



Australian Government

**Department of Sustainability, Environment,
Water, Population and Communities**



A sustainable population strategy for Australia

Issues paper

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FOREWORD



Australia's population is changing, not just the growth and overall size of our population, but importantly where people live and the composition of

our population – our skills, age and cultural background.

If we are to adapt to change and build sustainable communities, we need to integrate environmental, social and economic factors to provide current and future generations with the opportunity to lead healthy and fulfilling lives.

The way in which government policies and programs help to shape and respond to changes in our population will be one critical element in achieving a more sustainable Australia. Decisions made now about where we live and how we live will affect the lives of all Australians today and into the future.

During the 2010 election, the Australian Government reaffirmed its commitment to the development of a Sustainable Population Strategy. I am pleased to release this issues paper to encourage contributions from all Australians on the major challenges and opportunities created by a changing Australian population. This will help inform the development of a Sustainable Population Strategy for Australia in 2011.

The key to understanding policy for a sustainable Australia begins with a principle of regional difference. In some communities infrastructure and services have not kept pace with population growth, while in others employers are facing a chronic shortage of skilled labour.

There are no simple solutions to address these pressures. For example, while a shortage of skills leads to increased pressure on wages and inflation, addressing this pressure through poorly targeted migration can lead to stress on infrastructure and consequent pressure on the cost of living.

Since being appointed Minister for Sustainable Population I have been struck by the diverse range of views expressed by people across the country. The population pressures facing communities in the outer suburbs of our major cities are very different to those in high growth communities dependent on the resource sector.

This is why I took the decision to create three independent panels to look at population change through three different lenses - demography and liveability; productivity and prosperity; and sustainable development. By taking different perspectives on population issues, the work of the panels was an innovative approach to canvassing the range of views on issues raised by changes in Australia's population.

This issues paper is supported by reports from the independent Sustainable Population Strategy Advisory Panels. I would like to thank the three panel chairs - Professor Graeme Hugo, the Hon Bob Carr and Ms Heather Ridout - and the panel members who have made a valuable contribution to the national dialogue.

As you will see from the material contained in this paper, population issues play out at a national, regional and community level. They are also heavily entwined with other major drivers affecting Australia such as economic forces (domestic and international), the rise of Asia, technological advances such as the National Broadband Network and climate change.

These issues reach into almost every portfolio and they reach to every level of government. These issues also go to the

quality of life enjoyed by Australians. They go to the quality of the air we breathe, the green spaces we share and how much sunshine is left at the end of the day after a long commute.

Changes in Australia's population will affect us all, in our work, in our communities and in our built and natural environments. I strongly encourage you to have your say on how we can shape and respond to changes in our population to build a sustainable Australia.



TONY BURKE

Minister for Sustainability, Environment,
Water, Population and Communities



PURPOSE OF THIS ISSUES PAPER

This paper and its three appendices - reports from each of the independent Sustainable Population Advisory Panels (the panel reports) - identifies and explores issues around Australia's changing population. The paper is designed to draw out community views about the challenges and opportunities created by changes in our population. This will help to inform the government as it develops a Sustainable Population Strategy (the strategy) in 2011.

The panel reports are an important and integral part of this issues paper. In July 2010, Minister Burke appointed three panels as part of establishing an open national dialogue on a Sustainable Population Strategy. The Advisory Panels were:

- Demographic Change and Liveability, chaired by Professor Graeme Hugo,
- Productivity and Prosperity, chaired by Ms Heather Ridout, and
- Sustainable Development, chaired by the Hon Bob Carr.

While the reports from each of these panels canvass these issues in significant detail and from different perspectives, this paper distils the major issues identified in the reports. The full reports are available at www.environment.gov.au/sustainablepopulation

Membership of the panels is at **Attachment A**.

This paper outlines why Australia needs a Sustainable Population Strategy and provides contextual information about changes in

Australia's current and future population as background for the discussion. It then explores the impact of population changes from the perspective of three key dimensions: environmental sustainability; economic sustainability and sustainable communities.

The questions contained in boxes throughout the paper are designed to assist in framing input into the development of the Sustainable Population Strategy and should be used as a guide only. Those who wish to provide input are welcome to address any issues they feel may be relevant to the strategy and are not limited to addressing the questions in the paper.

In this paper, sustainability refers to the maintenance or improvement of wellbeing now and for future generations.

Wellbeing is a term aimed at capturing all of the economic, environmental and social aspects of people's lives. It is not a single measure, but rather can be viewed through a wide range of indicators across each or all of the three aspects.

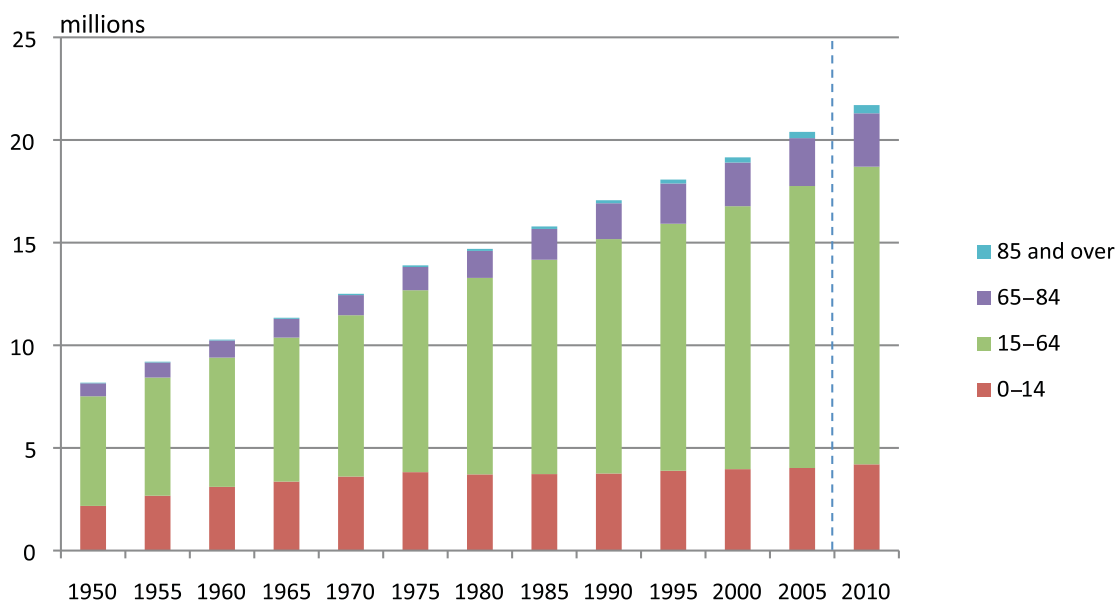
A sustainable population is one where changes in the population's size, distribution or composition are managed to provide for positive economic, environmental and social outcomes.

WHY DOES AUSTRALIA NEED A SUSTAINABLE POPULATION STRATEGY?

Australia's changing population

Changes in Australia's population are inevitable as a result of fertility, life expectancy, internal movements, and migration levels. Australia's population is growing and its composition is changing.

Figure 1: Australia's population by age (1950–2010)



Source: 1950–2005: Australian Bureau of Statistics 3105.0.65.001 - Australian Historical Population Statistics, 2008–2010: projection from the 2010 *Treasury Intergenerational Report*.

Natural fertility and increases in life expectancy can have significant impacts on population. Following World War II there was a steep increase in the number of births in Australia. The fertility rate subsequently stabilised at around 1.7-1.8 births per woman until recently, which saw a small but significant increase in fertility to 1.96 births per woman in 2008. This is close to the 'replacement rate' of 2.1 births per woman required for a stable population in

the absence of migration. At the same time, life expectancy for Australians continues to grow. Over the past 20 years, life expectancy at birth has increased by six years for males and 4.3 years for females.

Migration is also an important driver of changes and growth in Australia's population. Since 1945, around 6.9 million people have arrived in Australia as new settlers. Since the mid-1990s the composition of the



Australian migration program has shifted from permanent to temporary migration, with greater emphasis on skilled migration.

The Australian Bureau of Statistics also notes that the last 10 years has seen significant fluctuation in immigration levels due to a number of factors including movement of temporary migrants, levels of demand for skilled migrants and the relative health of Australia's economy during the global financial crisis.

Australia's humanitarian intake has remained relatively stable over this period and comprises a relatively small component of the migration program, at between 13,000 and 14,000 visas a year.

Changes to the distribution of our population will also continue to occur as the result of both settlement patterns and internal migration. Australians value freedom of choice in where and how they live, giving rise to differences in the rate of growth and the composition of communities between cities and towns around the country. Australia has one of the most urbanised populations in the world with 87 per cent living in the major cities and other urban areas. This rate of urbanisation has remained relatively stable through the second half of the twentieth century.

The age profile of the population will continue to change over the coming decades. The legacy of the 'baby boom' years means that the numbers of people aged 65 and over will increase significantly. At the same time, it is projected that the numbers of children and working-age people will grow at a much slower rate, meaning that in the future there will be far fewer people of working-age relative to the growing numbers of older Australians than there are in 2010. In practical terms, this means less people will be working and paying tax, but more people will be using services funded through taxation. However, older Australians also make an increasingly important contribution to the economy and our communities.

The Demographic Change Report contains more comprehensive information on the

major population trends and changes which are projected to affect Australia over the coming years. The Productivity Commission has also recently published a research paper (*Population and Migration: Understanding the Numbers*, available from the Productivity Commission's website, www.pc.gov.au) which seeks to explain key demographic features of Australia's population.

The scope of a Sustainable Population Strategy

The objective of a Sustainable Population Strategy will be to ensure that future changes in Australia's population (size, growth rate, composition and location) are compatible with the sustainability of our economy, environment and communities.

The strategy will consider the policies and programs required to ensure that we can shape and respond to changes in our population to build a sustainable Australia. The ultimate goal of the strategy is to improve the wellbeing of current and future generations through more effective recognition and management of the impacts of population changes.

The strategy will closely link with the Australian Government's other major policy initiatives, in particular development of a National Urban Policy, commitments to regional Australia, and meeting the skills needs of the economy in the face of the current resources boom.

The strategy will also build on other major reforms in many of the key areas required to support a sustainable Australia. The Australian Government is actively pursuing significant agendas in tackling climate change and water scarcity, service delivery reform, health reform, training and schools, productivity, infrastructure investment, food security, social inclusion and improving the lives of Indigenous Australians. While these reforms are worth pursuing in their own right,

they are also critical to ensuring a sustainable Australia as our population changes.

The strategy will also identify opportunities and additional initiatives required to support a sustainable Australia. The government must remain responsive in the face of pressures created by market and population drivers which are already affecting our economy, environment and communities.

To ensure we are making sound decisions which contribute to sustainable outcomes, the Australian Government will develop a set of key sustainability indicators to allow us to measure progress toward sustainability. The government will also introduce sustainability impact statements into the Cabinet process so that sustainability is considered by the government in relation to all new policies.

Population projections, forecasts and targets

The Productivity Commission notes that a population projection is an illustration of how the population would change based on a set of specific assumptions about future population trends (migration, mortality, etc), while a population forecast is an attempt to predict the actual population level at a specific future time.

Two official publications produce projections of Australia's future population: the *Intergenerational Report (IGR)*, produced by the Australian Treasury, and Population Projections, produced by the Australian Bureau of Statistics (ABS). These figures project forward the continuation of past trends, while taking into account a number of different scenarios in relation to fertility, mortality and migration numbers. They are not designed to give us accurate point estimates – at best, they should be seen as guides to the direction of population trends. Experience from population projections produced since the 1960s shows that the further into the future projections are cast, the more likely they are to deviate from the actual outcome.

Since the 1970s, all population inquiries sponsored by Australian Governments have rejected the notion of a population target or national carrying capacity.

There are many aspects which influence population growth that we cannot predict nor directly control. For example, earlier population projections were based on an assumption that the high fertility rate seen in the post-war years would continue into the future. As we now know, this did not eventuate. Australian Governments have traditionally avoided policy settings at the more “social engineering” end of the scale, for example in relation to family size.

Governments have limited practical tools to achieve a population target. Immigration is the most direct lever available to government to influence the rate of population growth, although there are limitations on the capacity to fine-tune this lever. For example, the movement of people between Australia and New Zealand is not capped and therefore cannot be determined by government. Adoption of a population target may limit the use of the migration program as a policy lever to, for example, address recruitment difficulties and labour shortages. The inherent flexibility and, therefore, responsiveness of Australia's migration program is lauded as one of its great strengths.



The Sustainable Population Strategy will also work to identify how government policy settings can support the significant growth which is already occurring in some locations in Australia. Economic literature and experience with regional policies since the 1970s indicates that a strategy that enables growth in areas rather than nominating or prescribing new growth areas will be most effective. This can be achieved by ensuring that growth areas are adequately served by economic and social infrastructure, and that environmental assets are protected and costs managed.

The strategy will acknowledge that many of the practical levers available to governments to support changes in population are held at state/territory and local level. These include the host of infrastructure investment and planning decisions which effect local communities

A Sustainable Population Strategy

Q1: What issues do you think a Sustainable Population Strategy for Australia should address?

Perspectives on sustainability

Changes to the population have implications for the economic, environmental and social dimensions of our lives. These dimensions provide a useful means of thinking about how we can address population changes to achieve sustainable outcomes and they form the three main sections of this paper. At the same time, it is important to note that many issues straddle these three dimensions, the Sustainable Population Strategy will therefore recognise the requirement to integrate these three aspects of sustainability in practice.

A growing population does not have to be an unsustainable population. On the contrary, population growth presents us with a range of significant opportunities, which if properly managed have the potential to increase the sustainability of Australia. It is only when population growth exceeds our capacity to absorb that growth, whether evidenced by economic, environmental, or social stress (for example, in gaps in our ability to provide infrastructure or services), that growth compromises the sustainability of Australia.

There are, however, real stresses in the state of the economy, environment and society now. These stresses lead to a suggestion by the Sustainable Development Report that a cautious approach to a growing population is required. While Australia is a prosperous nation, this prosperity is not enjoyed equally by all. Parts of our community continue to experience disadvantage, and the health of our natural environment is declining. Taken together, these stresses question the sustainability of our current way of life and whether the needs of a higher population can be adequately supported.

Our changing population also has implications for Australia on the international stage. The size and increasing diversity of our population has benefited Australia through extended international networks and relationships, increased capacity to achieve our strategic objectives and broader cultural and trade opportunities.

Perspectives on scale – national, regional and local

The implications of population change will differ at the national, regional and local levels. For example, at a national level, the impact of population changes will be evident in Australia's economic growth and international engagement and influence. At the regional level, implications may be most apparent in, for example, the health of the environment

and skills shortages. Local implications will differ again and be felt most directly in areas such as housing planning and transport infrastructure. Of course, regional and community implications are also affected by state, territory and local government policy settings.

Population change will affect some regions and communities more than others. This is because our population is not changing in the same way across the nation, and because of the significantly different economic, environmental or social circumstances of different communities. As noted in the Productivity and Prosperity Report, the rate of population growth over the next 20 years will vary considerably between regions, with coastal Queensland and north-west Australia projected to experience higher growth rates, and Melbourne projected to experience high absolute growth.

Internal migration to regions is being driven by both the resources boom and the movement of retirees, among other factors. Australia's regions will be better connected with the rollout of the National Broadband Network, which can enable internal migration through facilitating greater access to health services, education and specialist services typically found in major cities.

Understanding and responding to the varied ways in which our population is changing has different implications when planning at the national, regional and community levels, and is critical to the considerations that underpin an effective Sustainable Population Strategy.



ENVIRONMENTAL SUSTAINABILITY

The natural environment is highly valued by our communities and forms part of our national character. Australia is heavily dependent on its natural environment as it provides the ecosystem services (for example, natural pest control, soil fertility, and erosion regulation) and the resource base that underpins both our economy and lifestyle. Carefully planned, sustainable management of this natural capital is essential to ensure it remains healthy and available to current and future generations.

As the population changes, particularly in terms of its size and location, it has the potential to increase the pressure on our natural environment. Without appropriate management responses, this pressure may exacerbate a number of significant existing environmental challenges, such as managing the variability of key natural resources like water. Many of the necessary policy responses are levers shared by all levels of government.

However, it is also important to note that many impacts of the population on our environment are indirect, and there are a range of instances where there is no direct correlation between population changes and environmental impacts. For example, land use for agriculture and mining is driven by Australia's large exports of these goods as well as our own resource, food and fibre needs.

Through the Sustainable Population Strategy, the Australian Government seeks to identify and take action in areas where

population change may lead to unsustainable environment and natural resource management practices.

There are a wide range of areas where existing population pressures and future population changes may potentially exert unsustainable pressure on our environment and natural resources. The three panel reports highlight the following issues concerning population change and sustainability:

- water resources
- food security
- biodiversity decline, and
- the impacts of climate change.

Water resources

Australian rainfall patterns are extremely variable between regions, across seasons, years and even decades. This variability can be seen in the recent dramatic switch from prolonged and severe drought to flooding rains in many areas of eastern Australia. This variability is likely to increase due to the impacts of climate change. The variability and uncertainty associated with Australia's water resources requires a robust, diverse and flexible approach to water resource management.

The Sustainable Development Report emphasises that Australia's relatively scarce water resources and a history of over-extraction in some areas (notably the Murray-Darling Basin) have resulted in significant degradation of river, wetland and floodplain

health. It also raises the concern that our cities face an increased demand for water and consequent price increases in the future, exacerbated by population pressures.

In contrast, the Productivity and Prosperity Report concludes that Australia has relatively plentiful water resources in relation to our population, and that these resources will not be significantly depleted by population growth. Rather, efficiency gains achieved by the agricultural sector and water reform in both urban and regional areas have and will continue to play an important role in achieving sustainable use of water.

Both the Sustainable Development and the Productivity and Prosperity Reports refer to work by the Water Services Association of Australia, which concludes that Australia's urban water needs can be sustainably met, even with significant population growth, so long as we begin to plan for it now. Planning will involve considering a mix of water supply options including groundwater, storm water, recycled water and desalination and may involve all levels of government.

The Demographic Change Report argues that water must be an important consideration in assessing where future population growth should be located, although a wholesale re-distribution of population is not deemed necessary. The report notes that there is much that can be done in the capital cities to become more efficient in our use of water, but that water will become a greater influence on human settlement in Australia than it was in the past. It also calls for closer consideration of the implications of scarce water resources for populations in agricultural areas, from both scientific and social perspectives.

Food security

As one of the world's major net exporters of food, Australia has an important role in global food security as well as in providing food for Australians. Productivity growth in agriculture has been strong, allowing more food to be

produced without the use of additional natural resources. The Demographic Change Report argues that the maintenance of food security is a key part of maintaining and enhancing liveability. In recognition of the importance of food security for Australia, the Australian Government is developing a national food plan that will consider challenges and opportunities across the whole food chain.

Both the Sustainable Development and the Demographic Change Reports identify the continued loss of prime agricultural land resulting from urban expansion as a key area of concern. The Sustainable Development Report notes, for example, that 52 per cent of Sydney's vegetable production area sits within designated growth centres for urban expansion. In contrast, the Productivity and Prosperity Report observes that the Productivity Commission has found that all of the increase in agricultural output in Australia since the mid-1970s has been due to productivity growth, not increasing inputs.

Between 2004–05 and 2008–09, agricultural use of water fell from 65 to 50 per cent of total Australian water consumption (ABS, Water Account Australia 2008-09, cat no 4610.0). Nonetheless, agriculture remains the largest user of water in Australia.

The Productivity and Prosperity and the Demographic Change Reports also note the importance of food and resource production to our economy, and the capacity of technological advances to influence productivity and reduce the impact of food production practices on the environment.

Biodiversity conservation

Australia's rich biodiversity is a major economic, environmental and social asset. The *2006 State of the Environment Report* noted that fragmentation, degradation, and loss of habitat are considered a key threat to Australia's biodiversity. The Sustainable Development Report highlights urban



encroachment as a cause of these effects, illustrating the degradation associated with the expansion of the Perth metropolitan area occurring across the Swan coastal plain in Western Australia.

Such pressures will be intensified by the impacts of climate change. The biodiversity vulnerability assessment carried out in 2009 found that Australia's biodiversity is highly vulnerable to the impacts of climate change.

In response to the threat to our biodiversity from the continued growth of our urban settlements, the Sustainable Development Report identifies a great potential for infill of our urban settlements. It notes a range of densities currently in our major cities, including Sydney at around 2037 residents per square kilometre and Brisbane at about 918. Other major international cities are achieving rates of around 3000 to 5000 residents per square kilometre (and others much higher).

Through clever urban planning, adopting greater infill while protecting urban green space and improved regional planning across all levels of government, it is possible to achieve more sustainable urban settlements and mitigate the significant loss of biodiversity.

Climate change

The impacts of climate change represent an additional dimension of risk for a range of sectors, including the environment.

Prolonged and more intense drought, more intense storm and heat wave events and sea level rise are just some of the likely impacts which will affect Australia now and into the coming decades. The Department of Climate Change report *Climate Change Risks to Australia's Coasts* notes that between 150,000 and 250,000 homes are potentially at risk of inundation from a 1.1 metre sea-

level rise. Such sea level rise is considered plausible within this century.

In order to build our resilience and capacity to absorb these impacts, all sectors of Australia will need to take account of climate change in future planning. By building a sustainable and resilient environment, the level of risk from the impacts of climate change can be mitigated.

In addition to adapting to the impacts of climate change, the Australian Government is committed to reducing carbon emissions and is working towards a price on carbon. As touched on by both the Productivity and Prosperity and the Sustainable Development reports, population growth does not result in dramatic differences regarding the level of per capita reductions required to meet a specified carbon target. This is because projected population changes constitute a relatively small proportion of the total population. A changing population, however, may present both new challenges and opportunities in developing and effectively implementing an emissions reduction strategy.

Beyond the specific environmental issues discussed above, there are clearly many other environmental concerns that may be impacted by our changing population. For example:

- rates of depletion of renewable resources such as through over-fishing
- production and disposal of pollutants and their impacts on water and air quality, and
- land and soil degradation resulting from poor management practices.

The Australian Government is keen to consider all these issues in addressing the environmental sustainability of our changing population.

Population and the Environment:

Q2: What do you think are the key indicators of an environmentally sustainable community?

Q3: How have changes in the population impacted on your local environment?

Q4: How might technological or governance improvements mitigate the environmental impacts of population growth?

Q5: How do population driven changes in your local economy affect your environment?

Q6: What lessons have we learnt that will help us to better manage the impacts of population change on the environment?



ECONOMIC SUSTAINABILITY

Australians on average enjoy one of the best standards of living in the world. This standard of living is underpinned by a robust economy – an essential foundation of our capacity to support a modern, sustainable population.

Along with productivity and participation, population is a key element in growing Australia's economy. To maintain a strong economy that improves our standard of living, it is important that our economic management responds to and harnesses a changing population.

Given the persistence of significant regional variations in economic growth and conditions, a key challenge in this regard is in ensuring that material wellbeing and economic opportunities are available to all Australians.

The size, composition, distribution and rate of growth of Australia's population all affect our economic circumstances and often do so in varying and contradictory ways. For example, while a shortage of skills leads to increased pressure on wages and inflation, addressing this pressure through poorly targeted migration can lead to stress on infrastructure and consequent pressures on the cost of living.

The projected changes to Australia's population present a range of opportunities and challenges related to Australia's economy. Through the Sustainable Population Strategy the Australian

Government seeks to determine how to manage population change and its impacts on Australia's economy to ensure we make the most of the opportunities, address the challenges, and achieve sustainable economic growth—benefiting communities across Australia.

The three panel reports canvass a range of important population issues which have clear implications for the future sustainability of the Australian economy. Major issues identified in the reports include:

- our prosperity
- the ageing of our population, and
- the availability of labour (in terms of skills, location and numbers).

Population, growth and prosperity

A prosperous Australia is not simply about pursuing a relatively larger and better skilled labour force. Less tangible features of our economy will also be crucial to our success, such as our connections to the rest of the world and our responsiveness to technological and economic change.

The Productivity and Prosperity Report argues that balanced population growth will support these less tangible pillars of our economic prosperity. Maintaining a diverse society can help keep us connected to the world, and strengthens trade and investment ties with the booming economies of Asia. Doing so will open up new markets for our

goods and services, providing better jobs for future generations.

The Productivity and Prosperity Report also argues that a dynamic society and a growing economy are better placed to be early adopters of more efficient technology and infrastructure. All Australians benefit from the state-of-the-art transport, communication and other facilities that can and should be built in response to a growing population. Migration, through enhancing Australia's connectedness to the rest of the world, can also help promote a more innovative society in general.

A larger economy will also support more efficient industry through economies of scale, and can allow room for more businesses in general, leading to better competition and lower prices.

Exploring and quantifying these less tangible effects of population on prosperity is difficult. Indeed the Sustainable Development Report argues that while population growth increases the size of the economy, it has only a neutral to negligible effect on per capita growth. In general the Sustainable Development Report has a more cautious approach to economic prosperity. It argues that population growth is not a prerequisite for prosperity, and environmental and social sustainability should be a precondition for promoting population growth.

The Demographic Change Report acknowledges the need for population growth because of increased demand for workers, but also notes that environmental pressures can be exacerbated by population growth. In contrast, the Productivity and Prosperity Report considers that a larger, more prosperous economy can devote more resources to repairing past environmental damage and investing in public goods.

While complex, these relationships between population growth, migration, prosperity and

sustainability are a key consideration in the development of a Sustainable Population Strategy.

Australia's ageing population

During the 1940–1950s Australia went through a period of high birth rates and population growth. These were the 'baby boom' years. The Demographic Change Report notes that today 'baby boomers' make up 26 per cent of the population and 42 per cent of the labour force. From 2011 onwards baby boomers will begin to leave the work force as they reach the retirement age of 65 years. Under current trends this will lead to a significant decline in the population regarded as being of working age for at least the next decade, however this cohort will also experience greater levels of health and ongoing participation than previous generations.

The Productivity and Prosperity Report notes that a decline in workforce participation has implications for the management of a sustainable economy, which will require the consideration of reforms to superannuation, aged care and health during this transition to an older Australia. For example, the government has already responded to this decline by announcing changes to superannuation that extend the superannuation guarantee to workers aged between 70–75, and allow higher concessional contributions to be made by certain people as they approach retirement.

An older Australia is inevitable, though the impacts of an ageing population and how we should manage it are a matter of less certainty. The Productivity and Prosperity Report argues that migration can help smooth the transition to an older population. The report shows that higher levels of migration can slow the decline in participation rates, leading to higher levels of GDP per capita in the coming decades. This in turn



reduces pressure on government budgets, allowing more time to adjust policies to an older population.

The Sustainable Development Report argues that higher levels of migration only partly offset the ageing of the population and can only ever have a temporary impact on its age structure. Demographic projections highlight that while high levels of migration add to the relative size of the workforce, and may therefore increase GDP per capita levels, this impact decreases as the population grows.

All three reports also acknowledge the opportunities presented by population ageing. Longer and healthier lives are a sign of our success as a society. Older Australians are increasingly active, and it is important to make the most of their potential to contribute to the economy and our communities.

In the face of the changing age structure, all panel reports point to the need to plan for this change now to ensure future economic health, prosperity and sustainability for Australia.

Availability of skills and labour

Ensuring that the Australian labour market has access to the skills and labour it needs is a key challenge in working towards a sustainable Australia. Changes to Australia's migration program in recent times have been due in part to government policies designed to be more responsive to the needs of the economy.

Employer sponsored visas are highly responsive to economic conditions. This was observed during the recent economic downturn when demand for temporary skilled workers declined significantly. With labour market conditions improving more recently, applications for temporary skilled workers are on the rise. Over the last decade there has been an increasing shift towards temporary migration, including the migration of skilled workers filling temporary job vacancies.

A sustainable Australia means having the right skills available at the right time in the right place. It requires creating a skilled mobile workforce, responsive to the labour demands of the economy.

In combination with the retirement of a large cohort of the population in the baby boomers, the Productivity and Prosperity Report argues that relatively low birth rates during the 1990s will lead to a lower student-aged population during the 2010s. It is argued that this will contribute to fewer trained professionals in subsequent years at a time in which the mining boom increases demand for skilled workers, and other sectors need to replace workers lost to this demand.

The Sustainable Development Report also recognises the impending skills shortage for Australia, though sees the solution as firstly focusing on increasing participation rates of existing Australian residents, drawing on data which indicates the number of domestic graduate students being steady in the period 2002–2008. The Demographic Change Report places an emphasis on increasing schooling completion rates to help build an educated and skilled future workforce.

The Productivity and Prosperity Report acknowledges the importance of a responsive training system, and argues for further reforms in this area. However, it also notes that the time lags in training residents and the fact that Australians have historically been less likely to move for work, means that skills shortages cannot be tackled with domestic workers alone.

In helping to close the gap on Indigenous disadvantage, Australia can also benefit by supporting higher rates of workforce participation amongst Indigenous Australians. There is a clear economic benefit in supporting the relatively young and growing working age Indigenous population into employment. The Demographic Change Report observes that population dynamics

produce a much younger Indigenous age distribution, substantially different from the population overall. As a consequence, Indigenous Australians will remain focussed on issues such as gaining employment, rather than retirement.

While education and training are critical in building a skilled labour force, Australia also faces the challenge of attracting the work force to the locations in which it is needed. The undersupply of doctors, teachers and small business entrepreneurs in some regional areas reflects this challenge. This issue is also particularly relevant to the resources sector which is competing for labour (and other factors of production) to meet demand in regional and remote Australia.

The Demographic Change Report asks “Can a shift in the regional balance of development between metropolitan and non-metropolitan Australia deliver more livable, equitable, efficient and environmentally sustainable outcomes for Australia?” In part to address this element of the challenge, the Australian government is committed to building regional sustainability to create and respond to the range of opportunities at the regional level.

The panel reports point to a mix of measures to address skills shortages, including:

- retraining and encouraging participation amongst adults, including older Australians
- investing in adequate levels of training for the domestic population, including increasing schooling completion rates
- skilled migration, and
- incentives to encourage labour force mobility.

The challenge acknowledged by all three panel reports is to ensure that the way population change is managed in relation to

the economy is balanced with the need for environmental and social sustainability.

Beyond the specific issues identified above, there are many other important aspects of economic growth, prosperity and sustainability that may be affected by our changing population and deserve attention in the strategy. These include:

- interaction between the economy, and urban and natural environments
- rates of innovation, and
- the responsiveness of government, social and market institutions to changing circumstances.

The government is keen to examine all relevant issues in addressing the economic sustainability of our changing population.

Population and the economy:

Q7: What do you see as the defining characteristics of a flourishing and sustainable economy?

Q8: Is your community, business or industry facing skills shortages or other immediate economic pressures, and how are these best managed?

Q9: In the decades to come, what challenges and opportunities will our economy face, and how will they interact with changes in our population?

Q10: How should we measure the sustainability of our local, regional and national economies?



SUSTAINABLE COMMUNITIES

Australia's changing population and the way it is managed will be a key determining factor in the sustainability of our suburbs, towns and major cities, in the way they look, feel and function.

The sustainability of our communities encompasses many aspects of our daily lives, including our health, safety, education, social connectedness, and the infrastructure that supports us. State, territory, and local governments are at the heart of policy responses to many of these issues. Considering all of these elements is essential to ensure the wellbeing of all Australians including the generations that follow.

The three panel reports highlight some of the key areas where existing population pressures and future population changes may affect community liveability and wellbeing, including:

- access to adequate infrastructure, services and employment opportunities
- improving housing supply and affordability, and
- access to facilities which promote connections within communities.

Infrastructure

Australia's stock of infrastructure includes our buildings (including health and education facilities), roads, telecommunications, public transport, and sporting and entertainment venues. Some of these are critical to the

productivity of our society, while others make our communities a more enjoyable place to live.

Demand for infrastructure is highly contingent upon the demographics of the population, the location of population growth, available technology, and the manner in which households choose to live and work.

Cities require less fixed infrastructure per capita relative to rural areas because of the economies of scale that accompany infrastructure networks in cities. However, increasing population density can also lead to significant congestion costs that offset the benefits of these economies of scale. For example, it is estimated that the avoidable cost of road congestion across Australian capital cities was approximately \$9.4 billion in 2005, and projected to increase to \$20.4 billion by 2020 (*Bureau of Infrastructure, Transport and Regional Economics 2007*). Constraints in infrastructure can also appear in health, electricity and communications, for example.

In addition to increasing the stock of infrastructure through investment, reforms which ensure that existing infrastructure is efficiently and effectively utilized and maintained can further increase productivity and better enable us to meet future demands. This view is reflected in both the Productivity and Prosperity and Demographic Change Reports.

The Productivity and Prosperity Report highlights that Australia's continued

prosperity is in part contingent on investment in infrastructure and services that enable productivity. It argues that underinvestment and mismanagement of infrastructure and services contributes to problems such as congestion and constrains potential economic growth and prosperity.

The Productivity and Prosperity Report sees population growth as an opportunity for infrastructure renewal to improve the productivity of the nation's infrastructure. The challenge however, is securing appropriate funding for infrastructure and particularly projects of national importance.

The Demographic Change Report argues that uneven distribution of infrastructure and services leads to negative effects for communities, particularly on the outskirts of the cities and in rural and remote areas. It acknowledges that there is a backlog of necessary infrastructure provision and emphasises that any planning for population growth needs to be aligned with appropriate infrastructure development.

The Sustainable Development Report also notes that recent 'rapid' population growth has increased pressure on infrastructure, which may in turn diminish community wellbeing and inhibit productivity growth as input costs and congestion rise. It argues that the additional infrastructure burden generated by population change needs to be thoroughly analysed when considering migration levels.

Housing supply and affordability

Housing is an important issue that cuts across all aspects of sustainability. Access to affordable, liveable and secure housing is fundamental to the wellbeing of Australians and forms the foundation for economic and social participation in communities. Often we think of housing affordability as our ability to purchase a home, however equally important is the affordability of rental properties.

Improving housing supply and affordability must be tackled if Australian regions and cities are to be sustainable.

The *2010 State of Supply Report* by the National Housing Supply Council states that the gap between supply and demand will continue to grow over the next 20 years and that housing (both for purchasing and renting) is still unaffordable for many households. These issues are acknowledged by all of the panel reports. The Demographic Change Report also refers to the *2010 State of Supply Report's* observation of an estimated shortage of almost half a million dwellings that are both affordable and available to people in the bottom 40 per cent of the income distribution.

The National Housing Supply Council pointed to the global financial crisis as having a significant effect on residential development in 2008–09 and in the years following. The report also finds that increased housing supply would be assisted by reform in planning governance, clear and consistent bases for developer charges, and mechanisms for implementation of strategic urban plans (including infrastructure delivery).

The Productivity and Prosperity Report notes that population growth will pose challenges for our cities, but that they are challenges that can be overcome with more responsive housing supply and continued innovation in urban planning.

Liveability

Liveability refers to the degree to which a location supports quality of life, health and wellbeing for the people who live, work or visit there. Liveable communities may be seen as those that are healthy, attractive, functional and enjoyable places to live for people of all ages, physical abilities and backgrounds. The benefits derived from our diverse culture, community spirit and the natural environment, including a healthy



presence of native vegetation and fauna in our urban environments, have a positive impact on our wellbeing.

The Productivity and Prosperity Report notes that prosperity is about ensuring Australia is a dynamic, vibrant and optimistic place to live that affords everyone the opportunity to enjoy material wellbeing together with the intangible benefits of “the Australian way of life”. It argues that population growth and migration already contribute to Australia’s prosperity by supporting rising living standards and more jobs, but also through enhanced opportunities for generational renewal, cultural and social experience and appreciation of the environment.

Not all Australians are benefiting from this prosperity, however, and some continue to experience disadvantage. The Demographic Change Report considers that a key requirement of liveability is social inclusion and ensuring that no subgroups in Australian society get left behind as Australia adapts to the challenges of the future. It also notes that education, housing, food security and infrastructure are important contributions to liveability and that many of Australia’s disadvantaged communities are located on the fringes of major cities and in regional or remote areas.

The Sustainable Development Report argues that a focus on urban liveability is crucial for ensuring integrated and healthy communities in the future. It highlights the community costs of urban expansion, noting that even with additional investment in infrastructure and policies that produce higher density cities, population growth can only put additional pressure on cities and render them more congested.

A particular issue that is putting pressure on community liveability in some parts of regional Australia is the impact of the fly-in fly-out workforce associated with the resources boom. Both the Demographic

Change and Productivity and Prosperity Reports point to examples, such as Karratha in the Pilbara, where this has affected the local community. It is noted that increasingly, work in rural and remote Australia is being done by people living in cities, allowing less of the benefits of the resource sector growth to flow through to the local residents and surrounding regions. However, it is also noted that this trend has been generated due to a lack of infrastructure, social services and a lack of affordable housing in these regions.

Beyond the specific issues relating to community liveability and infrastructure discussed above, there are clearly many other community issues that may be impacted by our changing population. These include:

- obesity and other health concerns
- social cohesion
- the social implications of ageing, and
- green space areas in and around our communities.

The Australian Government is keen to examine all these issues in addressing the impact of a changing population and continue on the sustainability of our communities and infrastructure.

Population and the economy:

Q11: What are the things that make your community a good place to live?

Q12: How have changes in the population changed the way you live your life?

Q13: What sustainability issues need to be addressed in order for your community to accommodate a changing Australian population?

Q14: What are some useful indicators to help measure the liveability and sustainability of our communities?



CONCLUDING REMARKS

This paper has set out how a changing population can influence the environment, economy, and our communities. In order to achieve optimal outcomes for Australia we need to consider the integration of these issues and find a balanced solution to competing interests. In addition, some decisions at a national level may have different local or regional impacts. It is therefore important that the Sustainable Population Strategy reflects the spatial

implications of policy measures, and we encourage you to reflect this in your input.

The Australian Government is strongly committed to realising a practical and enduring Sustainable Population Strategy that effectively addresses Australian's concerns and provides tangible outcomes for all communities to increase our sustainability. Your feedback is essential to achieving this goal.

Getting involved:

You can contribute through the department's website at www.environment.gov.au/sustainablepopulation

From the website you can download the issues paper and the sustainable population advisory panel reports, answer the questions posed in this paper, and/or upload a written submission.

Submissions and completed questionnaires will be accepted until 5pm on **Tuesday, 1 March 2011** and can be lodged via:

Email sustainablepopulation@environment.gov.au

Facsimile 02 6274 2505

Mail Sustainable Population Strategy
PO Box 787
Canberra, ACT, 2601

If you are not able to access the website you can request that a hard copy of the issues paper, sustainable population advisory panel reports and/or questionnaire be mailed to you. The contact details are listed above.

ATTACHMENT A

Advisory panel on demographic change and liveability

Name

Professor Graeme Hugo (Chair)

Department of Geographical and Environmental Studies, University of Adelaide

Jane-Frances Kelly

Program Director, Cities, Grattan Institute

Professor Daniela Stehlik

Director, The Northern Institute, Charles Darwin University

Councillor Pam Parker

Mayor, Logan City Council

Ruth Spielman

Executive Officer, National Growth Area Alliance

Marion Thompson

Urban Planning Consultant and WA Urban Development Coordinator

Waleed Aly

Academic and Commentator

John Taylor

Director, Centre for Aboriginal Economic Policy Research, Australian National University

Mr Everaldo Compton AM

Chairman, National Seniors Productive Ageing Centre

Lord Mayor Graeme Sawyer

Lord Mayor of Darwin and Chair, Council of Capital City Lord Mayors



Advisory panel on Productivity and Prosperity

Name

Heather Ridout (Chair)

Chief Executive, Australian Industry Group

Nicole Lockwood

President, Shire of Roebourne

Paul Howes

National Secretary, The Australian Workers' Union

Alison Watt

Assistant Director, Economic Policy Branch, Tasmanian Department of Treasury and Finance

Mark Hunter

CEO, Residential at Stockland

Mr Paul Low

Chief Executive Officer, Growth Management, Queensland

Dr. Barry Hughes

Chief Economist, Credit Suisse First Boston (Australia)

David Crombie

President, National Farmers' Federation

Bernard Salt

Partner, KPMG

Professor John Piggott

University of New South Wales

Advisory panel on sustainable development

Name

The Hon Bob Carr (Chair)

Don Henry

Executive Director, Australian Conservation Foundation

Councillor Bob Abbot

Mayor, Sunshine Coast

Associate Professor Katharine Betts

Swinburne University

Bill Forrest

CEO/Regional Director, International Council for Local Environmental Initiatives - Oceania

John Sutton

National Secretary, Construction, Forestry, Mining and Energy Union

Susan Close

Executive Director, Strategy, Department of Environment and Natural Resources
Government of South Australia



Front cover

Kakadu National Park, Sally Greenaway & the Department of Sustainability, Environment, Water, Population and Communities

Family on their Backwood Station property, Mark Ingram & the Department of Sustainability, Environment, Water, Population and Communities

Waterwatch team member at work in the office, John Baker & the Department of Sustainability, Environment, Water, Population and Communities

Modern housing development, Silver Sun Pictures & the Department of Sustainability, Environment, Water, Population and Communities

40 Albert Road, South Melbourne, Michelle McAulay & the Department of Sustainability, Environment, Water, Population and Communities

Newmarket State Primary School

Back cover

Bondi Beach nippers, Dragi Markovic & the Department of Sustainability, Environment, Water, Population and Communities

Volunteer group with bags of weeds removed from a reserve near Rosebud, John Baker & the Department of Sustainability, Environment, Water, Population and Communities

Train pulling out of Murarrie Station, Jenny Tomkins & the Department of Sustainability, Environment, Water, Population and Communities

Kakadu National Park, Sally Greenaway & the Department of Sustainability, Environment, Water, Population and Communities

ACT Housing Construction, Steve Wray Department of Sustainability, Environment, Water, Population and Communities

