboriginal pastoral herd is somewhere around 80,000. I have to say that is a quick summary and it could be a little bit higher than that, but I did not want to over-estimate it and it is selling about 24,000 so its productivity is still commensurate with industry.

Again, its markets are the same as the wider pastoral industry. One thing is for sure: there is considerable potential in Aboriginal Land Trusts to increase pastoralism, however it must be recognised that that needs to happen under the terms of the *Native Title Act* and *Land Rights Act*. That is it is Aboriginal land and it, any increase in pastoralism, must lie within the wishes of the traditional owners for that activity to be undertaken on their land.

So just a quick rundown of the Indigenous Pastoral Program, which is looking at this. It is a multi-agency program that initially had the two land councils, the Indigenous Land Corporation and the Northern Territory Government sign up in 2003 for a three-year Memorandum of Understanding with two clear aims. One is to increase cattle on Aboriginal land and the second to increase Aboriginal participation in the pastoral workforce.

The first three years were quite successful. We got nearly 25,000 head of cattle on land and we had over 60 short-term and seasonal jobs. It was renewed in 2006 for a further five years through to 2011 with the incorporation of two more partners, being the Northern Territory Cattlemen's Association and the Commonwealth Department of Employment, Education and Workplace Relations.

Currently, we are up around between 50,000 and 60,000 head of cattle on Aboriginal land. We have now started a program that gets young Aboriginal people into unsubsidised employment on pastoral properties within the Northern Territory. This year, we put 48 Aboriginal trainees through training. I think at the end of the day, we had a 60 per cent retention rate, which we were quite pleased with.

The future of the Indigenous Pastoral Program is fragile. I need to be clear about that. We can concentrate on getting more cattle onto land, but what we also need to be doing is building the capacity within Aboriginal communities and pastoral entities to actually manage and take on their own business.

One of the successful models for getting cattle on to Aboriginal land is actually leasing land back to non-Indigenous pastoralists and that is very successful and works and creates an economy for the local community, but equally importantly, an

economy to provide land management on Aboriginal land, but it is less strong in the box of building capacity across business systems, the whole sort of business structure, if you like.

We need to make sure that we build capacity as we build numbers and so we are focusing quite heavily on that. We are working currently with 16 properties overall, but about 10 in a concentrated manner. We are loath to take on any more work at the moment in that we want to make sure that the ones we are working on stay going because there is nothing more debilitating than getting something going, walking away and seeing another failed Aboriginal enterprise.

I think I will conclude my comments there and see if there are any questions.

Madam CHAIR: Any questions for Mr Trier?

Mr STYLES: The increase in the grass use from 13 to 20 per cent, is that 20 per cent the maximum grazing that you actually take off without any land degradation? I was not quite sure what you meant by that.

Mr TRIER: In essence, that is correct. Utilisation is based around fodder budgeting. It is a bit of scientific jargon, but at the beginning of each year, due to rainfall, humidity, temperature and the way the rain fell, you will get a body of grass. Of that body of grass, currently it looks like we are using about 13 per cent of that body each year on average. We have proven that you can lift those utilisation rates up to 20 per cent on a particular land type with no negative effect to a range of environmental considerations including biodiversity.

Mr WOOD: Alister, in Western Australia, I believe that at least in the northern part, they set cattle numbers per property based on some assessment of what those properties can look after without too much environmental impact. Does the Territory have any sort of program like that?

Mr TRIER: Leased land under pastoral leasehold is governed under NRETAS and the Pastoral Division there. We look at safe carrying capacities and provide expertise to NRETAS but NRETAS govern the use of pastoral land. Mainly it is governed under a method of monitoring land condition over time, taking into account seasonal influences and where there is a negative trend in land condition, they implement remedial procedures; but it is under their charter. There is no total restriction on numbers, but certainly there is advice given, but it is in their area.

Mr WOOD: Just to follow on from that, are there any difficulties with having the Department of Regional Development, Primary Industry, Fisheries and Resources and NRETAS doing work around cattle numbers and sustainability? Even though I understand why NRETAS is doing that, I would have thought it splits up a fairly important part of pastoral management into two different departments. I do not know whether there was any problem from a pastoral point of view having two departments looking after that area.

Mr TRIER: I support the Executive Director's comments that we have a strong relationship with NRETAS, especially at an operational level in this regard. I hope I speak for my staff, but I think we are all very mindful of the fact that we must have an environmentally and ecologically sustainable industry and we are very mindful that we need to promote that for a number of reasons - public perception, but also for reality. We want an industry that lasts forever, not one that falls over, over time.

Getting down to the mechanics of working with NRETAS, as always, we have got conflicting priorities in the work that we need to do, but it is not so much a conflict. What I am trying to say there is we each have our work plans and sometimes our work plans do not line up. NRETAS needs information that we are not entirely mapped out to provide in the timeframe that they need or vice versa, but really, they are normal issues, but from an overarching perspective, I think we are very much on the same page in that regard. I cannot think of anything else to add.

Mr GOBBEY: If I might add whilst NRETAS' work and set desired stocking densities on pastoral leases, we work very closely with them through our scientific officers to advise what we consider those appropriate stocking densities are. In relation to the Member for Nelson's concerns there, I do not believe there are two regulatory agencies; it is clear that NRETAS have responsibility for the issue, but they do rely on pretty sound and solid advice from officers of the Pastoral Production group.

Mr McCARTHY: Just a couple of comments and I am looking for advice. Number one, in terms of transport and infrastructure, and we are talking about the increase in fuel costs, particularly the impact on the beef cattle industry in the Territory, do you see it as viable for some sort of return to traditional overland droving practices in terms of cattle movement within the Territory?

Mr TRIER: My short answer is probably no, and I will go on to explain that our industry markets really drive where we are going at the moment and it is very much a time bound and professional process. I do not want to take up too much time, but I started in the industry up here in 1985 and it was just a completely different industry then. We were starting to use road trains, but what is accomplished now in a month would have taken six months to accomplish 20 years ago and our overseas markets expect that sort of timeframe and that turnover.

To get to some more specifics, I think the notion of overland droving does look as if it has got some benefits in that you are keeping trucks off roads, and there is less chance for the public to perceive animal welfare issues and there is the energy debate as well. I think education is the key to animal welfare. In actual fact, animal welfare issues on transport are actually pretty good. The education might need to be lifted up a bit. In terms of money, I have not done the sums, but the cost of employees to actually drive cattle in the timeframe, at a guess would far outweigh the cost of transport at its current stage. Energy is going to be an issue into the future, no doubt, so that will need to be watched but I think it will be about more clever and strategic investment by industry in locating properties closer to markets and having strategic changes, shifting their animals at times and in big numbers and getting them closer to the market and getting them ready. They have still got to go from one end to the other, but if it can be done more smartly and in line with available transport and a range of other things, I think that is where it will go.

Mr McCARTHY: Just a second comment; in relation to live export, and I will share an anecdote with you to try and put you in the picture. Very recently, I was talking to a pastoralist in the Gulf country and we were talking about the impact of the global financial situation. The anecdote sort of went around a management strategy for the particular station, in terms of a market crisis, would be to basically put in a caretaker type management system.

My immediate concern was environmental impact of a considerable herd that had been built up over years and very little management. What are your thoughts on that? Should this impact in terms of live export drop off?

Mr TRIER: It is about the cost of staff. There is a whole range of things: availability of staff; and the industry being able to service itself. A couple of years ago, it was really high on the agenda of the cattle industry. I think now, through this Indigenous Trainee Scheme, people are starting to realise that there is a great supply of staff locally; it is just that there are some major hurdles that need to be resolved and I would have to say industry are playing their part in resolving these hurdles.

The Caretaker Management System was something that I thought we might head to a few years ago mainly because of staffing issues. So you would have a core group of staff of a manager and two or three core people, and then everything else would be contracted out, but my thought processes behind that were because of a lack of availability of staff. Now that we have moved on, I am not so sure that we will go down that contracting route as much as I thought we would.

Irrespective of that, I think that pastoral entities will not move away from a core management group because they certainly have responsibilities under the *Pastoral Lands Act*. There is plenty of public perception and attitude towards environmental management, and I think people are cognisant of that and realise that they need to maintain their core procedures in that area.

Mr McCARTHY: Just one more point; in terms of a management system, should live export markets drop off, are we talking de-stocking?

Mr TRIER: I very much hope live exports do not drop off. We will be in a whole lot of trouble in the Northern Territory if live exports drop off. It underpins a whole lot of things. It underpins the amount of money that is invested into environmental management of over 50 per cent of the Northern Territory, including some Aboriginal land. It underpins a lot of regional communities. I know mining has some influence there as does tourism, but pastoralism is a big contributor into that sector. It underpins the employment of 1800 people. If live exports dropped off, if the money dropped out of that, investment into those non-immediate areas would cease immediately. I really would not like to entertain a thought that live exports would stop. To that end, I personally and through a range of my work, have spent a lot of time trying to influence people about the strength of the live export system – one, in terms of what it does for the Territory and also for Australia; and two, about its actual professional performance, which in the north is world-leading.

Mr GUNNER: Mr Trier, before I get in to my questions, I will pick up the point the Member for Barkly raised about live exports dropping off, on the weekend the Federal Minister for Agriculture wrote about the global food crisis and said the global financial crisis is hiding that. I guess a lot of experts do not know where money is going at the moment but the GFC, as everyone is calling it, might be affected by world economies, but with the food crisis still evident, do you see possibly a growing demand rather than a drop off in live exports in the future?

Mr TRIER: Absolutely. Do you want a further explanation?

Mr GUNNER: No, no; I am happy with that. Obviously, there is a debate about why the global food crisis exists and biofuels and meat and grazing grounds and all of that, but it seems to me we have a good model here and, from what I can tell, there is demand out there that hopefully we can meet, which leads neatly into my next question, about intensification. We are talking here about how we can improve the heads of cattle we have got in the Territory and my understanding obviously is intensification and productivity gains that you have got here are about existing cattle

properties and what we can do with them. So I guess the first thing I would be interested in hearing is about the actual practical relationship between the department and a station owner and the NT Cattlemen's Association about how they might go about improving what they do. Is it just a question of 'we do research and provide advice and if they take it up they take it up' or how does that conversation work to see the improvements done on the ground to convince them that they need to make those infrastructure investments or that the research we have done generally means that they should breed their cattle in a certain way?

Mr TRIER: Can I just go back to that first one, the exports? I just want to make one point, and that is the live export trade is built up because the north of Australia breeds cattle very effectively. We do not necessarily fatten cattle that well. South-East Asia has a huge amount of available by-products and they fatten cattle very cheaply, so that is a very complementary relationship.

Moving on to your second question; our relationship with the pastoral industry, in my view, is sound. I think there are always people who think we can improve in certain areas, but I think we have, overall, a very strong relationship. We have a number of mechanisms to engage with the industry. Prioritisation of the work that we do is through three Ministerial Advisory Committees, being the Alice Springs Pastoral Industry Advisory Committee, the Barkly Regional Advisory Committee and the Katherine Pastoral Industry Advisory Committee. The Terms of Reference of those groups are to provide input into long-term strategic direction for research, provide comment on our current work and, thirdly, they sit on a national body that provides funding into some of the research programs that we do. I guess that is the most formal interaction.

In 2004, we undertook a Pastoral Industry survey, which was a snap-shot of the industry at that point in time. The last one prior to that was in the 1990s and I think it was even earlier than that. There was quite a distance of time anyhow. I am sorry, I should know the detail, but I don't. That has given us a very clear indication of how far industry have moved and it is very clear that a lot of that change and improvement in the industry is due to programs undertaken by the department over time.

The unfortunate nature of the work that we do is that it is long-term. The bull that you buy today to put in with your cows will have its most major influence on your total herd in seven years time. So it is really difficult for us to say the work that we are doing today is to give you a result tomorrow; it is very much long-term. What that actually means is when you are buying a bull today, you need to be crystal-balling as to what the market is going to be in seven years time.

Mr GUNNER: Then I guess around that relationship issue with cattle stations, is it just a case of - this might be more a question for the Executive Director I am not sure - we are basing modelling here, sustainably, around existing properties and what they can do on existing properties. I guess looking broader, is there ever a moment where you go out there and you are talking to the station owner and you say: 'Well actually, that bit of land might be better for this kind of cropping', or you look at other areas of the Territory where cattle are not bred and you think: 'Well that actually would be better cattle land'. What sort of work does the department do in terms of that further broader policy? I realise we are obviously getting into privately owned land so it is more of an advisory nature in a sense, I was just wondering more about how the department would work practically with a cattle station owner around their individual property. That might be too intensive, I do not know; is it more at that higher level?

Mr GOBBEY: If I could make some initial comments in relation to that, whilst NRETAS administer the *Pastoral Lands Act*, and I will leave the specifics to them when they appear before you, but my understanding is that the pastoral leases are constrained in what activities can occur there without overt permission to engage in other activities. Though they are pastoral leases, I know from time to time there are other agricultural activities that take place, but given that the 216 pastoral leases in the Territory dominate both by number and by cattle production in the Territory, I think we need to look to those properties to provide the growth to the livestock export industries in the Territory.

In relation to alternative uses, particularly on freehold land in the plant industry area, I make the point that Matt Darcey will be talking about crops, forestry and horticulture a little later, as to what we do specifically to work with individual land owners, be they holding a lease or a freehold title, I think we have moved away from when we might have provided what one could term as paternalistic advice more towards letting a business to business relationship drive some of those issues.

Mr GUNNER: Yes, and that is much easier to handle as a department, I imagine, to do the broader policy and research, have that on the table and then – yes.

Mr CHANDLER: I have three questions. The first one is related to the environment, the second on live exports and the third on land-clearing in the Douglas Daly area.

The first question on the environment: I have had many meetings in recent times with environmental groups and so forth and the general consensus across the board would suggest that pastoralists are rapists of our land. I certainly do not have that opinion. In fact, a few of the properties that I have visited in the Douglas Daly area and even just north-west of Katherine not more than two weeks ago a large property where they were doing major works to repair old erosion and in fact my opinion is that some of our pastoralists are probably our best environmentalists out there because their livelihoods depend on it. If that is your opinion, is there more that you think the department could be doing to improve the perception of that situation?

Mr TRIER: I concur with your comments. I think the greater percentage of pastoralists are good land managers. You can always find someone who is not doing everything correctly, but I think overall, your comments are right. From my understanding, three-quarters of the pastoralist industry are members of a land care association of one sort or another.

In terms of what more can the department be doing, a good percentage of research work undertaken in my area is about sustainable production, is about responsible use of natural resources and providing underpinning information to substantiate the use of natural resources. So there are two areas: it is about having the science and the second is about promoting it.

I certainly think that in the public arena, the environmental groups who have a real and necessary role to play can get the majority of the media at times because of the use of sensationalism and other things whereas we, by nature, are restricted to fact and science. I think we have been doing okay in that regard. We do have the figures from a research point of view. The Executive Director at NRETAS will speak for themselves and their areas of responsibility, but the Pastoral Land Board monitors use of pastoral land and I think they will say it is mostly in very good condition. To

finish it, there was a book, co-written by John Woinarski and someone else, about environmentalism and if you read it, it says the north of Australia is in excellent condition despite pastoralism for the last 100 years.

Mr CHANDLER: My second question is about live exports. Has any modelling been done on looking at slaughtering cattle within Australia using Halal methods and then exporting the meat frozen? I know there has been much done on the improvement on welfare of animals, but the reality is we cannot guarantee that every beast that is loaded on to a ship is going to make it or is not treated somewhat humanely and we certainly cannot guarantee what happens to that animal once it gets to another country. I am just wondering whether any modelling has been done on slaughtering cattle in Australia.

Mr GOBBEY: It is now, perhaps, certainly three years ago, and it may be a little longer than that, that I worked with colleagues across NT Government to provide a generic document for the benefit of a business plan to anybody who wanted to open an abattoir in the northern part of the Northern Territory. The major conclusion of that report, which is available, concluded that given the export prices for livestock at that time - and I make the point they have not weakened since then and in fact, they have probably strengthened a little - it would have been extremely difficult for a business case for the establishment of an export-registered abattoir to purchase animals at the same price that the live exporters were purchasing them and convert them in to a meat product to export.

Some comments that I received in response to the report were that in fact an abattoir of any scale at all would have been an economic failure. That report has been provided from time to time to proponents over the last year or two, and they make their own commercial decisions and do their due diligence, but I am not aware of anyone wishing to establish a business at this time.

Mr CHANDLER: And the last question is about land clearing in the Douglas Daly area. I am surprised at the number of people - - -

Mr GUNNER: I am sorry. Is it all right if I ask a follow-up question?

Mr CHANDLER: Sure.

Mr GUNNER: Just a clarification around my understanding of where the profit is in a sense in the live export industry. I realise this doesn't quite answer the animal welfare issue you are raising - and maybe we have different opinions, but I think they are okay on the boats. Is it about putting a cow on the boat at a time when it is just about to go through a growth spurt and it puts on weight while on the ship while it is going over and then the market where it lands, and you touched upon this earlier, they have excellent food stock from around other associated food industries and it puts on weight rapidly over there and then the cow is killed, hopefully humanely and decently and cut up nicely, but it is done at a point when it has made 100kg or whatever it happens to be? Is why the model works, because of the weight growth in a short amount of time?

Mr TRIER: Absolutely. There are a number of things; just continuing on from the Member of Fannie Bay's comments there, certainly when an animal is on a boat, it is only on there for three or four days. It is actually probably one of the most safe periods of its entire life, on a boat. Mortality rates are less than 0.1 of a per cent and generally they are because of a broken leg. If you look at the amount of people that travel between England and France on the ferry and the amount of leg breakages

there, it would be well higher than 0.1 of a per cent. The difference is that there are remedies for broken legs on ferries.

The other issue about what happens when they get over there, in Indonesia especially but throughout South-East Asia, there is considerable investment by the Commonwealth Government and Meat and Livestock Australia into programs to train and improve the capacity of people within South-East Asia in handling product right through chain. The underpinning reason for that is to improve their profitability, so it is achieving two outcomes: it is going for those animal welfare gains, but it is also improving their bottom line.

You are absolutely right about the money is to be made in South-East Asia. We get animals to 300kg very easily. To get them from 300kg to 450kg takes us another year, but they can do it in 100 days in South-East Asia.

Mr CHANDLER: My question is a follow-up on this and what you were saying, Michael: if, by the stroke of a pen, legislation changed in this country and we stopped exporting live cattle and we went to a model where it was all slaughtered here and we only sent frozen meats, is the world market going to replace that market? Would that be financial suicide as far as our export market is concerned if we were to say, as I said, 'From tomorrow, there are no more live exports. It is all going to be frozen meats that we send overseas'. Will our market then be taken away and replaced by another market?

Mr TRIER: I can only speculate. There is a nett world demand for meat so you would think that if live exports fell over, we would find another market, but the reality is there is considerable interest from other countries for live exporting into Indonesia; Brazil especially. We currently have an advantage: one, locality; and two, through disease freedom. Indonesia will find cattle for their market. Their businessmen are making a lot of money out of it and they have got considerable money invested in infrastructure and they will find product elsewhere.

What we will have to do is find markets for our animals and that presents a challenge because our immediate market is in South-East Asia and if we lose the South-East Asian market, we have then got higher transport costs and a whole range of other issues. For example, our animals at the moment are genetically targeted to the diet of the middle-class of South East Asia, which likes a low fat product very much in line with the animals we produce. Other markets in northern Asia and in Europe like a higher fat content, which would mean we have got a seven year process of changing our genetics to target into that market.

Mr STYLES: In relation to the ceasing of live exports; it is my understanding that the problem they have in the supply chain into South East Asia is refrigeration and the cold-store chain does not exist there so exporting frozen meat to Asia is a waste of time. Is that still the case?

Mr TRIER: Pretty well, but having said that, most live cattle are consumed in Jakarta and Bandung and Surabaya, three major centres.

Where the growth is absolutely, that I came up with before, is it starting to go in to Sulawesi and Sumatra where there is not any cold chain infrastructure and very much orientated to a wet-market style of culture, I guess, for want of a better word. I don't know if they can get the hand-waving in Hansard, but the three underpinning things of live exports are, firstly that value adding, which is the big thing; secondly is cold chain infrastructure; and thirdly; to some extent, is religious beliefs. There is

plenty of meat sold out of Australia as Halal-certified and that goes into existing higher end markets all through South East Asia, but they are boutique markets, if you like, in the bigger centres.

Mr GUNNER: Following up on the Member for Sandersons' question; one thing I understood about going into the emerging markets where there are (a) no cold stores, but (b), they have the wet market that they are used to is an actual education process around cut of meat. You used to go to into a wet-market and getting any old cut that could be from any age cow, it could be from a dairy cow past its life, and part of adding the value to the meat we are exporting is people actually understanding the fact that it is of this age and that cut of rump is pretty good and it is not just any old ump for a curry. Is that something that the department is working on with the Commonwealth in those emerging markets around education of the local industry?

Mr TRIER: The short answer is no. It is still all about curries. Mostly there is not a huge market differentiation. It is very much about quality, though, but overall quality, not individual cuts differentiation. That gets in to that higher end market which is currently being met through the meat trade out of eastern Australia.

Mr McCARTHY: Just a quick comment, I have dodged a lot of Barkly cattle leaving the Barkly. What is their temperament like when they get off a boat in Indonesia and how are they handled there?

Mr TRIER: The ride on a boat is somewhere between three and five days where they are all pretty well hand fed in reasonably tight surrounds. Brahman and Brahman-cross animals are very intelligent animals so they do not take mishandling at all! in fact they get really cranky very quickly, but they also understand when they are being looked after when they calm down and accept it. You will find animals coming off a boat a lot calmer than when they went on, but having said that, the pastoral industry have really improved the overall temperament of their cattle. From the days when I first started to now, there has been a huge shift in overall temperament.

One thing that has had to happen, and it is still happening, is ensuring that the infrastructure in Indonesia and other areas in South East Asia is appropriate for Australian cattle because there is no way they will ever be as quiet as domesticated Indonesian cattle, but certainly on a comparative basis, they are pretty good.

Mr CHANDLER: My last question was on land clearing in the Douglas Daly area. I have had a number of people come in to my office, people speak to me at the markets, people who live in the Douglas Daly area who are frustrated with the time it is taking for decisions to be made for land clearing in the Douglas Daly area. I am just wondering whether or not any of you can provide me with any advice or background on what to tell these people. Some of these people have been there since the mid 1980s and even today, are still left with less than enough land cleared to look after 300 head of cattle.

Mr GOBBEY: I might respond to that if I may. I note that the issue of the moratorium on the land in the Douglas Daly is the responsibility for the Minister for a different department than the one for which I work. Having said that, there is the Daly River Management Advisory Committee, DRMAC, and I have one permanent and sometimes two members of my staff that are part of that committee providing scientific advice into the determining of government policy. It is probably not appropriate for me to comment on current or potential future government policy, I can indicate that through the expertise of my staff, that it will be an informed discussion.

Mr WOOD: Alister, on the issue of Gamba Grass, do you think we can combine the benefits of Gamba Grass for the pastoral industry and at the same time restrict its use in the Northern Territory because we know it has certain environmental down sides as well?

Mr TRIER: Gamba Grass comes under NRETAS department as well.

Mr WOOD: I was thinking of the word 'pasture'.

Mr TRIER: Pasture. Certainly, we promote a number of improved pastures which people are wishing to develop. Gamba is no longer one of those.

Mr WOOD: What about in the case of the grass in Alice Springs, Buffel Grass? Is it the same thing or a different argument?

Mr TRIER: Buffel is certainly a pasture of significance to the pastoral industry. We have information on establishment and management of Buffel Grass.

Mr STYLES: Going back on a couple of issues for Alister Trier; the current turn off is 27 per cent, you were saying, in relation to cattle and you said we can increase that to – was it 30 per cent you said - so we can actually squeeze a three per cent increase of production out of that?

Mr TRIER: The 27 per cent I think at the moment is reflective of the current drought. I think 30 per cent is an industry standard. I am being quite cautious, but I think we could lift it to 35 per cent in a reasonable time frame, given the outcomes of certain research and then getting industry changed. I can talk about some specifics if you like, but certainly I think 35 per cent is achievable in a reasonable timeframe.

Mr CHANDLER: I have just got one more question on grass, firstly admitting to having read more information in the last few months than I have in many years, and certainly guilty of not remembering everything, however I did read an article recently about a particular grass that is suitable for pastoral use and if memory serves me right, it was a grass that for our environment actually takes more carbon dioxide out of our atmosphere in its life cycle and therefore it is good for our environment. Do you know any grasses?

Mr TRIER: No, I am sorry, I do not have that expertise. I could find out, but I am unable to answer that at the moment.

Mr GOBBEY: Perhaps, Madam Chair, if it is a formal question, we are quite happy to take it on notice and provide a written response.

Madam CHAIR: Thank you, Mr Gobbey. Member for Sanderson, you have a question.

Mr STYLES: Another question for Mr Trier; he is very popular this afternoon. You talked about the Wet Season export and the changing date of Ramadan and our infrastructure requirements in relation to beef roads and getting that product through to the ports for export. Is there an issue at the moment with infrastructure? From feedback from the pastoral industry, is there an issue out there that currently they are concerned about?

Mr TRIER: I am not sure exactly. I guess infrastructure is a planning and infrastructure area. My judgment of it is that there are some seasonal factors that are

impossible to account for and I think the industry largely at the moment works its way out to meet the current demand and timing of that demand. What I was doing was forecasting that there is going to be greater pressure in the future over the timing of that demand.

Mr STYLES: A supplementary question to that one: if we are looking at having an issue and really stressing some of our infrastructure out there during the middle of the Wet Season, do you think there is the capacity for some sort of agistment on properties closer to the port here to bring that stock out of that country a bit earlier and have a longer-term agistment up here? Do you think there is a capacity for that?

Mr TRIER: The short answer is yes. I think there is some capacity, certainly through the Douglas Daly and certainly capacity out on the Daly River Land Trust area, given a whole range of issues to be sorted out, but you could put a lot of cattle there and if you put a port there, you would get them out. Again, through some of the country in Arnhem Land and there is existing and emerging possibilities at Oenpelli, again bound by some infrastructure issues.

Mr STYLES: So when you talk about infrastructure, are you talking about some sort of loading facility down at Daly River somewhere?

Mr TRIER: There is land there in close proximity to the coast and South-East Asia. What it will need is the ability to be able to get those animals on a ship somehow; so either by road via Darwin or directly via a port.

Mr STYLES: So there is capacity in that area to bring in, say from further inland, and agist next to the coast, where, during the Wet Season, we can actually supply these markets and give them an almost guaranteed supply if we have got some good infrastructure or a little bit extra infrastructure around the place?

Mr TRIER: I think so and the addition to that is that, in reality, the flood plain country is complementary to rangeland country in that rangeland country's productive cycle starts to cease about - July is when the protein starts to fall out of the rangelands and it is basically when the waters just run off the flood plain country and that is at its peak and that will go through until it starts to fill up with water again.

Madam CHAIR: Thank you. Do any other members have questions for Mr Trier? Mr Darcy, will you continue?

Mr DARCEY: Matt Darcey, Director of Cops, Forestry and Horticulture. I am going to give a bit of an overview of the crops, forestry, horticulture area that I will refer to as the plant industries. There is huge diversity between those various sectors. The industry is worth between \$110 and \$160 million. Currently, it varies depending on the vagaries of the mango crop and the melon crop. That figure does not include the value of forestry at this stage because nothing has actually been produced off the 30,000-odd hectares. It currently employs about 4000 people and 600-odd businesses. Some would be called micro businesses, but that number nonetheless.

The plant industries operate right across the Territory. The vast majority of value and effort is north of Mataranka. The plant industry sector in Central Australia is small and declining due to the issues around table grapes. The industry is still growing. Over the last 30-odd years, the first 20 years was incredible growth,

doubling every five years indeed, but in the last five to seven years, that has plateaued off a bit.

There is a significant consolidation in business numbers, with small operators leaving the industry and larger corporates taking up land - also a fairly significant reduction in the diversity of the various crops grown, particularly in the cropping and horticulture sides of things. I guess a tenet of it is that the technology is improving rapidly; particularly around irrigation management and scheduling, and the larger commercial operators will pick up those technologies.

There are better varieties of various crops around now than 15 or 20 years ago, a much better understanding of whole-of-farm management and use of rotation in managing pests and diseases etcetera. There is quite a strong push towards reducing inputs. As you probably know, the cost of fuel and the subsequent cost of fertilisers, as an example, have been pretty astronomical over the last few years. Fertiliser prices have basically doubled. So the sector is going towards biological farming practices, which is partly about sustainability but also partly about just remaining viable.

There is significant interest, as you are undoubtedly aware, in the Northern Territory for both irrigated and non-irrigated agriculture or plant industries, particularly as southern droughts have hit home. We have got some pretty good examples where businesses have made decisions to come to the Territory based on what they see as being the future and the Peanut Company of Australia is an example of that, as with some of the forestry companies moving here because of their wish to diversify both their production base, what they see is opportunities as far as water and land goes and basically just spreading their risk as a national company.

Sustainability is a key issue. My view is that the industry is pretty much on board with the issues around sustainability. They know it is important to do work there. We are playing catch-up, in my view, around the research required to demonstrate that growing of various crops can be done sustainably. That has caused some tension in the past about moving away from identifying new crops and new business opportunities to moving into how do we do it sustainably and keep businesses viable.

As mentioned earlier, the whole issue around food security is a major concern to us in the future. The whole use of plant industries for regional development and regional jobs clearly is important, but to do that, we would have to retain some capacity in the regions and in our enterprises. Then there is a whole area around land management and custodianship of the land, which I know is relevant to pastoral as well, that is important.

There is a misconception that there is a large tract of land and water up here for people to come and grow on. My view is that the future will be smaller mosaics of intensive plant industry production based around pretty robust agronomic models.

I am just going onto the Indigenous stuff. We have not got a particularly strong track record in using plant industries for Indigenous development. For example, at Ali Curung a commercial producer is producing on Indigenous land and there is potential for jobs there. Obviously at Melville Island there is an opportunity there. We have really struggled I guess, to get the growing of plants working in Indigenous communities, but there is a lot of interest in community gardens. We are looking at a project at the moment and we call it 'Box of Veg' which is about the community pre-purchasing fruit and vegetables produced by a commercial producer for that

community, but that is more about fresh fruit and vegetables available to the people of the community. I think I will leave it at that unless there are any questions.

Madam CHAIR: Are there any questions? Member for Fannie Bay.

Mr GUNNER: Just an area I am interested in. I met with Centrefarm six or seven months ago and they were talking obviously about the work that they do around the artesian bores and they have got plans that obviously need funding, but they were saying - and this is where sustainability, we might go away from a bit; we talked about the pastoral industry before - they think they can take more water out of those artesian bores than they have got licence for. I was wondering what sort of work the department might do or what sort of involvement the department might have around what they want to do and what use of water they want to have there and what your thoughts might be on what crops are good there and looking for in the future and what sort of importance that region has for what we are doing.

Mr DARCEY: I think the use of ground water in Central Australia is not readily replaced. So it is a mining operation around water and NRETAS is very aware of that and that is why they are licensing to a 100 year rotation. I think that the opportunities for Central Australia are about using a lot less water than we have been and there is a whole raft of new technologies available for that. But the critical thing in Central Australia is about markets and getting a return on the product that makes it worth doing. A big part of the table grape industry's challenge is just the cost of fuel and producing stuff there. I know that Centrefarm is looking at some of the crops that we have investigated in the past, for example asparagus, but again, it is high value intensive cropping regime.

Obviously they are also focused on jobs and enterprise for local people. The vast majority of horticulture and agriculture is moving away from high labour inputs and moving towards mechanisation. I do not know that that is quite going to be the case in Central Australia. But I think the world is looking at ways of growing food better with less water and that is part of the challenge down there.

Madam CHAIR: Any further questions? Member for Nelson.

Mr WOOD: If I can just make a comment, they have been looking at growing crops with less water ever since drip-irrigation came in to being, which is a fair while ago. Just another little comment: you said that we do not necessarily have a good track record when it comes to horticulture. I think it has declined to some extent in areas where it was booming and it did boom, I think, in many Aboriginal communities 30, 40 or 50 years ago and unfortunately since then, it has gone backwards, and for many reasons. I think it is an area that we really need to look at again, just as supply of local fresh food, which is not just about employment; it is about supplying people with food for nourishment and we know the difficulties some of these places have with poor food outcomes. I think there is a lot more work we should be doing in that area.

You do say that we are now trying to catch up in teaching people how to have sustainable horticulture and we have gone away from doing the experimental work we once used to do. I am one of those who believes that that experimental work is just as important today as it was years ago. I know I am making a statement, and you can comment on the statement, but it is a bit like we can grow watermelons in the Dry Season - and I used to grow a lot of watermelons at Daly River and Bathurst Island - it is winter in Melbourne and watermelons are not something you want to eat in winter. So someone has to do the trial work and find out whether we can get a

variety of watermelons to grow for the summer markets down south. I do not know whether any company is going to do that, but don't you see that as an important role for the department? I still regard us as a pioneer area especially in the growing of crops.

Mr DARCEY: I will comment on your comment. I think I might have been slightly misunderstood. It is not that we are not doing the research now. We are certainly doing less new variety or new crop research. We have a history of I think 160 or 170 different crops we have looked at over the years, but what we have not been able to do at the same time is put the same emphasis on how do we do that sustainably. So that is the shift. We are putting effort back now in to the production systems to make those crops work. That is partly because we have been in a significant growth phase. We have had many first generation farmers in the Northern Territory all looking for something to grow. Now, as the sector is consolidating and the larger enterprises, family and corporate, vertically integrate, often with properties right across the Territory, the top down to Mataranka, at least, we don't have the resources to continue to look for those new things all the time. We are still doing new crop research, but we have shifted into much more of the environmental impact stuff that we have not done enough of. The Northern Territory is unique and we need to get that information.

Mr WOOD: But if we had the resources, do you think the department would put those resources into doing more experimental work?

Mr DARCEY: We are doing experimental work, just not the scatter-gun approach we have done in the past. We are certainly looking at a whole range. We have looked at bio-fuels, we are looking at bush foods in Central Australia etcetera, but we do not have the same numbers of new crops that we have looked at.

I think with the Indigenous Community Garden stuff will bring up some new opportunities where we are growing for a very localised market. I think that through that process, we will find some better varieties for that particular environment.

Nationally, the trend has been that commercial people start to put effort into producing their own - not their own crops, but going from a market drive to a product for that market rather than departments trialling a range of things and seeing whether they grow and then try to find a market for them.

Mr WOOD: One more to follow that up, isn't it true that Queensland is doing exactly that? They are coming to the Territory to do experimental work in the Northern Territory on mangoes, but shouldn't that be the work we should be doing, for instance?

Mr GOBBEY: If I can answer that question, yes, we have a partnership with both the Western Australian and the Queensland departments and from time to time their staff are here and from time to time Matt's staff are working with them in Queensland.

At the moment there is some work happening here and there is expertise that exists within the Queensland department that we do not have where they are working with and for a Northern Territory mango producer.

Mr STYLES: Peter Styles for Mr Darcy: this contract purchasing that you are talking about around the Territory and out on communities, do you see that as a

really good initiative that will encourage perhaps some commercial developers to grow their particular business if they have got a guaranteed outlet?

Mr DARCEY: No, it is not focused on that. It is focused on a realisation that historically, communities have grown a lot of fruit and vegetables. It has tended to be under a regime around missions or some other more formal structure. Our view is that there is still enough of the old folk in those communities with a good feel about growing fruit and vegetables to build on that, but the difficulty we have had, and I have seen this happen in Western Australia as well as the Northern Territory, once the local champion goes, the thing falls over. So it is about recognising that getting a retired farmer or somebody who is prepared to go in to a community, produce the food for an income for that community, is something worth trialling and we are only at the trialling stage, I have to emphasise.

Madam CHAIR: Just while we are on the subject of community market gardens, if I could make perhaps more of an observation rather than a question. Being from Nhulunbuy, which is quite a sizeable region, with a township of 4500 people with a lot of communities around it and looking at this map here, we are way off any major transport route. Certainly road access is only open six months of the year and it is not a gazetted road and basically we rely upon a weekly barge service from which we receive fruit and vegetables that can be up to 10 days old. Certainly, the Woolworth store is sourced from Adelaide in South Australia. As I am listening to this, it just makes me think that it would be for a local market anyway out in that region a venture that would have to be worthwhile for somebody. I am wondering if people in Nhulunbuy have got so much disposable income, whilst they complain long and loud about the prices of fresh fruit and vegetable, to have them in Elcho Island and the Groote Eylandt, the potential there. You mentioned the missions as well. We still have a very viable banana farm at Yirrkala. Years before when the mission was there, there was quite a sizeable market garden that worked extremely well so it would be nice to be able to hark back to those days and solve a few supply issues in my region. Member for Barkly.

Mr McCARTHY: I commend the Indigenous Pastoral Program. Having first-hand experience in that in the stockmen training area, are we doing anything on that model in the agricultural area?

Mr DARCEY: We are working very closely with Centrefarm in Alice Springs and Ti Tree, training Indigenous men mainly, but some women. It was based on working in the table grape sector and that sector is struggling a little bit. So we are no longer looking at that as the primary employment opportunity for local people. That has actually evolved into that training for the melon grower at Ali Curung. There is a commercial melon producer based at Ti Tree, or there was last year; they have stopped this year.

So broadening the skills to work right across horticulture is part of that thinking. That has evolved now in to working with Centrefarm to try and get a community model based at Ti Tree so where there is no commercial activity, there is still work in communities. So it is a bit different from pastoral, but the history has not been there for plant industries as it has been for pastoralism.

Mr McCARTHY: One more question: is there a potential for forestry in Central Australia?

Mr DARCEY: My view is that it would be untenable for us to pump water out of the ground to grow wood products or paper products or biofuels in Central Australia.

I think there has certainly been some interest and I know there have been some commercial companies looking at it. The rainfall variability, I doubt that forestry would be a future industry in Central Australia.

Mr McCARTHY: What about the Barkly, then – I'll move it further north?

Mr DARCEY: A potentially different story. I do not know enough about the soils or rainfall, but the further north you come, the more prospective I guess forestry becomes. We certainly know that Mataranka and a little south of that is well within the zone for tropical timbers. I do not know what the rainfall is in the Barkly to be honest with you.

Mr McCARTHY: Just in relation to the Member for Nelson's comment as well, when we are talking agriculture and historical scenarios in the Territory, I see an opportunity with Indigenous people to bigger machinery-type operations in agriculture as opposed to the old traditional type agriculture. That is why I am thinking forestry. That was where I was actually heading with that question, to involve Indigenous communities in the larger scale more machine operated opportunities.

Mr WOOD: Can I make a quick comment? When it comes to horticulture like growing vegetable crops on small communities, there is very little movement. You can mechanise to a point but because you are growing a whole series of crops usually, a variety of crops, they are still fairly labour intensive crops. I still think there is potential and I must admit I think there is potential through the prison farm system if we ever have it.

We were talking about pooling a resource, fruit and vegetables in different places and then sending them out to communities. I think there is potential that way because then you can get some economies of scale and you can go into bigger production.

Mr STYLES: Matt, in relation to forestry in your opening comments, mango and melons contribute anything up to \$160 million per year, but that does not include forestry. I recall seeing some timber being exported off to Tiwi Islands from Great Southern. My understanding that Batchelor is not online yet with a lot of the stuff that is growing down there. Is there anything coming out of the Daly in relation to the ironwood and how big are the Tiwi Islands likely to get?

Mr DARCEY: The income from the Tiwi Islands has been from the native timbers, the native harvested to plant Acacia Mangium so that is very much an opportunistic market and obviously is not sustainable. I am not sure of any Ironwood coming out of the Daly, but it will be another seven years or eight years before there is any Mahogany harvested as a thinning regime out of the Daly. The Batchelor exotic tree enterprise is unlikely to be – I am not quite sure how to say it. I am not sure it will go beyond being an experimental effort.

Mr WOOD: Could I interrupt just there for one minute? There is an application to the Planning Authority for it to be turned in to small blocks of land, so its future is very bleak.

Mr STYLES: Limited.

Mr WOOD: That's right, yes. It might be for ornamentals.

Mr DARCEY: And as far as the area producing on Melville Island, my understanding is that Great Southern Plantations has decided not to go ahead with any second stages, but it would leave it to the local Indigenous owners to decide whether they wanted to take it to the next step.

Mr CHANDLER: A couple of questions: arriving here in 1985 and used to enjoy a swim at Howard Springs and I used to pass nice pine plantation on the left and out Gunn Point road, there is another one there. My question I suppose is: whose are they? What is happening to them? Have we thought about silver culture and pine oil? What is happening with those trees? They have been there a long time.

Mr DARCEY: To be honest with you, I do not know who owns them. I think they are under the management of Department of Planning and Infrastructure.

Mr CHANDLER: The forests are under - - -

Mr DARCEY: No, no, just those blocks. Our assessment has been that type of product is probably not particularly prospective in northern Australia. There are all sorts of issues around it, not the least of which is the market for that type of wood is well supplied in other parts of the nation. It is similar to horticulture and cropping, I think. The real opportunities for the Territory are very high value smaller areas on small freehold blocks we have got rather than thinking about the resources being broad scale or broadacre. So to go for a low value product like a softwood probably would not make a lot of sense.

Mr CHANDLER: Just to follow up, I have heard it said that it could be 50 or 100 years from now that Katherine could be another Toowoomba as far as growth because of cropping and other farming programs in the area. Ground water is certainly a big issue. I am from the Mallee area in southern New South Wales and northern Victoria, and salt is a major problem down that way. Do you know if salt likely to be a problem here in Northern Territory with over-irrigation and the second part of that question is do you think rice has a future here in the Northern Territory?

Mr DARCEY: I do not think salt is going to be an issue in the Top End of the Northern Territory at least primarily because of the high rainfall events we have and the very well leached soils, not like in the Mallee, all those duplex type soils that you get in southern Australia. I do not agree that over-irrigation is an issue. Compared to other jurisdictions, the Northern Territory is very advanced in its irrigation management. We have got no flood-irrigation by and large at all. We just cannot afford to pour water on the ground if you have had to pump it out of the ground to start with. So there is a real cost associated with the use of water. So I do not think salt is an issue.

We have had an approach from a commercial proponent asking us to look at dry land rice. I understand that there have been a lot of issues with birds and other problems with growing rice. It is quite attractive to geese and other things. We are going to look at it. We have agreed to do some trials. I do not know that we have got the area of land that is suitable for growing broadacre crops like rice that is at least freehold or available to use.

If the *Pastoral Land Act* changes and other lands become available, that might change, but at the moment I think the emphasis is on very high value products that do not require lots of transport and associated costs – for example, peanuts.

Mr WOOD: In relation to forestry eating up good pastoral land down at the Douglas Daly, do you believe the forestry industry in the Territory is sustainable or is it a tax dodge and should it really be using up land that perhaps may be more valuable in the pastoral industry rather than a so-called forestry industry in the Northern Territory?

Mr DARCEY: My personal views on that I probably should keep to myself. However, we do not have anything in legislation that says you can and cannot do anything on freehold land. Clearly, the tax regime around forestry was put in place for a purpose and that purpose was to get investment into growing trees for timber. Obviously the four or five companies that have come to do that here are not all managed investment scheme based companies so there is some view that there is a good investment to be had there. The African Mahogany product is likely to be a very good one. Whether it should or should not take over from food producing land, I could not comment.

Mr GUNNER: My understanding, through the Chair, is that grazing might be allowed on those forestry lands.

Mr DARCEY: We have actually been speaking to at least one of the companies about intergrazing around Mahogany trees.

Mr WOOD: Not a lot of pasture left when they form a canopy.

Mr GOBBEY: I make the point that the land in question are freehold blocks which, under the management regimes in place, that this commercial decision has been taken and those companies, if they choose to integrate livestock grazing with their forestry production, we in fact would be delighted and have provided technical advice to them.

Madam CHAIR: Any other questions for the Director of Crops, Forestry and Horticulture?

Mr STYLES: Just in relation to water availability in the Top End, there seems to be a view - every time I go down south and talk to people, they reckon we have got all this water in the world up here. Is there any education process going on down south as to how fragile some of our ecosystems are up here, even though we get 2.5 metres of water per year?

Mr DARCEY: NRETAS is doing the modelling and at this point in time, particularly the Top End, that information is just coming through. It is only getting to the point now where it is getting robust enough to make those sorts of comments. At a number of national fora that I attend and I know that officers from NRETAS attend, we make it very clear that there is not an unlimited quantity of water up here and that given advice from them, I am happy to pass on the fact that a lot of our aquifers are allocated given that the regime for environmental flows.

I think that that message is slowly getting out. We have not had the same inundation of people wanting to come to the Territory to grow irrigated crops that we had 12 to 18 months ago and I think that is partly because of the Tindal Aquifer Water Allocation Plan in place there and getting that information in the public domain.

Mr STYLES: Just one more question, if I may, Madam Chair, the cotton question and I know that you were talking about freehold land. My understanding is

down at the Douglas Daly, there is still a substantial amount of land that is already cleared that is not being utilised at the moment, is that correct to your knowledge?

Mr DARCEY: No, not to my knowledge. If it is not used for cropping, I am sure it is being used for grazing. Unless anybody else wants to add any comments, that would be my take.

Mr WOOD: Matt, in relation to water usage, you were talking about aquifers there. The Daly in the Wet Season has an awful lot of water, having lived there for quite a while and gone through three floods, do you see a potential for the Territory to look at water harvesting in the Wet Season so that we can still water in off river dam systems and then use that in the Dry Season?

Mr DARCEY: Yes, there are a couple of examples where there are, I think, quite exciting opportunities around late season harvesting. I know that the Peanut Company of Australia is looking at coarse groundwater recharge in sinkholes at Taylor's Park, and at Tortilla there is - I thought it had been approved - an off-stream dam construction in that soil. The difficulty with it of course is that you need a pretty large area and a lot of depth with our high evaporation rates for the above ground storage, but more importantly than that, from my perspective, is the use of that water and the profitability of that use to make it worth doing. That is the hard part.

Madam CHAIR: Any further questions? Mr Gobbey, who was next going to speak?

Mr GOBBEY: I think we have the privilege of Christine Long furthering all of our education about drought policy and associated issues.

Ms LONG: Thank you, Chair. You will recall that one of the issues for sustainable agriculture is how we develop farming systems and business enterprises that are sufficiently flexible to manage risks associated with climate. One of the issues in the Northern Territory is that we are still not in a situation where enterprises are doing that.

The Drought Overview paper that you have been provided with talks about the drought situation in the Northern Territory. We still have a Northern Territory Drought Assistance arrangement package for producers to assist them during periods of drought. On top of that, we have the Australian Government's Exceptional Circumstances Scheme. There is a declaration in existence over the southern and eastern parts of the Northern Territory so producers have two opportunities to access drought assistance arrangements.

The Executive Director of Primary Industries has asked me to talk about the National Drought Policy reform process so I will cover that briefly. It has been long recognised that the current arrangements for supporting businesses through drought are not helping. Even though the majority of farm businesses, some 70 per cent of farm businesses, do not require assistance through drought, there is still a significant tranche of businesses that do.

One of the processes that is underway is a national review of drought policy and the underpinning drought assistance arrangements. You may be aware of recent media attention about this reform process as there have been three fairly significant reports produced to input into that process.

The first was a report produced by the CSIRO and the Bureau of Meteorology, which was an assessment of the impacts of climate change on the nature and frequency of exceptional drought events; exceptional drought events being those events that occur in a one in 20 to 25 year timeframe. The second report dealt with the social aspects of drought, referred to as 'dryness' in the title. That was produced by an expert social panel chaired by Peter Kenny, which delivered a report to Minister Burke in October 2008. The Productivity Commission has also undertaken an examination of drought business support measures and has produced a draft report. Its final report is due in February 2009.

As I said earlier, those reports are inputs into a reform process. It is widely agreed that we need to move forward in terms of how people will be assisted to manage risk, particularly with the advent of climate change. While drought reform has been a popular issue on the agenda of many committees for over a decade, given the amount of investment that has gone in to providing support to producers in the current drought, there is now a fairly broad agreement that the current support arrangements have to change.

I think I will conclude there, Madam Chair.

Madam CHAIR: Any questions for the Director of Primary Industry Services? Member for Sanderson.

Mr STYLES: Some of the social aspects and the social consequences of drought, do you see that we have got a handle on that? More often than not, this is happening down in the Barkly and Central Australia and we live up here so we do not see a great deal of it. But are there sufficient resources going in; I suppose that is a pretty broad question, either through Commonwealth or Territory resources going in to assisting those people who are fairly traumatised by the ongoing drought?

Ms LONG: Those resources are provided by the Australian Government. They tend to be provided on demand and through a range of mechanisms, including programs that are delivered by Centrelink and non-government organisations.

So we do not often see evidence of delivery of those types of programs. I am aware through data that Centrelink has provided that there has not been an uptake of Centrelink delivered programs in the Barkly and Central Australian regions, but I am not aware of the delivery that has taken place through NGOs.

Mr STYLES: So in relation to social consequences, would you say that basically we are not losing large numbers of people off the land; which you are obviously going to drop our production rate? So it is fairly stable? We are not losing a lot of producers through the drought?

Ms LONG: Properties may change hands as a consequence of a drought, but I would have to agree that we are not losing people off the land in the Northern Territory.

Mr STYLES: Even though its people may change, we are not dropping in output as such?

Ms LONG: Often those changes will be inter-generational changes within a family structure; so that is correct, yes.

Mr GOBBEY: I might add that the Rural Financial Counselling Service is an arrangement where we formally have access to counsellors that are funded by the Commonwealth Government, they are based not in the Northern Territory, to provide those services to producers here on a needs basis, as Christine referred to. Whilst those consultations are confidential, we get a higher level report and 12 to 18 months ago when Exceptional Circumstance issues were probably more difficult in the south-eastern region of the Territory than they are today, I am aware of the Rural Financial Counselling Service out of South Australia contacting all pastoralists in the region and making somewhere between six and 10 in-person visits to properties to provide advice.

Clearly, those issues of confidentiality remain between the counsellor and the producer, but to address any potential concerns from the committee that there is not access to that national program, that would be an incorrect perception; we have quite formal arrangements with the Commonwealth that hopefully will continue in to the future.

Mr WOOD: Christine, do we have any way of assessing the effects on local communities when there is a drought? For instance; is there a drop off in purchasing in local areas because pastoral properties tighten their belts? So do we know what effects outside the farm are because of drought?

Ms LONG: I do not have figures to hand that quantify those sorts of impacts.

Mr WOOD: Are there any figures and who would have those?

Ms LONG: When I have asked that question myself, the sort of information I have been provided with has tended to be qualitative rather than quantitative and it has not demonstrated a significant drop off in what I think you referred to as purchasing power or something similar.

Mr WOOD: Yes, I suppose I was referring to, if things are getting tight, the fencing might not be done this year, put off until next year. There may not be some fertiliser put on some pasture for improvement; it might be left just so we get through the year. So the essentials would be maintained; food and clothing and those sorts of things, but a lot of our centres like Katherine and Tennant Creek to some extent, but Alice Springs, there would be a fair market for agricultural products and I am just wondering when you have a drought whether there is an ongoing effect in those regions.

Mr GOBBEY: A feature of the Exceptional Circumstances Program administered jointly between the NT Government and the Commonwealth is that it does not only apply to those farmers who meet the criteria within their financial criteria for their property. Under Exceptional Circumstances, there is assistance available to people whose businesses rely upon their income from the agricultural sector and in a number of places in Australia. Whilst it's unfortunate, a number of small businesses that are reliant on contracting services have accessed assistance under Exceptional Circumstances across Australia.

At the time of the EC declaration for the south-east of Alice Springs, there was significant publicity, notably from the Australian Government, about those assistance measures and I do not believe any small businesses in Alice Springs applied for assistance as a result of the EC-declared area to the south-east.

Mr GUNNER: I was just wondering around sustainability with the length of the dry down there, the drought, do you think we need to redefine what sustainable is in that area, or is it more that this will be a circumstance for a while and then we will return to where we were before? Or do you actually think we need to redefine what sustainability is in that region?

Ms LONG: I think the definition of sustainability is the definition of sustainability; so I do not quite follow what it is that you are asking.

Mr GUNNER: Well, we had so much stock there and then during a period of drought, you have mentioned here about possibilities around destocking or what you can carry on the ground out there. So I guess what I am saying is: when it rains again, are we saying that we can go straight back to where we were, everything is hunky dory or are we saying that perhaps how we manage the herds down there or the cattle in the area. Is what was on that ground sustainable?

Ms LONG: It is possible to reach the level of production that existed before the current drought. The pastures on which the industry depends can return to previous levels because there are seed stores within the ground. You will note in the Drought Overview paper, we talk about the need for more than one season to return those systems to productivity levels and the reason for that is that the pastures need to germinate, the plants need to grow, they need to set seed and that seed needs to survive through another season.

So in terms of the productivity levels, there should not be any issues. The issue will be the length of time it takes to return to those levels because the evidence that we have seen so far is that people have reduced their herds right down to a core number of breeding animals. They have also demonstrated sound management in doing that because a lot of those people have moved stock off to agistment properties either in the Territory or interstate.

Some of the long-established family properties have had agistment properties interstate for many years and as part of their ongoing management of the land, they will move stock off their pastoral property on to their agistment property. So while the Central Australian region is subject to drought, there is a sophisticated management system that goes with that. That needs to be recognised. So it is not a case of because there is a drought the land is degraded and will not be restored to its previous production levels. What has been demonstrated over 100 years is that the land will retain its productivity providing it is managed properly.

Mr GUNNER: Excellent, thank you.

Mr McCARTHY: In relation to the Member for Nelson's comment - and Alister, you might like to comment on this - in relation to socio-economic impacts, I am aware of properties in the Barkly that did not even start a second round muster this year so we could expect that in terms of labour, that would represent a socio-economic impact in the Barkly region, the drought?

Mr TRIER: Certainly, in line with the Director of Primary Industry Services, there is a very responsible attitude taken by the pastoral industry in the Barkly to zero rain this year and that is that they truck their animals off pretty quickly. They have reduced numbers on their properties, staffing numbers on their properties in the Barkly in some areas simply because they have taken off all their cattle and there is not as much stock work to do.

From my understanding two things have happened. I am speaking in relation to one company that I know for a fact have employed Environmental Officers because it has been understood there is an increased need to look at their environmental conditions and I think, from my understanding, that the people that were employed in the Barkly were relocated to other properties where there were existing jobs available.

Madam CHAIR: Members, we are down to our final presenter, Mr Glenn Schipp, Director of Fisheries Development. Without pre-empting the discussion we had earlier around possibly re-convening Friday, we possibly have 15 to 20 minutes remaining and if we could make the best use of that time available to us.

Mr GUNNER: Yes, I have a 5 p.m. meeting, but I am happy to - - -

Madam CHAIR: Yes, we still have a quorum without you.

Mr GUNNER: Yes, so I am happy to leave.

Madam CHAIR: Thank you. Mr Schipp.

Mr SCHIPP: Glenn Shipp, Director of Fisheries Development. I thank the committee for the opportunity to be present here today to present information on the Territory's aquaculture industry.

The paper that I have prepared for the committee attempts to set the scene of where the industry is currently at, to highlight some of the issues the industry is facing and some brief commentary on the outlook of the industry, in the short-term anyway, over the next one to three years.

Industry value in 2006-07 is around about \$24.6 million, which is not too dissimilar to wildstock fishery, slightly under, and that level around \$24 or \$25 million has been relatively constant for aquaculture industry since about 2001-02 - some annual fluctuations, but around about that mark.

We had envisaged stronger industry growth over that time, particularly on the back of Barramundi farming, but that has not come to pass and the recent economic issues that we all know so much about have impacted recently on investment plans for the industry in the Territory, particularly the proposed re-establishment of the sea cage farm at Bathurst Island.

If we look at the sectors, pearling historically has been and remains our biggest industry sector. Primarily, that is in the hands of a few companies; most notably Paspaley, predominantly in the Coburg area but also around the English Company Islands towards the east. It is our biggest employer and obviously the major contributor to the economy in the Fisheries sector.

Barramundi farming is second. We reached a peak production of around about 1000 tonnes of Barramundi per year in 2004. That has fallen quite substantially since the closure of the Marine Harvest farm and is now back to around 380 tonnes in 2006-07. We are expecting that to gradually increase over the coming years as the remaining earthen pond-based farms continue to grow their production. They were fortunate, they could grow their farms on the back of the support the government provided to the Marine Harvest project in the terms of commercial supply of fish from the aquaculture centre and consequently they built their businesses up during that period.

In the table I presented, it mentions a figure for prawn farming. That will probably be the last entry we have for prawns for a while as the farm that was operating at that time has recently switched to barramundi farming as it was believed to be more profitable. Australian cultured prawns have to compete against the cheap imports from Asia and Australian prawn farmers are finding it difficult to cost effectively compete in the market. Consequently, the NT's last remaining prawn farm made a business decision to switch to barramundi.

The other industries we have noted there are algae; that is a product called *spirulina* which is grown out at Berry Springs, dried as a powder and sold to the health food industry and we also have a relatively small but a very active aquarium fish aquaculture industry growing ornamental plants, ornamental fish and recently we have had involvement as a government agency working with a local company producing baby giant clams, also for the aquarium market.

As I said, the industry is not expected to grow much over the next couple of years. The interest in increasing investment seems to have dried up of late, but we are working actively with our current industry to ensure that they remain sustainable and viable in the short-term and to ride out any economic problems they are currently experiencing.

We are also working actively with the Barramundi farmers to improve their cost of production. We can't do much about the market price, but we can help them lower their cost of production and we are doing that primarily by working on improved food utilisation on the farms to improve food efficiency, which is one of their biggest costs, and to improve the health management of their stocks.

The outlook of the industry - probably the one shining light would be the sea cucumber sector. Through the Aquaculture Centre, we have supported the establishment of a pilot hatchery for sea cucumbers operated by a company that owns the sea cucumber wild harvest licences. They have been conducting research now for nearly three years and have produced, in the pilot scale, significant quantities of juvenile sea cucumbers and they are now looking to take that project to the next level, which will involve pilot scale trials of grow-out either in a ranching situation in open water or in an earthen pond environment. The market for sea cucumbers I am told is relatively insatiable, particularly in China and there is no way at the moment that we can keep up with demand.

As mentioned previously, too, we are another section that works quite closely with the officers of NRETAS, particularly in environmental management. We have worked together over the last couple of years to improve the environmental management of the aquaculture farms and it was through our insistence that the farms now must prepare an Environmental Management Plan to which they operate; that includes both the pearling farms and the Barramundi farms in particular.

We assist NRETAS by going out on to the farms on an annual basis to conduct an inspection of the farms to make sure they are complying with the terms of their aquaculture licence as well as the terms of their Environmental Management Plan.

That is probably enough for the moment. I am happy to take questions.

Mr GUNNER: I am sorry. I want to thank everybody for their time and I really appreciated that briefing. I am sorry I can't stay.

Madam CHAIR: Thank you. Questions? Member for Nelson.

Mr WOOD: Where do mud crabs fit into this? Are they regarded as wild catch or are they regarded as aquaculture?

Mr SCHIPP: Our production is all wild capture mud crabs. We have had, as you are probably aware, a very active mud crab research program through the Aquaculture Centre. That program lasted for about 10 years where we were principally investigating the hatchery techniques of the mud crab. They are a very difficult animal to rear in an artificial environment.

We have developed a technique and we can now produce a significant number of crabs. We are talking batches of 60,000 to 80,000 on a regular basis. Where we have gone with that is trying to then commercialise mud crab farming on an industrial scale. We have had one farm attempt to do that out near Channel Island. They ran trials for 12 months and then made a commercial decision to switch to barramundi. We have also had two fairly well publicised projects in Indigenous communities, one at Kulaluk in town and one at Maningrida looking to do mud crab aquaculture on a smaller, less intensive scale. Both of those are still under evaluation, although the Kulaluk one looks like it may not be continuing, and the Maningrida one has also had its fair share of problems.

Mr WOOD: On barramundi, the cost to product a kilo of barramundi in the Territory on a farm compared to going out and getting it in the wild, is there a vast difference between the two?

Mr SCHIPP: I do not have any figures on the cost of production in the Wild. Farm production, you are looking at somewhere around \$5 per kilogram.

Mr WOOD: That farm you were talking about, is that the Blackmore Prawn Farm?

Mr SCHIPP: Currently, there are three operating Barramundi farms; there are two on the Blackmore and there is one on Adelaide River.

Mr WOOD: And the two on the Blackmore; one of those was a prawn farm. That is the one near Southport?

Mr SCHIPP: That is correct.

Mr CHANDLER: By comparison, it takes me 100 litres of fuel, three bags of ice and a carton of beer. It is a very expensive way to - - -

Mr WOOD: Very silly man; that's why I prefer to the big people to do it.

Madam CHAIR: Thank you for that offer, Member for Brennan.

Mr WOOD: Just on the aquarium side of the industry, it is an industry that is all in my electorate. You have got Billy Boustead and his clown fish and you have got Dave Wilson with all sorts of things. He grows plants, he grows native fish and he grows frogs. Is the Territory doing enough to make that industry, which I think potentially can be a very large industry, especially as the aquarium industry throughout the world is quite a popular industry; are we doing enough to help those people expand that industry or do you think there are too many restrictions on the development of that industry?

Mr SCHIPP: I do not think there are really any restrictions on development. We are quite happy to accept a licence application from anyone that has the financial resources and the place available to conduct aquaculture. It is an industry that is pretty well market driven. It is also a very fickle industry, but basically if the interest is there, we will assist them to set up their aquaculture licence and establish their business.

Mr WOOD: Do you see - especially in the case of Dave Wilson who has done a lot of work on trying to grow native fish in conjunction with many of the traditional owners as well where they get a percentage of what he sells them for, do you see that as a potential market that we can encourage more of in the Territory?

Mr SCHIPP: Absolutely. Yes, I talk to Dave quite regularly and I know there are a lot of unique fish out there that tend to become quite attractive to the aquarium market. Ornamental fish are a bit of a fashion statement and they all move from species to species, particularly the very keen enthusiasts. It is just a matter of trying to keep up with that type of demand.

Mr STYLES: In relation to Marine Harvest and the former operation in the Aspley Strait, you mentioned that that looks like being re-established, is that correct?

Mr SCHIPP: Yes. A slight correction; it wasn't in the Aspley Strait; it was in Port Hurd; which is to the west of Bathurst Island. When Marine Harvest left, and I have made the point in this paper that they did not leave because of any biological reason or failure of the farm itself; it was a commercial decision from Marine Harvest's parent company in Norway. They withdrew all their support for non-salmon aquaculture to concentrate on their core business.

Marine Harvest shut down at the end of 2006 and sold all remaining infrastructure of the farm, the boats and their intellectual property to the Tiwi Land Council. Tiwi Land Council are very keen to try and get an investor to come into partnership with them to re-establish the cage farm either in Port Hurd but more likely to be in Snake Bay, near Milikapiti. We have had two very serious approaches for companies wishing to re-establish that farm and both of those have recently announced that they are not going to pursue any further action at this stage due to other economic concerns, much to the disappointment of the Tiwi people and us.

Mr STYLES: But would you agree that it is still a good option, the sea-cage? Is the department's information that these can be, provided if someone has got the money to put in to them, at the end of the day possibly be a good viable operation?

Mr SCHIPP: I believe so, yes. I think Marine Harvest had some very well publicised failures, particularly of their equipment. They learnt a lot of lessons about the Port Hurd site. That is why I mentioned Snake Bay; it has, I am told, 25 per cent less current speed than Port Hurd, and it was particularly the current speed that was the issue at Port Hurd.

Mr STYLES: Thank you.

Mr CHANDLER: I am not sure whether this is a question to you, Glenn. It is certainly an environmental issue and that is fish people keep at home in aquariums. We have a very transient society up here and I just wonder - I am probably making a statement here because I think it is, on anecdotal evidence, that a lot of these fish are either put in to places like in Palmerston, perhaps Marlow Lagoon or our other water way if they are not flushed down the toilet.

But when people leave, a lot of these fishes are returned to the natural environment. I am not even aware - perhaps the environment takes care of them and then something else comes along and eats them, but is there any evidence that other fishes do survive, that are not from this area? The other thing that I am concerned about is some of the weeds that are put in to aquariums then getting in to our waterways.

Mr SCHIPP: Part of my responsibility, we have an Aquatic Biosecurity Group, which was formed after the black-striped mussel episode at Cullen Bay so we have a history of non-desirable establishments in the marine environment in particular, and yes, home fresh-water or salt-water fish can establish in the natural environment. Most recently, we have had a few episodes of guppies establishing in Racecourse Creek and our section has been involved in trying to eradicate those. It's not always easy! But also there is the public education side, where we really have to have more of an impact persuading people not to let their fish go and thinking they are doing the right thing; they will have to dispose of them in some other more appropriate manner.

Aquatic weeds, yes, are an issue. It is handled by NRETAS. As you are probably aware, there is an issue with a weed called *cabomba* on Darwin River, but that is not under our management; that is under theirs.

Mr CHANDLER: Just on that, and I know it is not your area; but something like *cabomba* that could cause so much damage to our waterways, our drinking waters, I just do not know why an area like the Northern Territory allows it to be sold in aquarium shops. I mean, why do we allow it to be sold if the likelihood is it goes back in to our waterways - and you don't have to answer that question.

Mr SCHIPP: I will say that David Wilson; who we talked about previously, does produce local ornamental plant species and that would be by far the preferred option to take for a home aquarium.

Madam CHAIR: Glenn, I have a question – well, I am not sure if it is a question or something you might be able to comment on and that is the impacts, positive or otherwise - I am thinking positively in light of Indigenous communities with the Blue Mud Bay decision.

Mr SCHIPP: It is fair to say that does represent a lot of opportunity for Indigenous communities to take some control about what happens in their back yard. I guess over the next 12 months there is going to be a lot of negotiation between the government and the traditional owners in the area and the NLC, etcetera about what will unfold. An area of particular interest I think will be the Indigenous Marine Ranger Program that can take a more active role in policing their waters.

Mr McCARTHY: Glenn, is there any interest in the southern Gulf of Carpentaria in relation to the sea cucumber potential?

Mr SCHIPP: Not at this stage, but we seem to have a lot of interest from Indigenous communities right around the coast line. I am not aware of one particularly from the southern Gulf, but particularly around Groote Eylandt and Nhulunbuy and Tiwi Islands as well showing some interest. We are trying to, I guess, act as liaison between the communities and the commercial company to try and see if there is some way that we can get an arrangement that is beneficial to everybody.

As far as Indigenous economic development goes, sea cucumber, on paper at least, seems to be an ideal species because it is something you can put out there

that does not need feeding, and does not need day-to-day management.. We still have to run the pilot studies to get the information needed to prepare a business case, but if you can put something out and get something back with minimal cost, it seems to be an ideal business to develop.

Madam CHAIR: Are there any further questions?

Mr WOOD: I didn't ask a chicken question - I won't.

Madam CHAIR: We have done well, then. On behalf of the committee, I would like to thank the officers from the Department of Regional Development, Primary Industry, Fisheries and Resources for their time and their briefing today and for taking on board the many questions that you have been asked.

I don't need to put it to the Committee as to whether we need to reconvene on Friday because we have gotten through all the business that we needed to, so, again, thank you very much for your attendance and your time here today.

That being the case, I declare this meeting of the Sessional Committee on Environment and Sustainable Development closed.

The Committee suspended
