



Submission to the Department of Sustainability,
Environment, Water, Population and Communities for
the Sustainable Population Strategy for Australia

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1. Key Points

- 1) Our population cannot keep growing forever.
- 2) Our economy cannot keep growing forever.
- 3) We cannot rely upon technology and innovation to allow us to keep growing, nor remediate the environmental and social side effects of growth.
- 4) The 'triple bottom line' style of policy and decision making ignores the reality that the economy is embedded within a society that is embedded within biophysical limits.
- 5) Declines in many indicators of environmental condition have paralleled increases in population and consumption.
- 6) The Productivity and Prosperity Panel Report did not adequately demonstrate that population growth significantly increases per capita material wealth at all, let alone the well-being of all Australians.
- 7) The tools and indicators used in the Productivity and Prosperity Panel Report to equate population growth with economic growth ignored the significant environmental and social costs associated with growth economics and market failure.
- 8) Aspirational well-being targets need to be defined so that population and consumption related policies can be modified to meet these targets. Well-being, measured using a suite of social, economic and environment indicators, should be prioritised over material wealth as measured by GDP.
- 9) Australia has conflicting policy objectives. We cannot on the one hand seek to reduce our consumption of resources and generation of waste and greenhouse emissions whilst on the other hand continue to advocate for more growth.
- 10) We can meet sustainability aspirations whilst being supportive of individual choices, and being a good international citizen.

2. About *Post Growth*

i. Our organisation

Our approach to population is grounded in a broader discussion about limits to growth. We challenge the possibility of infinite growth on a finite planet. We are a global network of people inspiring and equipping others to bust the myths around unending economic and population growth so that we can co-create truly sustainable lives for all, now and in the future. Our core team includes community workers, economists, social and environmental scientists, engineers, filmmakers and bloggers from North America, Europe and Australia. Launched in late 2010, we are independent of any political or religious affiliation.

ii. Our approach

Post Growth is part of a wider movement of academics, policy makers and activists who ask the question – is there a point where more growth makes less sense?

The ‘triple bottom line’ conceptual model informs Australian policy and decision-making. This concept promotes the idea that ‘economy’, ‘society’ and ‘environment’ can be ‘balanced’ or traded- off. The infamous three interlocking circles diagram (Figure 1) perpetuates the belief that i) equal weight should be attributed to each, ii) we can satisfy all three simultaneously, and iii) this can be done relatively easily, primarily with the help of current or expected technology and innovation.

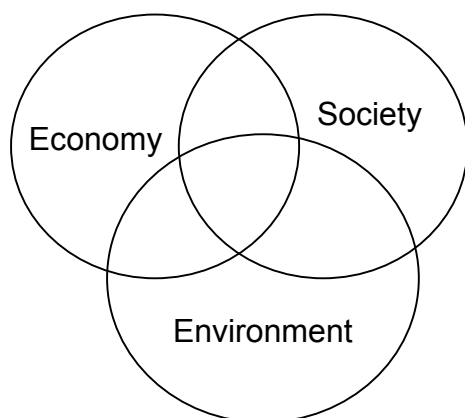


Figure 1. The ‘triple bottom line.’ A common conceptual model for policy and decision making.

The ‘triple bottom line’ approach to policy and decision making has been enabled by a series of cultural myths:

Myth One: Our economy can keep growing indefinitely

No, it cannot. Our economy exists within our biophysical environment. Its existence relies upon the consumption of natural resources like fuel, forests and agricultural land. These natural resources are either limited in total stock, are produced at a rate that is limited by the environment's ability to regenerate them or are sensitive to the externalities of economic growth. If economies keep growing, the environment's ability to sustain us will be undermined. We can, and must, keep our economies within the limits imposed by our biophysical environment.

Myth Two: Our population can keep growing indefinitely

No, we cannot. Our total demand on our biophysical environment is how much we each consume, multiplied by the total number of us. Every additional human in Australia must consume natural resources to both survive and prosper. Our total consumption of natural resources must be less than what is produced. Like a household budget, we must spend less than we earn. Every additional human makes it harder and harder for us to keep doing this. We cannot grow the human population indefinitely, with larger numbers of people all wanting a bigger share of our biophysical environment's limited resources.

Myth Three: Advances in technology mean we can keep growing indefinitely

Technology cannot create something from nothing. For example, technology cannot change the fact that there is a limited amount of oil. It can only squeeze a little more use from our current known stocks. Jevon's Paradox notes that historically, every time we've developed a technology that increases efficiency of resource utilisation, total consumption of that resource has *increased*, rather than decreased. Perpetual growth means that more people consume more, regardless of how efficiently we use resources. Rather than relying on technology alone, we must challenge the obsession with infinite growth on a finite planet.

Myth Four: We can take an isolationist approach to growth

Quantifying links between consumption and environmental degradation can be extremely difficult. This is because the biophysical system, and the socioeconomic systems contained within it, are complex, dynamic and global. Nevertheless, the Global Footprint Network¹ estimates that humanity uses the equivalent of 1.5 planets to provide the resources humanity uses. Moderate UN scenarios² suggest that if current population and consumption trends continue, by the 2030s we will need the equivalent of two Earths to support us. The majority of consumption comes from the relatively small numbers of wealthy consumers (like most Australians). We rely heavily on diminishing supplies of non-renewable resources to produce and deliver our goods and services to market. We also rely heavily on natural resources from other countries when our own countries decide that the 'triple bottom line' means that resource exploitation cannot continue locally. This reliance is unethical as well as socio-politically and environmentally unsustainable.

¹ Global Footprint Network (2010). Available at: www.footprintnetwork.org/en/index.php/GFN/page/world_footprint. Accessed 20/02/2011.

² United Nations (2009). Available online: <http://esa.un.org/UNPP/p2k0data.asp>. Accessed 22/02/2011.

These four cultural myths mean that we have not paused to question whether our collective pursuit of more and more growth is leading us into dangerous territory. The 'triple bottom line' concept is a fallacy because our society is a subset of our environment, and our economy is a subset of society. We must abandon the misconception of interlocking circles (and all its variations), and instead replace it with the conceptual model of Figure 2.

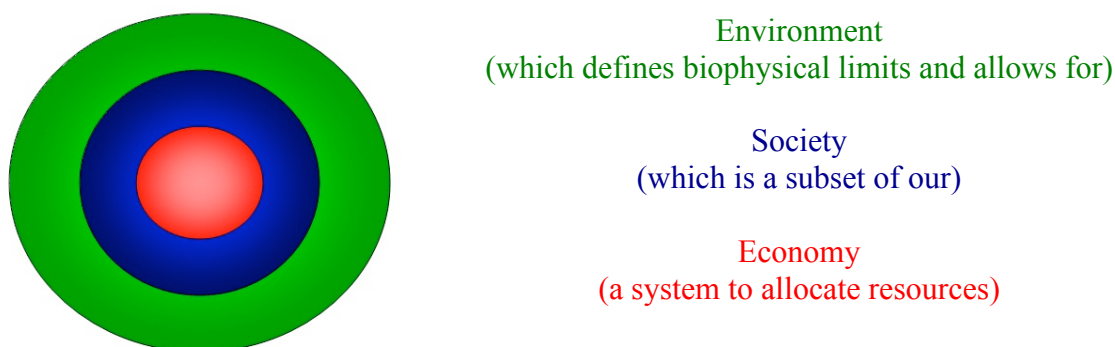


Figure 2. The nested model. This model recognises that economic and social goals cannot be achieved outside of biophysical constraints.

Terms like 'sustainable economic growth' really mean 'sustaining economic growth.' Such terms are underpinned by the 'triple bottom line' model, not the nested model. They only divert attention from the real issue at hand – how do we shape economic systems that serve the needs of people, whilst keeping our ecological life support systems intact?

iii. Our submission

Section three of this submission is separated into two sections, namely the Sustainable Development Panel report, and the Productivity and Prosperity Panel Report. Section three critiques specific areas where either the Sustainable Development or the Productivity and Prosperity Panel reports are underpinned by the 'triple bottom line' model. It also highlights where the reports are underpinned by the nested model. Section four of this submission outlines what *Post Growth* believe needs to be included in the Population Strategy.

3. The Issues Papers

a. Sustainable Development Panel Report

Post Growth largely supports the approach taken by the Sustainable Development Report as it is primarily underpinned by the nested model. We offer the following additional comments.

The need for dialogue

Post Growth commends the use of boxed questions in the Report to elicit the direction in which Australians would like our country to go. It is only through knowing Australia's aspirational targets that a population strategy can be developed without the default aspirational target of material wealth.

Page 3 of the report calls for a national dialogue about what aiming for a stable population would mean and how it should be achieved. *Post Growth* supports this proposal. This dialogue specifically requires engagement around the question of how population interacts with per capita consumption rates, and the trade-offs between them that are required (see section 4i of our submission).

We must create a social and cultural environment where people feel safe to discuss population and reproduction issues. People must not be accused of, or resort to, racism, or xenophobia or child-hatred. Individual choices must be respected without judgments about decisions to not procreate, or to adopt. Population and reproduction choices must never be coercive at the level of the individual. The social and cultural environment must be safe in other ways too: population and reproduction issues must be understood within the context of power dynamics, rather than as simply mathematical, or technical-rational matters.

Questioning the need for growth... of any sort

Page 29 directly states that growth cannot continue forever, and asks whether a stable population is the best policy in the long run. The report then suggests that stabilisation may give us the best chance of leaving future Australians a prosperous nation that allows a high quality of life in a healthy environment. *Post Growth* firmly believes this to be the case.

Page 30 acknowledges that policies and programmes need to target a reduction in consumption/unsustainable use of resources by the existing population. *Post Growth* strongly support this statement. However, we additionally note that whilst policies and programmes targeting a reduction in consumption by the existing population are needed, this idea runs counter to the current 'spend and consume more' message of an economy predicated on growth. In such a society, the use and disposal of materials aids Gross Domestic Product. Social norms, advertising and cost structures (e.g. cost of repair verses cost of new item) encourage ongoing consumptive behaviours.

Whilst on one hand we send a 'spend and consume more' message, on the other we send a 'spend and consume less' message – generate less green house emissions, reduce the amount of energy and water we used, reduce the amount of resources we use and the waste we generate.

The two are fundamentally incompatible. Likely gains in innovation and technological efficiency do not resolve this incompatibility. As Jevon's Paradox³ illustrates, any increase in efficiency tends to be swallowed up by the overall impact of increased consumption. If we try to maintain measures of growth that depend upon consumption, the idea of reducing consumption would not find popular support without a fundamental change in our perceptions and our measures of economic 'success.' Unless we change the broader cultural context of growth and consumption, such isolated programmes will be working against the prevailing cultural DNA.

Defining sustainability

Page 3 and 8 of the Report states as its key proposals: that Australia needs rigorous indicators of sustainability and that Australia would benefit from a Sustainability Commission that produced sustainability indicators. In general, *Post Growth* supports these proposals. However, we suggest that many of these indicators are already well assessed. We lack data for some key environmental indicators, particularly for environmental indicators in the significant areas of Australia's rangeland⁴.

Nevertheless, we know that Australia's soils are extremely infertile⁵, and as such we rely on large areas of land to produce an economically viable crop⁶. We know that our rainfall is extremely variable and therefore difficult to capture for steady human consumption⁷. We know that opportunities for agricultural activity in central and northern areas of Australia are extremely limited, in part because of these rainfall patterns⁸. We know that our historical geographical isolation has meant that we have high levels of species endemism⁹, our species are not well adapted to the introduction of new biota and that these factors have contributed to Australia having the highest rates of mammal extinction in the world¹⁰.

³ Wikipedia (2011). Available online: http://en.wikipedia.org/wiki/jevons_paradox. Accessed 20/02/2011.

⁴ Bastin, B and the ACRIS Management Committee. (2008). Rangelands 2008 – Taking the Pulse. Available online: <http://www.environment.gov.au/land/publications/acris/pubs/rangelands08-pulse-key-findings.pdf>. Accessed 22/02/2011.

⁵ Australian Government (2008). Australian Natural Resource. Available online: <http://www.anra.gov.au/topics/publications/national/consistent.html>. Accessed 20/02/2011

⁶ Conforti, P., and Giampietro, M. (1997). Fossil energy use in agriculture: an international comparison. *Agriculture, Ecosystems and Environment*, 65, p231-243.

⁷ CSIRO (2009). Available online: <http://www.csiro.au/files/files/ps7l.pdf>. Accessed 21/02/2011

⁸ CSIRO (2009). Available online: <http://www.csiro.au/files/files/ps7l.pdf>. Accessed 21/02/2011

⁹ Australian Wildlife Conservancy. Available online: <http://www.australianwildlife.org/Wildlife-and-Ecosystems/Australias-Biodiversity-Crisis.aspx>. Accessed 21/02/2011

¹⁰ World Wildlife Fund. Available online: <http://www.wwf.org.au/news/n48/>. Accessed 21/02/2011.

We know that waste generation has continued to grow, and our increased efforts at recycling and reuse have not kept up¹¹. We know that we have low density cities that contribute to high carbon footprints and health concerns such as obesity¹². If these characteristics and indicators are not considered to be an adequate trigger for action, than what is? We don't need more reports. We need to respond effectively to what the information we already have is telling us. We need to be engaging and communicating much more strongly with Australians about what all this means, and how an increasing population would limit our ability to further manage these factors.

Page 8 lists 'real net national disposable income per capita less depletion and other ecological costs' as an indicator of sustainability. The time for economic accounting that internalises environmental externalities is long overdue. However, the use of this indicator should not imply that ecological costs can be traded off. Environmental economists are getting better at pricing environmental externalities, and they should be commended for attempting to use the economic tools of valuation to assess problems caused by the economic problem of market failure. Opportunity costs associated with resource degradation and ecosystem services, as well as factors like discounting rates and biophysical dynamicism and complexity, still make such valuation extremely difficult, however. Ecological restoration, even on the rare occasions where it is technically successful, is unlikely to be economically viable on a large scale. The landscape is not as easily converted into a commodity as we may suppose, and we need to take great care in assuming that it can be.

Page 4 defines sustainability as 'meeting the needs of the current population without compromising capacity to meet future needs.' This definition is too spatially local. The population of Australia draws on natural resources from around the world to meet its needs. How well do we understand impacts not only on Australia, but on the populations and environments where we source non-domestic resources?

Sustainability has a specific meaning – the continuity of an entity or activity in the long term. Sustainability is impossible if our use of resources is greater than the rate they can be produced, that is, if we are in 'overshoot'. Avoiding overshoot is the non-negotiable minimum condition that must be met. If we cannot stop ourselves from eroding our life support systems, competition and conflicts over resources and geopolitical instability will make it very difficult to achieve other worthwhile social goals. We need to recognise that the majority of indicators suggest that our current lifestyles contribute to 'overshoot' at the local and/or global level. To progress a sustainable Australia, we need to better measure, and respond to, the consequences of growth.

¹¹Australian Government (2011). <http://www.environment.gov.au/settlements/waste/publications/pubs/fs-national-waste-policy.pdf>. Accessed 25/02/2011.

¹²Wikipedia (2011). Available online: http://en.wikipedia.org/wiki/File:Petrol_use_urban_density.svg
<http://www.heraldsun.com.au/news/national/huge-australian-population-growth-could-have-grave-health-consequences/story-e6fir716-1225852962254>. Accessed 25/02/2011.

Well-being over wealth

Post Growth commends sections of the Sustainable Development Panel Report that acknowledge 'well-being' over 'wealth' (p4 and 5), and advance the use of a diverse range of well-being indicators (p7, p30) over the sole use of the Gross Domestic Product to track Australia's progress. In doing so, the Panel makes the point that a myriad of aspects contribute to well-being levels, and that material wealth is only one part of this.

The Report also rightly acknowledges that there are severe limitations in the use of Gross Domestic Product. Examples include the inclusion of the expenditure of environmental rehabilitation work caused by previous consumption, its inability to measure all environmental externalities and its inability to measure the wealth inequity that may ultimately feed back in the long-term to reduce Gross Domestic Product.

The Report of the Advisory Panel on Demographic Change and Liveability also accepts that the Australian government and individual households must both make significant changes before Australia is sustainable (p120) - an inclusion in the report that *Post Growth* believe to be at the crux of the matter. If we are not currently sustainable, there is certainly no way that we could become sustainable by further growing our population.

Indirect and intangible side effects of growth

Post Growth supports the Report's challenge of the myth on p3 that rapid population growth increases wealth. However, the real question here is: why do we have to keep pursuing economic growth at all, particularly once the social and environmental costs outweigh the benefits? Indeed, the United Nations¹³ states that 'continuing to grow the economy when the costs are higher than the benefits is actually uneconomic growth.' It describes different forms of uneconomic growth such as 'ruthless growth' that squashes peoples' cultural identity, or 'futureless growth' where the present generation squanders resources needed by future generations. Even if an increasing population did contribute to economic growth, where is the evidence that it would not be uneconomic forms of growth?

Page 9 states that the healthy ecosystems that provide the fundamentals of life are threatened by growth. There is an important communications issue presented in this paragraph. 'Not in my back yard' attitudes combined with our high consumption rates¹⁴ have pushed many effects of high population/consumption off-shore. Global markets mean that many of our resources now come from overseas. N.I.M.B.Y.ism (Not in My Back Yard) in the south-west of Western Australia ten years ago protected significant areas of old growth forests from being logged.

¹³ Available online: <http://steadystate.org/discover/downsides-of-economic-growth/>. Accessed 22/02/2011.

¹⁴ World Wildlife Fund (2004). Living Planet Report 2004. Available from: http://www.wwf.org.au/publications/living_planet_2004/. Accessed 21/02/2011

Action against logging was led by politically moderate, high level consumers of Perth's wealthy inner city suburbs¹⁵. Demand for wood products did not decline, however. The logging of tropical forest in Indonesia cannot be solely blamed on poor government policy in Indonesia when the demand for this logging is driven by the desire of Australians to furnish homes that are now amongst the largest in the world¹⁶. There may be no Australia-visible, immediate environmental feedback loop associated with the logging of such forests. Gross Domestic Product may actually increase via profits for Australian furniture/wood importers and retailers. However, we must acknowledge that the growth of our urban settlements not only has immediate impacts on our most fertile peri-urban agricultural land and more natural areas – it also has an impact on a greater zone of consumption, both domestically and internationally. The voter may not see this impact and therefore not realise that the effects of their consumption on the environment do not respect geopolitical boundaries. Nevertheless, such forests provide Australians with ecosystem services (e.g. carbon fixation). It is the responsibility of the Australian government to ensure the long-term well-being of all Australians, of which protecting ecosystem integrity and services from even our off-shore consumptive activities play a significant part.

Page 16 discusses the parallel between increases in housing prices and population growth, with subsequent declines in well-being for many Australians. This is yet another example of how well-being and growth are not correlated. Population growth impacts on work-life balance, connected communities, other tangible and intangible social, physical and mental health benefits, and urban sprawl. *Post Growth* believes that these issues need to be more closely examined than was done in any of the three Reports of the Issues paper, particularly before peak oil begins to bite.

b. Productivity and Prosperity Panel Report

Post Growth challenges the main underlying assumption of this Report – that economic growth is a) desirable, and b) necessary. The Report certainly proves neither.

The myth that a big population means a wealthier country

The Report's Figure 3.1 (p21) shows Gross Domestic Product projections up to 2050 under three different net overseas migration (NOM) scenarios. NOM levels of 300,000 per year, compared to 70,000, will make us \$10,000 a year better off per household in today's dollars, it claims. The text falsely suggests that this amount is significant. The \$10,000 a year figure is for a household size of 2.6 – this is only an extra \$3846.15 a year per person, the equivalent of \$73.96 a week. For someone earning over \$100,000 a year in today's figures, an extra \$73.96 is would probably not influence their material wealth significantly.

¹⁵ Australian Broadcasting Commission (2011). Available online: <http://www.abc.net.au/pm/stories/s33187.htm>. Access 28/01/2011/

¹⁶ Australian Broadcasting Corporation (2009). Available from: <http://www.abc.net.au/news/stories/2009/11/30/2757168.htm>. Accessed 21/02/2011

The suggestion that this amount of increased financial wealth would be significant was a value-statement made by Panel members to support an argument. No research asking Australians whether this figure was significant to them or not was cited.

The Report was also highly selective in its use of economic theory. It chose to ignore established hedonic pricing methods, for example. These methods could have indicated the intangible costs of population-driven activities that affect quality of life, in dollar terms (e.g. what people would be prepared to pay to not have 'development' of their local bushland). It neglected to acknowledge that the downsides of economic growth can be avoided by maintaining an optimum scale of the economy whereby the marginal cost of production is equal to the marginal benefit. It did not define what this is; at what point Panel members believed that more growth made less (economic) sense.

The numbers used to calculate the financial benefits of population growth ignored market failure by not including the costs associated with internalising environmental externalities. The exponentially growing economic costs of weed management in agricultural and non-agricultural areas as the movement of more people spread weeds into new areas was not included in calculations, for example. Australia's agricultural sector currently has low levels of fossil fuel input per hectare¹⁷ – but under a rising population, extensive agricultural systems tend to intensify by substituting land area with energy inputs (mostly fossil fuels). There is evidence internationally that this causes significant environmental damage, and that land constraints cost more to agriculture than labour force constraints¹⁸. The Report did not consider the likely impacts of rising fossil fuel prices, land prices and land management costs on our ability to produce agricultural commodities under peak oil and population growth. Whilst Australia's agricultural sector is largely export-driven, it is important in balancing our terms of trade. Economic declines in this sector would potentially wipe out the small economic gain that a higher population was professed to have. By *Post Growth's* reckoning, that extra \$73.96 in the pocket would be eaten up rather quickly if the Panel had been less selective with their costing.

The myth that a big population means a better country

The Report also suggests that high population rates and economic growth has improved, and will continue to improve, our ability to manage our environment (e.g. p3, 4). This suggestion is completely unfounded. It ignores the negative correlation between Australia's growing economy and population, and many environmental indicators over time.

¹⁷ Conforti, P., and Giampietro, M. (1997). Fossil energy use in agriculture: an international comparison. *Agriculture, Ecosystems and Environment*, 65, p231-243.

¹⁸ Conforti, P., and Giampietro, M. (1997). Fossil energy use in agriculture: an international comparison. *Agriculture, Ecosystems and Environment*, 65, p231-243.

These include an increase in the number of threatened fauna¹⁹ and flora species¹⁵, a decline in native forest area from 163 million to 147 million hectares between 2003 and 2008²⁰, an increase in overfished fish stocks from 10.2 to 18.4% from 1998 to 2008²¹, an increase in net greenhouse emissions by 16% over the last decade (all due to population growth²²), and a nearly doubling in per capita waste production in the ten year period between 1996-97 and 2006-07²³.

Throughout the Report, there is a direct or indirect implication that population growth leads to increased per capita financial wealth, and that increased per capita financial wealth is the same as increased well-being. This is unproven. Indeed, numerous initiatives, programmes and studies²⁴ continue to make a compelling case that beyond a certain point, more economic growth (as measured by GDP) does not improve quality of life.

Growth that no longer delivers on quality of life may also be a partial explanation of N.I.M.B.Y.ism. Although N.I.M.B.Y.ism has been derided as self-interested resistance that seeks to push anticipated impacts onto another community, we need to recognise that too many people may indeed erode local amenity and health and that this is a legitimate civic interest. People are rightly concerned about everything from housing affordability to traffic congestion as these issues impact on everything from work-life balance and quality of life to where and how people live and how much arable land is lost in peri-urban areas. They have every right to be W.I.M.B.Y.s – to question ‘Why in My Back Yard’? To question, is there a net benefit of further growth? Do the benefits and costs flow equally to all members of our society and of other’s, or only to a few?

Page 3 of the report implies that high population growth can be good for ‘a dynamic, open, innovative and confident society and economy by embracing diversity and strong, sustainable economic growth.’ And yet it supports immigration to primarily help meet skills shortages. We believe that a dynamic, open, innovative, diverse and confident society can, and must, be created in ways that do not treat people, particularly immigrants, as commodities. This notion also presupposes that growth is necessary for such a society. Surely we can have an open, innovative and dynamic society that does not rely on perpetual growth?

¹⁹ Australian Bureau of Statistics (2010). Available online: <http://www.abs.gov.au/ausstats/abs@.nsf/Lookup/by%20Subject/1370.0~2010~Chapter~Biodiversity%20%286.1%29>. Accessed 22/02/2011.

²⁰ Australian Bureau of Statistics (2010). Available online: <http://www.abs.gov.au/ausstats/abs@.nsf/Lookup/by%20Subject/1370.0~2010~Chapter~Land%20%286.2%29>. Accessed 22/02/2011.

²¹ Australian Bureau of Statistics (2010). Available online: <http://www.abs.gov.au/ausstats/abs@.nsf/Lookup/by%20Subject/1370.0~2010~Chapter~Oceans%20and%20estuaries%20%286.4%29>. Accessed 22/02/2011.

²² Australian Bureau of Statistics (2010). Available online: <http://www.abs.gov.au/ausstats/abs@.nsf/Lookup/by%20Subject/1370.0~2010~Chapter~Atmosphere%20%286.5%29>. Accessed 22/02/2011.

²³ Australian Bureau of Statistics (2010). Available online: <http://www.abs.gov.au/ausstats/abs@.nsf/Lookup/by%20Subject/1370.0~2010~Chapter~Waste%20%286.6%29>. Accessed 22/02/2011.

²⁴ Available online: www.neweconomics.org/programmes/well-being, www.beyond.gdp.eu, www.oecd.org/dataoecd/29/6/42613423.pdf, <http://www.stiglitz-sen-fitoussi.fr/en/index/htm>. Accessed 20/02/2011.

The reality is not only that we can, but we must, divert from the dangerous trajectory we are on. This type of society must be created in ways that do not undermine the biophysical environment's ability to sustain us. Section 4iii) of this report provides examples of how this might be achieved.

Australia's population growth is insignificant globally

Although Australia's ability to influence global population levels is limited by jurisdiction, we cannot address Australia's population question in isolation from the rest of the world. The reality is that we operate in a global trade and commodity environment where events in other parts of the world can trigger pressures in Australia. Likewise, consumption and population patterns in a globalised economy affect a biophysical environment that does not end at a geopolitical door. We contribute to climate change through carbon emissions, for example. Foreign governments can purchase Australian farmland for their own food supply, as we can do to their's.

Page 18 suggests that Australia's relative contribution to population growth is small. To some extent this is valid, except when we consider that Australians have one of the highest per capita consumption rates in the world²⁵. We subsequently have a disproportionately negative effect on nearly all environmental indicators. Many of our resources are drawn from outside our borders – the effects of our growing population has both on-shore and off-shore effects that are difficult to quantify. Even if it was insignificant globally, the decline in many indicators of environmental condition suggest that it is certainly significant locally.

In terms of food security, the smaller the nation's population, the *more* it needs to be prepared. If China and India (and others) are indeed going to raise billions of people from poverty into higher consumption lifestyles, we will be facing even greater resource constraints. There have been recent reports²⁶ of foreign governments purchasing farmland in a range of countries around the world – including Australia – to shore up their own food supplies to meet increasing populations and consumption levels in their own country. This is partially a manifestation of expected resource constraints. This issue adds to, and exacerbates, the risk of other significant unknowns affecting food supply, such as less predictable climatic patterns with climate change and our ability to manage peak oil²⁷, the latter being a critical issue that was a surprise omission from all of the panel reports.

²⁵ Global Footprint Network. Available online: <http://www.footprintnetwork.org/en/index.php/GFN/>. Accessed 24/02/2011.

²⁶ Available online: www.adelaidenow.com.au/news/national/time-to-stop-selling-off-the-farm/story.e6frea8c-122593469010. Accessed 20/02/2011.

²⁷ Available online: www.guardian.co.uk/business/2010/jul/11/peak-oil-energy-disruption; <http://peakoiltaskforce.net/download-the-report/2010-peak-oil-report>; www.spiegel.de/international/germany/0.1518.715138.00.html. Accessed 20/02/2011.

Economy of scale

The economy of scale argument (p27) disregards the reality that the economic system is embedded within a society that is embedded within a biophysical environment. The environment does not recognise economy of scale. Regardless, the implication that highly populated areas offer more opportunity *because* they are highly populated is vastly flawed. There are 157 million people in Bangladesh and only 21 million in Australia. Based on this spurious logic of the 'economy of scale' argument, there should be a lot more opportunity in Bangladesh than Australia. The argument that 'more people generate a greater resource base from which to draw necessary skills and innovation to manage the environment' is ridiculous. Firstly, it ignores the fact that skills rarely develop of their own accord – innovators require a nurturing environment that allows them the time and space to develop skills. That Australia consistently punches above its weight in terms of key scientometric indicators (e.g. patents and publications), and across a range of fields including medicine, the arts and in sport is testament to this. Secondly, it places an extremely risky burden on technological fixes that as yet have not been developed. Thirdly, and most importantly, it implies that the primary cause of environmental degradation – resource consumption – can be resolved by more people, even though more people translates to more resource consumption.

The distribution of wealth

As the Report itself acknowledges, there are also no guarantees that any increase in material wealth would be distributed evenly. The belief that 'the poor stay poor and the rich get richer' has some basis. In Australia between 2004 and 2006, the wealthiest quartile got wealthier whilst the poorest quartile 'stayed poor.'²⁸ Between 1975 and 2000, it was estimated that growth of Gross Domestic Product in OECD countries, of which Australia is a member, were not paralleled by drops in unemployment rates¹⁵. It was 'jobless growth.' Additionally, this growth may well have been 'ruthless growth'²⁹ as factors like the replacement of public transport and movie theatres with private cars and home entertainment units changed definitions of community and cultural identity. There is little evidence such trends would change between now and 2050. Much of our current growth comes from the extraction of non-renewable resources – the 'mining boom' of places like south-east Queensland, the Pilbara and the W.A. Goldfields. By definition, the extraction of non-renewable resources is an unsustainable industry and, regardless, is more reliant on technology than labour. These factors mean that many, or perhaps most, Australians would see little to no economic and/or quality of life gain in exchange for sharing the country with millions of extra people.

²⁸ Australian Bureau of Statistics (2010). Available online: <http://www.abs.gov.au/ausstats/abs@.nsf/Lookup/by%20Subject/1370.0~2010~Chapter~Household%20wealth%20%285.3.3%29>. Accessed: 22/02/2011.

²⁹ United Nations Development Programme (1993). Human Development Report. Available online: http://hdr.undp.org/en/media/hdr_1993_en_overview.pdf. Accessed: 22/02/2011.

Page 18 implies that it is greedy to keep our wealth 'to ourselves' given global poverty. This is flawed on two accounts. Firstly, the majority of Australia's immigrants enter on skilled visa classes (76% in 2007-08)³⁰. Skilled visa classes require education/training and English language skills. Rarely do the neediest meet these requirements. In 2006, 13.6% of all immigrants were from the U.K.³¹ - these people are certainly not the most economically needy. Given the reality of these immigration patterns, Australia cannot currently claim charity as the underlying reason for increasing immigration levels.

Secondly, most of our humanitarian immigrants fled from countries such as Afghanistan or Iraq³². These countries are dangerous in part because of ongoing conflicts. Some argue that we are involved militarily in such countries to secure the natural resources necessary to create the cheap consumer goods and services that our ever larger, growth-focussed population demands more and more of. Other source countries, such as North- and South Sudan-(to-be), are still feeling the effects of colonial/post-colonial restructuring, another activity of resource acquisition by external powers to 'feed a growing economy.' We are not responsible for all the world's ills. Nevertheless, it is time we addressed the root causes of people being forced to flee their homes, of which we play a part through our desire for growth.

Developed nations have a moral and humanitarian responsibility to ensure that conditions in countries enable people's needs to be met. We should not be importing the best and brightest minds from developing countries and contributing to a 'brain drain' in nations that most need their skilled people. No fair-minded person concerned with the welfare of others would suggest that Australians wish to see others remain in poverty so that we may enjoy unshared prosperity. It is mischievous to couch genuine concerns in terms of selfishness. It is generally accepted that all humans are entitled to an adequate livelihood. For more than a billion people, this is currently tenuous.

The question is: can the planet sustain 9 billion people on a western lifestyle when our best scientists are telling us that the planet is not coping now (e.g. species extinction, climate change)³³ with vastly less people currently in the global consumer class? The answer is a resounding 'no' ³⁴.

³⁰ Figures calculated from data provided by the Australian Bureau of Statistics (2010). Available online: <http://www.abs.gov.au/AUSSTATS/abs@.nsf/Lookup/3416.0Main+Features22009>. Accessed 22/02/2011.

³¹ Figures calculated from data provided by the Australian Bureau of Statistics (2010). Available online: <http://www.abs.gov.au/AUSSTATS/abs@.nsf/Lookup/3416.0Main+Features4June+2010>. Accessed 22/02/2011.

³² Australian Bureau of Statistics (2010). Available online: <http://www.abs.gov.au/AUSSTATS/abs@.nsf/Lookup/3416.0Main+Features2June+2010>. Accessed 22/02/2011.

³³ Available online: www.maweb.org/en/index.aspx; www.footprintnetwork.org/en/index.php/GFN/page/earth_overshoot_day; www.stockholdresilience.org/research/researchnews/tippingtowardstheunknown.5.6.cf9c5aa121e17bab42800021543.htm; http://www.ipcc.ch/news_and_events/outreach.shtml: Accessed 20/02/2011.

³⁴ Global Footprint Network. Available online: <http://www.footprintnetwork.org/en/index.php/GFN/>. Accessed 24/02/2011.

If they did it, so can we

Page 41 suggests that because Canada 'did it' (increased its population from 21 million to 54 million in the last 40 years), we can too. The Report does not list the environmental impact of Canada's population growth. The Report does not list the trade-offs or loss of amenities that accompanied such growth. Indeed, one of the leading advocates of post-growth economics is Canadian - Dr Peter Victor³⁵, author of 'Managing without growth: slower by design, not disaster.' Similarly, a key academic, author, and thinker working to promote carrying capacity, ecological load and limits to growth is Professor William Rees³⁶ of the University of British Columbia. We suggest Panel authors email these two prominent Canadians for comment, and we would happily provide email introductions to either or both.

Given that we've grown so much in the past, the report also asks on page 41, 'why we are suddenly concerned about providing infrastructure for a lesser pace of increase over the next 40 years?' One answer may be that we have 21 million people now, and not 8 million. The relationship between required infrastructure provision and population is not linear. As population-mediated, biophysical limits have been met for easily extractable resources (e.g. when a shallow water aquifer becomes dry), infrastructure has had to increase by a greater extent (e.g. by considering significant investments in building dams in places like south-east Queensland). These 21 million people also consume substantially more over a longer lifetime than previous generations.

New infrastructure, on the whole, is highly fossil fuel dependent. The pressures of population growth meant that after drier than usual years in Perth, water shortages were a real risk. Similar problems affected Adelaide's water supply. Energy intensive desalination plants were built in response in Perth, and are in development in South Australia. A cursory investigation into peak oil should be raising alarm bells, however. Have we built resource traps for our immediate and medium term future? What will happen to the price of fossil-fuel dependent water production? What will happen to our sprawling, car dependent suburbs that rely on tenuous fossil-fuelled supply lines of food, water, energy and waste management? How will people who are carrying large mortgages and increasing costs of living adapt to a sudden spike in petrol prices, especially in the absence of feasible public transport alternatives? The chances of us retrofitting infrastructure in Australia's cities that is currently only economical under cheap fossil fuel prices, is slim. It is likely that our current population level has been artificially supported by cheap fuel. We should be taking a precautionary approach and thinking about how we would build our urban settlements *as if we were already lacking* in fossil fuels. By minimising population growth, we can also reduce the pressures that drive fossil-fuel dependent infrastructure development, and ease the difficulties of transforming into a post-oil future.

³⁵ Available online: www.pvictor.com/MWG/about_the_book.html. Accessed 20/02/2011.

³⁶ Available online: [http://en.wikipedia.org/wiki/William_E._Rees_\(academic\)](http://en.wikipedia.org/wiki/William_E._Rees_(academic)), www.straight.com/article-319013/vancouver/rees-calls-degrowth-major-issue. Accessed 20/02/2011.

The baby boomer argument

Another justification for high population growth that The Report of the Productivity and Prosperity Advisory Panel utilised in the Issues Paper is that of the 'ageing baby boomer'. The Report suggests that workforce participation rates will only fall 4.9% with a NOM of 300,000 compared to a NOM of 70,000 (p15). The Report overstates the significance of this figure. Even if considered too high, this figure doesn't include in economic terms the significant impact that retirees have, and will continue to have in Australia, both in the formal and informal economy, with their participation in child-care, volunteer services, part-time or casual paid work, GST payments, remittances to younger generations etc. Given our current high levels of wealth, even if baby boomers were to place a small economic burden on taxpayers, we could surely absorb these costs.

Page 24 of the report suggests that immigration to support baby boomers is *not* a Ponzi scheme. But increasing migration to off-set the costs of an ageing population surely does feed a Ponzi scheme, one in which we'd be forced to feed forever as each cohort aged. There is a lot more to this Ponzi scheme than superannuation and the tax base. People do not only pay tax; they and their non-working dependents also need goods and services. They too will age. If their taxes pay for underfunded pensions of a previous generation, and their own retirement, who pays for the increased demand for infrastructure associated with population growth? The more the Ponzi scheme is fed, the more degradation we create, merely offsetting the environmental, and potential economic opportunity costs to future generations when biophysical limits cause the scheme to fall. The wealth generated during the prime years of the baby boomers was an anomaly, not a normal scenario that we must (or can) continue forever – it is now time to return to a more sustainable system.

Ask the unaskable question

Nowhere in this report is it articulated that ongoing growth - and not just population growth, but growth as the organising principle of society – could itself be the problem. Why do we need to keep growing? Whatever the answers to this question may be, what happens when we get to the end of 'more' (35 million people in Australia; 8 – 10 billion globally) and we still have not been brave enough to address the question of how we can run a society beyond growth?

4. The Way Forward for the Strategy

i. Acknowledgement that we can't have our cake and eat it too

A Strategy for Population must clearly acknowledge that there are biophysical limits to growth (population x consumption per capita) that cannot be 'traded off' with competing socio-economic or political aims. The Strategy then needs to acknowledge that because of these limits, we must take a well-being centred 'cap and trade' style approach to per capita consumption rates and population growth if we are to ensure a liveable environment for future generations. Quantifying these trade-offs is extremely difficult, if not impossible, given the complexity of the global biophysical and socioeconomic systems in which we operate. Regardless, the Strategy must explicitly acknowledge that either economic or population growth cannot be 'sustainable' without commensurate reductions in the other. This acknowledgement will reduce the likelihood that policy attempts to 'balance' conflicting views will result in a compromise level of consumption above that which the biophysical environment can sustain. Between 1997-98 and 2003-04, our energy use per capita rose by more than 4%³⁷. If we allow this trend to continue, we must make provisions for reducing our population so that total consumption rates do not grow. That said, strategically, it makes even more sense to reduce both consumption and population rates simultaneously.

ii. Well-being aspirational targets

Aspirational well-being targets are important so that economic growth alone does not become our default goal, and that environmental threats are not wrongly assumed to be 'fixable' by good regulation irrespective of population/economic growth levels. What do Australians want? What do we value about Australia at this point in time? Where do we want to be as a country in 20, 50 or 100 years time? What consumption rate levels are we willing to trade for additional people, or vice versa? What reductions in consumption and population rates are we willing to trade for a healthier environment in which to live? These aspirational targets need to cover a range of themes, including material wealth levels, but equally foreground education (formal or informal), the biophysical environment, demography and family and community participation-based targets, amongst others. These targets must be specific but flexible enough to absorb the uncertainty of planning many years in advance. Relationships between these different population scenarios and our ability to service Australia's aspirational targets need to be well understood. There is room for a Population Committee to fund, conduct and/or collate this information, but it is likely that much of this is already known and there is a risk that creating such a Committee would only 'bureaucratise' what is a matter of urgency for strong, clear policy development.

³⁷ Calculated from data provided by the Australian Government Department of Sustainability, Environment, Water, Population and Communities (2006). State of the Environment 2006. Available online: <http://www.environment.gov.au/soe/2006/publications/drs/indicator/330/index.html>. Accessed: 22/02/2011.

iii. A rethink of all population related policies

The Strategy needs to consider all population related policies across all government departments and statutory bodies to examine the current growth signals these policies are giving. Such policies must be adjusted to fit Strategy/Australian aspirational targets.

It is unclear whether pro-natalist government policies have a direct effect on fertility levels. Nevertheless, the government sends powerful signals to the population through statements and policies around gender and reproductive rights³⁸. Education and workplace policies that support women in leading fulfilling lives, and breaking down power inequities, are a key mechanism for encouraging declining fertility, and need to be created or maintained. The government should reconsider pro-natal economic incentives so that pro-natal policies are not a form of State-sponsored land degradation. Sexual education should be supported, and funding should fully support all options for exercising reproductive rights.

Skilled workforce and education visas that match market demand, rather than being capped, send the message that the government believes that immigration increases wealth. Visa design also implies that Australians foreground wealth over all other aspirational targets and values, and that we do not recognise biophysical limits. Such visa classes also prioritise the perceived labour benefits of immigrants and essentially condone the commoditisation of the individual. Skilled visa immigrants may provide direct economic benefit to their employers, but the costs of service provision, lost amenity and environmental degradation are born by all. We must *decrease* skilled visa classes through capping these visas rather than allowing them to be market driven.

Immigrants on humanitarian visa classes are currently a very small percentage of our total migrant intake, and have proportionality declined (cf. 12.23% of all visa classes in 1997/98 to 6.31% in 2007/08)³⁹. We could easily double our number of humanitarian migrants whilst halving the number of skilled migrants. The net results would be a reduction in total immigration levels. In doing so, Australia would i) become a better international citizen, ii) tacitly acknowledge that our global activities contribute to the reasons why people are forced to leave home in the first place (e.g. our contribution to conflict, climate change and declining natural resources off-shore), and iii) still reduce the impact that a large population is having on the biophysical environment and, ultimately, our ability to sustain ourselves.

³⁸ Anderson, Marilyn (2007) *Fertility futures: implications of national, pronatalist policies for adolescent women in Australia*. ISBN 978-1-921420-00-9. Refereed Proceedings of the International Women's Conference: education, employment, and everything – the triple layers of a woman's life In: IWC 2007 International Women's Conference: education, employment, and everything – the triple layers of a woman's life, 26-29 September 2007, Toowoomba, QLD, Australia.

³⁹ Figures calculated from data provided by the Australian Bureau of Statistics (2010). Available online <http://www.abs.gov.au/AUSSTATS/abs@.nsf/Lookup/3416.0Main+Features22009>. Accessed 22/02/2011.

Environmental policies need to strongly recognise overpopulation and overconsumption as root causes of degradation. We cannot rely on 'good regulation' that does not acknowledge this to remediate the effects of overconsumption/population – rarely can such 'good regulation' be anything except a last-ditch bandaid effort. The extent and severity of weeds and feral animals, air and water pollution, inappropriate fire regimes and habitat destruction are all worsened by the spread of people, let alone the additional strains on the environment via agricultural systems needed to maintain a larger population. The current piecemeal approach to environmental assessments done via the trigger process of the Environmental Protection and Biodiversity Conservation Act (2001) needs to be revised, with environmental assessments scaled up to the national level of assessing environmental impacts of both population and consumption. The Australian Conservation Foundation's 2010 submission⁴⁰ to add population growth as a key threatening process to biodiversity under the EPBC Act (2001) needs to be revisited, and implemented.

iv. The Strategy must employ the pre-cautionary principle

Environmental degradation does not often occur in a predictable, linear fashion. We do not know, for example, whether the decline of mammals in Australia is being caused by new threats, or whether species decline are lag events from previous threats that we do not even recognise as such. We do not know which ecological communities appear structurally intact now, but may have lost so much resilience that they are highly vulnerable to an even low level external shock, leading to a cascade of species losses. In such a context, and particularly with the largely unknown risks of climate change and peak oil, it is far better to err on the side of caution when designing policy. Caution does not imply 'trade-offs' at the micro-scale (e.g. 'development' is OK if a few native trees are planted in between new houses). Caution needs to be across all policies and all tiers of government.

⁴⁰ Australian Conservation Foundation (2010). Available online: http://www.acfonline.org.au/articles/news.asp?news_id=2749&eid=18273. Accessed 24/02/2011.