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FOREWORD

Overconsumption and overpopulation underlie every environmental problem we face today
Jacques-Yves Cousteau

The informed discussion of an important topic is a hallmark of a civilised society. Unfortunately far too often reasoned debate on many important topics is either being stifled, or has been usurped by polemicists who hold contrary views and who seek to stigmatise any who do not share those views as being bad or immoral or both. Population growth and its impacts are in danger of becoming one such topic. STEP sees as one of its roles the need to question the conventional wisdom.

Population growth has for too long been the equivalent of the 800 pound gorilla in the room, except in this case it is a fast approaching 8 billion plus person 'gorilla' whose impacts are increasingly being felt across the entire globe.

STEP's decision to publish this *Position Paper on Population* is therefore the culmination of nearly two decades of concern we have had on the impacts of population growth on our environment, our economic and business growth models and ultimately to the continued functioning of civil society as we know it today. Isaac Asimov, the well known American author and professor of biochemistry at Boston University, has stated that 'democracy cannot survive overpopulation'.

When speaking recently to my daughter, the point was made that when her grandfather was born the total global population was less than 2 billion. When she was born the global population had already reached nearly 5 billion. If and when she has any grandchildren the global population is projected to exceed 9 billion.

We as a society need to have a vigorous debate right now as to how we deal with the consequences of that growth. Hopefully this position paper will assist in informing that debate.

Barry Tomkinson
President, STEP

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PREFACE

Saving civilisation is not a spectator sport
Lester R Brown

STEP's primary aim is the protection of the natural environment, particularly urban bushland. In pursuing that objective it became clear that it was not sufficient to argue the case based on the appeal of natural areas alone. Threats to bushland usually come from otherwise perfectly valid needs of our society: roads, schools, housing, infrastructure, scout halls, bushfire hazard reduction and a myriad of others. To argue the case for bushland it is necessary to understand the nature of those threatening pressures: whether they are essential, whether there are alternatives and what their costs and other implications are. For example essential roads could follow an alternative route or be put in a tunnel and scout halls could be put in degraded edge bushland or adjacent to it.

It became obvious, however, that most threats were driven by population growth and that continuing growth would put relentless pressure on our remaining urban bushland. When we looked at the dynamics of population it was clear that a large section of society was hell-bent on promoting growth without limit while there was a minority arguing for some restraint. The remainder of our society was either not interested or was concerned that expressing a view was not politically correct.

In recent years the issue of population growth has moved more into the public arena. The work of the organisation Sustainable Population Australia Inc has been unrelenting and effective; some politicians have become involved and also some high profile citizens. Maladroit statements by the then Prime Minister, Kevin Rudd, businessman Harry Triguboff and others hit a chord with many people. A reaction to all this was the appointment of a federal Minister for Population and the subsequent decision of the government to appoint a Sustainable Population Strategy Taskforce to develop a *Sustainable Population Strategy* (www.environment.gov.au/sustainability/population/publications/strategy.html). The result was very much a Clayton's strategy but at least the issue is now more firmly in the public domain.

Because of the interconnectedness of population, the environment, the economy, poverty and associated issues both within Australia and throughout the world, this paper ranges over those topics and then provides some recommendations for action.

We must acknowledge having drawn on the book *World on the Edge* by Lester Brown from the Earth Policy Institute which gives a global perspective of the complex issues involved together with many excellent resources (www.earth-policy.org/images/uploads/book_files/wotebook.pdf). In particular our third recommendation closely follows Brown's words because we couldn't find better ones.

For those wishing to understand what a broad spectrum of people and organisations think about the population issue, read the submissions made to the Australian Government's *Sustainable Population Strategy* at www.environment.gov.au/sustainability/population/consultation/submissions.html.

For those wishing to read more or to get more involved we recommend Sustainable Population Australia (www.population.org.au). For those with a political bent there is the Stable Population Party at www.populationparty.com and of course the other major parties need a lot of pushing by their members.

SUMMARY

In recent decades there has been a great reluctance to even discuss population growth – it has been a taboo subject to the political and intelligentsia classes as well as to the major conservation organisations. This is now slowly changing. The business community, however, in pursuit of its narrow agenda continues to advocate growth without limit.

The challenges that the world, Australia, Sydney and its suburbs face through rising population and the nature of exponential growth in the face of finite resources is little understood and otherwise widely ignored by our political and business leaders.

Australia's population is growing at an unsustainable rate that would see a doubling every 42 years and see us with over 100 million people in another 100 years. At the same time the world, having grown from 3 billion only 60 years ago to almost 7 billion now, is facing diabolical problems due to a host of population and consumption issues such as exhaustion of water supplies and declining crop yields. We are also overloading the earth's natural capacity to process our wastes. The level of fossil fuel and resource use has led to global warming, acid rain, ocean acidification, mercury contamination of the sea food chain and stable plastic contamination of the biosphere. We cannot continue on this path.

With Australia's population building towards 23 million we have wrought havoc on our environment. The Murray–Darling and other river systems are in crisis, extinctions of flora and fauna have been widespread, salinity is destroying land and multiple other environmental disasters are present or threatened. It is facile to think that that record will be improved by exponentially increasing population.

Our politicians (federal, state and local), when faced with the issue either buck-pass or frame their responses in weasel words of which the Australian Government's *Sustainable Population Strategy* is a classic and pathetic example. Their inappropriate use of the term 'sustainable' gives rise to visions of an Orwellian future where the language of the state means exactly the opposite of the words used.

Australia has a fertility rate that, were it not for immigration, would see our population stabilise. Australia should direct its foreign aid to projects such as the education and empowerment of women and other effective measures that ensure a decline in fertility in third world countries.

There is little understanding that it is possible to have increasing wealth with a stable population through improved efficiency and technology, although some economists such as Ross Gittins have been explaining that in recent years. There is also little understanding that the economy is a subset of the environment rather than vice versa.

It is essential that we adopt an economic model for the twenty-first century that is based on stabilising population, eradicating poverty, restoring the economy's natural support systems and sustaining the world's ecosystems by limiting fossil fuel use, overall land clearance and urban waste production. It is obvious that all this could be achieved if only there were the vision and the will.

Our suburbs face a future of high-density high-rise everywhere as the population keeps doubling. Urban bushland will be compromised or disappear and our standard of living will decline.

There is an emergency afoot that most of the world is trying to ignore. It is time to turn, face it and deal with it.

POPULATION GROWTH – THE GREAT TABOO

There seems to be some bizarre taboo around the subject

Sir David Attenborough

There has been great reluctance to face up to or even discuss the issue of population growth. David Attenborough, in a speech given in March 2011 at London's Royal Society of Arts¹, stated what STEP has said often enough for many years in newsletters and submissions. Environmental groups such as the Australian Conservation Foundation have only recently conceded the role of population growth in environmental degradation while others are still in denial. O'Connor and Lines trace the sad history of this phenomenon in their book *Overloading Australia: How Governments and the Media Dither and Deny on Population*².

1 www.thersa.org/events/audio-and-past-events/2011/rsa-presidents-lecture-2011

2 O'Connor, M and Lines, WJ (2008) *Overloading Australia: How Governments and the Media Dither and Deny on Population*, Envirobook

It's not only in Australia that this taboo exists. The Institute for Population Studies³ in Berkeley, California says:

If rapid population growth is the root cause of so many of the problems, pressures and stresses of the 21st century, *why are so few people writing or talking about it?*

Truly, the subject is missing from even the places you would most expect it. One recent study looked at 150 articles about three population-related issues: water shortages, endangered species and urban sprawl. They found that only 16 of those even *mentioned* population increase, and only one suggested that slowing or stopping population growth might help deal with these problems. You may have noticed that discussion of population growth is also strikingly absent from stories about oil prices, energy shortages, housing prices, and more.

When something so important is sitting right in front of everyone's noses and no one says a thing about it, that is the textbook definition of a taboo. And it's not hard to see why. To have this discussion, we will have to delve deeply into our attitudes about race, birth control, religion, individual freedoms, and to deal with our economic fears about job security, and desires for prosperity.

Immigration and Racism

In Australia there is concern that opposition to population growth, which means primarily to immigration, will be seen as code for racism and for stopping the boats. It behoves the conservation movement to overcome its timidity and to face up to such accusations. The issue is too important for us to be cowed into silence. The fact of the matter is that, given our fertility rate (see below) we could achieve zero population growth while accepting more refugees than we now do irrespective of whether they arrive by plane or boat, legally or illegally. There would also be room for migration within the scope of emigration from Australia which now is some 50,000 people pa.

Birth Control

Another often heard excuse is that 'you can't tell people how many children to have'. Of course you can't. However, Australia, in common with much of the developed world, has a fertility rate of less than replacement value and so it is not a problem that some people choose to have more children than others. In the event that fertility escalated to above the replacement rate of 2.1 babies per woman then the social engineering that we now use to increase births could simply be removed or reversed. Figure 1 shows the fertility rate from 1929. The decline from the 1960s coincided with the availability of the contraceptive pill.

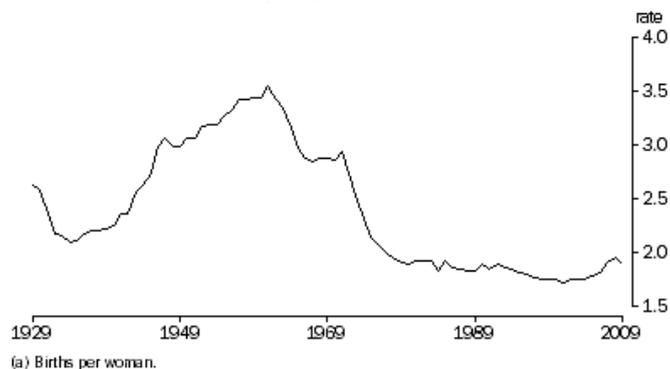


Figure 1 Total fertility rate in Australian women from 1929 to 2009⁴

3 <http://howmany.org/taboo.php>

4 Australian Bureau of Statistics, Trends in National Fertility Rates, Bulletin 3301.0 Births, Australia, 2009 www.abs.gov.au/ausstats/abs@.nsf/Products/451BFD1C377B7908CA2577CF000DEF53?opendocument

VOICES IN THE COMMUNITY – THE PROTAGONISTS

To participate in the population debate one must know, and know about, the other participants.

Business

We should be clear that every business and individual have a perfect right to argue for their legitimate interests. It is when there are conflicting legitimate views that governments have a role.

There are many businesses that are particularly dependent on population growth. The construction industry is a prime example. Other businesses, such as those selling food and clothing, generally demand population growth to expand their businesses but can expect to have much the same sales year after year with a stable population.

Big business is a powerful and wealthy lobbyist. Groups such as the Business Council of Australia haunt the corridors of our parliaments and appear often on our TV screens.

One of the panels reporting to the Sustainable Population Strategy Taskforce⁵ was chaired by Heather Ridout from the **Australian Industry Group**, which rates itself as ‘one of the most influential advocacy groups in Australia’. The *Report of the Productivity and Prosperity Advisory Panel*⁶ is a rabid advocacy for population growth without limit. It is full of rhetoric with flowery flourishes: ‘dynamic, open, innovative and confident society and economy by embracing diversity and strong, sustainable economic growth’, ‘cities remain vibrant, our regions flourish’, ‘material well-being together with the intangible benefits of *the Australian way of life* including our diverse culture, community spirit and the natural environment.’ and so on. Thankfully, it is balanced by the other two panel reports but it is worth looking at some of the things they said.

- *The population debate has been framed by some as a choice between the environment and growth. This report argues that a sustainable population strategy should navigate a path that meets both objectives while ensuring a high quality of life and expanding opportunities for coming generations of Australians.*

This of course ignores the fact that never-ending population growth is the ultimate un-sustainability. Our discourse on exponential growth (see page 8) makes that obvious and the statement is therefore nonsense.

- *Well-managed population growth will promote greater investment in infrastructure. Our cities will become more liveable, our regions will gain more and improved services, and future generations of Australians will benefit from work done over the coming decades.*

It’s very doubtful if Sydney-siders would agree that doubling the size of already overcrowded cities such as Sydney every 50 years or so will benefit anyone except the businesses involved in the building.

- *The environment need not suffer from population growth. It could in fact benefit as a bigger economy will provide more resources for protection of natural assets, and rehabilitation of those already damaged.*

The value of the environment balanced with the value of Australian industry and community and coupled with a clear, certain policy to manage the risks of a variable and changing climate will help ensure population growth is environmentally sustainable.

There is no development of the idea that population growth will not be good for the environment, no real acknowledgement of the harm that has been done and is still occurring today, only a statement that the environment must be ‘balanced’ with ‘the value of Australian industry’. Clearly the environment is still to be sacrificed in the interests of profit.

5 www.environment.gov.au/sustainability/population/panels.html

6 www.environment.gov.au/sustainability/population/publications/pubs/productivity-prosperity-panel-report.pdf

- *Australia's population has grown from 8 million to 22 million over the past 60 years, and our people have prospered. We enjoy higher living standards, and our culture has been enriched by the introduction of 6 million migrants.*

This is a classic exercise in extrapolating from the past to the future. It's like saying that a boy has grown well to be 180 cm high at the age of 18 so it would be even better if he grew another 180 cm to be 3.6 m high.

We could comment on literally hundreds of false statements and half-truths packed into this report but space does not allow.

The **Business Council of Australia**, in its submission to the Sustainable Population Strategy Taskforce⁷, tries very hard to present a coherent case for population growth to 36 million by 2050. It pays lip-service to the importance of the environment but then dismisses the subject by saying:

A strong and growing economy provides the resources and funds to invest in rehabilitating degraded environments, enhancing clean river flows and protecting natural assets such as coral reefs from pollutants. Population growth would enable us to make our economy and our environment more resilient in the face of climate change and invest in new energy sources and technologies.

Dismissing the environment that the economy depends on in such a cursory way shows that they really don't care or don't understand, or both of those.

The first moral failure in these business submissions is a failure to address in any way what happens after the 40-year timeframe that they consider. The country is left in 2050 with a 35 million population and the Business Council of Australia says not a word about what happens next. The implication is that they want their way for 40 years and someone else can deal with the consequences. Of course they would then be looking for more growth and 57 million people by 2090. The second moral failure is the absence of any recognition that growth cannot continue forever, that we cannot have infinite growth in a finite world (see page 8). They are very smart people but they are not prepared to face up to the hard questions crucial for Australia's future.

Politicians

One feature that we have noticed is that many politicians have no idea about the national population and its implications for the well-being of all Australians.

There are some federal politicians on top of the issues, Kelvin Thompson and Dr Mal Washer for instance, but most seem to shy away from it or support growth. Kevin Rudd famously got into trouble in 2010 by advocating 'a big Australia' and one got the impression that he really hadn't considered the issues involved. Bob Brown of the Greens, after shying away from the subject for many years has finally come around and questioned our carrying capacity. The ex-treasurer, Peter Costello, is also famous for exhorting people to have three children, one each for the parents and one for Australia. His government promoted population growth by way of baby bonuses.

Others

The Catholic Church is still a major advocate for a more populous world although many of its adherents seem not to agree, as the low fertility in Italy suggests. But some of the rhetoric gets a bit severe. This article on a Catholic website gives some insight into their views⁸:

During the last three decades, the issue of overpopulation – or perceived overpopulation – has been discussed in various capacities. The primary instigators of these discussions have been the radical environmentalists, the radical animal rights activists, and certain wealthy elites in our Western society. All of these groups more or less assert that human beings are destroying the planet. There are too many of us, they say. Hence, we must utilise 'family planning' (read:

⁷ www.environment.gov.au/sustainability/population/consultation/submissions/pubs/0178.pdf

⁸ The Population Control Controversy www.catholic.org/featured/headline.php?ID=2227

abortion, contraception, sterilisation), even in a coercive manner, to limit the number of people born into the world.

It goes on to accuse us of having a 'culture of death'. However the Anglicans have a different view. In April 2011 they called for a halt to policies which provide an incentive to increase the population⁹.

There are many in our community who still adhere to the populate-or-perish ideas. They believe that if we fill the country up with people we are less likely to be invaded. If hordes from the north decide to come it may not, however, make a lot of difference whether we have 15 million or 115 million people!

Again, there are many who believe that we have 'boundless plains to share' and that it is just plain selfish to deny the world's disadvantaged the opportunity to join us. The problem with that is that the world's disadvantaged run into a couple of billion people and we could make only a very tiny impact on that number. We can of course be more effective in ameliorating their lot with aid in the form of technical support.

ECONOMICS AND POPULATION

It's the economy, stupid!

From the Clinton election campaign

People often do make fun of economists but for many years they have told us what we want to hear and we have applauded them for it. They have understood the market economy and been able to advise us on the allocation of resources so as to optimise outcomes. We have enjoyed the huge improvements in our standard of living, we like being wealthier, we appreciate the trappings of modern society: air conditioning, flat screen TVs, motor cars, well-stocked shops and all that. At least most of us do. We would like to believe that physical resources are infinite and that therefore ever-increasing consumption of goods is achievable. Alas!

Ross Gittins, a respected Australian economist, sums it up well in his recent book¹⁰. He makes the obvious but often neglected point that the economy is a subset of the environment, not the other way around. The environment will exist without the economy but there could never be any economy without an environment to support it. Having appreciated that, it surely behoves us to manage the environment so as to ensure a healthy economy but our track record is not a good one.

We are not helped by the way economic statistics are reported. Gross domestic product (GDP) is an incomplete and misleading statistic but we are told that it is a crucial measure of our well-being. For example it measures reconstruction after cyclones as positive economic activity while ignoring all the crucial unpaid work that is done. We are told that if it is negative for two quarters we are in recession while a more relevant measure may well indicate the opposite. We are told that increasing population leads to increasing GDP and therefore to more wealth. GDP per capita would be a far better measure: one that would not be reliant on population growth. In fact GDP per capita can decline as GDP rises and obscures the fact that we are individually getting poorer rather than richer.

Without population growth it is still possible to have economic growth through capital growth arising from technical progress and thus to have continuing increases in per capita wealth. Furthermore, with a stable population many of the tradespeople and professionals now working in that part of the construction and other industries fuelled by population growth will become available to industries with skill shortages and for more socially redeeming pursuits than covering valuable farm and bushland with concrete slabs. There will be huge opportunities in the fast-developing new technologies including health and the replacement of fossil fuels with alternative energy sources.

On the other hand, increases in GDP through population growth imply ever increasing increases in material consumption. There cannot be infinite growth in a finite world (see page 8) and thus ongoing population increases are unsustainable.

9 www.news.com.au/national/anglican-church-in-attack-on-australias-birth-rate/story-e6frfkvr-1226045934693

10 Gittins, R (2010) *The Happy Economist*, Allen and Unwin

A New Economy

Sophisticated professionals have said that the economic model the developed world is using has had its day. The UK Sustainable Development Commission, in a report produced by its Economics Commission¹¹ describes the macro-economic model for the operation of the new development strategy that is required:

... one in which stability is no longer predicated on increasing consumption growth, but emerges through strategic investment in jobs, social infrastructures, sustainable technologies and the maintenance and protection of ecosystems.

Ross Gittins¹² advocates the integration of environmental economics into decision making. He points out that when our current application of economic theory was developing some 200 years ago, economic activity was tiny compared to the available natural resources. As a result materials, clean air and water and sinks for waste were, reasonably, regarded as infinite for practical purposes. But it's very different now. These supplies are now stressed but not priced, or at least properly priced. Putting a price on carbon is an example of how we are trying to change and of how difficult such change is to implement. Gittins says:

Environmental economics is highly conventional – neoclassical – because it focuses on 'economic instruments' aimed at getting the social costs and benefits of environmental issues incorporated into private market prices, then leaving the rest to market forces.

Lester Brown, in his book *World on the Edge*¹³, describes what he calls Plan B. Plan A is doing nothing:

We need an economy for the twenty-first century, one that is in sync with the earth and its natural support systems, not one that is destroying them. The fossil fuel-based, automobile centred, throwaway economy that evolved in western industrial societies is no longer a viable model – not for the countries that shaped it or for those that are emulating them. In short, we need to build a new economy, one powered with ... wind, solar, and geothermal – one that has a diversified transport system that reuses and recycles everything.

With Plan B we can change course and move onto a massive mobilisation – at wartime speed. This plan, or something very similar, is our only hope.

The Plan B goals – stabilising climate, stabilising population, eradicating poverty, and restoring the economy's natural support systems – are mutually dependent. All are essential to feeding the world's people. It is unlikely that we can reach any one goal without reaching the others. Moving the global economy off the decline-and-collapse path depends on reaching all four goals.

The key to restructuring the economy is to get the market to tell the truth through full-cost pricing.

The evolving field of environmental economics which deals with truly sustainable economies, living off environmental interest rather than off environmental capital (see below), will also have an impact as we transition to a new way of doing things.

Measurements of Ecological Sustainability and Prosperity

You can only manage what you can measure
Anon

The Australian Bureau of Statistics' feature article *Future Directions for Measuring Australia's Progress*¹⁴ quotes from the *Report of the Commission on the Measurement of Economic Performance and Social Progress*¹⁵ 'What we measure shapes what we collectively strive to pursue and what we pursue determines what we measure.' The report also points out that assessments are needed:

11 Jackson, T (2009) *Prosperity without Growth? The Transition to a Sustainable Economy* www.sd-commission.org.uk/data/files/publications/prosperity_without_growth_report.pdf

12 Gittins, R (2010) *The Happy Economist*, Allen and Unwin

13 Brown, L (2011) *World on the Edge*, WW Norton & Company

14 Future Directions for Measuring Australia's Progress (2010) Australian Bureau of Statistics www.abs.gov.au/ausstats/abs@.nsf/Lookup/by%20Subject/1370.0~2010~Chapter~MAP%20downloads%20%288%29

15 Stiglitz, J, Sen, A and Fitoussi, J-P (2009) www.stiglitz-sen-fitoussi.fr/documents/rapport_anglais.pdf

... of current well-being and an assessment of sustainability, whether this can last over time. Current well-being has to do with both economic resources, such as income, and with non-economic aspects of peoples' life (what they do and what they can do, how they feel, and the natural environment they live in). Whether these levels of well-being can be sustained over time depends on whether stocks of capital that matter for our lives (natural, physical, human, social) are passed on to future generations.

The Australian Bureau of Statistics' *Measures of Australia's Progress 2010*¹⁶ highlights continuing improvement of population well-being but also demonstrate the significant deterioration in biodiversity and greenhouse gas emissions. They also highlight the fact that there is currently no series of measures available of major environmental conditions, namely land, inland waters, oceans and estuaries and waste. The measures also do not cover fundamental aspects of social well-being.

Indicators of sustainability such as those suggested in the Sustainable Development Panel Report¹⁷ to the Sustainable Population Strategy Taskforce should be developed and published. They are reproduced below and should be given as much prominence as the current common economic indicators such as growth in GDP.

INDICATORS OF ENVIRONMENTAL SUSTAINABILITY

Land

- Healthy landscapes with a diversity of native species
- Expansion of urban land into biodiversity hotspots; ecosystem trends
- Land use, including proportion of land for conservation purposes
- Health of soil and ecosystem services

Water

- Health of coastal, estuarine, marine and freshwater ecosystems
- Volume and proportion of water secured for the environment; volume of water used by agriculture and other industries in relation to the value of these sectors' outputs

Climate change

- Greenhouse gas emissions and emission reduction (total and per capita)
- Total energy use; energy use per capita
- Investment in and adoption of clean energy and low emission technologies

INDICATORS OF SUSTAINABLE COMMUNITIES

The health (and longevity) of human settlements/population

- Self reported measures of social capital (civic engagement, trust and volunteering)
- Housing affordability, home ownership and homelessness
- Air quality as it affects human health
- Opportunities for meaningful employment
- Water adequacy and quality for agricultural, industrial and household use
- Food security for local consumption and for export
- Well-being and life satisfaction

Adequacy of social services and infrastructure

- Health status and health care
- Quality education and training (including childcare and preschool waiting lists; access to primary, secondary and tertiary education)
- Cultural infrastructure (including access to nature for people in cities; access to the arts; protection of cultural heritage)
- Overuse of existing levels of infrastructure, including traffic congestion and availability of public transport

16 www.abs.gov.au/ausstats/abs@.nsf/mf/1370.0

17 www.environment.gov.au/sustainability/population/publications/pubs/sustainable-development-panel-report.pdf

INDICATORS OF ECONOMY

Economic growth and productivity

- Real net national disposable income per capita, less depletion and other ecological costs
- Household wealth and its distribution
- Growth in multifactor productivity and the skills of Australian workers
- Adequacy and cost of meeting infrastructure requirements in no-growth and growth scenarios

Myths and Misunderstandings about Growth

It is very common to hear people say, in a generic way, that without growth you wither and die and to apply that flawed maxim to organisations, populations and economies. There is no doubt that growth has been essential to take the human race from hunter-gatherers to our current level of sophistication. It was necessary for cities to arise so that specialisation could occur. Advances in areas such as communications and health, and thus life expectancy, required a higher population than existed, say, 1000 years ago. But we might take an analogy from living things that grow, often quickly, until they reach an appropriate size. Then they stop.

Our society continues to make the mistake of assuming that because something was good in the past, more of the same will be good in the future. We ride the waves of enthusiasm that have led us to every major financial crisis in the modern era and, as a society, seem incapable of tempering our love of the momentum with some realism.

An Australia with only a few hundred thousand people could not sustain our present standard of living. We needed growth from that early point. Australia with its present population of some 22 million has an enviable standard of living but our environment is in crisis and we are living unsustainably. Perhaps we have grown too big already. If we protected our resources and environment by taxation or other direct enforced measures we may achieve sustainability but, given our pathetic efforts to tackle our contributions to global warming, to charge a more reasonable rent for our minerals and to manage the Murray–Darling, it would be dangerous to bet on success.

INFINITE GROWTH IN A FINITE WORLD

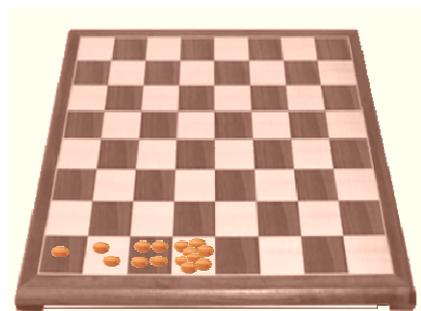
Nature of Exponential Growth

The most powerful force in the universe is compound interest
Albert Einstein (attributed)

Before considering the environmental and other factors in play when talking about population, it is crucial to understand one powerful force affecting it. That is exponential growth. We shall go into some detail here because experience tells us that only a tiny minority really understand it and its implications.

Its partner is arithmetic growth, which is what happens when we keep adding the same number. So an arithmetic series is 2, 4, 6, 8, 10, 12, and so on. In the case of exponential growth, however, we keep adding the same percentage. A typical exponential series is 2, 4, 8, 16, 32, 64, and so on. Because our whole economic system is geared to exponential growth we are used to talking in percentages and they are also commonly used for population.

It is worth giving an example to make the point. The classic chessboard puzzle come in many guises but here let's look at putting a grain of rice weighing 25 mg or 0.000 000 025 tonne on the first of the 64 squares and then doubling that on each succeeding square. The object is to assess how many grains will be on the board by the time the last square is dealt with. The answer is 18,446,744,073,709,600,000 grains and 461,168,601,843 tonnes or 461 billion tonnes which is probably more rice than has ever been harvested on earth. A large chessboard would be required. For those who doubt the mathematics we refer you to the many proofs found if one Googles 'chessboard exponential'.



If the population of Australia continued to grow at 1.7% pa our current population of 22.6 million would grow to an impossible 1 billion people in another 226 years and 2 billion 42 years after that. It is perplexing that almost no one in Australia, especially people in authority or in positions of influence in our community, thinks that this trend is a problem. And that really is one of the greatest moral failures of our time.

Malthusian Error

Malthus, an economist and demographer who died in 1834, was an intellectual who foresaw catastrophe should population outstrip the food supply. These days it is fashionable to say that Thomas Malthus was wrong in his prediction that continuing population growth would outstrip food production and lead to famine and worse. Technology produced the ‘green revolution’ that meant that food production has matched population growth and led to Malthus being decried. Of course, however, Malthus was correct; the only thing that he got wrong was the timing.

We would be wise to avoid a Malthusian catastrophe by reversing world population growth and leaving some factor of safety against an unexpected plant disease, reduced yields from global warming or other restriction on food production. As pointed out by the Earth Policy Institute¹⁸ in 2011 ‘the UN Food Price Index has eclipsed its previous all-time global high’. We may be one poor harvest away from chaos.

World Population Figures

In the last 200 years the population of our planet has grown exponentially, at a rate of 1.9% per year. If it continued at this rate, with the population doubling every 40 years, by 2600 we would all be standing literally shoulder-to-shoulder.

Professor Stephen Hawking, *The Universe in a Nutshell* (2001)

Hawking understands exponential growth and was simply pointing out the absurdity of ignoring it. In this paper we are dealing with Australia’s population but it is necessary to place Australia within a global context. As illustrated in Figure 2, the world’s population reached:

- 1 billion in about 1800
- 2 billion in 1927
- 3 billion in 1960
- 4 billion in 1974
- 5 billion in 1987
- 6 billion in 1999

Now, in 2011, it is estimated to be 6.9 billion. There are some who regard this as a good thing. For reasons that to us seem self-evident, it is actually a catastrophe.

The assumptions made in the development of Figure 2 lead to a 2050 population of 10 billion while others predict 9 or 9.5 billion. The differences are caused by small differences in fertility and death rate assumptions.

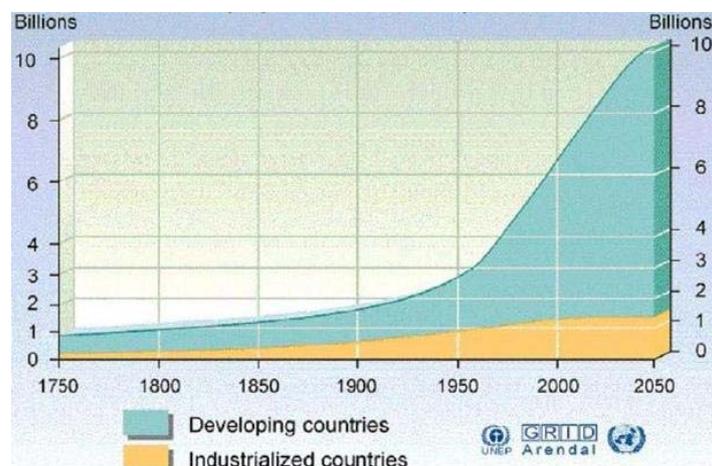


Figure 2 World population development

18 www.earth-policy.org/press_room/C68/foodgeopolitics_fp

There is, however, some good news. Figure 3, from the World Bank¹⁹ shows that the world's growth rate declined from 2.1% pa in 1970 to 1.2% in 2009. What will happen next is uncertain but the weight of opinion is that the rate of increase will continue to fall and that the population will stabilise at about 9.5 billion in about 2060. After that it may begin to fall. That, however, is a huge 37% increase on the current population and may well lead to catastrophe as food, water and other resources are overconsumed.

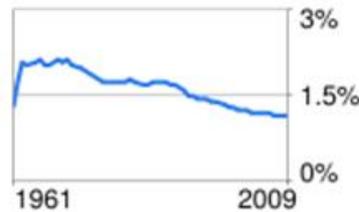


Figure 3 World growth rate from 1961–2009

The United Nation's report *World Population to 2300*²⁰ analyses the next 300 years but of course that is a guessing game where small changes in assumptions about fertility and demographic behaviour have a large impact on long-term projections. Their high projection for 2300 is 36.4 billion, medium 9 billion and low, 2.3 billion. They mention, in passing, that a continuation of the world fertility levels from 1995–2000 would result in a 2300 population of 134 trillion people. That's the Stephen Hawking scenario.

Most of the additional 2.5 billion or so people expected by 2050 will be concentrated in developing countries while the population of the more developed countries is expected to rise from 1.23 billion to 1.28 billion over the same period²¹. That is a 4% increase over a period when Australia's population threatens to increase some 100% at current rates.

One could well ask what relevance the rest of the world has for Australia's population and what, if anything, we should be doing about it. The immutable fact is that we are all stuck on this one finite planet together, using the same resources and facing, in many ways, the same future. No country should be allowed to opt out of our common responsibilities.

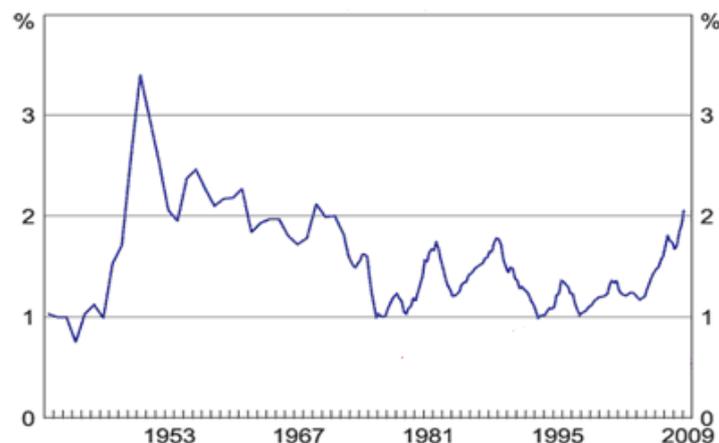


Figure 4 Population growth in Australia (sources: ABS: Foster, RA (1996) Australian Economic Statistics 1949–50 to 1994–95, Reserve Bank of Australia Occasional paper no. 8, rev 1997)

19 www.google.com/publicdata?ds=wb-wdi&met=sp_pop_grow&tdim=true&dl=en&hl=en&q=world+population+growth

20 Department of Economic and Social Affairs, Population Division (2004) ST/ESA/SER.A/236 www.un.org/esa/population/publications/longrange2/WorldPop2300final.pdf

21 UN Department of Economic and Social Affairs, Population Newsletter Number 87, June 2009

Australian Population Figures

Either a species learns to control its own population or something like disease, famine, war, will take care of the issue

Chuck Palahniuk

Before the arrival of the British settlers over 200 years ago it seems that the aboriginal population, thought to be above 300,000, was stable and that they had learnt to live in equilibrium with a harsh land. They were not, however, generally counted in the Australian census until after the 1967 referendum.

The population began to grow strongly with the gold rushes in 1851. There was a slowing during World War II and then there was a huge surge in growth that peaked at a rate of over 3% pa. Since then our growth rate has mostly been between 1% and 2% pa.

The growth from 3.8 million in 1901 to 22.6 million in mid-2011 gives an average growth rate of near to 1.7% pa, which leads to a doubling every 42 years. Figure 4 gives growth rates from 1949–50 and, in that period the population grew from 8.2 million to 22.6 million in 2011. The average rate was again close to 1.7% pa. In 2009–10 the growth rate, fuelled by higher immigration, climbed to over 2% pa. This together with publicity surrounding Treasury forecasts that our population will reach 35 million by 2050 have been instrumental in bringing about heightened community interest.

OVERCONSUMPTION, OVERPOPULATION AND THE ENVIRONMENT

We must alert and organise the world's people to pressure world leaders to take specific steps to solve the two root causes of our environmental crises – exploding population growth and wasteful consumption of irreplaceable resources. Overconsumption and overpopulation underlie every environmental problem we face today.

Jacques-Yves Cousteau

Humans are just another animal species on the planet and have as much right to live on and from it as any other creatures. We are different, however, in the extent of our ability to plan, to communicate, and in our technology. Because of those sorts of advantages we have been able to dominate the planet and utilise its resources to reach a high degree of sophistication. We have, however, not always been wise and have often used our intelligence to wreak havoc on our own kind as well as on the fauna and flora around us. The constant wars over the centuries are testament to monumental collective human stupidity: consider for instance the tens of millions of people killed in the two world wars. It may be futile to hope that a species that can do that sort of thing will be capable of protecting the environment. But hope we must.

It was reportedly Paul Ehrlich who said words to the effect that there was not a single environment that would not be improved by having fewer people in the world. It is of course true that if you don't cut down trees for fuel and construction faster than they can regrow then you will never be short of trees. This requires that the population must not overwhelm the resource. If you don't pump water from aquifers faster than they are recharged by rainwater then you will always have a water supply. But if you have so many people that over-pumping must be used to grow crops to feed them, then mass starvation or an expensive import bill is sure to follow.

If we want healthy ecosystems and a world where people are not starving we need to match our demands to the available resources. So long as we threaten to demand more than the world can supply, we face eventual catastrophe.

Exploitation of Resources

One aspect of human behaviour that threatens the very basis of our existence is our exploitation of the world's resources. In using what is around us for our own purposes: for food, for shelter, for clothes, for tools and weapons and for every other need, we have often acted, along with all other creatures, as if each resource was infinite. The difference between us and the other animals, however, is that we have developed consumption patterns that consume more than the basic needs of life and the ability to feed that consumption by taking more and more from the world around us.

We have also invented disciplines that we call accounting and economics which allow us to measure and price our activities but which have not paid sufficient heed to the finite nature of the world. Ross Gittins²² points out that the Club of Rome *Limits to Growth* report was published in 1972 but that it was ‘widely pooh-poohed by economists’. Only in relatively recent times have more of us come to understand that we have to take stock, to appreciate that finite resources will not last forever. Economists are now tackling the problem. What politicians and other leaders have done, however, is look at the marvellous progress we have made in many areas and extrapolate that progress *ad infinitum*. It’s hard to think of a more destructive example of self-delusion.

Lester Brown²³ summarises the present situation:

We are liquidating half the earth’s natural assets to fuel our consumption. Half of us live in countries where water tables are falling and wells are going dry. Soil erosion exceeds soil formation on one third of the world’s cropland, draining the land of its fertility. The world’s ever-growing herds of cattle, sheep, and goats are converting vast stretches of grassland to desert. Forests are shrinking by 13 million acres per year as we clear land for agriculture and cut trees for lumber and paper. Four fifths of oceanic fisheries are being fished at capacity or overfished and headed for collapse. In system after system, demand is overshooting supply.

If there was not increasing demand from increasing numbers of people for timber, palm oil, beef and other supplies then it would not be necessary to continue deforestation in Brazil, Indonesia and other countries.

These resources such as water, plants and fish are available permanently if not overexploited. Indefinite amounts are available but only at a finite rate. This fact is hammered home by the collapse of the Northern Cod Fishery and the extinction of the Passenger Pigeon population. For half a millennium the fishermen of eastern Canada fished the cod in such a way that the cod population was unaffected. But the introduction of modern technology mid last century led to massive indiscriminate catches that forced a moratorium in 1992. The population has never recovered. Huge Passenger Pigeon flocks of billions of birds were common in the United States but they were hunted to the point that their population collapsed and the last one died in 1914.

Here in Australia we have multiple severe problems. We are beset by salinity, species extinction, the near collapse of the Murray–Darling river system, degraded wetlands, deforestation, overgrazing causing desertification and erosion, overfishing and other unsatisfactory outcomes.

Global Warming and Emission Control

The global warming caused by our use of fossil fuels, land clearing and agriculture, is melting the polar ice sheets and bringing the possibility of world-wide coastal flooding, more extreme weather events, plant and animal extinctions and widespread environmental degradation. We of course recognise that climate has always changed and will continue to do so through non-human events. The global warming referred to in this paper is that very rapid warming that is now occurring due to human activity.

The Australian Government has committed to reduce greenhouse emissions to 60% below 2000 levels by 2050²⁴. Between 2000 and 2010, however, emissions have increased some 5%²⁵. Thus we have 40 years to decrease approximately 65% from the current emission level. Should the population of 35 million that is favoured by the growth advocates be reached by 2050, it will be necessary to reduce per capita emissions not by 65% but by 80%. Now not all abatement measures, such as forestry, are directly related to population but many are and there seems to be resistance in much of the community to doing anything at all. The one thing that is very clear, however, is that population growth will make an already difficult task much more so.

22 Gittins, R (2010) *The Happy Economist*, Allen and Unwin

23 Brown, L (2011) *World on the Edge*, WW Norton & Company

24 www.climatechange.gov.au/en/government/reduce/national-targets.aspx

25 www.climatechange.gov.au/publications/projections/australias-emissions-projections/emissions-projection-2010.aspx

Fresh Water and Food

The shrinking availability of fresh water is a huge threat. In many parts of the world, for instance in Saudi Arabia, we see subterranean aquifers failing and farming being curtailed or ceased. Lester Brown²⁶, points out that:

As the world demand for food has soared, millions of farmers have drilled irrigation wells to expand their harvests. In the absence of government controls, far too many wells have been drilled. As a result, water tables are falling and wells are going dry in some 20 countries, including China, India and the United States – the three countries that together produce half the world's grain.

And, in the face of a looming food crisis the United Nations World Food Programme²⁷ tells us that, despite improvement in recent decades, over 6 million children die each year from hunger. And while that is going on we are still adding to world population at the rate of nearly 80 million people per year.

Biodiversity

Extinctions of life on earth are not new but the rate at which they are now occurring may well be. The Sierra Club makes the point that the main causes of loss of biodiversity are related to population growth: habitat loss, invasive species and overexploitation²⁸. Maintaining biodiversity is important on many levels. Crucial to food production is the ability to source new genetic material from wild strains. Monocultures run the risk of being wiped out by one new disease, the Irish potato famine being such an example, while rust and other diseases currently threaten wheat crops on the Indian subcontinent.

Human population growth leads to agricultural expansion, water diversion, urban sprawl and thus loss of biodiversity. Global warming will also lead to loss of species as habitats change.

The Australian Wildlife Conservancy sums up the current Australian situation thus²⁹:

Australia is one of only 17 countries recognised as 'mega-diverse', meaning we support a significant proportion of the world's biodiversity.

Over 80% of our mammals, reptiles and flowering plants are endemic (found only in Australia).

However, the destruction and fragmentation of habitat, particularly as a result of clearance of vegetation for agriculture, and the impact of feral animals and invasive weeds has had a substantial impact on our biodiversity.

Australia has the worst mammal extinction rate in the world. Altogether, 18 mammal species have become extinct since the arrival of European settlers a little more than 200 years ago. Twenty percent of our remaining mammal species are threatened with extinction.

Australia has more threatened reptile species than any other country in the world. Nearly 15% of our bird species are also threatened with extinction.

More than 500 vascular plants are listed as endangered or vulnerable.

Current proposals, from the opening up of huge new agricultural areas in northern Australia to urban sprawl in Sydney are population-based and potentially a huge threat to our remaining biodiversity if climate change necessitates species migration.

Inappropriate Use of the Term 'Sustainable'

Far too often 'sustainable' is assumed to mean that damage is minimised rather than to mean that we, as the Brundtland Commission decreed³⁰, are using the earth's resources in such a way as to 'meet the

26 Brown, L (2011) *World on the Edge*, WW Norton & Company

27 www.wfp.org/hunger/stats

28 www.sierraclub.org/population/factsheets/biodiversity.asp

29 www.australianwildlife.org/Wildlife-and-Ecosystems/Australias-Biodiversity-Crisis.aspx

30 The World Commission on Environment and Development, *Our Common Future* (1987) Oxford University Press, New York

needs of the present without compromising the ability of future generations to meet their own needs'. Because the supply of almost all resources is finite, any policy that involves their depletion cannot be called sustainable.

Thus, a policy that reduces the rate of plant and animal extinctions cannot be called sustainable. A policy that calls for more and more farmland at the expense of natural areas cannot possibly be called sustainable. A policy that envisages continuing use of virgin metal and energy resources is not a sustainable policy and a policy that calls for never-ending population growth is the antithesis of sustainable.

Of course economic development brings improved technology and additional wealth that may be useful in achieving good outcomes; but always of course as long as that development itself does not threaten aspects of sustainability.

We must be careful not to fall into the habit of using 'sustainable' in an Orwellian manner so that it cloaks the fact that it is really un-sustainability that we are talking about. We need honesty rather than exercises in mind control.

It's like the old saying about pregnancy, something either is sustainable or it is not. There are no shades of grey.

TRANSITION TO A STABLE POPULATION

There is nothing more difficult to take in hand, more perilous to conduct, or more uncertain in its success, than to take the lead in the introduction of a new order of things. For the reformer has enemies in all those who profit by the old order, and only lukewarm defenders in all those who would profit by the new order, this lukewarmness arising partly from fear of their adversaries ... and partly from the incredulity of mankind, who do not truly believe in anything new until they have had actual experience of it.
Niccolo Machiavelli

Transitioning to a stable population economy would have its challenges, not least that of overcoming the opposition from the losers. There are always winners and losers and this is why we need governments. However the free market system has dealt with bigger challenges. It would, for instance make transition in Australia easier if the rate of population growth was lowered from the average 1.6% to zero in stages over ten years by adjusting immigration. Knowing that there was declining demand for products such as new housing, would give firms the opportunity to adjust and the workforce the opportunity to choose more appropriate careers while not causing immediate widespread employee and business dislocation.

The Australian Government's *Sustainable Population Strategy*³¹ released in May 2011 was more of a copout rather than a strategy and hence a huge disappointment. It is business as usual framed with weasel words and pretty pictures. *The Canberra Times* ran an excellent article by Crispin Hull (see Appendix A) in which he summarised the situation very well.

The wider community is waking up to the challenges posed by excessive population and the finite nature of resources. See Appendix B for an article by Jeremy Grantham where he summarised that:

The world is using up its natural resources at an alarming rate, and this has caused a permanent shift in their value. We all need to adjust our behavior to this new environment. It would help if we did it quickly.

Establishing Limits to Growth

It is essential that we establish limits to growth. This is not an easy or exact science. We can start, however, by considering that our present growth rate will lead Australia to have some 120 million people in another 100 years. It will surely be agreed that for the driest continent on earth that is too many and thus we are led to the question of just what must be done to stop that from happening. There are some alternatives, for example, we could:

31 www.environment.gov.au/sustainability/population/publications/strategy.html

- continue to grow enthusiastically and let future generations worry about the consequences – this is the Business Council of Australia’s approach; or
- continue to grow in the anticipation that food and resource shortages would apply an automatic brake or that factors such as the increasing education and employment of women would decrease fertility and stabilise or reduce population; or
- drift for a few more years and then develop a sustainable population strategy; or
- accept that growth must stop soon and begin to plan for that to happen.

Figure 5 demonstrate the exponential story. The recent growth rate of 2% pa would clearly be catastrophic if maintained. On the other hand, a growth of 0.5% pa would be acceptable in the short-term, say over 10 years, while a better determination of Australia’s carrying capacity is carried out and adjustments to the economy implemented.

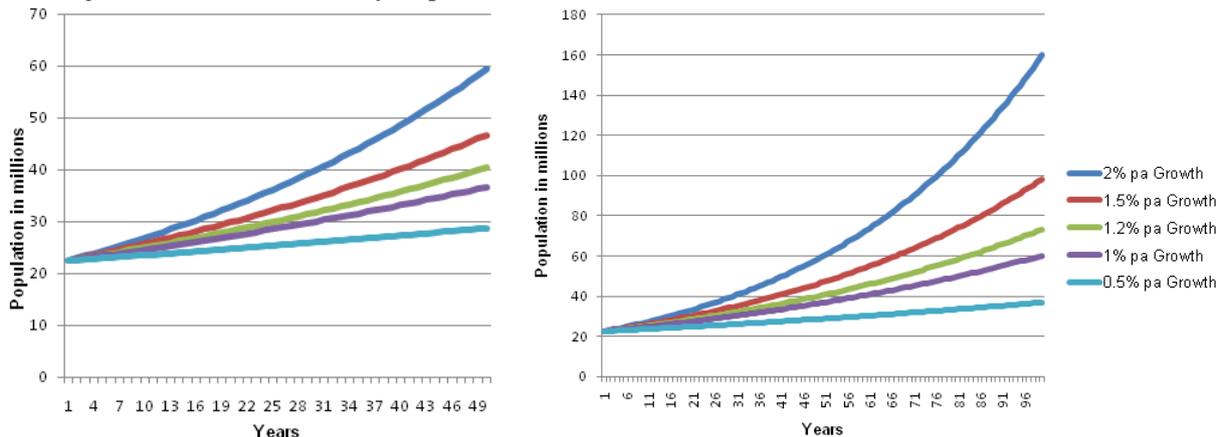


Figure 5 Exponential growth over 50 years (left) and 100 years (right)

Population Targets

The just-retired treasury secretary said on the ABC’s *Lateline* on 4 March 2011 that he thought that a sustainable population for Australia was about 15 million while Professor Tim Flannery suggested a range of 6 to 12 million³². There are many obstacles in getting down to those sorts of numbers, for a start, halving our population would leave half our houses, factories and office buildings empty. It would have to be a very long-term project. That fact, however, underscores the risks in continuing rapid growth.

The carrying capacity of Australia depends on many variables that make it impossible to quote a precise target population; the sensible thing is to call a halt now and stabilise the current population as soon as possible. Future generations can vary that as more information comes to hand but inter-generational equity dictates that we minimise the problem we hand on to them.

The latest statistics provided by the OECD³³ are for 2009 for 30 countries and show that Iceland, Japan, Hungary, Germany and the United Kingdom had zero or negative population growth. France, The Netherlands, Finland, Greece, Austria, Korea, the Slovak Republic, Portugal and Poland all had growth of between 0.5% and 0.1% pa. The remaining countries had growth rates of 0.6% to 1.3% pa except for Luxembourg at 2% and Australia at 2.1%. Looking at the countries on that list makes it obvious that ongoing population growth is not a prerequisite for prosperity.

Empowering Women

The key to reigning in population growth in many poorer countries is to empower women. Millions of the world’s women have been trapped in poverty and illiteracy and consequent high birth rates. Those who can least-afford large families so often have the largest. We must provide ways out for them, however, and there have been successes. Television and radio can play a big role, for example:

32 Parliament of Australia Research paper 5 1999–2000
www.aph.gov.au/library/pubs/rp/1999-2000/2000rp05.htm

33 <http://stats.oecd.org/Index.aspx> (search under Labour/Labour Force Statistics/Annual Labour Force Statistics/ALFS Summary Tables/Population Growth Rate)

- Mexico's national television ran a series of soap operas on illiteracy in 1974 leading 840,000 Mexicans to enrol in literacy course.
- In 2002, after broadcasts of radio serial dramas in Ethiopia dealing with reproductive health and gender issues it was found that 63% of new clients at reproductive health clinics had listened to the series.

As female education levels rise, fertility falls. Lester Brown reports³⁴, that a prominent US economist and government advisor has said that 'the expansion of female secondary education may be the single best lever for achieving substantial reductions in fertility'.

Simple measures such as school lunch programmes, especially where there are take-home rations, have proved very effective in gaining better and longer school attendance for girls.

Australia should target its foreign aid to programmes which educate women.

Suburbs

While the point of this paper is to discuss the overpopulation threat in Australia it has been essential to put it into a world context. However, at the other end of the spectrum we should consider what different population outcomes will mean for our suburbs.

If we turn first to the built environment we see the changes that are already occurring and that are being highlighted by many community groups. The suburban pattern of single dwellings is being replaced by large apartment blocks, not only along the railway corridors but also in villages, urban centres and large sites. Examples in Sydney include the high density at St Ives, the UTS site at Lindfield and the Adventist Hospital site at Wahroonga.

While there would always have been changes and renewal, the previous state government dictated significant increases in dwelling numbers solely because of population growth (for example 25% in Ku-ring-gai). The current state government, being between a rock and a hard place, has reacted by saying that it will promote urban sprawl instead. This means covering more of our good farmland and bushland in outer Sydney with housing. The sad fact is, however, that should growth continue we shall have both urban consolidation and urban sprawl. The future is a megalopolis, unlike Australian cities of the past. It won't be pretty.

Sydney is fortunate to be virtually surrounded by national parks. Those parks and other bushland areas within or immediately surrounding the urban area are, however, very much at risk from major developments such as roads. For instance the building of the western alternative to the F3 will traverse national parks. This road will probably be built only if Sydney continues to expand and if the F3 thus becomes very congested. Unfortunately, continual expansion is the policy of both major political parties.

As population builds there will of course be an increasing need for schools, hospitals, playing fields and the like. For example earlier this year Killara High School was attempting to appropriate an area of bushland for a playing field. That sort of nibbling at the natural estate will continue and the bush will continue to suffer under the tyranny of small decisions. Having natural areas within the city sets Sydney apart from most other major world cities. Survey after survey has confirmed that we value those areas very highly.

In summary, if the current policies of our governments continue unchanged our urban environment, both built and natural, will be irreversibly changed and degraded. If there was to be a pay-off in environmental or economic terms there might be a reason to consider the proposals, but more crowded roads, more crowded public transport, more pollution, more loss of natural areas and farmland, more greenhouse gases and more consumption of finite resources define the urban future that our leaders have in store for us. All because they have a hunger for growth that is still force-fed by our business leaders and churches, all with their own narrow agenda.

34 Brown, L (2011) *World on the Edge*, WW Norton & Company

RECOMMENDATIONS

Unlike plagues of the dark ages or contemporary diseases we do not understand, the modern plague of overpopulation is soluble by means we have discovered and with resources we possess. What is lacking is not sufficient knowledge of the solution but universal consciousness of the gravity of the problem and education of the billions who are its victim.

Martin Luther King Jr

In Australia, with an initially tiny population rising to 22.6 million people over 220 years, we have wrought environmental havoc. It is frightening to consider what further harm we might do over the next 200 years with just our 22.6 million and terrifying to project the harm that would come from increasing that to 35, 50 or 100 million. It is time to take stock, stop population growth and work out how we are going to sustainably manage what environment we have left.

As a consequence of the evidence and arguments presented in this paper we make the following recommendations.

1. The Australian Government formally acknowledge the unsustainable nature of the world's still growing population and take whatever steps it can to support efforts to first stabilise and then reduce world population to sustainable levels. This means:
 - taking a strong public position both within Australia and on the world stage; and
 - supporting programmes to reduce poverty and particularly those initiatives that educate and empower women.
2. The Australian Government determine a sustainable population goal for Australia and put policies and a timetable in place to achieve it.
3. The Australian Government recognise that the fossil fuel-based, car centred, throw-away economy is no longer a viable model and adopt the mutually dependent goals of stabilising population, eradicating poverty, restoring the economy's natural support systems and sustaining the world's ecosystems by limiting fossil fuel use, overall land clearance and urban waste production.
4. Australian state governments be fully supportive of the above recommendations.
5. Local councils be fully supportive of the above recommendations.
6. All environmental organisations recognise and act upon the threats that population growth presents to the environment.

APPENDIX A. 'SUSTAINABLE POPULATION' RUSE FAILS WATER TEST

Thanks to Crispin Hull, barrister, journalist, lecturer and blogger for permission to reproduce this critique of the Sustainable Population Policy which first appeared in The Canberra Times on 21 May 2011. Access Crispin's site at www.crispinhull.com.au.

Sunday used to be the key media-manipulation day. Now it's Friday.

Sunday used to be the day to put out 'news' because the papers had the same size paper on Monday but not a whole business day's worth of news to fill it with. So the 'news' a government put out would assume greater importance. These days, the 24/7 news cycle and oodles of Sunday TV current-affairs makes the tactic less effective.

Friday afternoon is better, from a government perspective. The columnists – thoughtful and otherwise – and analysts have already filed. All the back sections, with longer, critical articles, have been put together by Friday early afternoon at the latest. Moreover, in sitting weeks, MPs, especially Opposition MPs and their staff have left Canberra. Often they are in transit and not amenable to detailed critiques of newly issued reports and policies.

Dump it on Friday afternoon. It gets a good run in the Saturday news pages and no detailed analysis.

And thus, the Friday before last we were treated to the release of the government's *Sustainable Australia, Sustainable Communities: A Sustainable Population Strategy*.

This time the tactic did not work because the report did not require any detailed analysis or thought. It was so self-evidently without clothes that even flat-strapped wire service reporters could point that out.

As Voltaire said of the Holy Roman Empire (it was neither holy, nor Roman nor an Empire), the Gillard Government's *Sustainable Population Strategy*, is not a strategy, has no population aim and is certainly not sustainable.

It was more of the same – nothing to suggest any change from the present 1.5 to 2% a year population growth. At the midpoint of that, the population doubles every 40 years. What does that mean? Well, it is 223 years since white settlement. In another 223 years at that rate Australia will have a population of 960 million. Not what I'd call 'sustainable'.

We should rid the public lexicon of the word 'sustainable'.

Desperately as the government wanted to control the news – to hose down concern about overpopulation – it utterly backfired. Indeed, the newsworthy point is that the government proposes to do exactly nothing about unsustainable population growth.

Worse, the government makes two blatant errors (among others) in the report.

First, it suggests that the things people are beginning to realise are caused by population increases – traffic congestion; queues for hospital beds; strains on class sizes; increased food prices; unaffordable housing and so on – are really caused by state governments' failure to provide infrastructure.

Secondly, it suggests that insofar as our big cities are congested, chewing up agricultural land and unaffordable for nurses, police officers and teachers to live in, the solution does not lie in reducing the intake of people, but by making them go to regional centres.

Let's take the second point first. It seems as if the government's starting point is we must have the increasing population no matter what and we will provide any number of idiotic, unsustainable, living-standard or environment-destroying measures to allow for it.

Sending people to regional areas is utter folly – if only for one reason: water.

The more significant news reported on the same day as the population report was the one-paragraph article headed 'La Nina blows out'. It said the weather system that gave us the Queensland and Victorian floods and Cyclone Yasi has blown out. It was thankful in tone.

But at least this La Nina filled up our dams and now we might return to the previous condition – another decade of what might be called ‘drought’, but which might easily turn out to be the ‘normal’ rainfall pattern in the new changed-climate model.

If so, it would be madness to increase populations in regional Australia which almost ran out of water in the most recent dry. The two largest inland cities – Canberra and Toowoomba – were dramatically affected. Canberra now has permanent water restrictions. Toowoomba’s water storage dropped to just 7% of its capacity. And the Murray River stopped flowing to the sea.

If anything, inland regional Australia is overpopulated, not under-populated. The Murray–Darling Basin’s water is over-allocated, and that is based on preclimate change averages.

Even after the big rains, farmers went ballistic when the Murray–Darling Basin Commission injected some reality into the water debate. They burned its report. They naively thought that the commission’s requirement for ‘environmental flows’ were part of what Paul Keating would call the muesli-eating, sandal-wearing, cycling agenda.

But someone somehow has got to convince federal and state governments, farmers and city-dwellers that environmental flows are not some mad green folly that puts endangered fish and ducks before people. Environmental flows are a bit like maintaining the water mains in the city. If you don’t have them you cannot deliver water in the long term.

If you don’t maintain city water mains, they leak, and you lose water. Worse, if you don’t maintain 24/7 pressure, the pipes take in outside contaminants, and too bad if an equally bad sewerage pipe is nearby. Similarly, if you don’t maintain environmental flows in the rivers – they take in and cannot wash out any amount of animal poo and agricultural chemicals.

The reason people in Australia have clung to the edges of the continent is because that is where the water is. Increasing the population in inland regional areas has far more cost than dealing with population skills and ageing in ways other than increased immigration.

Back to blaming the state governments for not providing infrastructure rather than blaming the federal government for setting immigration targets way too high. The Federal Government only had a population inquiry because of electoral pressure as voters started to put two and two together and realised the health, education and transport pressures were directly related to population pressure.

The ‘inquiry’ then turned logic on its head and said: ‘If only those state governments would provide more infrastructure we wouldn’t have to worry about the increased population.’ In reality it should have concluded: ‘If only we did not artificially increase the population so much we would not have the infrastructure problems.’

It is madness that we do not have an overall population target when every year we set migration and refugee targets.

It is madness that a city like Canberra, which barely got through the last drought and had to spend hundreds of millions of dollars on new water infrastructure, is embarked upon another spurt of growth along the Molonglo River corridor which will only profit a few who make megabucks turning farmland into residential land but force higher costs and more restrictive water regimes on the rest of us.

Until at least the Murray–Darling water problem is solved, the *Sustainable Population Strategy* should be derided for what it is – an unsustainable, do-nothing agenda to profit the pro-growth property, business and mining lobbyists at the expense of everyone else.

APPENDIX B. TIME TO WAKE UP: DAYS OF ABUNDANT RESOURCES AND FALLING PRICES ARE OVER FOREVER

The wider community is waking up to the challenges posed by excessive population and the finite nature of resources. Below is the summary from a longer article by Jeremy Grantham in the GMO April 2011 Quarterly Letter. GMO is a global investment management firm managing \$108 billion in client assets. Access further information at www.gmo.com/Asia-Pacific/default.htm and read the full article at www.gmo.com/websitecontent/JGLetterALL_1Q11.pdf.

Summary of the Summary

The world is using up its natural resources at an alarming rate, and this has caused a permanent shift in their value. We all need to adjust our behavior to this new environment. It would help if we did it quickly.

Summary

- Until about 1800, our species had no safety margin and lived, like other animals, up to the limit of the food supply, ebbing and flowing in population.
- From about 1800 on the use of hydrocarbons allowed for an explosion in energy use, in food supply, and, through the creation of surpluses, a dramatic increase in wealth and scientific progress.
- Since 1800, the population has surged from 800 million to 7 billion, on its way to an estimated 8 billion, at minimum.
- The rise in population, the ten-fold increase in wealth in developed countries, and the current explosive growth in developing countries have eaten rapidly into our finite resources of hydrocarbons and metals, fertilizer, available land, and water.
- Now, despite a massive increase in fertilizer use, the growth in crop yields per acre has declined from 3.5% in the 1960s to 1.2% today. There is little productive new land to bring on and, as people get richer, they eat more grain-intensive meat. Because the population continues to grow at over 1%, there is little safety margin.
- The problems of compounding growth in the face of finite resources are not easily understood by optimistic, short-term-oriented, and relatively innumerate humans (especially the political variety).
- The fact is that no compound growth is sustainable. If we maintain our desperate focus on growth, we will run out of everything and crash. We must substitute qualitative growth for quantitative growth.
- But Mrs Market is helping, and right now she is sending us the Mother of all price signals. The prices of all important commodities except oil declined for 100 years until 2002, by an average of 70%. From 2002 until now, this entire decline was erased by a bigger price surge than occurred during World War II.
- Statistically, most commodities are now so far away from their former downward trend that it makes it very probable that the old trend has changed – that there is in fact a Paradigm Shift – perhaps the most important economic event since the Industrial Revolution.
- Climate change is associated with weather instability, but the last year was exceptionally bad. Near term it will surely get less bad.
- Excellent long-term investment opportunities in resources and resource efficiency are compromised by the high chance of an improvement in weather next year and by the possibility that China may stumble.
- From now on, price pressure and shortages of resources will be a permanent feature of our lives. This will increasingly slow down the growth rate of the developed and developing world and put a severe burden on poor countries.
- We all need to develop serious resource plans, particularly energy policies. There is little time to waste.