



**LEGISLATIVE ASSEMBLY FOR THE AUSTRALIAN CAPITAL
TERRITORY**

**STANDING COMMITTEE ON PLANNING AND
ENVIRONMENT**

**(Reference: Proposed nomination of the ACT
as a UNESCO biosphere reserve)**

Members:

**MR M GENTLEMAN (The Chair)
MR Z SESELJA (The Deputy Chair)
MS M PORTER**

TRANSCRIPT OF EVIDENCE

CANBERRA

TUESDAY, 8 MAY 2007

**Secretary to the committee:
Dr H Jaireth (Ph: 6205 0137)**

By authority of the Legislative Assembly for the Australian Capital Territory

Submissions, answers to questions on notice and other documents relevant to this inquiry that have been authorised for publication by the committee may be obtained from the committee office of the Legislative Assembly (Ph: 6205 0127).

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The committee met at 9.31 am.

CHUBB, PROFESSOR IAN, AC, Vice-Chancellor and President, the Australian National University

STEFFEN, PROFESSOR WILL, Director, the Fenner School for the Environment and Society, the Australian National University

THE CHAIR: I declare open this public hearing into the proposed nomination of the ACT as a UNESCO biosphere reserve. I welcome Professor Ian Chubb and Professor Will Steffen.

The committee has authorised the recording, broadcasting and rebroadcasting of these proceedings in accordance with the rules contained in the resolution agreed by the Assembly on 7 March 2002 concerning the broadcasting of Assembly and committee proceedings.

Before the committee commences taking evidence, let me place on the record that all witnesses are protected by parliamentary privilege with respect to submissions made to the committee in evidence given before it. Parliamentary privilege means special rights and immunities attach to parliament, its members and others necessary to the discharge of functions of the Assembly without obstruction and without fear of prosecution.

While the committee prefers to hear all evidence in public, if the committee accedes to such a request, the committee will take evidence in camera and record that evidence. Should the committee take evidence in this manner, I remind the committee and those present that it is within the power of the committee at a later date to publish or present all or part of that evidence to the Assembly. I should add that any decision regarding publication of in camera evidence or confidential submissions will not be taken by the committee without prior reference to the person whose evidence the committee may consider publishing.

Professor Chubb, perhaps we could start with you.

Prof Chubb: Thank you for the opportunity to appear before the committee. We came together because Professor Steffen is much more on top of a lot of the detail than I am. I will give you a general view of where the ANU sits and what we are trying to do; then we can bat the questions back and forth.

Generally, the ANU believes that we have a particular leadership role to play in the area of the environment and sustainability. We would probably accept the argument that our performance in this area has been sporadic over the years. There have been periods when a much greater intensity of effort was put into it; then it went into a lull. We are now building it back again—hence the formation of the Fenner school, which Professor Steffen heads. That brings together a couple of the units of the university that will be the central focal point for our work in this area, although not their exclusive domain.

We have a very significant number of research projects that go to this, and Professor Steffen can talk about those more effectively than I can. However, from the

ANU point of view, the reassurance is that we do not believe that enough has been done in this area in Australia—probably not in the world. We know what a hot potato it is at the moment. We think that it would be much better informed in two ways. One is by putting appropriate expertise into the public domain to help inform the debate; the second is to provide educated people in the area to go into the community to work in the area or continue to inform the public.

We have a suite of programs—graduate, undergraduate and PhD. In recent times there have been a lot of PhD graduates from this general area of environmental sustainability. There are some undergraduate courses—at least two. We have one called the Bachelor of Interdisciplinary Studies (Sustainability) which is actually a degree that provides a broad educational base for students rather than being a highly specialised and highly focused degree.

We also have three sub-campuses that are relevant. We have something called Spring Valley Farm out on Uriarra Road. We anticipate that we will be converting that into a natural resource management education centre. We will be sending students and staff there and working on the environment there. We have something down at Kioloa on the coast, which has just had many dollars spent on it to upgrade the facilities. It is a working station for our staff and students, but particularly for lots of students who go and spend time there to study the environment locally. It goes from the high water mark up the escarpment, so there are multiple sub-climates. We have a sub-campus in Darwin—the North Australia Research Unit—which is doing a lot of work on the sustainability of the seagrasses in the Arafura Sea.

All in all, the ANU's effort is now more obvious, more concerted and an increasingly significant part of our activity. I will end by saying that an illustration of that is that we are a member of a group of universities from around the world. There are 10 of us—ourselves, Singapore, Tokyo, Peking, Yale and Berkeley in the US, Zurich and Copenhagen in continental Europe, and Cambridge and Oxford in the UK. At our meeting about a month ago here in Canberra, we resolved to take what one of my colleagues described as moral leadership in this area—set ourselves sustainability targets and greenhouse gas emission reduction targets. We set ourselves forward as a group of major universities around the world taking a whole lot of this seriously—trying to set a standard and provide some leadership. When you think of what we are, we are all so different that if we can do it I cannot imagine why any other organisation cannot. We will put everybody to the test. It is, I hope, an illustration of the fact that we are taking this very seriously and it is a significant part of our future academic activities.

THE CHAIR: Professor Steffen, would you like to add to that?

Prof Steffen: I just want to add a bit of detail. One of the things we are trying to do at the Fenner school—and also more broadly with colleagues elsewhere in the university—is to use Canberra as a kind of research laboratory to study sustainability issues. We are trying to do this as much as possible in partnership with institutions within the territory. For example, we have a very good working relationship with ActewAGL. They are funding a PhD student scholarship for us now. They have done a lot collaborative work, particularly in the catchment in the post-2003 era—looking at the impact of the large fires on the quality and quantity of Canberra's water supply.

We are now starting to do some work on the intersection between climate change and water availability in south-eastern Australia, particularly in the Canberra catchments. Obviously, that is a hot issue at the moment.

In Gungahlin we have a major effort on ecosystem restoration that Professor Lindenmeyer is leading. It is one of the last intact south-eastern woodlands left; we are very fortunate to have it in the urban area of Canberra. Professor Lindenmeyer is working to restore that ecosystem, including bringing in the dead wood which has been taken out and which is good habitat. Our aim, our aspiration, is to populate that with some of the small marsupials which formerly were native to this area. We would like to make that an education resource—not only for our students but for the people of Gungahlin—with pathways, interpretative rangers and so on. We are seeking a fair bit of private support to get the funding to do that. We are doing that completely in collaboration with the ACT government.

The thing I think we lack is an integrated framework to look at Canberra as a whole system—how the water, transport, energy and biodiversity all interact with each other, which they do. Over the next couple of years, our task is to try and put that integrated framework together. We have been talking to Peter Ottesen and others as to how we do this with the ACT government.

In a nutshell, that is where we are going. We see this proposal to be a UNESCO biosphere reserve as exceptionally appropriate for what we want to do. We are already viewing Canberra as a very unique city that flows into the landscape. If we play our cards right, this could be a model for a modern city which is very sustainable. We would like to provide research and education to help achieve that as part of this community.

THE CHAIR: Professor Steffen, let me put this to you: in the Barkindji biosphere reserve down at the border of Victoria and New South Wales, the support of La Trobe University has been fairly important. What role do you think universities can play in an ACT biosphere reserve fulfilling the aims set out in the Seville strategy?

Prof Steffen: I think there are two major functions. One is obviously a research function: we actually need to know more about how parts of this system and the entire system operate before we can achieve sustainability. We want to work with you and do some of the cutting edge research. That is interesting for us. That is what drives a lot of our researchers; they want to better know how things operate.

But a very important part of this is the educational part. Professor Chubb mentioned the bachelor of integrated studies in sustainability. Within that broad framework we are attempting to put in specific majors. The first one is on water resources. We have developed that by working with colleagues in other parts of the university. We want to add to that. Perhaps we may do one on biodiversity management; we may do one on transport. We may do one on health and wellbeing; we have a very good epidemiological centre at ANU that we work with. Education is extremely important. It takes two forms: it is training people who are going to come out and work here and elsewhere, but it is also outreach to the ACT community through Spring Valley Farm, the Gungahlin project and things like that.

THE CHAIR: There was recently a study released on urban biodiversity. It was a survey, I understand, done by Henry Nix and Beth Mitchell around Sullivans Creek and the ANU. Would you be able to expand a little bit on the results of the survey for our committee members?

Prof Steffen: I would have to go back and look at it in detail; I only know about it in general. Basically it is part of a program on the campus that is headed by ANU Green, which is part of our buildings and facilities service, to use the campus as an exemplar for how you move towards sustainability. It involves things like improving the riparian zone along Sullivans Creek by revegetating it and so on, but they are also doing things like putting in small artificial wetlands for frog habitat near some of the new buildings and trying to improve biodiversity on the campus itself. The Nix study was an initial survey to provide a baseline of where we are at. That gives us some targets for where we want to go to improve biodiversity on the ANU campus.

THE CHAIR: Thank you. Do members have any questions?

Prof Chubb: Could I just add one thing to that?

THE CHAIR: Sure.

Prof Chubb: Long before I came, the ANU set up an ANU Green facility through which we have five major activities: water conservation, green building design, sustainable transport, a water sensitive approach and urban biodiversity. To go back to your earlier question to Will, I think that universities have particular responsibilities to discover things, to educate and, indeed, to lead. I think that it is incumbent upon an organisation like the ANU to do all that it can in this area. Twenty or 30 years ago, people did not worry about it, but I think it is a major part of our present method of operating.

All of those projects are designed to get the campus to be a model campus for sustainability, as Will just outlined. They are all coming together now. We have reduced water consumption by 30 per cent or something over the last little while—a very substantial reduction. Ultimately we aim to be carbon neutral, if we can. Because of the nature of the beast we are, that may be hard to achieve, but it is a good target. What we will achieve is reductions.

MS PORTER: Professor Chubb, I want to get back to what you said about the 10 universities coming together and setting targets. I was wondering what those targets might be.

Prof Chubb: The first target is to get a common measuring stick. As you would imagine, with all those different countries, we use quite different metrics. There was a meeting at Yale last week where the operational people got together to work out how we can use common metrics to benchmark against each other and set targets for reduction. They get back tomorrow; we will then have a better fix on how we are going to go about this from the operational point of view. What we did on this occasion was take the academics out of the equation, put into the equation the people who will actually have to do it, and identify what targets are sensible. I will be interested to see the outcome.

Peking University is not quite doubling in size every year, but it is increasing its activity very significantly every year. I would imagine that it will be reducing the rate of increase, whereas a university like the ANU can actually have a net carbon reduction. We are well on track but the details are yet to come out.

MS PORTER: How will that actually occur? Once you have made the agreement and set your targets, how will you meet and measure your progress across the different sites? It seems to me to be a very large number of sites.

Prof Chubb: We will do it individually, so it has to be contextualised to the local situation. Peking is different from Tokyo. Tokyo has bought some desert near Kalgoorlie and is planting trees in order to offset some of its carbon emissions. The people very proudly tell me that the trees have survived the drought so far. We will all do different things. We will net out our positive and our negative to come up with a reduced greenhouse gas emission target for each of us. In the case of Peking, as I say, I do not think they will be able to reduce it, because they are increasing their size so rapidly, but they will be able to shift the rate. All 10 are actively engaged, so I am quite optimistic.

What we will then do is publish what we are doing, publish our targets, publish how we are going about it, share good practice with each other—and do that publicly so that people can see that it is possible, working together, to set yourself some achievable targets and to succeed.

MS PORTER: Would you be encouraging other institutions to follow suit? Will that be part of your overall plan—once you have shown that you can do it, encourage other places to do the same?

Prof Chubb: Absolutely. We are a very complex organisation. We are not huge in size but we are a very complex organisation. We have every bit of science that you can imagine. We have car parks on campus. We have a bicycle fleet of 43 bicycles that we let people borrow, drive around and leave somewhere—with an aim of reducing the kilometres driven on campus by 50,000 in a year. Those sorts of things we can do. We will publish how we achieve against those targets. If we do not achieve the target, we will be taking steps to get much closer to it. We will be doing it for ourselves—and ourselves as a group. We cover six countries. There are different circumstances, contexts, phases of growth and so on. If we can agree objectives and targets, I believe that that is a way in which universities should be providing leadership on important matters—matters of serious public importance.

THE CHAIR: Going back to the idea of the biosphere reserve, how do you think that program could raise awareness in the broader community about sustainability issues, and how do you think it could stimulate behavioural change?

Prof Steffen: That is a good question. I think the idea and the concept of the biosphere reserve will attract people's attention. It is not a conservation reserve only; it is people in the environment as well. They are the things that we are really trying to emphasise in the research that we do. When I read the background documentation on the biosphere reserve, I thought that theme came out strongly. I like the idea of core,

transition and buffer zones, the structure that they use for biosphere reserves. That is something that we can adapt to quite easily.

I will give you an example of what one of my PhD students is doing that is directly relevant and that could be a fantastic educational tool. She is mapping out a high-resolution landscape map of the ACT and the surrounding region, including the urban areas, the catchment, the woodlands, the grasslands—everything. We are going to try to map ecosystem services onto that. That is an idea that has gained currency over the last decade. It is not just food and water; it is also recreation, carbon uptake, climate regulation and those sorts of things. We will pick about eight or 10 common ecosystem services that are provided by our landscape. The interesting thing about Canberra compared to other cities is that a lot of these services are embedded throughout the city rather than having a real core and then something outside.

Once we get this PhD project a little further along, I think it will not only be a great discussion point for academics who can argue about how you define the services and all the stuff academics do, but also be a great discussion tool for people around the territory who can ask just how much we depend on our biosphere and in what ways, where we access these services, where the hot spots are and where there are multiple services from the same landscape unit. This gives you ideas in terms of identifying the hot spots for policy, where you may find conflict, where you may have trade-offs—these sorts of things.

Having a biosphere reserve is a good overarching principle through which we can help communicate some of the research we are doing at the ANU.

Prof Chubb: Can I add something? I think it is about time we got people to understand that we have to live the environment—that it is not something that somebody else has to look after but that individually we have an obligation to it and to each other through it. I get tired of reading daily in the press conflicting arguments from eminent people, sceptics or otherwise. What you have to do is raise the level of awareness and consciousness in all people as to the consequences of certain actions. If you see the consequence of your action up front as an individual, then you are more likely to change your behaviour than if you think, “Well, I’ll stay 40 minutes under the shower because somebody else will and if I don’t it won’t make a difference.”

It seems to me that the real message to get across is that individuals do make a difference and that it is individual behaviours that have to change. I think that you get maximum change when you live the experience. If you get a biosphere here and it does the sort of work that Will is talking about, and if this is a very public issue, then I think you get behavioural change. I think that, if you talk about it, you get contradictions. You get eminent people saying, “The Greenland icecap is melting” and others saying, “No, it isn’t.” “It’s melting this fast.” “No, it isn’t.” “Sea levels will rise this much.” “No, they won’t.” How are the non-expert public to know?

Raising the general level of awareness and consciousness is a critically important part of it. To have Canberra as the model would be ideal, because of what Canberra already is and what it has got in ANU, amongst other organisations who can do things—not alone, but we can do things with other organisations to provide that information through discovery in a way that is probably unique in this country, given

the environment within which we would work.

THE CHAIR: Thank you. I have got one final question for you. You had a UNESCO centre at the ANU. I understand that is now closed. Would you look at reopening that if the ACT were to become a biosphere reserve?

Prof Chubb: Yes, we would if we had to. It was closed because, in my time, it was not doing anything of any real value that we could determine. We cannot afford to do that. It was not directly costing us an arm and a leg, but there is a cost, and sooner or later you have to prioritise. But what it set out to do was not particularly in this area, was it?

Prof Steffen: No; it was looking at other programs.

Prof Chubb: We would if that were a necessary part of it—and would do so without hesitation, because it would form, much more centrally, an important role for the university, both in terms of public leadership and in terms of research and teaching.

THE CHAIR: Any further questions, members?

MS PORTER: I just want to make an observation. From my experience, changing attitudes and behaviour is one of the hardest things that we have to do. This place is full of people who love to have opinions about something; they love to latch onto things. You were talking about the debates that are running in the *Canberra Times* about this, that or the other. Everybody has an opinion about whether those are right or wrong. If you have any gems or ahas about the way that we can actually do that and really capture people's imagination and enthusiasm, we would love to hear them.

Prof Chubb: I would practise first on the ANU, since I think a lot of the letters to the editor are probably from ANU staff.

MS PORTER: And then you will let us know how that works and they will learn from you.

Prof Chubb: How we do it, yes.

MS PORTER: Thank you.

Prof Chubb: But it is a fair point. As you can see, quite obviously I am not technically an expert in this area of environment and sustainability—though I am getting better at cultural change. But it does seem to me that I sniff a sea change in attitude. I think people are very much more conscious of things and that the political process will be forced to follow. I do not think the political process is leading—that would probably be true for many countries in the world as well as many parts of countries—but it will be forced to follow. I think the sea change is pretty substantial. People are now actually worrying about what is going to happen to their kids and their grandkids and worrying about things like this in ways that I was not conscious of before.

In the environment that we are in, action to present a city like Canberra and a territory

like the ACT in this way is a perfect way to provide the sort of leadership that I think Australia and the world actually need on this issue. You can change behaviours, because people do want something to happen. You have to provide a resource and a facility to enable that to happen, but when that is done it will follow.

I would urge you very much to pursue this objective, to draw from the institutions of the ACT to enable it to happen, and to put the ACT up there as a significant world leader in this activity. In a place with a small human population base, you can draw things from some institutions that enable things to be done here that would simply not be possible in places like Melbourne or Sydney. You have got urban; you have got rural; you have got all the mix in between. You have rivers, plains and hills. I would have thought this is a perfect position for it and a place with a perfect set of institutions to run it in a way that could not be done anywhere else.

MS PORTER: Thank you.

THE CHAIR: Thank you very much for your submission today. If there are any questions from members, we will get those to you as soon as we can.

Prof Chubb: Sure.

THE CHAIR: We will send you a copy of the transcript as soon as it is made available.

Prof Chubb: We will un-split all the infinitives.

THE CHAIR: Yes. Thanks again.

Meeting adjourned from 9.59 until 2.02 pm.

PARKER, PROFESSOR STEPHEN, Vice-Chancellor, University of Canberra
ROBERTS, PROFESSOR BRIAN, Emeritus Professor, Division of Health, Design and Science, University of Canberra

THE CHAIR: Good afternoon. I declare open the public hearing of the planning and environment committee on the proposed nomination of the ACT as a UNESCO biosphere reserve and I welcome Professor Stephen Parker and Professor Brian Roberts. Professor Roberts has been in front of the committee before, but welcome again. Before we begin, I will read to you the privileges card.

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Thank you very much for coming in to present to us this afternoon. Professor Parker, would you like to make an opening statement to the committee?

Prof Parker: I would, and thank you very much for inviting me to talk to you. I think it is timely, from the university's point of view, that we have an opportunity to engage in these debates. I have been the vice-chancellor for a little over two months, and one of my tasks is to revitalise the university—make it face outwards, engage with the community, take part in public debates and help shape and influence debates within its area of expertise—so engaging in this kind of discussion is very much what I hope the university will be doing in the future.

Before I comment on the university's position on the matters that you are considering, I should say that this is not my own personal discipline background but it very much is my colleague's. I come from a legal, or socio-legal, background and with some experience of regulatory affairs and some initiatives that succeed and some that fail and what are the factors there. I bring some of that expertise to my comments.

Obviously the University of Canberra has got significant expertise in ecology, in sustainability, in developing cities and communities, and so should this go forward I

can commit my university's full assistance from an expertise point of view.

Our basic position on the matter that you are considering is to be in support, for a number of reasons. Firstly, it would be an important symbol of the ACT's commitment to an ecologically sustainable future, and, although I will come back to symbolism in a moment, symbols are very important.

Secondly, I think it could provide a kind of rhetorical space or a framework within which work could be done. One of the observations I have, coming back to Canberra after 13 years travelling, is how much expertise, how much richness, how much depth, there is, but how it is not drawn together systematically. People are doing their own thing but not necessarily doing it in concert. So having a kind of device such as an urban biosphere might be a catalyst to help people to work together who are not currently working together. That is a comment I would make about Canberra as a whole, not just in environmental matters, but I am hoping that the University of Canberra can be part of an educational system and link explicitly with other educational providers to make the most of what already exists here. So a second reason for being in basic support, then, is that it would provide a framework or a rhetorical space.

Thirdly, I think it would help ground Canberra in a way which is desirable. I think it could attract tourists, for example, particularly international tourism, and it might attract business as well. I will come back to something else about business in a moment. It could even have benefits for international students. The idea of a student overseas coming to study in a place that is declared a UNESCO urban biosphere would be an attractor in its own right. So in principle, to the extent that I know what would be involved in this, I think I and the university would be in support of it.

Some reservations, or at least things to take into account if not arguments against, are, firstly, I am not sure whether biosphere thinking is where environmental thinking really is at the cutting edge. I just do not know that. I have heard different views. Some of my colleagues have said that, whilst it is hard to find an argument against a biosphere, it could divert energies away from other initiatives in the environmental area. So there is a possible risk that one is not picking up an idea which is cutting edge, putting a lot of effort into making it happen in a few years time but it is still not being where the leading edge thinkers are, so that is something to take into account.

Another concern that I have is that it is important that this is not seen as a top-down initiative, so that were it to go forward—and I am sure this is partly the purpose of these hearings—it is important that it does have community support and community input into what it would mean. Couple that with my earlier point about it possibly not being cutting edge: if it were not cutting edge and was top-down, I do not think it would have the ingredients of popular support that perhaps you might want.

Thirdly, think about some unintended consequences, because the history of regulatory reform is littered with unintended consequences. One possible consequence is that it becomes an ideological battleground or site where environmental supporters invoke the biosphere for their side of the argument and then if it comes up in a development or a farming context those who are opposed to the environmental supporters then see the biosphere as somehow part of the problem that they face and so the thing becomes

an area of disputation when it is not intended to be. That is something one has seen in other walks of life.

My final comment in this vein would be about the commonwealth-territory jurisdictional issues. I take it it would need the commonwealth's political and legal support in order to make this fully happen, and for it to have opposition at that level could be difficult. Those are, I suspect, things that you have taken into consideration already, but they do occur to me as a relative newcomer to this debate.

But overall, if I could just draw my opening remarks to a conclusion, the University of Canberra is supportive in principle of this idea and it comes, from our point of view, at a very timely moment and, should it go ahead, I can offer my full support and that of my colleagues, and the university's expertise, in making it very successful.

THE CHAIR: Fantastic. Professor Roberts, would you like to add anything to the opening statement?

Prof Roberts: I am only here in a supporting capacity because, as you are aware, the Sustainability Expert Reference Group is being re-examined and there is a new reference group, I understand, that will be appointed fairly soon, so some of my comments relate back to that. I also am working part time as an adviser to CSIRO on sustainable ecosystems on urban systems.

I endorse Professor Parker's comments. There are a number of things that I think need to be drawn to the attention of the committee especially with going forward on this. The experience internationally is that it takes four to six years to get the biosphere idea embedded within the community and for the community to accept it. So I think we need to appreciate that it could take some time to get across the concept and the idea. We have to be fairly clear in what we want the urban biosphere initiative for the ACT to do, because the evidence that is being presented suggests that some groups in the community have concerns; for instance, the business community and particularly the rural communities. Is this going to act as a constraint, particularly on business, in investment opportunities? My own sense is it will not because essentially it is not enshrined in legislation.

A second very difficult issue that you will need to address is this one of defining the core transition and buffer areas. There is no clear science on this and I think you will need some reasonably good advice, particularly on the delineation of those zones. I am aware that CSIRO are doing a project with ACTPLA at the present time looking at a lot of the urban space and landscapes. The results of that will certainly aid the government in determining the nature of those core transition and buffer zones.

One of the issues that were originally raised when the whole idea of the biosphere came up was the role of a champion to basically take the process forward. If you make the recommendation, how are you going to do this? There are a number of models, and the CSIRO presentation suggests three sorts of management models for going forward on this. One is to take an existing organisation, another one is to set up a steering committee representing stakeholders, and the third is to look at a non-corporate, non-profit kind of organisation to drive the process.

I believe there is an opportunity given the resurrection—it is my understanding of the case—of an expert reference group to advise the government particularly on what should be done with respect to the Commissioner for the Environment. I know the Sustainability Expert Reference Group has given advice to the Chief Minister that he should perhaps look for a commission for sustainability and the environment. That might be an appropriate mechanism for basically galvanising the idea and providing research. There would be a number of experts there with powers to second other experts to support activities. It is something that you will need to take up with the Chief Minister with respect to that, but there is an excellent opportunity to do that.

I firmly endorse the approach that has been taken. I certainly endorse Professor Parker's comments that one of the real benefits of this is going to be the developing of a brand name for the ACT. There is no doubt that organisations that have adopted green branding, such as in the tourism industry green globe, basically are using this focus on sustainability as a means of value adding, particularly to the product and the experience of destinations that have both natural and built environment features.

I do not want to take too much more time and would just add that I think it is an initiative that is well worth while supporting. There are some negative connotations which Professor Parker has outlined. Certainly my experience in following this process very closely over several years suggests that there are not a lot of negative sides to this. I have spoken to people in the Mornington Peninsula where they have created these focus groups but my concern there is that the focus groups have only narrowed down to effectively lobbying a lot for finance for local initiatives. It has got to be more than that.

There is a real opportunity to use this as a means of engaging the scientific community in the ACT, which is the largest concentration of scientists basically in the country but quite fragmented. So there is a real opportunity here to use this initiative to provide a catalyst to bring together scientists that will help support, develop and progress the whole mandate the government has in terms of sustainability in the city—and, believe me, we have some very big issues to address, as we are well aware, on matters of climate change, for example. I thank you for the opportunity to present evidence to you today.

THE CHAIR: Thank you very much. I might just kick off and preface this by saying that I did ask this of Professor Chubb earlier on when he presented: what role do you think your university could play if the ACT were to list as a biosphere reserve fulfilling the aims of that underneath the Seville strategy?

Prof Parker: I think we could assist at a range of levels, obviously in research and development and consulting. One of the things that have struck me, coming new to the university, is the depth of expertise that exists in the environmental area at the University of Canberra. I think we are on track to become world class in that area. I would like also to develop our educational programs in the area. We are currently rethinking our whole curriculum, and the environment is very much in my mind.

There is an issue as to how much young people want to study environmental matters, even though they may be passionate about the environment, so that we have to look at,

but I would like to build up our offerings in that area. Also, to the extent that we have facilities and amenities that could be of use in developing this, I would welcome it. We certainly are proposing to develop the campus to bring research and development facilities onto the campus and this might be an ideal opportunity.

I guess I should also say that I am conscious that the University of Canberra carries the city's name. It should be the pre-eminent intellectual and cultural institution within the ACT, and that is what I intend to make it. I am having lunch with Professor Chubb tomorrow and I will mention that to him as well.

THE CHAIR: Good. You mentioned branding just a little bit earlier. Do you think you would look at branding the university as a University of Canberra within a biosphere reserve?

Prof Parker: Absolutely. Already in our brand repositioning advice we are looking at ways of picking up the themes and the ethos of the ACT within our brand, and a sustainable community is clearly part of that ethos.

MR SESELJA: On the branding issue, obviously the University of Canberra has a fair amount of expertise in areas like marketing and the like. When we were in Mornington Peninsula they kept talking about branding but there did not seem to be any evidence of it yet. Is the University of Canberra in a position, or would it be in a position, to assist individual businesses or business groups or the ACT government in getting a general branding for the biosphere?

Prof Parker: That's a very interesting suggestion. We have considerable expertise in that area and we're hoping that our marketing and business staff engage in applied research and so I think this would be a fantastic project. I can honestly say that I agree with you about the Mornington Peninsula, having moved recently from Melbourne and having cycled through the peninsula almost every Saturday for the last couple of years: I do not think it is well known that it has that status.

MS PORTER: One of the issues that came up with regard to the branding was this issue of who should be allowed to use the branding, how would that be monitored and the quality of the branding—whether that could be compromised by it being just used willy-nilly by anybody. Would your university be able to help us through what I think could be quite a minefield, really?

Prof Parker: I would be delighted to offer what assistance we can. I am conscious of the dilemma of keeping a very tight control over the brand and the visual manifestation of it. Also one has to have one's stakeholders benefiting from it as well and not set up an elaborate bureaucracy of permissions and so on. So there has to be a balance somewhere struck in there, and I do believe that we've got the expertise to help.

THE CHAIR: Do you think you would be able to develop links between other universities and other cities across the world that are in a biosphere reserve; would this assist?

Prof Parker: Absolutely. I think the starting point is to get the universities and the

other educational institutions in Canberra linked up appropriately, and then leverage off their respective links. That is my most striking observation on coming back to Canberra: people are doing their own thing. But, given a systematic approach to education in the capital, given all of the links that we have, that ADFA have, that possibly the ACU has and the ANU has, I think we could create a real cascading effect around the world with relationships.

THE CHAIR: Fantastic.

MR SESELJA: I think it was Professor Parker who raised the issue of unintended consequences, and you mentioned biosphere as an area of disputation. Do you have any suggestions as to how that could be avoided? I know in the Mornington Peninsula, from what I could tell, when it was set up they made it explicit that in planning decisions biosphere could not be brought up as a reason not to proceed with a development; obviously that is one. Is there anything that either of you are aware of that could be put in place to avoid that kind of thing occurring?

Prof Parker: I would be interested in Brian's view. My initial reaction is to get the support right at the outset from the business and the other communities and head it off, rather than have to regulate it out of relevance or deal with it later, so build a broad coalition of support, possibly around the branding aspect, possibly what it can do for business and that it is not necessarily anti development but it may help shape and grow development. That I would have thought was a recipe for sustainable success.

Prof Roberts: I concur with that comment because the business sector in particular, which is the one that stands the most to lose if there are constraints placed upon it, must be a key driver in supporting the initiative, particularly if you want to keep the quality brand name. That is going to be quite an issue for you to address, given that there are international conventions with UNESCO that have to be looked at. You can't have just anybody willy-nilly using this as a brand name, because how can you assure quality?

Quality assurance is something that needs to be investigated further. You do not want an expensive process just for the purpose of that. It may be that you impose a responsibility on the business community if it wants to delegate some of this to the community rather than have a central policing mechanism. It is more about self-regulation to ensure the process has that quality assurance. The last thing you can afford to do is to have a situation where somebody is branding a product and it ends up over the front pages of the national newspaper. The whole credibility as a biosphere and protecting the principles and idea will be certainly diminished.

THE CHAIR: Very good. We are almost out of time, but can you see other opportunities where we could achieve the same goals rather than going through the listing process with UNESCO?

Prof Roberts: It really comes in the public policy area within the way that the government is advocating. If you look at the Queensland example, the "smart state" branding has been very, very successful and it has got an underlying sustainability and innovation drive. A key to sustainability is innovation. If the biosphere initiative can encourage innovation, particularly in more responsible use and design of the built

environment, there is a lot going for it.

But there are other mechanisms if you want to go through state economic policy. Perhaps if I do have a criticism here it is that territory economic policy is not really coming through strongly. The white paper was initiated, but where is that document going at the present time? I might be a bit critical here, but other states are lifting up the game in terms of the smart state concept and embracing the principles of sustainability underneath it.

THE CHAIR: I think that is probably all we have for you this afternoon. Thank you very much for coming in. If there are any questions that members have we will get those to you as soon as we can, and we also will provide a copy of the transcript to you as soon as possible.

Meeting adjourned from 2.26 to 3.44 pm.

BAIRD, PROFESSOR JOHN, Rector, University of New South Wales at the Australian Defence Force Academy

THE CHAIR: Welcome, Professor Baird, to the planning and environment committee's inquiry into a biosphere reserve for the ACT. I will just read the privileges card for you. The committee has authorised the recording, broadcasting and rebroadcasting of these proceedings in accordance with the rules contained in the resolution agreed by the Assembly on 7 March 2002 concerning the broadcasting of Assembly and committee proceedings.

Before the committee commences taking evidence, let me place on the record that all witnesses are protected by parliamentary privilege with respect to submissions made to the committee in evidence given before it. Parliamentary privilege means special rights and immunities attach to parliament, its members and others necessary to the discharge of functions of the Assembly without obstruction and without fear of prosecution.

While the committee prefers to hear all evidence in public, if the committee accedes to such a request the committee will take evidence in camera and record that evidence. Should the committee take evidence in this manner, I remind the committee and those present that it is within the power of the committee at a later date to publish or present all or part of that evidence to the Assembly. I should add that any decision regarding publication of in camera evidence or confidential submissions will not be taken by the committee without prior reference to the person whose evidence the committee may consider publishing.

Would you like to begin with an opening statement?

Prof Baird: Yes. Firstly, thank you very much for inviting me. I think this is one of the areas that are quite important for both the ACT and the surrounds.

I will start by just explaining a little bit about what ADFA is. We are a military academy, and we are the only military academy in the world where the education is provided by an independent university, in this case the University of New South Wales. So the structure of ADFA has two parts: a defence side, which is led by a commandant, and a university side, which is led by me. In terms of the university side I am like a dean of a faculty, except my faculty is called a college because it has many disciplines. Usually faculties are led by deans and faculties are faculties of engineering or whatever. In my case I have multiple disciplines, including many of interest to us today, and my position is called a rector. There's nothing religious at all in the—

THE CHAIR: I was expecting to see a collar.

Prof Baird: Thank goodness, no. A little bit about size: there are around 1,000 undergraduates at ADFA. They in the main are officer cadets and midshipmen who have come into the state, funded by defence and paid by defence, to study degrees in a range of areas. There are around 200 academic staff and another 200 general staff on the university side and a further 150-odd or so staff on the defence side.

As well as delivering undergraduate programs we deliver postgraduate programs. While on the undergraduate side every one of our cadets and midshipmen standing in front of us wears a uniform, of either this country or another country, on the postgraduate side we operate like a normal university—that is, we can take civilians or military or whoever—although the bulk of our postgraduate students are serving members of the military or members of the defence department. We have also around 150 high-degree research students, and they are civilians, many international students and so on.

So all in all I guess on the site there are probably 2,000 people or thereabouts, so it's a substantial part of the economy. The total budget for ADFA is around about \$100 million, and about \$50 million of that is for the university side; the rest goes to the salaries of the cadets and midshipmen and so on. So we are in fact an open campus, despite the fact that we are a military establishment.

As a significant organisation within the ACT we're very keen to participate in any of these sorts of initiatives, particularly since we have a range of areas of expertise that may be able to contribute to it. The areas of expertise that we cover range from engineering—civil, mechanical, electrical—to aviation courses, an arts program with the full range of humanities and social sciences and so on, a business program and a science program.

I will move on to the specialist areas where I think we can contribute to this particular proposal. We have a very strong group—about 10 of them—working in geospatial information science and another group working in remote sensing. Forest and water management, urban sustainability, transport efficiency, ecology, water quality studies, pollution dispersion, groundwater pollution, water chemistry, and air pollution and dispersion are all specialisations in which we have expertise.

I should explain that as part of the University of New South Wales our academics are required to conduct research but that research is not directed; in other words they choose for themselves. So it is not as if we do only defence related research, although probably around 50 per cent of what we do does have some defence relevance. Our charter is to deliver a balanced and liberal education. That is the imprimatur we get to work in areas that do not directly have a relevance to defence, and that is because defence in their wisdom recognise that it is the education that is important, not so much the area of specialisation.

I think that summarises where at least the university side of the academy is. I am more than happy to either say a few more words about the proposal or to answer questions.

THE CHAIR: We might kick off with the questions. You have already indicated that there is a small group of people working in areas that are, I guess, relevant to the inquiry that we are doing and whether we register as a UNESCO biosphere reserve. If we were to compare your areas to the ANU, for example, or the University of Canberra, what sort of contribution do you think ADFA can make in—

Prof Baird: I think there is a lot of overlap. In fact probably our leading scientist in the area is a specialist in the geospatial information systems, and the system that tells

you what goes where is an overarching discipline that I think is probably an enabler for the other disciplines that I mentioned.

Probably in most of those areas there would be other expertise in the ACT, particularly at the ANU and possibly the University of Canberra, particularly water studies and so on at the University of Canberra, and so I think our contribution would be to aid and enhance. In some areas we would have the strongest specialisation and in some areas we would be sort of supporting, but I think we would be a contributor to the expertise that is available.

MS PORTER: Do you see any challenges for this proposal in the ACT to go ahead?

Prof Baird: Yes. No money is the starting challenge. In terms of the togetherness that I think you mentioned, one low-scale thing we could do is get everyone together and in particular to see if we can unify a lot of the geospatial information systems that we already have. I think there are available within the ACT and in different areas things like databases on natural systems, on terrain, on hydrology, wildlife and census data and that sort of thing, and if we merged them together that would be a starting point to have some data. But even that would take some research effort, because the databases are held differently and there are different sorts of data sets, and therefore we would be applying to things like the Australian Research Council for funding to get such a thing off the ground.

The problem with that is that the success rate in such an arrangement is only about 20 per cent, so we can apply for federal government money, but the head rate is really low and it is nearly impossible to design a program—something you want to achieve no matter how compelling it is—if the federal government funds this bit of it and that bit of it and not another bit of it. There is no way of controlling, of having some sort of unifying set of activities, without paying for it.

THE CHAIR: Previous presenters have talked about branding biosphere products or industry within the ACT if it were to become a UNESCO biosphere reserve. Do you think that branding would assist ADFA?

Prof Baird: Yes, I think it will. We have a little complication that makes things a bit different: our buildings and infrastructure are owned by defence and so at least the building and infrastructure side of it we could not lay claim to responsibility for and I doubt that defence would be interested, although they might; you never know.

THE CHAIR: In sustainable—

Prof Baird: I think they are interested in sustainability. Whether they are interested in being recognised by an ACT government body, sustainability is another thing, but I shouldn't rule that out. But things like watering of the parade grounds and all that stuff is not our responsibility; it's theirs. However, if there were frameworks that allowed for small, low footprint sorts of policies that an organisation could adhere to and get accreditation for, that's definitely something we would be looking for.

MR SESELJA: On that issue, you touched on whether or not defence would have an interest in being recognised in this way. We had the University of Canberra speaking

to us, saying that they very much saw themselves as a part of the community and so they would be supportive of a biosphere proposal for all sorts of reasons. How much is there a focus within ADFA, with more of its national focus on training up our defence elite, in local programs, in something like a biosphere program?

Prof Baird: From the university's perspective, we would see ourselves like the University of Canberra: we would do whatever we could to be part of the community and to be a good corporate citizen. In things such as recruiting we have great political difficulties if we concentrate on recruiting in the ACT versus Western Australia; the Western Australians get quite upset if you don't spend a lot of time over there.

Apart from that, if there were to be some framework set up, there is no reason why the university component could not be part of that unless the framework required you to have ecologically sustainable buildings or something which was out of our control. But to the point that it is within my control, we would be very keen to be seen as a good corporate citizen around the place, and if the guidelines allowed for that that is something we would be pursuing, as UNSW at ADFA as opposed to ADFA itself.

MR SESELJA: It does raise the broader issue too, which you do not need to necessarily comment on, that defence, with the amount of land that it does own in the territory and surrounds, would obviously have an important role to play just because it is a big land manager. Obviously, if it were to go ahead, defence would be an important player, positively or negatively, I think.

Prof Baird: Yes, and I know that they are very keen to move towards more ecologically sound buildings and so on. I think the part of defence that looks after their infrastructure is here in Canberra—if I remember correctly it's at the airport—and they would, I'm sure, be keen to talk about this, although I'm sure you will understand the legal implications. Ultimately you want a minister for defence in the federal government to say that they are keen on it happening. That would be the challenge.

THE CHAIR: You talked a little bit about overlap with the other universities' education units in the ACT and we have heard too from presentations before about the possibility, if the ACT was listed as a biosphere reserve, that it may bring disparate groups together either directly working on the biosphere reserve or other sorts of sustainability issues underneath it. Would you see that as an advantage?

Prof Baird: I would. The people who are working in these areas are absolutely committed and I think you would find, if you dug very deeply, that there are a lot of links. Everyone would know who everyone else is and I'm sure they will be seeing each other at conferences and working together anyway. Facilitating something you might call an ACT information network on biologically related areas is definitely one of those things that we would be very keen to be a part of.

If I were to speak from a strategic point of view, we—that is, UNSW at ADFA—do suffer a bit from being seen as part of the federal government and not part of the community, and therefore we are very keen to have more interaction if ever we can and there is enthusiasm for it.

MR SESELJA: I affirm that point, as a lifelong Canberra resident: it is seen as an important player but as somewhat separate. A number of parts of the ACT or agencies within the ACT in one way or another are seen as different or separate and not necessarily as much a part of the community as others, and ADFA probably falls within that, partly because you are bringing people from all around the country and then they tend to go away after a few years to other places. So it would be a great opportunity for some integration into the community.

Prof Baird: Yes. We were given the keys to the city once, some years ago.

MS PORTER: My question goes to that discussion we have just been having about working together with other parts of the community, but it is also back to your comment about getting everything together. On that research project that you mentioned earlier on that you could apply for funding for, would you see that the other universities would be happy to join with you in that? And would you see that as a joint submission or just a submission out of one university?

Prof Baird: We are talking about maybe 40 scientists and specialists across the ACT—maybe 100; somewhere in that scale of people. That's a guess. I can count a dozen or so, and then by the time you add the scale of the ACT to that, which is six or seven times bigger than we are and so on, it becomes a number of that order. I think that scale is too big for making such an application.

There needs to be some coordination. Maybe a conference, where you get all interested parties to say what they feel they can do, would be a start. But I still say that doing anything in a coordinated sense without money is going to be a really tough challenge. If you take an individual academic, for example, the university puts pressure on them to get research funds from everywhere, so why should they be doing this for nothing when they should be applying for Australian Research Council grants on something else?

MS PORTER: If they came together would they carry more weight, or would they be more likely to get that grant if they joined together in a consortium?

Prof Baird: No, that would be difficult. Once you get more than three or four people on an ARC application that is not going to work, so you get back to the problem I was saying before: you could have some grant applications but they would be in disparate areas and some of them would be funded and some wouldn't. It's the coordination that is important—to get some more widely coordinated activity going.

THE CHAIR: So if, for example, the federal government had a program that funded biosphere reserves, that may be an easier way for it to join in with the other parts of the community and apply?

Prof Baird: Exactly. That would be an outstanding way to do it. If I could do some very rough calculations, for every 10 people you are probably talking about half a million dollars in research funds or something like that to get them. These are often people who are already rolling with research money, because it is a very hot area. We are not talking about people who have no research irons in the fire and suddenly kick-starting them onto this; what you are looking at is a significant research effort that

we're trying to redirect towards something local.

THE CHAIR: Within those specialised areas that you talked about earlier, what sort of work is happening on sustainability in there at the moment?

Prof Baird: I am afraid it is not exactly my field; I am an engineer originally. But we were involved, for example, on the bushfire side. There is a range of research activities there. I did not mention that, but bushfire research is another biosphere issue. I am desperately trying to remember what one of my other colleagues is doing. I'm sorry; I just do not have that detail.

THE CHAIR: One of them that you termed there was transport. Even within probably your engineering areas you would be looking at transport that is more sustainable than we currently—

Prof Baird: Yes. Our geographers work in that area, I don't know exactly what they do but they do a bit of town planning sort of activity as well as studying transport systems.

THE CHAIR: There being no more questions, I thank you very much for coming in this afternoon.

Prof Baird: Thank you for inviting me.

THE CHAIR: If there are any questions the committee think of in the next day or so we will get those to you as soon as we can, and we will also get a copy of the transcript to you as soon as that is available.

Short adjournment.

HYMAN, MR GLEN, Associate Researcher, CNRS Space, Nature and Culture Laboratory

THE CHAIR: I welcome Mr Glen Hyman, who is Associate Researcher at the CNRS Space, Nature and Culture Laboratory in France. Welcome to Australia and to our committee inquiry. Just before we go ahead, I will read the privileges card to you—or were you in the room earlier on when I read the card?

Mr Hyman: I was.

THE CHAIR: So you are aware of it?

MR SESELJA: Fantastic; we do not have to hear it again.

THE CHAIR: That is great; we do not have to hear it again.

MR SESELJA: “You can defame people but please be honest” I think is the summary.

MS PORTER: That is right.

THE CHAIR: Would you like to make some opening comments to the committee?

Mr Hyman: It would be my pleasure. Thank you for having me here today. It is a privilege to speak with you about something which is near and dear to my heart: biosphere reserves in relatively urban areas. As a foreigner both to Australia and to the capital territory, I do not have a wealth of experience with the local context, but I want to make three main points that might be useful for you—about biosphere reserves in general and in particular about biosphere reserves in urbanised settings.

The first is an existential point about what a biosphere reserve is. As you all know, in order to obtain UNESCO biosphere reserve status a prospective area must demonstrate, among other things, that it has thoughtfully demarcated its territory into three distinct zones—core zones, buffer zones and transition zones or zones of cooperation—and that these specified zones will in one way or another respond to three statutory functions: a conservation function, a development function and a very poorly named logistical function or function of cooperation.

An interesting thing about biosphere reserves is that they are infinitely flexible. UNESCO was not prescriptive about the form the zones must take. While often concentric, they need not be. They need not even be contiguous. Any well thought out system of zonation is acceptable. The more tailored it is to the local setting, the better suited it will be to responding to these three interrelated functions.

When discussing how one can go about creating a biosphere reserve, I find that it is most useful to speak about it and to frame the debate in a way where you consider what must be done to obtain biosphere reserve status—not to talk about a biosphere reserve as a place, talk about a biosphere reserve concept, or talk about how the biosphere reserve will organise one thing or another, but to recognise that a biosphere reserve is a place which has been granted the status by UNESCO.

Then one must ask what form of institutional arrangement is best suited to administer the status. It can take many forms. Again, the more it is specifically oriented to the local context the better it will be at responding to these three interrelated functions of conservation, development and logistical support or cooperation.

And the last question, which I think is important, is what value the obtention of such status will bring. This is a very important question, and one that takes time to answer. By considering a prospective biosphere reserve as a place, an institutional arrangement or something else, much confusion comes. People want to go to the biosphere reserve; they want to know where it will be. One of the most important parts of the concept is that it is not the physical location but rather how the area is managed. Biosphere reserve status recognises an approach to management which is novel and which responds directly to the needs of a place in a way which is sustainable in all of its senses.

As a colleague from CSIRO put it, a “no regrets” approach is one which can be useful, because the process of answering these questions forces an area that is considering biosphere reserve status to address problems and challenges which are very real. Whether that status is obtained or not, the act of addressing, investigating and looking at how to build cooperation in the name of integrating conservation and development policy is a worthwhile exercise. I commend you for already holding this inquiry on that basis.

The second point that I want to make is one about the limits of a biosphere reserve—its territorial limits. Biosphere reserves are in their 31st year of designation now. They began at a time when there was not much knowledge about how human activity and species loss were connected. They started out as laboratories where you could explore how human activity in close proximity to natural systems was affecting those natural systems and how best to mitigate that activity.

Soon thereafter, though—within the first 10 years—it became clear that in order to understand these issues you had to engage the people who were living there. One could not treat the place just as a laboratory and treat the residents of a biosphere reserve as guinea pigs; rather, one had to engage them. Their desires, imperatives and actions were central to answering the questions one was trying to respond to with the biosphere reserve status.

As the ACT considers obtaining biosphere reserve status for its territory, it seems to me as an outsider that the community of the capital territory extends far beyond just the territorial boundary. There are regional implications. As a newspaper reader, I know that there were fires in 2003 which the administrative boundary of the territory did not seem to stop. There are water issues with New South Wales. There are all sorts of things.

From discussing this biosphere reserve in passing with people, it seems that the issue of where the biosphere reserve territory should stop is quite a touchy subject. It seems that that is one area where there are many unresolved questions. There is also the role of commonwealth land which is within the territory but excluded from the territorial plan. The role the commonwealth land would play in an eventual biosphere reserve is

an issue which is not quite clear to people you meet and speak with in passing.

It is in regard to such issues where there is not clarity where I think the most investigation is necessary. In order for a biosphere reserve nomination to succeed, and in order for obtaining biosphere reserve status to be worth while, it is terribly important to use the opportunity this biosphere reserve status can present to investigate these questions—which are very real—and, hopefully, find integrated solutions which will allow clarity and thus integrated management to enable the most sustainable path possible for the management of these various territories under diverse tenures.

That brings me to the last point I want to make, which is one of timing and how quickly a biosphere reserve nomination should be undertaken—or not. It is difficult to identify a precise time line as to how long it takes to develop a nomination. There is technical work which is time consuming. As our university colleague who just spoke mentioned, there are not very integrated data sets of geospatial information. Such cadastral level spatial information is essential to be able to develop the sort of zonation plan which will allow best use of the conceptual tools of the biosphere reserve. That technical work must be done, but there are also broader questions which will take time to answer.

In my case studies of biosphere reserves here in Australia and South Africa—and I am now beginning in Canada as well—I can see that the promise of obtaining biosphere reserve status can be a great inducement for cooperation. For many different reasons, various stakeholders will seek to obtain this status. Universities may seek it because they see funding possibilities, wealthy landowners may seek it as a way to prevent any form of development which may reduce the value of their land, and developers may see it as an opportunity to brand their developments as sustainable. All of those may be valid ends, but there is a need to avoid the premature obtention of the status before these various directions and interests are coaxed into an integrated direction. Once the status is granted, I have seen example after example of conflict taking place where there was once cooperation—for control over the status, to obtain these diverging ends. Before obtaining this status, it is very important to undertake the exercises and resolve these conflictive points.

In a way, this is what the MAB Urban Group concluded in its recent reports to the Intergovernmental Coordinating Council of the man and biosphere program. In a document we submitted just last year to the biennial meeting, we recommended that biosphere reserves in urban areas will clearly have to have well thought out administrative and institutional arrangements. The idea of having a multi-stakeholder committee is not sufficient; the idea must be much more fleshed out—how to involve the various stakeholders; whatever that structure is, whether it will require funding; and, if the structure will undertake programming, where that programming funding will come from. These are issues which should be given consideration other than just saying, “Grant proposals will bring the funding,” because often they do not.

I think that we also mentioned that communication and education strategies are central to the success of the application of the biosphere reserve concept. And most important is the development of a cooperation plan—a way to recognise where conflict is inevitable in a multi-stakeholder, multi-sectoral undertaking such as a

biosphere reserve: to identify where those zones of conflict are, how those conflicts will be mitigated, where to find the enthusiasm which is at the base of this conflict, and how to best harness that in order to find a common direction.

One of the greatest things that a biosphere reserve can do is provide a forum where often there is not one. For example, I am not sure if here in the ACT there is a regional forum where representatives from the six, seven or nine municipalities which surround it and the commonwealth and the territory have a way to find where they can meet. Maybe a biosphere reserve can provide that sort of table that everyone can come to, but building that table takes investment, time and energy. The promise of obtaining biosphere reserve status can often be the motivation for that, but if the status is obtained prematurely then that opportunity can unnecessarily be lost.

I think those are the three points which I wanted to make to you. I am happy to answer any other questions you may have.

THE CHAIR: Thank you very much. I might kick off. Do you think there needs to be passionate leadership to get these groups together and go through those issues whilst the process is happening? I think you mentioned in your presentation that it cannot work as a board, for example. Do you think it needs to be run by one or two people—or a government, for example?

Mr Hyman: There are many different models; it is very case specific. In some places where there is no history of any sort of community organisation or bottom up process—where everything is run from the top down—an expectation that bottom up processes will spontaneously deliver the sort of cooperation which managing a biosphere requires is unrealistic. In other places—South Africa, for example—where there is a long history of top down management trying to run something exclusively, a top down way is untenable. It really is a question of local specificity.

Let me give the example of the Niagara Escarpment Biosphere Reserve in Canada. Before the biosphere reserve status was obtained, there was a Niagara Escarpment Plan along biosphere reserve principles, with core zones, transition zones and buffer zones—five zones, I believe, but I stand open to correction. A commission was appointed to administer this plan. It had planning responsibility for the length of the escarpment. Biosphere reserve status was obtained in recognition of this management framework. In part because this status was obtained, smaller community groups began to blossom in various parts of the escarpment. But these community groups were not concerned with running the biosphere reserve per se. It is a very long biosphere reserve—several hundred kilometres. On the one hand there were locally interested groups and on the other there was a commission that had management responsibility for dealing with these very real land management concerns.

In other places it can sometimes take one very motivated local champion in order to bring everyone together—one irritating fly on the back of the horse to buzz in the ears of all of the different administrators and bring them together. In other places it can take one agency to take the lead and to bear the initial cost while other agencies are convinced that there is merit in integrating conservation and development and recognise that supporting and giving grants to universities that wish to integrate GIS data will provide the tools necessary for the planners to better do their work, which

will then ensure better conservation outcomes and more sensible development. Whether it is one agency, three individuals or private funding, it really depends on the local context.

THE CHAIR: When we visited the Western Port biosphere reserve just south of Melbourne, we saw the sort of thing that you have just described. There were groups of individuals within the area that had their own programs running—small catchment programs or other programs. But one community leader, Rob Gell, a local television personality, was very passionate about the environment and sustainability. He ran it as his baby whilst the others did the work on the ground. But they had not raised any significant funding; they were all doing it as a grassroots exercise.

Mr Hyman: In part that is because of the policy of the state of Victoria, which is, for a variety of strategic reasons, specifically designed to limit the influence of the biosphere reserve organisation. As a matter of state policy, neither the parks agency nor any other state agency is authorised to give any funding to the biosphere reserve outside the normal grant giving processes. The biosphere reserve foundation as such is specifically excluded from participating in planning decisions.

There is a whole series of strategic reasons why the state has taken this position; it is a longer debate which I covered slightly in my case study of the Mornington Peninsula and Western Port biosphere reserve. But in a way the existence of the community groups that you were talking about, which have their own activities running, may very well undermine the beautiful regional perspective—the forum that I was talking about—that the biosphere reserve status provides. There was not really a forum where the five municipalities surrounding Western Port were able to meet and talk about their relationship to the bay and their relationship to each other.

Some of the fastest growing municipalities in Victoria are located within this area. They were not really communicating. There were other frameworks which kept two of them together or three of them together, but nothing really brought them all together. As the organisational framework for the Mornington Peninsula and Western Port biosphere reserve was established, these community roundtables were established along the geographic boundaries of the individual municipalities. A regional perspective was created—and then deconstructed for ease of transportation because it is such a large area. Nobody can drive for three hours, so they re-localised it. The relative suitability of that structure for managing this regional framework is debatable—and I debate it quite strongly.

THE CHAIR: Some stakeholders have expressed to the committee some reservations about a biosphere reserve nomination. Some have suggested that there may be other ways to promote sustainability. In your opinion, why would a biosphere reserve nomination be the best option? Could you achieve those sustainability targets via some other avenue?

MR SESELJA: Can I just add to that? One of the stakeholders who came in today said that one of the criticisms was that it is not seen as being at the cutting edge any more—that biosphere is not the cutting edge of sustainability. Are you able to comment on that in your answer?

Mr Hyman: What I would say about the biosphere as a concept is that it is one which is evolving. Every 10 or 15 years or so, there is a major conference. The first one was held in Minsk in Belarus in 1984; in 1996 there was another in Seville in Spain. You may have heard of the Seville strategy. This coming February there will be a third world biosphere reserve conference in Madrid. The concept will be revisited, and experience over the last 10 or 15 years will be taken into consideration. Criteria will be redeveloped; there will be changes to maintain that which is tried and true and to better suit the concept to the rapidly urbanising setting in which we find ourselves today, with respect to the cutting edge nature of the concept.

In a way, when the concept was first put forth in the 1970s it was well ahead of its time. Overall, as it is evolving, it is managing, because it is so flexible, to remain a worthwhile endeavour. It is infinitely flexible. It is not prescriptive—with the exception of requiring a zoning plan for various sorts of zones and land use, which almost every municipality in the world has now, and with the exception of three statutory functions which, by bringing issues to the forefront and emphasising them, allows the concept to be easily tailored to the constraints and opportunities present in any local context. In a way, because it is so flexible but also because it has such a long pedigree and experience, it is able to bring the best of experience to relatively specific settings.

THE CHAIR: With your experience with starting other biosphere reserves which incorporate an urban component, such as those in South Africa that you mentioned, and Canada, what in your opinion makes a successful biosphere reserve?

Mr Hyman: Communication is needed in order for a biosphere reserve to be successful and for the biosphere reserve status to be sensibly incorporated into the activity of local government, residents, industry and all other stakeholders present. A solid communication strategy lies, in a sense, at the heart. A communication strategy will beget a cooperation plan and the trifecta of appropriate funding arrangements to support an institutional arrangement buoyed by a cooperation plan—which is in effect an authentic investigation into the points of conflict, into the difficult questions.

A biosphere reserve will encourage the asking of those difficult questions. By means of a cooperation plan and an effective communication strategy, it will be able to bring about the inputs necessary to answer the difficult questions, or at least find a liveable middle ground where stakeholders are able to work with each other. Full agreement is never really possible, but compromise in a way which is informed by sound science is, in a way, what the biosphere reserve concept offers.

THE CHAIR: “Compromise” is an interesting word that I do not think we have had presented to the committee in this debate so far. It might be interesting to put that back to people who gave some of the negative presentations we have had. Do other members have questions?

MS PORTER: I want to go back to one of your initial thoughts about how we talk about this thing. This is one of the things that I have found it difficult to explain, and I think other members have had similar experiences. When you are talking about it not as a place but rather as how to obtain—that is what you said, wasn't it?

Mr Hyman: Yes.

MS PORTER: I want to unpick that a little bit more. If I were a person who did not know anything about it and you were now saying that to me, how would you start to frame that?

Mr Hyman: The reason I like to talk about biosphere reserves as places which have been granted this UNESCO status is that the challenges of development and nature conservation are very real challenges which exist in the world, and the solutions to them, by their very nature, must be integrated. To attempt to resolve development issues without a mind to resource conservation and management and biodiversity conservation does not really address the question of sustainable development, which is the only development we can afford in the world in which we live contemporarily.

Biosphere reserve status encourages integration and attention to integration. If you talk about a biosphere reserve as a place, then a place exists outside policy; a place exists in the world. You can look at it. People will often then focus on where the boundary of the place is. If we are going to brand things from a biosphere reserve, we can say, “Is this apple grown inside the biosphere reserve or outside the biosphere reserve?” In a way, that is not the important question. The important question is how apples are grown in light of this biosphere reserve status. What sort of changes in behaviour does the biosphere reserve status incite? Why does it incite those changes, if any? How can policy makers employ—I do not want to say “exploit” because the word has such a dirty undertone to it—biosphere reserve status? Biosphere reserve status can serve as an inducement to all sorts of positive policy outcomes. That is why I like to talk about the status that comes with it—something that is obtained.

In a way, UNESCO’s main role is to grant biosphere reserve status or to withhold such status. UNESCO does not come with policy workers in blue hats—or, if it does, they evaluate applications, grant status and provide general advice. The provision of that status—the obtention of that status—can be very useful strategically, but it happens only once. That is why I am such an advocate of waiting until the proper moment to seek obtention of that status—not rushing in with an idea that the status will bring about the sort of cooperation one needs. In a way, the promise of obtaining that status is often what keeps people of diverging interests working together in order to obtain the status. I found that to be the case in the Mornington Peninsula. I found that to be the case in South Africa. I have not yet completed my study in Canada so I am loath to say that that was the case there, but it seems as though it may have been.

THE CHAIR: Earlier you touched on changes in behaviour. In your experience, what have been the changes in the behaviour of, say, communities in looking at sustainable development, either during or at the completion of registration?

Mr Hyman: I think of the Sao Paulo biosphere reserve. It is a green belt biosphere reserve. In a way it began as a public campaign opposed to the creation of a ring road around the city of Sao Paulo where there were first growth green forests. Now there is a green belt around the city of Sao Paulo. Some 72 municipalities are touched by this biosphere reserve within the greater Sao Paulo region. The biosphere reserve status itself is administered by the forestry institute in Sao Paulo—by the state of Sao Paulo.

The gentleman who runs it, Rodrigo Victor, was telling me that in the mail he received a letter that one of the municipalities had declared a biosphere reserve day—unbeknownst to him; he had no idea it was in the pipeline. He got a notice that two days from then there would be a biosphere reserve day. For him that really represented a success—not that declaring a biosphere reserve day is the mark of behavioural change but that things were happening not as direct action of the biosphere reserve agency, but in light of the biosphere reserve context. And there are school programs: schools are incorporating the idea of sustainability and reference to the environment because of this biosphere reserve. In a way, that is with some support from it, but in other ways it is entirely independent of it. These are examples which come to mind. There are countless others which I will not be able to get into at the moment.

THE CHAIR: Thank you. Are there any more questions for Mr Hyman?

MS PORTER: No, thank you. It is been very interesting to listen to your presentation. Thank you very much.

THE CHAIR: Yes, and thank you for your passion. If there are any questions we think of in the next day or so, we will get them to you. We will also forward you a copy of the transcript of the hearing so that you can look through that.

The committee adjourned at 4.46 pm.