Without further ado, I’d like to spend a short time with you discussing the history of population policy in this country. It’s an interesting history, and I’m going begin with a particular point, after federation, although as we know, the history of the discussion goes considerably further than that.

Federation was of course 1901; we were a very British country at the time. Our first recorded population policy emerged post-federation, in the 20’s when Australians were making their own decisions, as a Federation. The policy that arose then was an expansionist one, a great dream really, that was in put in place by a series of conferences hosted Britain and her new dominions. A vision grew out of these, which Churchill expressed as a chance to affect a revolution, he saw, in the world’s population. The idea was to export 300,000 British stock people to the dominions every year for a long period, and so produce an empire of about 300 million British people spread through the world, predominantly of British stock.

The British parliament passed the Empire Settlement Act of 1922, and allocated money to the project, and indeed in the 1920’s Australia brought out about 350,000 Britain’s. It was well short of target, but a major initiative and a dream of expanding all the good the things of British civilisation into this part of the world through the British Empire. In the 1920’s the debate which Flannery touched on last night flared up. It flared up with the assertions of biological realists, of whom Thomas Griffith Taylor is undoubtedly the most known. An Associate Professor of Geography at the University of Sydney; I think he was too tempestuous to make it into the Professoriate. He was right in his predictions: he predicted that all the useful lands of the planet would be saturated within 200 years of his time, and in Australia the contemporary margins of settlement, established in the 1920’s, already closely approximated the limits which would be set by the nature of the physical environment.

Indeed he was right, that the great concentrations of populations on our coast have been maintained, and population has been draining out of our great farmlands as productivity increases. Those who are loyal to the dream of empire expansion, the boosters of those days, responded by pointing to the power of human ingenuity. Sadly, the continent was useless only if you believed it so, and you can almost here in the rhetoric of those speeches something Franklin Roosevelt touched on when he strove to raise the American people out of the mire of their depression. He used a wonderful phrase; ‘Americans have nothing to fear but fear itself’, and this challenge to action, to ingenuity is a constant theme of the booster argument, very clearly stated in those days. Actually, if you watch the ebb and flow of argument, it would seem that Griffith Taylor gave up. He left for another position in Canada in the late 1920’s. He was still under attack and he was still arguing consistently, cogently and diplomatically his conservationist concerns.

The dream of a British stock empire—built on ‘money markets and men’ was the slogan—was broken, but it wasn’t broken by environmental constraints, it was broken by depression and war. Immigration to Australia fell dramatically during the depression and war without any policy being set. Those great dramas totally overwhelmed the country and very little thought seems to have been given to policy in those times.—very understandable. The war however had a major impact on our population policy because of the enormous threat on the attack on Darwin and the very real threat on invasion by Japan. And our understanding about two things of that war; one that Britain could not defend her southern dominions, and the other that we could not defend ourselves.

So Australia after the war adopted a dual policy of finding a new protector, in the United States, and also trying to build up our own population for reasons of defense. The great proponent of this was Arthur Calwell, the
Labor minister for immigration: ‘Additional population is Australia’s’ greatest need, for security in wartime, for full development and prosperity in peacetime, our vital need is more Australians. The Pacific war taught Australians a lesson that we must never forget...’ (1948). Between 1947 and 1950, net immigration increased from 11,000/annum before the war to 150,000/annum, a massive increase in population. It was direct government policy that it should be so. We did then have a population policy, and it was a policy of expansion. It was a policy of expansion by immigration, and the reason for that is that underlying all these debates, silent, persistent and of enormous importance, and too often left unstated, was a very strange, unpredictable and enigmatic response of the human species to our own success. Which I, when I first got into this debate, took a long time to understand. The reason is that birthrates have been falling since the middle of the 19th century in the western countries. They have been falling in Asia and Africa since the 1920’s, they are everywhere falling. The reaction of humans to whatever they are doing now is to have fewer babies than their parents. We don’t know why this is happening. One possibility is that it is just a biological effect; there is some evidence for effects of changes in the environment on fertility, but I don’t think it is just that, and few demographers think in those terms. Something is making the human species do something that no other species ever does, that is voluntarily reduce its birthrate. I don’t know of any species that will reduce its birthrate by any mechanisms—well there are a few examples; there is evidence that in very hard times, the period between births among some of the large mammals, such as elephants, will increase. Most mammals, most animals, reproduce up to the limit sustainable by the environment and then there is the brutal process of culling by the limitation of resources or the outbreak of disease or predation.

Humans have dropped their birth rate and throughout western Europe, and in this country, since 1975 (there was a brief and equally enigmatic baby boom between about 1960 and 1975) somehow as though a switch were turning off all over the world, women around the world, certainly around the western world, have decided to have fewer and fewer children. Birth rates are below replacement rates in every country in Europe, they are down in some to 1.4 (the replacement level is 2.1). Incidentally it seems to have nothing to do with religious doctrine because Catholic Italy has one of the lowest birth rates in the world. Arguably it has little to do with contraceptive technology; it began before the technology. Those who look for a correlate see the clearest correlate in the education level of women. It seems that if women are really well educated they will choose to limit the number of their children. In this country and throughout the west, we’re below replacement rates. If we want to populate a country we have to bring in people from somewhere else.

A more positive way, from my point of view of looking at that, is that with fertility a little below replacement in this country—about 1.8—we have a real opportunity to manage our population without interfering with those very personal decisions that people would very much want to make for themselves about family size. We just don’t have to touch those things. So infertility has been a major actor in the scene, which creates an opportunity if you are in a mood to limit the population, to limit by immigration, and it creates the reality that if you want to make the population grow you have to bring in people. This, as you see, is a very recent editorial from ‘The Australian’, in which the writer argues a booster position, saying really that the problem Australia faces is one of population plateau and that the opportunities of the future will be lost if we don’t take it. If they understood the demography better, they might have said that the problem is that the birth rate is such that if we don’t bring in people we will actually have a contracting population. That is a statement touching, from a booster point of view, on that underlying drop in fertility which is so important a part of this debate, often unrecognised, and creates in my view real opportunity to achieve sustainability in the long term.

Since Arthur Calwell’s time, of course, we have been through the Cold War, we have been through a long period of peace in which our fear of Asia has relaxed. We now, where once we were afraid to let Asians in for, I think, very understandable reasons; we had been really roughed by a major expansionist Asian nation. Now of course with those fears relaxed there is a strong move to make our admittance policies free of that sort of criterion, and one of the acting forces in the debate has been a dream which is new. The dream of empire has faded. The dream of military strength has largely faded; the recent reports that the Federal Government commissioned in 1974, and from a Population Council it convened in 1991, omitted to mention defence as a population issue.

It seems that our dream of great military strength has largely—but not completely—faded and new dreams have arisen. One of those is the human rights dream that we can have a world of harmony and peace and goodwill and tolerance without making too many hard decisions. I don’t want to touch too much on that, it draws out a debate, which I think we may not want to get into. We do need to understand, however, why it is our conservationist movements have been so silent on population. We have very admirable conservation movements, a whole set of them, yet not one of them, until very recently, has taken a clear position on
population and clearly they are not going to lead on this issue. So the communities concerns on population have been led by groups like AESP, one of the longest players in this field, and I noticed the Academy of Sciences recently established a foundation for investigation of sustainable population, a series of movements are beginning to come from the community.

So I think we are starting, in a slow and uncertain way, to deal with this problem. I want to spend the last few minutes tracing the most recent of those moves. IN about 1994, I convened under the auspices of the Academy of Sciences, a symposium that Tim Flannery referred to yesterday, whose title was ‘Population 2040: Australia’s Choice’ in which we argued a particular position. At the end of that we made a submission to the House of Representatives Standing Committee for Long Term Strategies: Inquiry into the Australian Population Carrying Capacity, chaired by Barry Jones. The submission was along the lines that Australia had for the last 25 years lacked a policy, that we had been managing our policy on a ‘she’ll be right’ basis and that there should be a policy. That the issue was of growing importance and that policy now could be tremendously effective. We argued all the demographic case. We then went on to argue, as the common view of that group, that what should be aimed for was a stable population and we argued that this could be achieved (from the demographic analysis) by having a positive net immigration of about 40-50,000/annum.

The most important thing was to have a policy that could be debated. In which all the issue that concern people, the old dreams, the new dreams, the hard edge of knowledge, could all be brought together into a slowly developing community consensus. The reality among our political parties at that time was that only one, the Democrats, had adopted a policy on population. It had adopted it, it was very far seeing of them, and it states that until a stable population is achieved, a low level of immigration should be continued with the annual number of immigrants, including refugees, not exceeding the number of permanent departures. It’s a policy of zero net immigration. It is based on sustainability. One other of the parties in this country that has a chance of Federal representation—it already had State representation—the One Nation party has also adopted an immigration policy. It has also adopted a zero net immigration policy, so essentially the same as the Democrats, and it relies partly on the same argument of sustainability—it is quite clearly set out in the document. They add other arguments which gain all the media attention—arguments of social cohesion, arguments of stability of social organisation which the writers feel is threatened by immigration from cultures that are different.

This is in my view a modern statement of a xenophobia that Australians have always felt as successive waves of immigration have come in. My surprise is not that it’s there, but that it is such an item of media attention. Australia’s history is that every wave of immigration has generated a mild xenophobia, and it is expressed in this particular party in this way.

Neither of the major parties has had until very recently a policy. The Liberal-National Party still does not. Their documents are very nicely written and presented, they are full of commitments to a fair go for immigrants, to a non-discriminatory policy, but there is no discussion of population policy. I have personally corresponded with the minister as one of his federal constituents, and clearly I got the impression that the government did not want to go too far ahead of the rest of the world in that population policies just are not laid down in most western countries. They don’t have to be throughout Europe because those countries are facing contracting futures, and there was some discomfort—not surprising in a conservative government.

The ALP has responded—Barry Jones’ party. They did not respond for two years, there was a change of government. Now in their 1998 platform document there appears the population base, a new approach to population policy: ‘The achievement of Australia’s economic and social goals, and our international objectives, requires government to consult widely to develop a integrated population policy commanding widespread community support.’(77). It is the first time any party with pretensions to power has adopted since the war a population policy. ‘Population policy will allow Australia to decide as a community the long-term sustainable population’; the word sustainable is in there. We are starting to see Malthous’ original assertions of the limits of resources for the first time written into the documents of a major party. ‘The development of population policy will involve consideration not just of immigration but of elements as diverse as desirable rates of growth, resource constraints...’. There it is again. I believe that if you trace the history of population policy in Australia, there is momentum to it, it’s glacial. There are good and bad things about glaciers. The bad is that they can go frustratingly slowly and not fast enough in our lifetime. The other is that they’re unidirectional. I believe that is the nature of this debate. That we are moving towards a consensus.
That features like this symposium, the Academy symposium back in 1994, the many other meetings around the country are part of that debate, and of course we must pursue them. I only urge two things; one is patience, persistence and tolerance. Tolerance of those we disagree with. I will speak very briefly on this.

One of the people I corresponded with over the years is Hugh Morgan. He speaks, has spoken for 20 years, a simple booster position: Australia to be great, to be powerful, to be strong militarily needs more people. Let’s bring them in. What are we waiting for? Don’t treat those views in a hostile way. Bring them into the debate. The way to success with this is by bipartisan agreement, by finding the common ground. Even if its with parties like One Nation, with which I’m distinctly uncomfortable on a whole range of issues. To bring those concerns in—these are Australians too, with visions and dreams. Who is to say that... I believe that my dream of a sustainable future is a more sensible one than the dream of a strong and powerful nation that the American Secretary of State has to think about in the morning. However, I am not so sure of myself that I would damn the other man for saying it, and I urge you too as the years go by to show that tolerance.
2) Prof Mark Diesendorf  
(Institute for Sustainable Futures, University of Technology, Sydney)

Thank you Prof. Stone, ladies and gentlemen, I really enjoyed Tim’s lecture last night and I think he made the case very strongly last night, the biological realist case that Australia certainly needs a population policy. However, I think some of the discussion last night became a little muddled when questions of technology and economics came in together with population.

So what I would like to try and do is to go back to one of the classic writings in this area which, I think, provided a really strong step for trying to understand the relationship between population and technology and economics and then work from there towards a way of approaching population policy. I don’t think a biological realist position alone is sufficient to create a population policy, and is certainly not sufficient to create a sustainability policy which ultimately a population policy should be part of. I haven’t much time so I can hardly attempt to actually present a proposed population policy, but I think there some very good things in the policy that, as Professor Stone mentioned, the Democrats have developed. I will also touch on the question of what is a sustainable population for Australia, which was I think wisely avoided last night as it is quite a difficult question to deal with, and impossible to deal with without an including a discussion of technology and economics in it. You cannot just consider a population in isolation from those variables.

Starting from the work of Paul Ehrlich and John Holdren some 25 years ago who start with an equation that says environmental impact for a region equals environmental impact (which is not very controversial) but then you break it up a little. You divide impact by economic activity, then multiply it be the same thing, so you haven’t changed the equation. You then divide by population and multiply by population again. So you still have an equation that says that impact equals impact. But you have broken it up into three separate terms, one of which is population. The others, if they can be interpreted in a meaningful way, can become quite a useful part of the discussion. Ehrlich and Holdren interpreted the impact/unit of economic activity as some kind of a measure of technology. They interpreted the economic activity per person as some kind of measure of affluence. So they gave these terms ‘affluence’ and ‘technology’ to those parts of the equation. I’ve put quotes around those terms because technology is not exactly what some of you might think of as technology.

Some of you may think this overhead projector is technology, but if you are looking at the different ways of projecting images, the technology term (impact per unit economic activity) obviously includes all the ‘how’ the impact is done, how the technology is used, the cultural aspects as well. So what I am trying to do is come back to some things that Tim said last night about technology and just look at them again from a slightly different point of view. So this is more than just the hardware in the technology, and the affluence is really the affluence measured per person, the economic activity per person, and we have separated population. Tim said last night that ‘population is the great multiplier’. Well I would disagree with him, very strongly: there are three great multipliers if you use this presentation, and they multiply each other. They are ‘technology’, ‘affluence’ and ‘population’. This is an identically true relationship, just saying that impact equals impact as long as you can interpret these things.

However, it is not unique, as I will show you in a moment, there other ways of separating impact which are also useful for some purposes. So this is the famous relationship, $I = PAT$. The next thing to say, and I want to argue strongly, is that on the basis of this equation population (although it can be very very important in environmental impact) sometimes is not important and that sometimes it is technology and affluence that play the major role. We do not have to go any further than to nineteenth century Australia. The early impact of the colonial invaders was done primarily with a technology called the axe, but the technology went much far beyond that. It was in combination with farming practices that involved overstocking the land. So we had situations where during the green years lots of sheep and cattle were brought into land and then when the drought years came they ate up every last bit. The soil was blown away, the native animals died; the aboriginal people who lived in those areas died, migrated or became fringe dwellers in the city.

That apparently simple technology, which actually was very far reaching in its impact based on only a handful of farmers, did enormous destruction. I am obviously not going to argue that population in general is unimportant, but I think we can see—and there are many other examples—that it wasn’t population but it was technology and affluence that were doing the damage. The growth of motor vehicle use in third-world countries; I have just come back from Beijing where we have been trying to set up a joint project between the Institute for Sustainable Futures and the Environmental Protection Agency in China to try to find some way of reducing air pollution in Chinese cities through reducing the use of the motor car. The motor car use is expanding in these countries by about 20% per year. A city like Beijing has 10 million people, 5 million bicycles and last year it had 1.2 million motor cars. Ten years before then it had almost none. In this case we
see a relationship between economic activity per head driving to some extent the pollution and all the other damages that come from the motor car. Of course if that continues then the huge population of China will then be the deciding factor as whether the Earth quadruples, multiplies by ten times the greenhouse gas concentrations in the atmosphere. Right now, however, population isn’t the prime driver, neither in China or India, in terms of the use of the motor car.

So we have to recognise that there are three great multipliers and if we develop a population policy it is really important to ensure that we relate that policy to other areas of sustainability policy. I’m not saying there should be no population policy because I agree with the remarks of the previous speaker, in general, that population has not received adequate attention, even by the conservation movement. Although I think that has changed in the last five years. For example the ACF put in place its population policy about five years ago. However, all the environment groups now are suffering from lack of resources and there are many areas including population and nuclear energy that are not receiving the attention that they should in fact be receiving.

Another thing to say about this equation \( I = PAT \) is that when we are responding to the problems of environmental impact and lack of sustainability, the responses to affluence and technology and population occur on different time scales. Many environmentalists, I believe, would agree we must have a population policy and act on it. But that short of having some terrible tragedy, war or disease spread, to wipe out people, we can only change population growth over a much longer time scale than we can change some of the technologies. To give you an example of this we only have to go to Denmark, and in terms of environmental impact lets consider greenhouse gas emissions in Denmark over the last 20 years or so: from 1975 to 1995. In Denmark the population has been constant. Despite that its economic activity per person is growing, thus countering the Hugh Morgan’s and co. who argue that you need a huge population to be economically successful. Denmark has a population of about 5 million people. There is a very successful economy, which is growing very nicely, but their growth is not more intensive in materials and energy and the other nasty things that have environmental impact. Greenhouse gas emissions have declined really dramatically over the last 20 years in Denmark and continue to decline. They have now a target for a further 50% reduction in Greenhouse gas emissions by about 2030. This is occurring through technological change, both the hardware in technology—they are shifting to wind, biomass and natural gas energy instead of coal. In a way the Danish example contradicts both the boosters and some of the arguments within the biological realists that need to be a bit more realistic and a bit more detailed.

I think I should say something about economics because Tim made a quote, quite an interesting one, interpreting Keynes. He was saying that if a population becomes stable, the interpretation of Keynes was that capital would lose some of its value. You could almost see this picture of an economy without interest. Well it certainly isn’t true at present of individual countries. Many European countries have stable populations and interest rates are similar to other countries that do not. There may be some fine differences. You could say that maybe on a global scale if the whole planet had a stable population, you would have a reduction in interest rates. Well maybe you would, but it might be quite small. You would obviously have less investment in housing, for example, but you might have more investment in other technologies—information technology, education etc—which also involve economic activity and also involve investment in some kinds of infrastructure.

I just want to show you, as a curiosity, that you can do the Ehrlich and Holdren equation without using GDP, and that’s important because some of us believe that GDP is a totally inadequate measure of economic activity anyway. This one simply uses Greenhouse gases as an example of an impact. Lets break this up as Greenhouse gas emissions per unit of energy as technology, energy use per head of population as affluence and population. This has a great advantage over Holdren-Ehrlich as you can actually measure each of these quantities very precisely while you cannot measure easily the technology component of the Holdren-Ehrlich approach. For certain purposes, you can have a version of their equation, which is in some ways much more powerful. It still has the same message: that you have a kind of a measure of technology which also includes cultural and usage factors; a kind of a measure of affluence, which we might disagree with in terms of whether we should have high affluence in this sense; and of course you have population.

Just a few final remarks—some obvious ones that have to be thrown in from time to time. First, if we consider population policy for Australia we also have to ask the question ‘what is our population?’. That is not such an easy question to answer because in terms of our environmental impact, our population is also the population who receive the food and other products that we export. Our population from that point of view is not approximately 19 million at all, it might be 60, 70 or 80 million. It is very hard to determine. So if someone
asks what is a sustainable population, you have to say not only what sort of technology do you envisage and what sort of economic structure do you envisage, but how many people are you feeding overseas.

I guess perhaps I should end on a note of what is a sustainable population for Australia, because I have some views on this too. As a sustainable futures person I’ve been looking environmentally at what’s been happening in this country as well as the biologists. It seems to me that we are doing enormous damage to our land, to our species, to our atmosphere. Australia’s share, at least per capita, of greenhouse gas emissions is quite horrendous. To our waterways, and so on. I find it quite impossible to get any kind of accurate estimates, but scientists like to work in things called orders of magnitude—a factor of ten times. It seems to me that with the present population the impact is roughly an order of magnitude than they should be. If we are even to approach sustainability they may be even more than an order of magnitude.

So what I’m saying, in other words, is that with our present technology and present economic structure, I don’t believe this country can support 1.9 million people, let alone 19 million people. That does not mean that I am arguing that we should reduce our population to 1.9 million people. I am saying that along with a population policy we have to make dramatic changes in the kinds of technologies and the use technology, and the kind of economic structures we have in this country if we are going to go anywhere near approaching a sustainable society.
I will be very brief, as I had a chance to speak last night. I will just recap a little bit on what was said and make one or two comments on what said then, for which I’m very grateful.

Last night I had very little chance to discuss issues of technology and I mentioned them primarily in the context of the boosters’ argument that technology will save us, and this was covered in the particular editorial that I read out. The problem with that argument, I think, is that if nothing else changes technology doesn’t have the ability to save us because people just keep on multiplying their impact in other ways. An example of this might be: imagine tomorrow we found a very cheap, cost-effective way to desalinate soils in the Murray-Darling Basin. I would argue that in the absence of any other change that would lead to an ever more rapid degradation of the Murray-Darling Basin. Pressures would come from elsewhere, once that limit to production was raised, that would cause further biodiversity loss, further problems with water quality from other sources as impact was intensified from elsewhere.

So I agree with Mark that if you take a view of technology as also having a component of culture in it, and a component of the way that we see ourselves in the landscape and self-limit ourselves, then yes technology under that definition does have something to contributor. If you view technology as many of the boosters do, as just this machine that will somehow save us, that is when I take exception to those arguments.

Just to recap briefly on what I thought were the more important things last night. First, the boosters haven’t produced an argument for high population in Australia. When I say high population, just taking their figures of somewhere above 50 million, there is no sustained argument rather lots of rhetoric and assertions. The biological realists who by and large suggest populations somewhere below 30 million, 23 million, have produced quite detailed and coherent arguments to support their case. From that point I went on to say: where is the boosters argument coming from? The defense arguments are fatuous, those of political power seem somewhat similar, but there does seem to be some important economic arguments. I suspect that many of the boosters are acting from self-interest when they suggest higher populations—it’s the fact that they are involved in industries that benefit directly from population growth.

Some of the more perceptive ones who see what I saw in Keynes, that in a world without population growth there are severe challenges to running the kind of economy that we run at present. I suggested at the end of the talk that the real focus of the population policy debate will probably shift into the boosters’ camp. The biological realists have made their case, we are now being heard politically. I tried to make the case last night that there would be real benefits for certain economic sectors in having a population policy. We would be able to control this factor which otherwise in its variability causes problems for the economy. So I suspect that in future this is where the debate will go to. It will be in the Business Council or somewhere like that. We will have the hard edge of the boosters, the property speculators, the housing industry and whatever else arguing that we don’t need a population policy we just need ever increasing rates of growth. Perhaps we will see, as I think we are seeing the first glimmerings of within the business community, certain other groups who are saying: ‘no hold on, our interests are better served having a population policy that allows us to tailor population growth and use it as another factor to produce a better outcome for everyone’. So that is where I will leave it, with that brief recap.
I was asked to be involved in a debate concerning a population policy. I find myself in a rather peculiar position not only of speaking last, which means that nearly everything that was worth saying has already happened, but also I am in a debate where I actually agree with the side I am going to argue against. So I find it very difficult to be in this position; so you will have to excuse me, I am an academic, I’m allowed to do this sort of thing.

Basically the problem I have with the debate is twofold. Actually it is threefold, but the first is not a problem. I admire the fact that…

--------[sorry, some missing: tape change]--------

...so this is a testament to his powers of persuasion, at least with the media. I think it is very important that the comments I now make about the way he is going about it should be stood against the admiration I have for the fact that he is doing it.

As a professional scientist I’m very concerned about a debate which uses such non-scientific arguments to support it. I am going to try and develop this theme in two ways, and these are my two problems. One, I really do not like the way the argument is presented, because many parts of it purport to be scientific but are manifestly not so. Secondly, I do not like the way the argument is presented because I have grave doubts, as a scientist, about whether having a population policy will in fact solve any of the problems that it is designed to solve. I am just going to take a few minutes to address these themes.

The first point I want to talk about is the way the argument is put. To do this I want to borrow very heavily from a former philosopher at this university campus called David Stove, who introduced me to a very strong notion about the form of argument scientists and others use, which is caught by the notion of success and failure grammar. Essentially the argument goes this way: we are hearing a form of debate between people who characterise themselves—they are not characterised—as the biological realists. Last night, much to the confusion of some people in the audience, that became confused with people who are biologists. That is not the case, many of the people who are biological realists are not biologists. They are people in all sorts of walks of life who understand that the arguments are biologically real. I think it did a disservice to Dr Flannery last night when a couple of people in the audience tried to attack it on the grounds that it was somehow biological.

What I wanted to draw attention to, is that this [biological realism] is written in a particular way. If we take the David Stove argument about how to write scientific statements, we need to use success grammar. Lets write it this way for a minute […]‘biological’ realism], to draw attention to the fact that we are a bit suspect about the biology of it. Drawing attention to the fact that it is based on something called biology that we don’t really understand or need to worry about too much, we’ll leave that to the biologists and trust them—I am a biologist, don’t trust us.

The second component is that it actually draws our attention away from whether the argument being put are real or not. We could turn this around […biological ‘realism’], to draw attention to the fact that the realism may be a bit suspect, there is nothing wrong with the biology. What we are doing by the use of these words is we are doing something that I want to draw attention to when we look at how the biological realists see themselves versus people called the boosters. We simply have something we have chosen to represent as biological realism. We have chosen not to try and undo any of the components by using funny punctuation to draw attention to it.

Then we are saying it is biological realism versus somebody whom we call, and they call, boosters. There is nothing wrong with a debate between biological realists on the one hand and boosters on the other provided we don’t keep on saying ‘we are biological realists, they are ‘boosters’’. Automatically in doing this, we are dismissing all their arguments. That is essentially what happened last night and it has happened a little bit here again today. We don’t hear the arguments from the boosters. Now I am quite prepared to believe they don’t have any, but what we are not doing is hearing them before they get dismissed. People like Hugh Morgan have argued quite strongly that Australia needs a larger population for a number of reasons. It is not true to say there have been no reasons advanced. It is true to say that many of those reasons don’t hold up to close and detailed scrutiny, but that is quite a different thing from arguing that there is no argument.

So the first point I want to make is the form of argument being used has some rather suspect components to it because it not does not display, in the cold grey light of gaze, either on the one hand the problems with apparent realism of the biological realism; nor does it allow us to see any force in the arguments of the
boomers. I am drawing this to your attention. I do finish up in the situation where it looks like I am on the side of the boosters. I am certainly not, I think the arguments they use are in fact quite wrong, but I don’t want to leave us with the idea that biological realism is somehow correct. We have been touching in that with some of the earlier speakers today. One of the problems is that even if we had a population in Australia of 10, 5 3 or 1 million, it doesn’t actually follow that guarantees in anyway the sorts of things that have been talked about as ecologically or environmentally sustainable society.

What we need to understand is what that will represent at whatever level of population we have, or will have, or choose to have. That part of this argument is not being heard at all. The supposition is that population must be limited because of certain biological realities, but if we choose to make it a certain size by policy then we will in fact achieve aims of ecologically, and environmentally and scientifically sustainable society. I wish to just draw your attention to the fact that that argument is not itself correct, and I will give you an example in a minute.

I noticed this in a book recently—I have actually drawn it myself rather than reproduce it from a book. The argument that is being used that is scientific is based on partial evidence. It is the same sort of arguments that is used when people try and reconstruct organisms from the past. This is a large macropod reconstructed by palaeontologists and biologists concerned with past records. What I have shown has two components to it. One is the black that we are presented in the textbooks of what we see the animal to be. What I’ve drawn in red is the bits we actually have. So what we are talking about here is the reality about a whole based on a awful lot of guesswork. There is nothing wrong with that. All scientists use that sort of guesswork, we call them models, theories and conceptual ideas. What we try to do is make them explicit. There is nothing wrong with making it explicit why that toe bone, that tooth and a little bit of a spine off a vertebrae leads to this sort of notion of how the animal is. We are a little bit more worried when it comes with a certain colour and the hair is a certain length. Nevertheless, these are all possible things to fantasise about.

The second part of the argument I wanted to draw your attention to is rather unfair to Tim but I can’t help it. I have noticed this in a book recently—I have actually drawn it myself rather than reproduce it from a book. The argument that is being used that is scientific is based on partial evidence. It is the same sort of arguments that is used when people try and reconstruct organisms from the past. This is a large macropod reconstructed by palaeontologists and biologists concerned with past records. What I have shown has two components to it. One is the black that we are presented in the textbooks of what we see the animal to be. What I’ve drawn in red is the bits we actually have. So what we are talking about here is the reality about a whole based on a awful lot of guesswork. There is nothing wrong with that. All scientists use that sort of guesswork, we call them models, theories and conceptual ideas. What we try to do is make them explicit. There is nothing wrong with making it explicit why that toe bone, that tooth and a little bit of a spine off a vertebrae leads to this sort of notion of how the animal is. We are a little bit more worried when it comes with a certain colour and the hair is a certain length. Nevertheless, these are all possible things to fantasise about.

The thing that matters is that the steps that are missing—between the things we know and the things we predict and construct—are a bunch of assumptions, models and theories that have to be explicit. They are not terribly explicit in this sort of debate. Let me draw your attention to a few—some biological and some not. It is argued and construct—are a bunch of assumptions, models and theories that have to be explicit. They are not terribly explicit in this sort of debate. Let me draw your attention to a few—some biological and some not. It is argued and construct—are a bunch of assumptions, models and theories that have to be explicit. They are not terribly explicit in this sort of debate. Let me draw your attention to a few—some biological and some not. It is argued that if we have a population policy when the debate is won—then we will be able to plan, understand our economic circumstances better, and above all create a fair and just society in which some forms of sustainability, of quality of life, use of resources, and protection and conservation of the environment will be achieved. Well bullshit. We could have a population policy that looks just like the one that we have now for employment. We have an employment policy, but where is it actually giving people jobs.

In this state, we have a very good policy, it is my favourite policy, it is the coastal policy. It does not apply to the metropolitan regions of the state and therefore it will achieve nothing in terms of coastal protection. However, it is a policy that everyone is signed up to, it isn’t part of a debate between apparent realists on the one hand and boosters or whatever on the other. It is a policy that already happens. So the first point I want to make is what is it so magical about a policy, in Australia, which even if it were unargued and were achieved, which I kind of hope we do. The first thing that will happen to it is that it will not be actually accepted or used by the politicians—it will just be there in the background to justify things they do.

The second thing about it is that is does require some understanding of how to control four ecological elements of population, of which immigration is only one. The others are: emigration—the German policy on population has a very good way of dealing with this. The largest export from Germany and Switzerland last year (OECD figures) was guest workers they imported earlier when they needed them. They have now exported them again. That is an emigration part of their population policy. Can we morally, justifiably or even practically control death rates? A population policy requires us too. We have already heard that we may have no control over birth rates even if we wished to. Apart from ethical considerations about the fact that having a child or not is an individuals decision to make, there is also the fact that you cannot control fertility when it changes for reasons that are completely unknown to people at the moment—its declining everywhere and no one knows why.

So I am not sure we can have a population policy that means very much unless we have all four ecological elements under control. There is a vast amount of demographic theory—the theory that gets us from observations to predictions—that indicate to us why we need to understand and control all four. The other thing that I am very, very worried about is that a population policy that talks about the total size of the population is in fact virtually useless to make any predictions at all. The biggest problems in Australia are not
necessarily the size of the population. They may be much more to do with the variance in population from place to place around the countryside.

We are sitting in a vast megalopolis. NSW really is Newcastle-Sydney-Wollongong virtually fused in a great festering mess. Unable to control its wastes, not very clearly in control of its transport systems and in this bit of it currently not at all in control of its water supply. What we have to do is understand that that has very little to do with what’s going on in the country regions of Australia. It has nothing to do with the shift of people that is going on wholesale from Victoria to Queensland, and undoubtedly if things continue as they are will shift back again fairly soon when it turns out that Jeff Kennett apparently is right afterall and everybody goes southwards instead of northwards. Or, worse, they discover with global warming and climate change that the onset of skin cancer in Queensland is then so massive you have to live somewhere else. This brings me to the other thing about population policy. I am very unclear how we can make statements about a population policy when we cannot currently predict with any reasonable certainty at all the consequences of global change in climate. We know as a fact that in this country that under any of the scenarios predicted the one constant that comes through is that there will be a massive increase in the variability of rainfall. We already have more variance in this than almost any other part of the planet. We don’t know whether the average amount will go up or down, but we do know the variance will increase. This has massive consequences for where we can live in the country. It also has immense but unknown consequences for how many of us there might be. So I can’t quite see how we can arrive at a magic number for a population policy.

So what I think is slightly wrong in all of this, and what I think needs to be done, is something rather different. If we are to have population policy, if we are to have control of our destiny, we need to think about it in real terms. I don’t like the sort of analogies that came up last night. I Think Dr Flannery urged us at one point to consider being more like Norway, and some of the other countries. I don’t know if you have been to Norway, its a very depressing place. There is a very small population of people who mostly go to Sweden. So what I think we need to do is be like Norway if we can be near somewhere that is more attractive, but we’re not. We’re out in the middle of the Pacific all by ourselves, unless New Zealand is considered a place we should go to. So I think that one of things in using these analogies is that they’re not helpful.

What is missing is not that we do or don’t agree about a population policy. What is missing is not whether or not we had one would politicians actually do anything useful with it. Would it increase quality of life? Could we stop having formulae portrayed to us about impacts which involve economic analysis instead of quality of life analysis. Could we just get rid of all this and instead focus on the fact that we need rather urgently to decide what sort of landscapes, what sort of structures, what sort of ecology, what sort of environments we choose to live in. How we wish to manage and control them because we are not going to have ecologically sustainable development even with a sustainable managed population, unless it becomes quite clear that that will only happen if we declare what it is we want the ecology to be like and then spend our time with whatever population it is we choose to have making it like that in order to maximise the things we need.

Population policies are all about controlling human numbers in a landscape largely to make sure that other components of the ecological landscape are not themselves damaged. The difficulty with this is it excludes the human components of the entire thing. We will not live here in environments that are ecologically sustainable — most professional ecologists don’t even believe there is such a thing. What we need to do is determine what sort of ecologies and environments we wish — including the social ones, the dimensions of welfare, dimensions of equitability, dimensions of justice, employment etc. Above all, from my point of view, including our capacity to sustain the other animals and plants with which we live or have chosen to live.

Until we do that a population policy will achieve very little. Rhetoric about whether or not we should have one, which argument is the most successful, who will actually achieve it and which political party will be most likely to support or sustain it, are all rather nebulous. The purpose behind them, as portrayed last night and in much of the debate from the so-called biological realists, is we need to maintain population at an appropriate number, a policy to achieve this, so that we can have a sustainable system in which to live.

Therefore lets hear a lot more about the policy of sustainability, how to achieve it and what it means, and then it will automatically help fall into place that we will have a population policy.