

POPULATION GROWTH IN AUSTRALIA

(There are none so blind as those who will not see!)

Introduction

Government policies are pushing us into becoming a “big” Australia. Government is doing this to placate people with vested interests who want bigger profits, who hold the idea that something called “growth” is imperative, and who have the misguided belief that Australia has much empty space that should be used to absorb the population overflow of other countries. These policies are ill-advised. A big population is not sustainable and can lead only to ever-increasing angst.

Government panders to these interests because of short-term political gain. Policies change as the pressure from interest groups change and with changes in Government. This is inefficient, prevents other policy settings from being effective, and ignores the need for a population policy that will ensure the sustainability of our life style into the future.

What is needed is a considered vision of what population size is right for Australia. This vision should remain as an objective for all governments for the long term unless there becomes an essential need for change.

The people of Australia must be involved in an informed discussion about this subject to achieving consensus about the shape and size of our population.

This essay will discuss population shape and size, and will explain options for helping to ensure the sustainability of the Australian way of life.

Setting

For our standard of living to be sustainable, so that future generations can continue to live well in Australia, a careful balance must be achieved and maintained between the size of the population and the total inputs available to the population that affect its quality of life.

The Australian Bureau of Statistics (ABS) projects that the population of Australia will grow from its present size of about 23.5 million to reach between 36 million and 45 million by the year 2056, depending on the growth scenario¹.

¹ 31010DO001_201312 Australian Demographic Statistics, Dec 2013;
[http://www.ausstats.abs.gov.au/ausstats/subscriber.nsf/0/CF3EEF517ECC7099CA257CFB0014E4AE/\\$File/31010do00201312.xls#TopOfTable_Table_9](http://www.ausstats.abs.gov.au/ausstats/subscriber.nsf/0/CF3EEF517ECC7099CA257CFB0014E4AE/$File/31010do00201312.xls#TopOfTable_Table_9)

The present Australian Government accepts and encourages large population growth. It effectively ignores any notion of controlling population numbers to ensure true sustainability. It is guided by economic thought based on capitalism, the profit motive, and continuing growth.

This is absurd from any planning perspective that considers sustainable infrastructure, services, environment, and quality of life. Not to limit population growth is to accept that our water, mineral, and other resources will be depleted sooner rather than later. Eventually, this will destroy irrevocably our lifestyles and the environment upon which we depend.

Concepts

Sustainability

The Government publication “Sustainable Australia – Sustainable Communities: A Sustainable Population Strategy for Australia², dated 2011, includes definitions as follows:

- a. *Economic prosperity* is a vital component of our sustainability as it underpins our capacity to take the actions required to build a sustainable Australia. It underpins our security, quality of life, the inclusiveness of our society and capacity to ameliorate our environmental impacts. It also funds research and development into smarter ways to achieve sustainable outcomes across the environment, communities and the economy.
- b. *Liveable communities* are those which effectively provide for and support a high quality of life, wellbeing and health. These communities achieve this by providing ready access to employment and services, ease of connecting with friends and family, and high environmental amenity.
- c. *Environmental Sustainability* encompasses the protection of the natural and built environment; sustainable use of Australia’s natural resources; and conservation of biodiversity and our heritage. Sustainable environments are those which are resilient in the face of threats and which continue to provide value to the nation over time.

These definitions obfuscate the meaning of sustainable, and cause the report to lose focus.

The true meaning of sustainable is the concept of being able to maintain or sustain something at a rate or level so that it can continue forever at that rate or level.

² A Sustainable Population Strategy for Australia 2011;
<http://www.environment.gov.au/resource/sustainable-australia-sustainable-communities-sustainable-population-strategy-australia>

The present population policies of Government fail the test of sustainability because they exacerbate the consumption of non-renewable resources, for example - clearly unsustainable. See also, under the heading below, "Why Worry?", the list of harms caused by excessive population growth.

The Precautionary Principle

The Precautionary Principle is defined in several ways, but all are encapsulated by the following³:

- When human activities may lead to morally unacceptable harm that is scientifically plausible but uncertain, actions shall be taken to avoid or diminish that harm.
- Morally unacceptable harm refers to harm to humans or the environment that is
 - threatening to human life or health, or
 - serious and effectively irreversible, or
 - inequitable to present or future generations, or
 - imposed without adequate consideration of the human rights of those affected.
- The judgement of plausibility should be grounded in scientific analysis.

The Government is obliged legally to adopt the precautionary principle in all of its considerations.

The present policies of Government about population growth and population size for Australia violate the Precautionary Principle.

Population Size - Present Trends

Medium Growth Scenario

The population of Australia is growing at one of the fastest rates within the developed world.

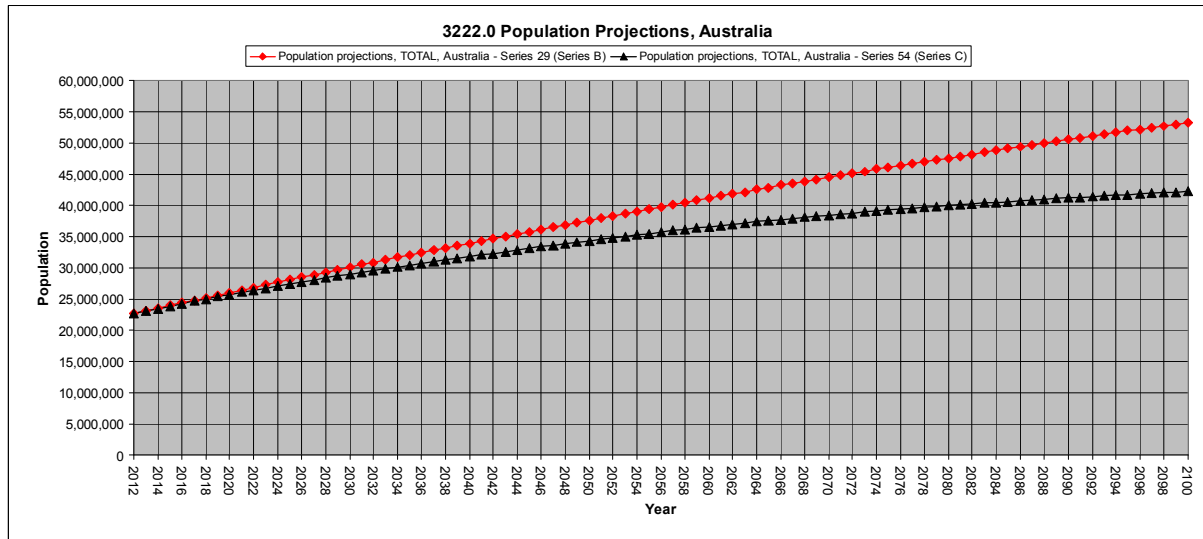
In December 2013, the estimated resident population was 23.3 million. About one fifth (19%) of the population was aged less than 15, while 14% of the population was aged over 65 (including around 2% aged over 85). The working-age population (aged 15 to

³ World Commission on the Ethics of Scientific Knowledge and Technology; The United Nations Educational, Scientific and Cultural Organization.

64) was two thirds of the total population, and there was a total dependency ratio of 50% (that is, there were 50 'dependents' for every 100 'workers', or a ratio of 1:2).⁴

The ABS has produced 72 Series of models depicting population growth for Australia based on various assumptions. Two of the better-known models are its Series B model (medium rate growth) and Series C model (low rate growth).

The following graph represents the ABS Series B and Series C population projection data:



The ABS Series B assumptions⁵ are:

- the Total Fertility Rate (TFR) will decline to 1.8 babies per woman by 2026 and then remain constant;
- life expectancy at birth will continue to increase each year until 2061, though at a declining rate (reaching 85.2 years for males and 88.3 years for females); and
- Net Overseas Migration (NOM) will remain constant at 240,000 per year throughout the projection period.

The ABS Series C Assumptions⁶ are:

- the TFR will decrease to 1.6 babies per woman by 2026 and then remain constant;

⁴ ABS 4102.0 - Australian Social Trends, 2014

⁵ PROJECTION RESULTS — AUSTRALIA (3222.0 - Population Projections, Australia, 2012 (base) to 2101 - Latest ISSUE Released at 11:30 AM (CANBERRA TIME) 26/11/2013).

⁶ PROJECTION RESULTS — AUSTRALIA (3222.0 - Population Projections, Australia, 2012 (base) to 2101 - Latest ISSUE Released at 11:30 AM (CANBERRA TIME) 26/11/2013).

- b. life expectancy at birth will continue to increase each year until 2061, though at a declining rate (reaching 85.2 years for males and 88.3 years for females); and
- c. NOM will reach 200,000 per year by 2021 and then remain constant.

Note that even if Government adjusted its policies to meet these Series C assumptions, population growth would continue to grow.

Importantly, these ABS projections are merely models to inform what will happen under various assumptions. Government policies can and are creating different conditions. In December 2013, the ABS reported the actual data for Australia at that time⁷:

- a. the TFR was 1.9 births per woman.
- b. life expectancy was 79.9 years for men and 84.3 years for women.
- c. NOM was averaging 240,000 migrants per year.

The present situation, therefore, is closer to the Series B data, with the population growing rapidly.

Importantly, NOM is contributing about 60 per cent of Australia's population growth (for the year ending March 2013) and has outstripped the natural increase (the excess of births over deaths) in the population since 2005.⁸

Why Worry?

Generally, Australia is suffering already from many of the population-induced pressures that afflict most places, including:

- a. increasing road congestion;
- b. increasing atmospheric and noise pollution;
- c. increasing pressure on medical and education resources;
- d. depletion of fresh water resources;
- e. reducing fish stocks;
- f. increasing habitat destruction, particularly by land clearing;
- g. rapid depletion of dwindling mineral and other resources;

⁷ ABS 4102.0 - Australian Social Trends, 2014

⁸ Fact sheet 15 - population growth; <https://www.immi.gov.au/media/fact-sheets/15population.htm>

- h. detrimental visual and lifestyle impacts from continuous building works throughout Australia;
- i. increasing transport problems with parking and public transport availability;
- j. increasing removal of green-space within the urban footprint because of Greenfield development and the rezoning within the urban footprint to allow medium density development with the consequential impact on visual amenity and on native animal and bird life;
- k. the overall reduction of vegetation and ecosystems throughout Australia; and
- l. deteriorating social conditions, such as visual and acoustic privacy, adequacy of private open space, solar access, garage dominance, visitor parking and, importantly, the increase in opportunities for anti-social behaviours and crimes due to increased population density, increased anonymity, higher concentration of different social mixes and potential frictions⁹.

There are people of influence with Government who lobby for population increases, usually arguing that this is necessary to increase the prosperity of the community and the economy. An example is the HIA Media release of 17 December 2013 that stated:

“With our population ageing and the baby-boomer generation progressively moving into retirement, Australia’s workforce must continually be replenished. Healthy levels of skilled migration, such as we are currently observing, will become increasingly important if we are to see the productivity improvements that will deliver sustainable advances in living standards”.

This is a self-serving and simplistic argument that ignores the serious consequences of an ever-increasing population. Particularly, it ignores the potential for the aged to fund their retirement and for Government to structure the economy differently for truly sustainable outcomes.

Business and Profit

Businesses function to supply the market with goods that people need or can be encouraged to think they need; hence, the vast sums of money spent on advertising. Business people lobby Governments for an increasing population because it provides a larger customer base for their product.

They reason that more people require more products and that the production of more products means more jobs. This is true, but the predominant reason for their argument is the benefit of more profit. Once the market for a product approaches saturation,

⁹ ENVIRONMENTAL CRIMINOLOGY AND PLANNING: A DIALOGUE FOR A NEW PERSPECTIVE ON SAFER CITIES by Dr Paul M. Cozens;
http://espace.library.curtin.edu.au/cgi-bin/espace.pdf?file=/2010/03/09/file_1/133746

business presents a newer version or a different product. And so, many shops are full of goods that people have been convinced they want but, in reality, do not need.

Businesses make more profit, but at the expense of resources depletion and pollution increase. Then, once again, business calls for greater population growth, by whatever means. This is misnamed “progress”. So, round and round we go, on an upward spiral of population growth and a downward spiral of resources depletion; two vortices that will end as vortices do, in collapse!

Governments succumb to business demands for population growth because of the lure of more revenue through taxation and the belief that people’s standard of living, as it relates to materialism, must be improved whatever the real cost; and people have been lead to believe that materialism is a good and necessary aim for improving their quality of life. Governments, and many people, apparently fail to see the cyclic trap into which they are falling. The profit motive is not a sufficient reason for permitting population growth.

In addition, how much profit is enough? In our society, there never seems to be enough profit, the more the better. Indeed, businesses are able to make the profits they do because most businesses do not have to pay for the social and ecological damage they and compliant governments cause.

Housing Density

Property developers and the Government encourage Councils to accommodate the growing population through a combination of infill and redevelopment in existing urban areas, usually high- and medium-density developments, as well as Greenfield developments.

However, surveys show that close to 80% of the Australian population desire a detached house and garden, not town houses or apartments. The high cost of Australian housing constrains many from their dream, however.¹⁰ Similarly, the need of many to live within a short commuting distance from their work forces people to forego their dream.

There are many disadvantages with higher density living¹¹:

- a. Attractive suburbs with flowers and foliage are being overrun by concrete and bitumen. Bewildered long-time residents find themselves in the shadows of unit blocks.

¹⁰ For example: THE HOUSING WE’D CHOOSE: a study for Perth and Peel Report • May 2013

¹¹ The Sydney Morning Herald, Rise of high-density living a new low for Sydney, January 14, 2009

- b. Greenhouse gas emissions increase. Studies show that energy use in high density housing is about twice that for a detached house.
- c. The per-resident energy to construct high-rise is nearly five times that needed to build a house.
- d. Research in Melbourne shows people squeezed into newly converted dense areas did not use public transport to any greater extent and there was little or no change in their percentage of car use.
- e. There is not enough difference in the emissions of public versus private transport to counter the increased emissions of high-density living. For each kilometre CityRail carries a passenger, it emits 105 grams of greenhouse gases, while the average car emits 155, and modern fuel-efficient cars such as the Toyota Prius emit just 70.
- f. Increased congestion caused by high density damages health. Vehicle exhaust contains micro particles that kill 3 million people each year, the World Health Organisation says. High density is also bad for mental health. A study of more than 4 million Swedes showed the rate for psychosis was 70 per cent greater for dense areas, and there was a 16 per cent greater risk of depression. The Australian Unity Wellbeing Index shows the happiest electorates are those with lower population densities.
- g. Adding more people to existing infrastructure means overload. The standards of Sydney's roads, rail, water supply and electricity have all deteriorated from the imposition of high-density policies.
- h. The effect of high-density policies on the cost of housing has been devastating to our younger generation. By trying to force people into higher density on existing land, the supply of new land for housing has been cut. The cost of land now comprises 70 per cent of the cost of a home, instead of 30 per cent as it used to. A new dwelling should cost about \$210,000 but is closer to \$500,000.
- i. Bureau of Statistics figures show 83 per cent of Australians prefer to live in a free-standing home, and we do object to draconian policies forcing us to live in bland high-rise units.

A particular disadvantage of higher density developments is the heat island effect. A study into this effect has been done at Monash University, Melbourne.¹² The study concluded, in part, “that a move toward a more compact city with built-up activity centers ... would raise urban surface and within canopy temperatures, leading to unfavorable conditions, in particular for those with increased vulnerability to excess temperatures. ... A move toward a more compact city will extend the seasonal exposure to unfavorable climatic conditions, with warmer temperatures expected in the shoulder months on either side of summer.”

¹² Impact of Increasing Urban Density on Local Climate: Spatial and Temporal Variations in the Surface Energy Balance in Melbourne, Australia by ANDREW M. COUTTS, JASON BERINGER, AND NIGEL J. TAPPER, School of Geography and Environmental Science, Monash University, Melbourne, Victoria, Australia, 28 April 2006

Where the capacity of services needs to be increased to cope with redevelopment, the cost usually exceeds that for providing the services in a new development. Increasing the population density allows a more cost effective provision of services only where the existing services can cope.

Overall, increasing the population density is not cost-effective; the disadvantages significantly outweigh the benefits.

The present population policies of Government will cause more and more crowding, contrary to the desires of most people. This will create less healthy and less liveable communities.

Mineral Resources

The Australian Government publication by Geoscience Australia, "AUSTRALIA'S IDENTIFIED MINERAL RESOURCES 2012" provides sobering information. For example, its Table 21, "Years of Accessible Economic Demonstrated Resources (AEDR) at the production level for each year (rounded to nearest 5 years)" shows we have only 75 years of Iron Ore left and that most of Australia's mineral resources are likely to be depleted within 100 years, unless *significant* new economically recoverable resources are discovered - an unlikely event.

Table 21. Years of Accessible Economic Demonstrated Resources (AEDR) at the production level for each year (rounded to nearest 5 years).

Commodity	1998	2003	2008	2009	2010	2011
Bauxite	70	90	85	85	80	80
Black Coal	180	110	90	100	90	110
Brown Coal	630	440	490	470	495	510
Copper	40	50	85	95	100	90
Diamond	3	5	10	20	30	35
Gold	15	20	30	30	30	35*
Iron Ore	100	60	70	70	80	75
Lead	30	30	40	55	50	60
Manganese Ore**		20	20		15	15
Mineral Sands						
Ilmenite	70	85	85	110	125	120

Rutile	75	90	55	70	45	50
Zircon	60	50	55	70	60	50
Nickel	65	120	130	145	120	95
Silver	30	25	30	45	40	50
Uranium	105	80	125	140	175	180
Zinc	30	25	35	45	45	45

* Average AEDR/production ratio for gold (35 years) is strongly influenced by low-grade copper-gold deposits with ratio of over 65 at current rates of mine production, whereas lode gold deposits have AEDR/production ratio of less than 20 years.

** AEDR/production ratios allows for losses that occur in beneficiating (upgrading) manganese ores.

Population growth will seriously exacerbate this depletion. Furthermore, an increasing population reduces our per capita share of resources, making us relatively poorer as individuals.

We need look only to Nauru to see the impact of resources depletion. Nauru is a prime example of a country that has exhausted its natural resources for profit and growth, now destroyed environmentally and financially.

An Australia without its present range of economically extractable mineral resources is inevitable, eventually. We would be sensible, however, not to rush towards that condition.

The Economy

A growing economy depends on increasing the demand for goods and services and increasing their supply accordingly. An increasing population makes economic growth easy because it automatically increases demand. It lessens the need to improve productivity through better work practises and the use of technology.

The construction industry is a good example. Without population growth, little new construction would be needed; most work would be in repair and renovations. At the end of June 2012 there were 950,000 persons working in the Construction industry. Two-thirds (67.0% or 636,000 persons) worked for the Construction services sector followed by 16.8% (or 160,000 persons) in Building construction and 16.2% (or 154,000 persons) in Heavy and civil engineering construction.¹³

¹³ ABS: 8772.0 - Private Sector Construction Industry, Australia, 2011-12

If population growth slowed or stopped, most of these people could be retrained and redeployed throughout the economy. This would negate the need for the large immigration intakes to support Australian industries as is argued now.

Similar coping mechanisms could be applied to all employment categories to adjust to a stable population.

What Must Be Done

Acceptable Population Size

There are many studies showing that Australia is over-populated now, and that our present life-styles are not sustainable into the longer term.

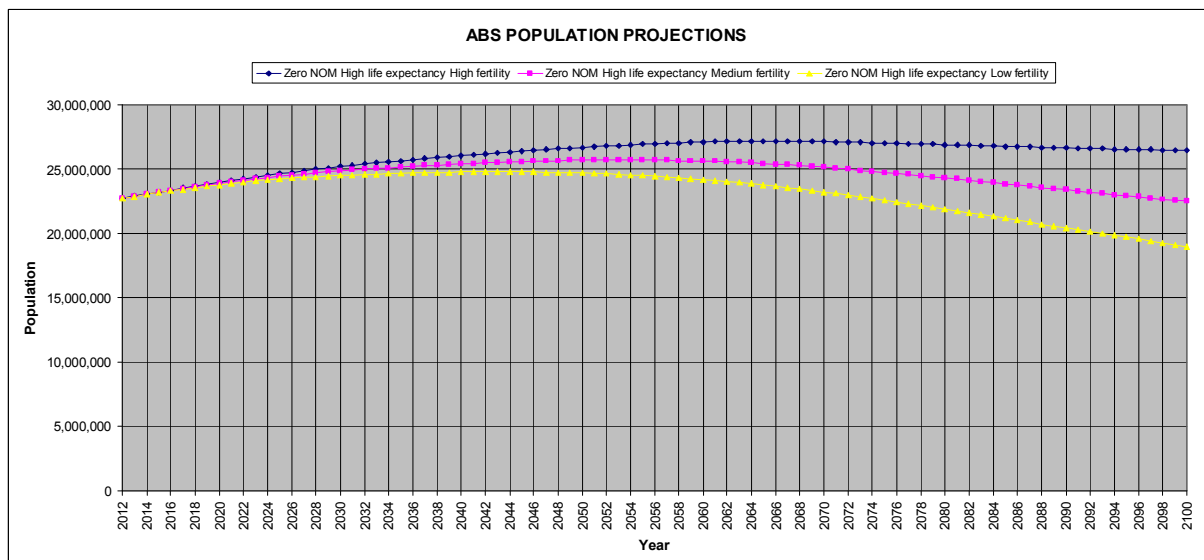
To envisage that Australia should increase its present population by anything like that shown by the ABS Series B model is naive at best, the increase being 26% by 2030 and 123% by 2100. The consequences will be serious.

All impartial considerations of the present size of the Australian population and the total resources available to it conclude we are heading for disaster, an ever-reducing standard of living and potential conflict over resources - perhaps not today, but within the lifetime of our grandchildren.

Happily, the population projections produced by the ABS are not forecasts. They are models to show the effects of changing the parameters that influence population growth. Government can manage population growth by influencing these parameters.

The only ABS Series that show a population growth limit before the end of this Century are Series 55 to 72 inclusive. The common and necessary condition is that NOM is zero.

The following graph shows the ABS Population Projections, Series 60 (black diamonds), 66 (pink rectangles) and 69 (yellow triangles):



Importantly, the maximum limit reached within these Series is a population of 27,174,635 (Series 60) in about the year 2065. Higher numbered Series have lower maximums as is indicated on the graph.

Once the maximum limit is reached, population policies can be adjusted to manage the population size as required.

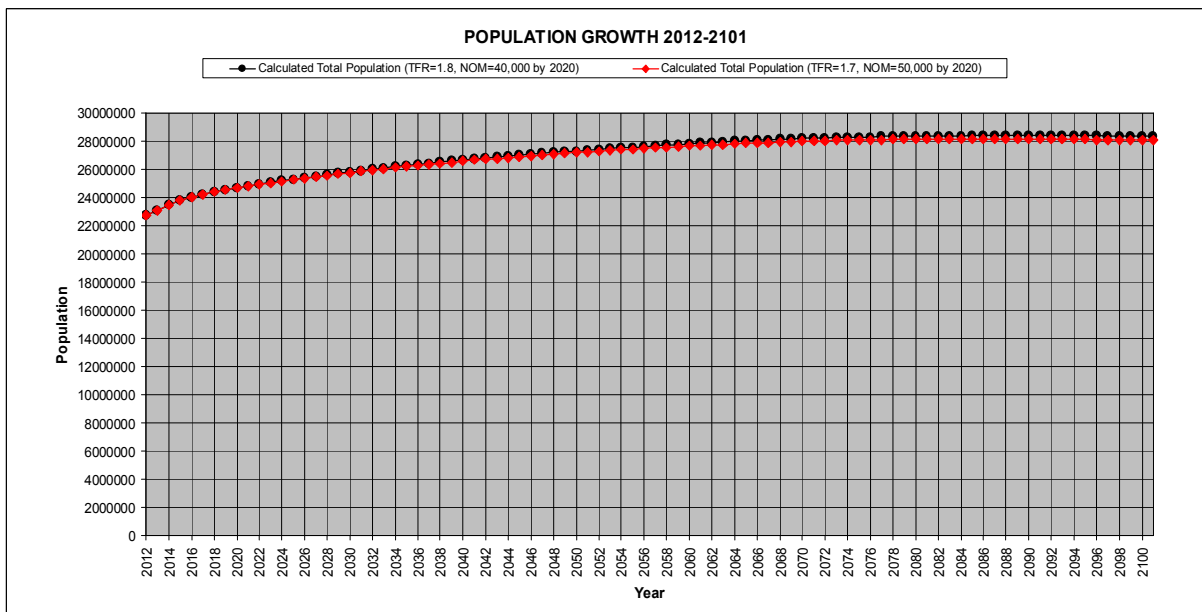
There is much evidence based on knowledge of available resources and present consumption rates within Australia that indicate the Australian population should be much lower than the 25 to 28 million shown in these graphs, if the Australian way of life is to be sustained into the future.

Only by studying the matter dispassionately and logically, and by considering all relevant factors, and by involving the public, can Government arrive at a rational answer that will withstand public scrutiny. Studies influenced by vested interests, politics, morality, or anything similar will fail.

Other Options

Although the ABS Series show growth can peak within this Century if NOM is zero, there are other options. The author has modelled the data and can show other permutations to achieve a plateau or peak.

For example, a peak of about 28 million would be reached by the year 2092 if both the TFR were reduced to 1.8 and the NOM to 40,000 per year by about 2020. A similar peak would be reached if the TFR were reduced to 1.7 with a NOM of 50,000 per year. This graph shows these projections:



What is required is that the net increase in population per year decrease every year until it becomes zero. This is the point at which the growth plateaus or peaks. The net increase in population per year is the sum of the numbers resulting from the birth rate,

the death rate and the migration rate for that year. Presently, the net increase is about 400,000.

The Government would benefit if the ABS were tasked to produce a Population Projection Series that does plateau or peak without necessarily reducing the NOM to zero, to confirm the author's projections. Such information would provide a fuller picture of the options available to Government.

Acceptable Population Composition

Government should consider carefully the impact of population policy on the composition of the Australian community.

The policy of multiculturalism, in its true form of giving equal importance to each of the different cultures in a society, will be destructive of the present Judeo-Christian and English-based Australian way of life as the influence of other cultures grows through various means, including different procreation rates and Government immigration policies.

Population policies must consider these impacts.

Controlling Population Growth

The scenarios shown above are real, and striking.

Many commentators seem to believe that population growth will self-regulate without harm. This is a dangerous proposition. Natural law, indeed, will regulate the population at some time. Famine, disease and pestilence will overtake us eventually and control our numbers - this is the law of nature for all species. Surely though, we should use our supposed intelligence to manage our future.

Many people and businesses have much to profit by encouraging growth - it is a simpler way of profiting than improving efficiency and effectiveness, and accepting that some endeavours should cease growing, or even cease.

We must recognize that population growth is leading us into dangerous territory and we should act now to limit it - the Precautionary Principle.

Taking action to plateau or peak the population as soon as possible would give Government time and options to measure the impacts of its decisions about population size and shape. Not to do so would mean Government is not in control, rather is a dupe of circumstance and influential players.

Conclusion

A policy that depends on the continuous consumption of non-renewable resources and an ever-increasing workforce is flawed; it is unsustainable. An different economic

model is needed, one that can be maintained if Australia is to stop its spiral towards the overcrowding of its living spaces, destruction of its environment, and depletion of its resources.

The Federal Government, with compliance by all State Governments, must act to limit the population of Australia. The Government has the power to control population numbers via many mechanisms, including education, the provision and withdrawal of incentives, immigration and taxation.

The Government must start a robust discussion about the desired size of the Australian population, involving all sections of our society. However, asking people for their opinion without firstly informing them about the many and complicated factors involved will not provide an informed and reasoned answer.

The starting point for any discussion is to present data and arguments addressing the many aspects of the subject. The impact of the various options on our way of life should be presented clearly. Conventional thought and economic models must be balanced with new thinking.

An important consideration would be whether or not we would like our present standard of living to be able to continue into the future; that is, do we desire our quality of life to be sustainable so that our children and grandchildren, et cetera, can expect similar benefits. Population size is probably the most important factor affecting our quality of life because its impacts are all pervading.

The comments and lobbying of people, businesses and organizations with stakes in encouraging population growth should be recognized for what they are and weighed accordingly.

We can have vision and act as intelligent beings, or we can be victims of our blinkered folly.

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