

TRANSCRIPT

STANDING COMMITTEE ON THE ENVIRONMENT AND PLANNING

Subcommittee

Inquiry into fire season preparedness

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The CHAIR — Dr David Cheal is an associate adjunct professor at Federation University. Dr Cheal, you obviously have important background to bring to this, and I wonder if you might give us a short presentation and then we will follow with some questions.

Dr CHEAL — Okay. My background is both academically in relation to fire and personally. The PhD dissertation was on soil and fire interactions in the Mallee. I have had a career in both the Northern Territory and Victoria but mostly in Victoria, and the areas I have mostly worked in are fire — that is, the biological responses to fire or accommodation of fire and the recovery from fire — and also weeds was the other particular expertise I ended up working in.

I am now associated with Federation University and actually have just come back from doing some field work about 115 kilometres north-west of Mildura. A quick summary of the submission as sent in and published. I do not intend to address all the terms of reference. That is not my particular expertise, and outside my expertise my opinion is no more useful than anybody else's.

Firstly, I would like to say that the change in policy away from the hectare targets that derive from the 2009 royal commission is a dramatic improvement. Those targets worked against the protection of infrastructure and lives, and a risk-based policy, which is the current government policy, is far preferable, and I commend the government for moving to it.

My expertise is not just in weeds and fire but also of course in biota, if you like, and biodiversity in fire. There are procedures within the fire planning done by DELWP. There are procedures in relation to protecting rare and threatened species and vegetation communities of interest. Those procedures are not reliably followed. They are followed if the particular fire planner involved has an interest. They are not inimical to the procedure of fire planning such that they must be followed for people who do not have an interest in those areas. As a result there is a number of rare and threatened species which are threatened by current planned burning and there is a number of vegetation communities, and the easiest one to demonstrate that for is rainforest, that are threatened by the current planned burning.

Climate change impacts and opportunities are not a part of DELWP's fire planning process. Whether they should be or not is for other people to determine, but they are not a part of the process at the moment.

The new risk-based approach is not widely understood well. I have been to a number of fire sessions and kept track of the published fire operations plans. There seems to be a misunderstanding in many people in the department and some in the CFA as to what a risk-based approach is, but there is a growing understanding, and maybe in 10 or 15 years we will get there, but we are certainly not there at the moment. There has been a tendency to simply rebadge the old fire plans that were developed under the hectare targets and call them risk based.

There are significant knowledge gaps in our understanding of fire and wildfire in the environment, and some of these severely impinge on our ability or our policy directions in relation to fire. For instance, two main areas of which I have had some involvement with are we know almost nothing about seed survival in the soil. So we do not know if when you no longer see a plant, that is because it has become locally extinct or simply because it has retreated to a soil seed bank.

Secondly, and perhaps more critically, we have a general understanding that immediately post fire there is less fuel in areas that have been subject to planned burning, but that the fuel recovers and in fact usually well surpasses the pre-burned quantity within three to five years, depending on the environment. What we have almost no understanding of is that for many vegetation communities — not all of them, but for many of them — they will eventually mature into a condition which is very low flammability, as the shrubs become less common and the ground layer becomes more moist. We have no understanding of this and this has been widely misunderstood or simply ignored, such as the early, naive assessments that early explorers' stories of riding horses through the bush happened because the Aborigines frequently burnt the bush. There is an alternative explanation, which is that they rarely burnt that sort of bush — —

The CHAIR — That is the Gammage hypothesis.

Dr CHEAL — He was not the first one to put that forward, but he definitely needed a good dose of natural history. In fact vegetation can mature in many cases — for instance, alpine ash-dominated forests — to be

relatively non-flammable. Nothing is totally non-flammable of course. I guess that summarises the submission, but obviously I am open to any questions.

The CHAIR — Okay. I have read your submission and it actually laid out a lot of the issues for us very succinctly and put obviously your position on a number of those points. Let me go to a central point that people have put to me — that, whilst in theory a risk-based approach might work, given the risk-averse nature of DELWP and some other agencies involved, that over the longer haul unless there are some very precise number targets — and I will be blunt — they will revert to their old ways and we will get fuel building up over a long period.

I was part of a government in the 1990s that arguably did not do enough burning and watched through the 2000s as the same thing happened under several different governments following that. So suspicion in the community that DELWP and its predecessors cannot be trusted unless there is a very sharp number target, accepting the point that is made by you and others that the number target might lead to some additional burning further away because bureaucrats will — gaming the system is probably the wrong way to phrase it, but you understand the point I am making, but that deep suspicion that the department will not sincerely focus on getting the outcomes.

Dr CHEAL — First of all, ‘high fuel’ is a statement that is made usually without adequate field knowledge. I am talking about the departmental assessment officers, not the public. High vegetation quantity and high fuel are not the same thing. High fuel is not a threat without ignition. It is fire that is the issue, not fuel. As regards the hectare targets, they have proven to be counterproductive to minimising risk to built infrastructure and people’s lives. It is not a desire or a design or an intention of state government agencies, or the CFA for that matter, to burn large slabs of bush simply for its own sake. Planned burning is done primarily as a way of reducing the risk of wildfire or providing an attack space for when a wildfire starts. You are a bit safer to attack a wildfire if you are in a low fuel area that may have been planned burnt a year or two before.

What happened with the hectare targets was that they became the principal goal — I was in the department at that stage; it was the Department of Sustainability and Environment. That is two incarnations ago.

The CHAIR — Well, you would probably agree with my assessment that there was deep suspicion in the community that the department was not in favour of preventative burning over a long period on a major scale.

Dr CHEAL — I was a departmental employee and so I had limited contact with what you might call general community opinion. Certainly that was an expressed opinion just at the same time as there were people who were saying, ‘There is far too much planned burning’, or ‘prescribed burning’ as the term was then.

There is a number of failures that we in the fire conscious community have produced and one of the principal failures — or there are two, I think. The one at the political level, which has been unfortunate, is this message that has been sold to politicians that, ‘You give us more money and we can guarantee you no problems with wildfires’. That is the simplistic statement, but that is the gist of the feeling that a lot of the departmental officers have made to the political level. The political level is not most of them, of course — as expert in that area in the same way as the public servants are whose job it is, and that is a very attractive message. So they have absorbed that you can have a problem-free wildfire management environment. Furthermore, the public has absorbed that message as well and somehow believes that you can have no wildfires — that is, no unplanned fires, no accidental fires — that lead to loss of infrastructure or people’s lives.

Those of us on the inside when we talk freely admit that neither of those guarantees can be made; that is a silliness. All we are doing is working to reduce the likelihood of damage and loss from wildfire.

The CHAIR — And the severity.

Dr CHEAL — No-one can work towards their elimination, and that is a failure of us. As a result of that and as a result of a search for simple answers and someone to blame when there are losses in wildfire it is easy to blame the government — the department as it represents the government. It is easy to lay the blame somewhere else because they cannot respond. In fact I was not allowed to as a public servant — they are not allowed to respond. It has to go through ministerial advisers, publicity units et cetera.

I did do a number of post-2009 fire sessions around Kinglake and Toolangi — about five of them. I gave what I thought were some unpleasant messages, such as the principle place to do fire protection work around your house is directly around your house, not some distance away in the forest. As a result of that, the person who has a prime responsibility for the protection of your house is you. That is a very difficult message to put across to people who have lost houses or who may have lost family members or neighbours. I myself lost three people I know and I was in Marysville the day it burnt down, so I am not unfamiliar with loss in fire — how devastating it can be.

What I got universally from people, particularly the people most affected, at the end of the sessions was grateful thanks that somebody had talked to them honestly and openly — had not given them platitudes, had not given them slogans but talked about what can be achieved and what cannot be achieved with fire. Yes, it is a natural tendency for people initially to want to blame somebody else, and a convenient person or organisation to blame is the government or its representative. Yes, that opinion was around. What the hectare targets did was they obliged the department to meet the targets. When I was in the department the first requirement was essentially to meet your scheduled hectare targets.

It is very expensive to burn around towns, water supplies and important access routes because you need a lot of staff, you need a lot of heavy equipment and you need a lot of mopping up and monitoring to make sure the fire does not escape. It is very expensive. And yet if you chalk up 50 hectares, maybe 100 — small amounts of hectares — you fail to meet your hectare targets. By contrast, to burn in Coopracambra, in Little Desert, in remote places where nobody lives and there is negligible infrastructure, it is relatively cheap. You can chalk up a lot of hectares very quickly and relatively easily and safely with little threat to people and to infrastructure. The department received no great boost in funding to meet these hectare targets. I do not think it was a conscious decision of the department — ‘We’re going to burn in remote places’ — but the situation almost obliged the department to do that to meet these hectare targets.

Time and money spent on burning remote parts of the Alps, Little Desert, Big Desert — places where people did not live — time and money spent burning in these places was time and money that could not be spent around towns, water supplies and important infrastructure. So the hectare targets in that sense worked against protection of where people live and where their assets are. So a risk-based approach — which does not stop you burning remote areas; you can burn in remote areas if you can identify risk and a risk that would be reduced by burning — does not oblige you to meet these targets before you have actually protected people’s towns, people’s access routes and built infrastructure.

Mr YOUNG — Thank you, David. You actually just answered one of my questions about how targets actively work against protecting infrastructure and the like. You said just before that high fuel loads are not a threat without a source of ignition. I would argue to you that a source of ignition is not a threat without a fuel load, so you cannot have one without the other. Unfortunately the reality is that we cannot control ignitions. We do not know when an actual ignition is going to happen through a lightning strike or an arson attack is going to happen. What we can control, though, is fuel loads. What comments do you have in regard to that and to your assertion that high fuel loads are not a threat?

Dr CHEAL — High fuel loads, I said, of themselves are not a threat. Obviously I agree that a high fuel load with ignition is a problem. And ignition without a high fuel load is much less of a problem than ignition with a high fuel load. That is the practicalities. Ignition is something that is very difficult to address, but it has been addressed successfully in a few instances. Just a really quick seat-of-the-pants dramatic example: I live now in Redesdale, which is a small town between Kyneton and Heathcote. This last season there were two call-outs for the local fire brigade and one was to a car accident. In the previous season there were 48 call-outs, including a large number of roadside ignitions. It is scuttlebutt, but the reason for the difference is that an individual who had been lighting up the roadsides was obliged to look at an alternative activity for his spare time.

Ignition is a problem. We do not address it very well. I do not see how it is easy to address it, but we do not address it very well. One problem with planned burning — and I encourage planned burning; I recommend it for large slabs of the Big Desert, for grasslands, for a variety of situations; it is a commendable procedure — is you get an immediate post-fire decrease in fuel. In many vegetation types, that leads to a subsequent dramatic increase in fuel level, particularly in some of the north-eastern foothill forests, which are formally described as forby forests, meaning they are trees over herbs, basically, with very few shrubs.

After the 2002–03 fires and subsequent fires, they have turned into dramatically shrubby landscapes, which are far more fire prone than the forests were beforehand and, more importantly, far more difficult to burn in a planned burning sense because the fuel loads are so high, the slopes are high and the weather is not as predictable as we would like. They become a problem to burn.

When we burn, once in a planned burn, we have to realise that we are deciding on a burning regime every three to five years for the indefinite future. We do not do that. Our planning cycles are short. Our budgetary cycles are short. We usually see an immediate post-fire decrease in fuel, and therefore planned burning is a good idea.

It is true that you do get a post-fire decrease in fuel. It may be as short as a year. It is true that you do get a post-fire decrease in fuel. It may be as short as a year. I have noticed for instance a mineral earth break put around Glenlee Flora Reserve in the western Wimmera, which is particularly non-flammable veg. I do not know the justification for it but what happened in the mineral earth break on the edges was a massive growth of wild oats to 2 metres high. In fact it made the whole reserve far more flammable than it was beforehand

We have to take account of more than just the immediate post-fire fuel decrease. I personally think it is justifiable to do very frequent and heavy planned burning immediately around towns and important infrastructure, such as water supplies. I find great difficulty in justifying planned burning in remote places where people do not live and where there is no infrastructure. In fact recent research, and there have been a couple of papers — I referred to one in particular in the submission — and that was done after the 2009 fires in the Kinglake area, where correlates of your house being lost in the fire were measured and assessed. That statistical study pointed out that more than 40 metres from your house has no impact on whether your house burns down. In other words if you burn more than 40 metres from your house, it does not change the likelihood of your house burning down. The best place to protect your house is immediately around the house.

Most infrastructure that is lost, and certainly most lives that are lost, are lost on catastrophic days, not in standard fires. The other thing that is not taken into account with planned burning is the damage that planned burning itself does. Planned burning has led to the introduction of *Phytophthora* to Wilsons Promontory National Park, near Millers Landing. That came in on a dozer. Planned burning can involve the use of dozers to construct breaks, and they can be very damaging in the bush.

Secondly, planned burning can produce escapes. The 2006, I think it was, Wilsons Prom fires were an escape from a planned burn and ended up burning approximately 60 per cent of the prom, including the only part of the prom that escaped the 1948 fires. It does not happen all the time, but there are escapes from planned burning. The recent Cobaw fire was a classic example — partially the very badly managed fire, but also a planned burn that escaped and did extraordinary damage. To lose your pasture in February is a significant loss even if you did not lose any stock.

There are also escapes in intensity, not just area. Planned burning usually is supposed to be of the understorey and shrub land and not of the canopy. There are many, many places you could be taken to be shown where planned burning has taken the canopy out. It is essentially a wildfire at a different time of the year. Those things have to all be brought into the burning regime. Mistakes can and will be made — the damage done in both preparing for a planned burn and in applying and controlling it as against the losses.

I recently went to a session done by DELWP, and I commend them for having a public session, talking about their fire operations plans for an area in central Victoria. This session was at Castlemaine. There is a very large area on the northern slopes of the Pyrenees proposed for a planned burn. The statement was: 'It is a danger to the adjoining properties if we do not burn that bush'. First of all, it is very difficult to see how it could burn because it could only leave that bush on a southerly or a south-westerly wind, and whilst they can cause fires — for instance, I know the Ash Wednesday fires that burnt my house down were southerly winds — they are not common. Secondly, the loss is small compared with the cost of doing the planned burn. It would make far more sense to bank that money into a trust account — the money you would have spent doing a planned burn — and then have that trust account available to compensate people for loss of their fences if a fire burnt from the bush into the private land. It would be a lot cheaper, I suspect, because the likelihood of a fire burning out is not nil — it is real — but it is low. So if you banked half the cost of a planned burn every year, you would have a substantial amount to compensate people for loss of infrastructure if in fact the fire burnt from bush onto private land.

Of course, the history is that mostly fires burn the other way — from private land into the bush — but there are fires that burn from public land into private land. For instance, in the 2002–03 fires I happened to have been in north-eastern Victoria and was flying back in a small plane on the day the lightning strikes happened that caused the big 2002–03 fires. We could see them. It was very dramatic, and they were clearly natural in the sense that they were not human-lit fires. We have to accommodate that as well. Nothing is guaranteed; it is change in probabilities.

Mr SOMYUREK — Dr Cheal, can you just clarify for me: your alternative to planned burning is planned burning but on a limited scale. Is that right?

Dr CHEAL — Planned burning, which may in fact be as costly as the current planned burning program, but it would be focused around towns, infrastructure and where people live rather than in remote areas.

Mr SOMYUREK — Right. So just to clarify again: planned burning but depending on the circumstance and targeted planned burning. You are not advocating another methodology?

Dr CHEAL — Another — sorry?

Mr SOMYUREK — Another methodology. Another way of sort of — —

Dr CHEAL — The physical control of fire and the predictability using Phoenix, which was developed by a group at Melbourne Uni in association with DELWP, is really quite impressive. I worked in the 2009 fires, and I could not quite believe that this was the bumbling department that I had been living with for so long. The planning was magnificent while the fires were burning. It was military-like. It covered all eventualities. It supported people who were fighting the fires as well as individuals who were threatened by them. It was magnificent.

The physical processes involved in planning and applying a burn are really very well done on the whole. If they are not, it is usually because of budgetary restrictions. The Cobaw fire was a clear breakout because of budgetary restrictions. There should have been more staff. If there were more staff, I have little doubt that the Cobaw fire would not have happened.

Mr SOMYUREK — How do these comments fit with your critique, I guess, of the government — that there is a lot of rebadging going on rather than innovation?

Dr CHEAL — There is rebadging going on. We get used to the way of doing things, and quite often a lot of initiatives are simply selling an old idea under a different flag. It is very hard to tell when that is happening versus when you have got a real innovation in procedures. Risk-based planning is an innovation. The actual process of doing the planned burns that come out of that is much the same as we know and are experienced with doing. It will take time. Some individuals have grasped what risk-based assessment is and they are applying it now. That is individuals within DELWP. Others are seeing it as some restriction on burning lots of bush rather than an opportunity for us to concentrate on doing our burning where it will have the best effect.

If there is a risk in the middle of the Little Desert that is substantial, then by all means burn slabs of the Little Desert, but that will stop you from burning around Dimboola, Horsham, Goroke and Natimuk, because you will be using your budget and your staff to burn out in the Little Desert. That is the difficulty. Unless you are going to dramatically increase the department's burning budget two or three times, the tendency will be, if you have got a hectare-based target, to get those hectares up where you can get them cheaply, which is not around towns and infrastructure.

Mr SOMYUREK — With your indulgence, Chair, if I can just get your view on the government's Safer Together policy. Have you had a chance to go through that?

Dr CHEAL — I think the government's current policy is preferable to the previous policy. There is a learning exercise that the staff have to go through and I hope that there is a learning exercise that all of us in the public have to go through about what we are doing with the burning regime, which is changing possibilities, not giving certainties. Unfortunately with a lot of our education what we reach are the people who are inclined to the message. What we do not reach are the people who think that the last fire was the last fire. We need to reach those people. I do not know how to do it. The CFA makes a good fist of it, but they do not reach everybody. I am sorry; I have no magic bullet for that one.

Mr BARBER — So you would have paid close attention to all the material that was presented at the bushfires royal commission, obviously?

Dr CHEAL — I did. You know there was a number of dissenting reports for the recommendation for hectare targets, and I was in contact particularly with two of the people who were in that biological advisory group to that 2009 royal commission.

Mr BARBER — Yes. That is what I was going to ask about, because it has become common for politicians now to say, 'I am implementing all the findings of the recommendations of the royal commission'. In fact sometimes they even pledge it before they have read it. Was it the case that the right information was put before the royal commission but they somehow misunderstood it and came up with a 5 per cent hectare target?

Dr CHEAL — The people who made the final decision on what entered the royal commission's report were not biologists. They were not even fire ecologists, if you like. And it would be presumptuous for fire ecologists to make all the recommendations about social issues that came out of the royal commission or education strategies. But I know that at least two of the people on the biological advisory panel wrote dissenting reports because they thought their information had been misunderstood and misinterpreted.

Mr BARBER — Dissenting from the commission or dissenting from other scientists on that panel?

Dr CHEAL — From the commission. Unfortunately we live in an environment, and that definitely includes our legal system which is a binary one — guilty, not guilty; safe, not safe — and when you are sold a simple message, 'You can do this and we will guarantee safety', that message is very attractive to someone who wants to make recommendations about how to guarantee safety. It is not the real world. For every complex question — pardon me for quoting somebody else — there is an answer that is simple, attractive and wrong, and we are all subject to that at times. The royal commission, in my mind, made a mistake to accept evidence from south-western WA and evidence on the fire regime necessary to maintain the buttongrass plains in western Tasmania as relevant to Victoria.

Mr BARBER — Despite having had evidence put before them that was different?

Dr CHEAL — They had evidence before them that was given by people who know those situations that a regime of relatively frequent burning of the bush with hectare targets achieved a degree of fire safety that was not there beforehand. I am saying that those two examples were the source of the recommendations of the royal commission about hectare targets — not the only source but a principal contribution to the source. Those two places and situations — that is, buttongrass plains in south-west Tassie and south-western WA — are not particularly relevant to the Victorian situation, which is much higher slopes, particularly in the ranges, much more capricious weather, much less predictable fuel moisture levels and a much greater mix of private and public land.

Mr BARBER — You are saying they got all the right evidence but then they oversimplified it and came up with the wrong conclusion.

Dr CHEAL — Yes. We all do that. I do that. We all do that, and that was done.

Mr BARBER — And so since then we have been sort of robotically implementing that hectare target, and it is only now you are saying we are starting to understand it.

Dr CHEAL — I worked within the department, and of course within government policy restrictions and commitments there are different emphases from different individuals. There were individuals within DELWP who were working for a relaxation of some of the more difficult-to-apply recommendations from the royal commission. For instance, initially for the hectare targets every hectare that went into making up those targets had to be burnt. That is not the way fires occur, of course, particularly planned fires. You can have, within your perimeter of burn — your controlled perimeter — 40, 50, 60 per cent of the bush unburnt. Now eventually it was agreed that the acceptance of the royal commission's recommendations meant that you could include everything within your burn perimeter. Every hectare did not have to be burnt. Now that was a dramatic and substantial improvement in interpreting those royal commission recommendations.

Mr BARBER — In the first few years they never got anywhere near achieving 5 per cent anyway, right?

Dr CHEAL — We also had some wildfires to deal with, and that was another difficulty from the royal commission's recommendations — that these hectares that you had to reach the targets for had to be planned burn hectares. Now the way it was done in the department was to divide the state up into regions and say, 'Right, your proportion of the hectare targets, north-western region, is 100 000 hectares' — figures plucked out of the air. But that is how it worked. The trouble with that, for instance, for the Grampians was that just before we had had the Mount Lubra fires, which burnt approximately 80 to 90 per cent of the Grampians National Park, which meant that they had to meet their targets with a tiny bit of unburnt bush. They simply could not do it after the second year. You just could not find some unburnt bush to burn. We have moved from roughly 80 per cent burn in the Gramps to towards 100 just in being forced to meet these hectare targets. Now that was also changed, or there were people working at getting that change accepted — that you could include wildfires in your hectare targets for that year. So there were people within the department working very hard at getting a more realistic and manageable interpretation of the royal commission's recommendations.

Mr BARBER — But if there was no rhyme or reason for the 5 per cent, then effectively that was just a face-saving exercise anyway, was it not — to still make a number that could add up?

Dr CHEAL — There was, as was indicated before, criticism that until you gave a hard target you could not assess whether you had done your work in fire protection or not, and so the resolution of that — —

The CHAIR — Because, and some others here might not know, it was routinely felt through the 1990s and 2000s that the department was not sincerely and honestly trying to achieve these targets of any burning, period, other than around a small number of townships and so forth. So there was that view, and that deep suspicion, I think, is actually one explanation that coloured the view of the royal commission in the end too.

Dr CHEAL — That view was around, and it was thought, as a result of that view being relatively forcefully expressed by quite a number of people, that a simple hectare target — no formula of words saying to the best of your ability or blah blah blah, just a simple hectare target, a measurable failure measure — would be a way of getting around the public service's ability to obfuscate. That was the intention. I do not dispute the intention. I am just saying that the way it played out it worked against fire protection. The road to hell is paved with good intentions. It was a good intention to force an explicit failure measure on the department for its planned burning. That particular failure measure, as it was applied, turned out to be counterproductive to good fire management and to preservation of people's lives and infrastructure.

By the way, just as an aside, keep in mind that the years 2000 to roughly 2010 were drought, and that produces particular difficulties for planned burning. Autumn is the preferred season for planned burning, mainly because the weather is more stable and predictable. Spring could be a good one, but the weather is far more changeable. This last season, for instance, was a very bad season for planned burning because we had drought right up until April and then suddenly we forgot autumn and moved into winter, a wet winter — that tiny window to do your planned burning. A drought does exactly that: it gives you a tiny window between 'If I light a fire now, it will probably be a wildfire' versus 'I cannot even light a fire now because it is too wet and green'. So those years were particularly difficult to do planned burning.

Mr BARBER — And on the other hand, I think 40 per cent of our public land actually burnt in wildfires during that decade by the time the royal commission even came to meet. Is that roughly a correct figure?

Dr CHEAL — Yes. The 2002–03 fires were naturally ignited — lightning. The 2004–05 fires were mostly not. The 2009 fires, the ones that took so many lives, as we know, were definitely not natural fires, with the possible exception — no, not even the Bendigo one; that was arson. However, these were conditions that were ripe for a big fire — very low relative humidities, very high winds and an extended period of drought but coincidentally, in 2008, at the end of the year, a good growing season, a good spring.

So the ignition was not natural — the ignition was either arson or mismanagement — but the outcome in a sense was natural. To have catastrophic fires under conditions like that, which were off the standard fire danger meter that is used by DELWP, the McArthur meter, should be no surprise, should have been expected. In fact there were warnings — 'It is a horrible season; get ready folks'.

The CHAIR — I thank you for that presentation. It is very helpful. I could talk for a long time on this to flesh out some of that previous material. Thank you, and no doubt the committee will be in touch in the period ahead.

Dr CHEAL — Thank you.

Committee adjourned.