



# **MEASURES OF AUSTRALIA'S PROGRESS: SUMMARY INDICATORS**

AUSTRALIA

EMBARGO: 11.30AM (CANBERRA TIME) THURS 23 AUG 2007

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### INQUIRIES

For further information about these and related statistics, contact the National Information and Referral Service on 1300 135 070 or Josie Barac on Canberra (02) 6252 5414.

## ABOUT THIS PRODUCT

*Measures of Australia's Progress (MAP): Summary Indicators*, is part of the suite of *Measures of Australia's Progress* products produced by the ABS. This suite includes *Measures of Australia's Progress* (cat. no. 1370.0), currently released every three years, with the latest issue being 2006, and *Measures of Australia's Progress: At a Glance* (cat. no. 1383.0.55.002), a small summary booklet released annually. The MAP products aim to provide a digestible set of statistical evidence to allow Australians to make their own assessment of whether life in Australia is getting better.

*Measures of Australia's Progress: Summary Indicators*, presents a summary of measures which relate to the 14 headline dimensions of progress presented in MAP. It presents the headline indicators (where a headline indicator is available) at the national level, and a brief summary discussion about the measure and associated trends.

## REVISED PAGES

As MAP draws on data from a number of different sources, released at different times of the year, it is inevitable that more recent data will become available for the headline indicators at some stage following release of the Summary Indicators product.

While the timing of release of *MAP: Summary Indicators, 2007 (Edition 1)* was chosen to allow most of the indicators to be as up to date as possible, three sources were expected to have new data available in the months following its release. These were the *National Greenhouse Gas Inventory 2005*, produced by the Australian Greenhouse Office, the *ABS Survey of Income and Housing 2005–06*, and the *ABS Voluntary Work Survey, 2005–06*.

To ensure that the *MAP Summary Indicators* publication remains up-to-date, we have updated data and text in the following sections:

- Economic hardship
- Biodiversity – the land clearing section
- Atmosphere – greenhouse gas emissions
- Family, community and social cohesion – voluntary work section.

We had originally planned to update the housing occupancy data in the Housing section as well. These data have not been updated as the 2005–06 edition of *Housing Occupancy and Costs* (cat. no. 4130.0.55.001) will not be released until late in 2007.

Denis Farrell  
Acting Australian Statistician

## ABBREVIATIONS

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'000	thousand
ABS	Australian Bureau of Statistics
AEC	Australian Electoral Commission
CO <sub>2</sub>	carbon dioxide
CO <sub>2</sub> -e	carbon dioxide equivalent
CPI	consumer price index
EPA	Environmental Protection Agency
GDP	gross domestic product
ha	hectare
km	kilometre
km <sup>2</sup>	square kilometre
MAP	<i>Measures of Australia's Progress</i>
Mt	megatonne
NEPM	National Environment Protection Measure
NLWRA	National Land and Water Resources Audit
OECD	Organisation for Economic Co-operation and Development
PM <sub>10</sub>	particulate matter less than 10 micrometres in diameter
PM <sub>2.5</sub>	particulate matter less than 2.5 micrometres in diameter

## INTRODUCTION

### WHY THE ABS DEVELOPED MEASURES OF AUSTRALIA'S PROGRESS

Recent years have seen continued public interest in assessing whether life in Australia, and other countries, is getting better, and in the interrelationships between economic, social and environmental aspects of life. Although most regard Gross Domestic Product (GDP) as an important measure of economic progress, there are many who believe that it should be assessed in conjunction with other measures of progress. This is the prime reason the ABS looked for an alternative approach.

A national statistical agency like the ABS has an important role to play in providing information to allow assessments of progress to be made by users – those who formulate and evaluate policy, researchers and the community. Through its publications, electronic releases of data and other means, the ABS provides a rich array of statistics relevant to assessing progress. But the very size of the information base means that it is not so accessible to many people. Moreover, most ABS products provide a window into one or a few aspects of life in Australia – say, health, education, income, water – whereas a comprehensive assessment of progress demands that these aspects of life are examined together.

The ABS developed *Measures of Australia's Progress (MAP)* with the aim of providing a digestible selection of statistical evidence, that would allow Australians to make their own assessment of whether life in Australia is getting better. MAP is not intended as a substitute for the full array of statistics – indeed, the ABS hopes that many readers will be led to read our other publications on the aspects of society, the economy and the environment that particularly interest them.

### CHOOSING THE PROGRESS INDICATORS

When MAP was first developed, the ABS undertook an extensive process to determine what measures of progress to include. Broadly, the indicators presented in MAP were chosen in four key steps:

- First, three broad domains of progress (social, economic and environmental) were defined
- Second, a list of potential progress dimensions within each of the three domains was made
- Third, a subset of dimensions were chosen for which indicators would be sought, and a determination made as to whether each would be a headline or supplementary dimension
- Fourth, an indicator (or indicators) to give statistical expression to each of those dimensions was chosen. In particular, potential 'headline' indicators were identified which have the capacity to encapsulate major features of change in the given aspect of Australian life.

Our eventual selection of indicators in MAP was guided by expert advice and by the criteria described in *Appendix 1: Criteria for Choosing Headline Indicators*. One criterion was regarded as essential to headline indicators – namely, that most Australians would agree that each headline indicator possessed a 'good' direction of movement (signalling progress, when that indicator is viewed alone) and a 'bad' direction of movement (signalling regress, when that indicator is viewed alone). This good-direction / bad-direction distinction raises unavoidably the question of values and preferences.

## INTRODUCTION *continued*

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### CHOOSING THE PROGRESS INDICATORS *continued*

Once the ABS had drafted its initial list of candidate headline indicators, it undertook extensive consultation to test whether the list accorded with users' views. Whether a reader agrees with the ABS choice of headline indicators or not, he or she is free to peruse the whole suite of several hundred indicators in each full edition of MAP and to assign a weight to each, as his or her own values and preferences dictate.

The ABS based its decision about how many indicators to present on statistical grounds – for example, is it possible to find one or a few indicators that would encapsulate the changes in the given aspect of life? Is it possible to sum or otherwise combine indicators? And is the indicator supported by quality data?

The set of headline indicators plays a special role in MAP, and particular considerations of values and preferences arise. The full MAP publication presents several hundred indicators overall. However, to assist readers in gaining a quick understanding of the bigger picture about national progress, a more compact suite of 15 headline indicators, covering 14 headline dimensions (some dimensions have more than one indicator, and some have none) can be distilled from MAP. This product, *Measures of Australia's Progress: Summary Indicators 2007 (Edition 2)*, focuses on these headline indicators.

# PROGRESS IN AUSTRALIA THE HEADLINE DIMENSIONS

## THE HEADLINE DIMENSIONS

The following summaries on the 14 headline dimensions are grouped into four broad areas of progress:

- Individuals
- The economy and economic resources
- The environment
- Living together.

The table below shows the grouping of the dimensions under each of these areas, and provides points of interest from the following summaries for each dimension.

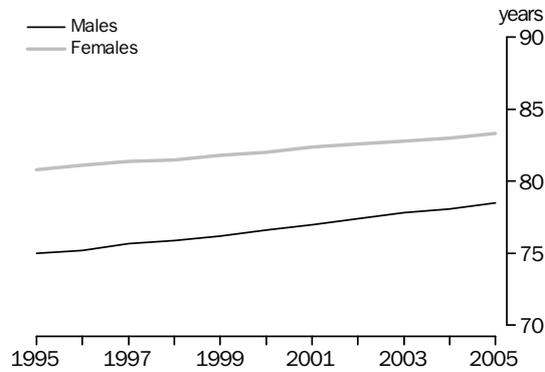
Individuals	The economy and economic resources	The environment	Living together
<p><b>Health:</b> 1995 to 2005, Life expectancy increases for men and women.</p> <p><b>Education and training:</b> 1996 to 2006, More Australians obtain a non-school qualification.</p> <p><b>Work:</b> 1996 to 2006, The unemployment rate decreases.</p>	<p><b>National income:</b> 1995–96 to 2005–06, Australia experiences significant real income growth.</p> <p><b>Economic hardship:</b> 1995–96 to 2005–06, The real income of low income Australians increases.</p> <p><b>National wealth:</b> 1996 to 2006, Australia’s real net worth per capita rises.</p> <p><b>Housing:</b> 2003–04, Most Australians are not experiencing overcrowding.</p> <p><b>Productivity:</b> 1995–96 to 2005–06, Australia experiences productivity improvement.</p>	<p><b>The natural landscape:</b> 1996 to 2006, The number of threatened birds and mammals rises.</p> <p>1994 to 2004, The rate of land clearing declines slightly.</p> <p><b>The air and atmosphere:</b> 1997 to 2005, Air quality is generally good, even though bushfires have obscured this trend.</p> <p>1990 to 2005, Greenhouse gas emissions have risen.</p> <p><b>Oceans and estuaries:</b> 1996 to 2005, The number of fish species classified as overfished increases for Commonwealth fisheries.</p>	<p><b>Family, community and social cohesion:</b> 2000 to 2006, More Australians are participating in voluntary work.</p> <p><b>Crime:</b> 1998 to 2005, Rates of personal crime increase slightly, and household crime rates decrease.</p> <p><b>Democracy, governance and citizenship:</b> 2001 to 2006, The vast majority of eligible Australians are enrolled to vote.</p>

# THE HEADLINE DIMENSIONS INDIVIDUALS

## HEADLINE GRAPHS

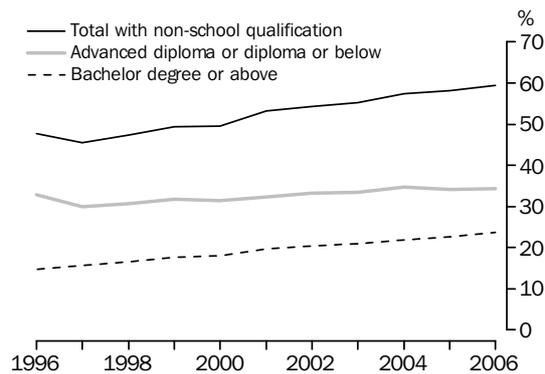
When measuring progress for individuals, we consider three headline dimensions: Health; Education and training; and Work. All three indicators for individuals suggest progress during the last decade.

### HEALTH, Life expectancy at birth



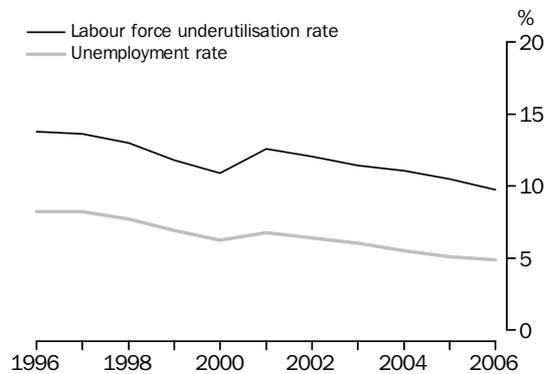
For technical information see Endnote 1.  
Source: *Deaths, Australia, 2005* (cat. no. 3302.0).

### EDUCATION AND TRAINING, Highest level of non-school qualification of people aged 25–64



For technical information see Endnote 3.  
Source: ABS data available on request, Survey of Education and Work.

### WORK, Unemployment and labour force underutilisation rates



For technical information see Endnote 4.  
Source: *Labour Force, Australia, Spreadsheets* (cat. no. 6202.0.55.001);  
*Underemployed Workers, Australia* (cat. no. 6265.0).

### HEALTH

Life expectancy at birth is a measure of how long someone born in a particular year might expect to live if mortality patterns for that year remained unchanged over their lifetime. It is one of the most widely used indicators of population health. It focuses on length of life rather than its quality, but it usefully summarises the health of the population.

Australian life expectancy improved during the decade 1995 to 2005. A boy born in 2005 could expect to live to be 78, while a girl could expect to reach 83 – increases of four and three years respectively. Women tend to live longer than men, and this is reflected in the differences in life expectancy throughout the 20th century. Although a girl born in 2005 could still expect to live around five years longer than a boy, in recent years life expectancy at birth has increased more quickly for males than for females.

While Australians are living longer than ever before, there is a good deal of debate about whether life expectancy will continue to increase. However, there is no doubt that there is more room for improvement among some groups of the population compared to others. In particular, life expectancy for Indigenous Australians, both male and female, is estimated to be about 17 years shorter than that of all Australians (see Endnote 2).

### EDUCATION AND TRAINING

Education and training help people to develop knowledge and skills that may be used to enhance their own living standards and those of the broader community. For an individual, educational attainment is widely seen as a key factor to a rewarding career. For the nation as a whole, having a skilled workforce is vital to supporting ongoing economic development and improvements in living conditions.

The indicator measures the attainment of non-school qualifications, and is the proportion of the population aged 25–64 years with a non-school qualification (see Endnote 3). There has been a rise in the proportion of people with non-school qualifications over the last decade. Between 1996 and 2006, the proportion of 25–64 year olds with a non-school qualification rose from 48% to 59%, continuing a trend seen for many decades.

The increase in the proportion of people with non-school qualifications is mainly being driven by the substantial increase in the proportion of people with a higher education qualification (e.g. a Bachelor degree or above). Between 1996 and 2006, the proportion of people aged 25–64 with a Bachelor degree or higher level qualification increased from 15% to 24%. The proportion of people whose highest qualification was a vocational qualification (e.g. an Advanced diploma or diploma or below) was 34% in 2006, a similar level to a decade earlier (33%).

### WORK

Paid work is the way most people obtain the economic resources needed for day to day living, for themselves and their dependants, and to meet their longer term financial needs. Having paid work contributes to a person's sense of identity and self-esteem. People's involvement in paid work also contributes to economic growth and development.

The unemployment rate has been chosen as the headline indicator, because of its relevance to the economic and social aspects of work. This rate is the number of unemployed people expressed as a percentage of the labour force, and is a widely used measure of underutilised labour resources in the economy. The graph also includes the

## THE HEADLINE DIMENSIONS INDIVIDUALS *continued*

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### WORK *continued*

labour force underutilisation rate. This is the number of unemployed and underemployed people, expressed as a proportion of the labour force (see Endnote 4). The labour force underutilisation rate gives a broader view of labour underutilisation than the unemployment rate.

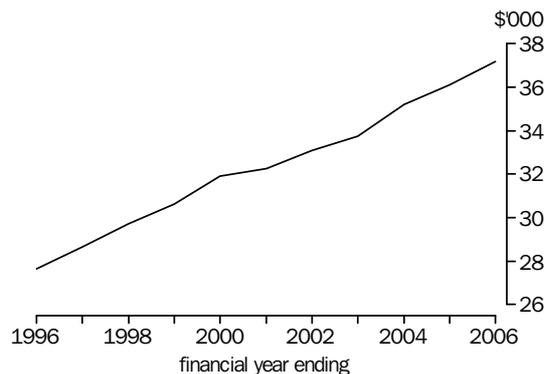
Measures of underutilised labour such as the unemployment rate are sensitive to changes in the economy. In 1996, the annual average unemployment rate stood at 8.2%. Since then it has generally fallen, to stand at 4.9% in 2006. The labour force underutilisation rate fell from 13.8% in 1996 to 9.8% in 2006.

# THE HEADLINE DIMENSIONS THE ECONOMY AND ECONOMIC RESOURCES

## HEADLINE GRAPHS

When measuring progress for the economy and economic resources, we consider five headline dimensions (although headline indicators are only available for four): National income; Economic hardship; National wealth; Housing (no headline indicator); and Productivity. The headline indicators available suggest some progress over the past decade.

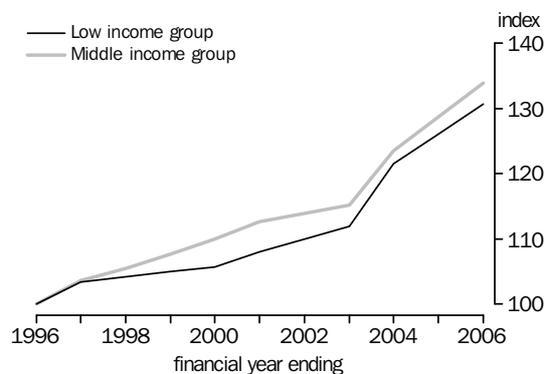
NATIONAL INCOME, Real net national disposable income per capita



For technical information see Endnote 5.

Source: *Australian System of National Accounts, 2005–2006* (cat. no. 5204.0).

ECONOMIC HARDSHIP, Average real equivalised disposable household income

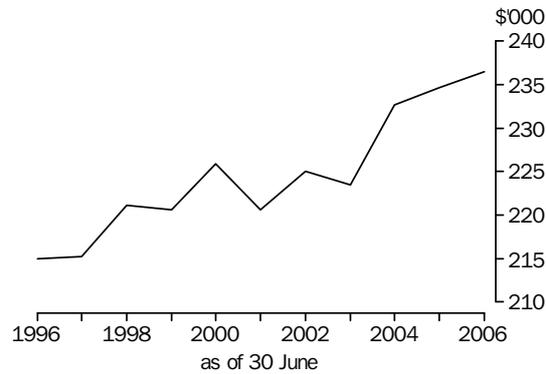


For technical information see Endnote 6.

Note: This graph has been updated with data from the ABS Survey of Income and Housing 2005–06.

Source: *Household Income and Income Distribution, Australia, 2005–2006* (cat. no. 6523.0).

NATIONAL WEALTH, Real national net worth per capita



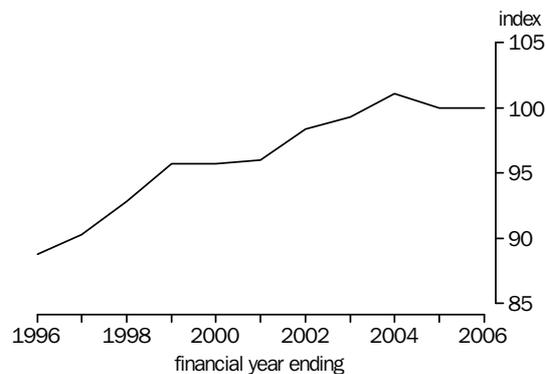
For technical information see Endnote 7.

Source: *Australian System of National Accounts, 2005–2006* (cat. no. 5204.0); *Australian Demographic Statistics* (cat. no. 3101.0).

HEADLINE GRAPHS

*continued*

PRODUCTIVITY, Multifactor productivity



For technical information see Endnote 8.

Source: *Australian System of National Accounts, 2005–2006* (cat. no. 5204.0).

NATIONAL INCOME

National income is a measure of Australia's capacity to acquire goods and services for consumption. It is a determinant of material living standards and is also important for other aspects of progress. There are many different ways of measuring income. The headline measure – real net national disposable income per capita – has a variety of features that make it an informative indicator of national progress.

- It is a per capita measure. Total income could rise during periods of population growth, even though there may have been no improvement in Australians' average incomes.
- It is a real measure – it is adjusted to remove the effects of price change. Nominal or current price income could rise during periods of inflation, even though there may have been no increase in Australians' real capacity to buy goods and services.
- It takes account of income flows between Australia and overseas, and is adjusted for changes in the relative prices of our exports and imports (our 'terms of trade'). These international influences on Australia's income can increase or decrease Australians' capacity to buy goods and services.

# THE HEADLINE DIMENSIONS THE ECONOMY AND ECONOMIC RESOURCES *continued*

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## NATIONAL INCOME *continued*

- It is a net measure – it takes account of the depreciation of machinery, buildings and other produced capital used in the production process. Hence, it reflects the income Australia can derive today while keeping intact the fixed capital needed to generate future income.

Australia experienced significant real income growth during the past decade. Between 1995–96 and 2005–06, real net national disposable income per capita grew by 3.0% a year on average.

## ECONOMIC HARDSHIP

Society generally accepts that people have a right to enjoy some minimum material standard of living, that is, to consume a minimum standard of goods and services. Household income is the major source of economic resources for most households and therefore a key determinant of economic wellbeing. The headline indicator shows the growth in average real equivalised disposable household income of people in the low income group (see Endnote 6). Although it provides no information about the number of people who might have an unacceptable standard of living, it does indicate how the average income of people in the low income group is changing.

The headline indicator shows that people in the low income group experienced a trend of rising real incomes between 1995–96 and 2005–06. The average real equivalised disposable household income of the low income group is estimated to have risen by 31% over the period, although part of the increase may reflect improvements to the way income was collected in the survey from 2003–04. The same individuals were not necessarily in this income grouping for the entire period. But for those people who were, their rising incomes would on average have provided a capacity to increase their standard of living.

While some would interpret this increase in the real income of the low income group as progress, others would consider that it also needs to be weighed against changes in community standards. Although there is no direct measure of these, one approach is to compare changes with those of 'middle' Australians and so changes in the real income of people in the middle income group are also shown. The average real equivalised disposable household income of the middle income group was estimated to have risen by 34% between 1995–96 and 2005–06. (*Note: This and the previous paragraph have been updated with data from the ABS Survey of Income and Housing 2005–06.*)

The headline indicator considers low income which is commonly associated with economic hardship. However, some people have access to other economic resources such as wealth. Furthermore, economic hardship is a multidimensional issue that is often associated with problems such as lack of participation in work, substance abuse, poor health, low levels of education, inadequate housing, crime, social exclusion and a lack of opportunity for children.

## NATIONAL WEALTH

National wealth and national income are very closely related. Along with the skills of the work force, a nation's wealth has a major effect on its capacity to generate income. Produced assets (such as machinery and equipment) are used in income-generating economic activity. Income, in turn, provides for saving that enables the accumulation of

**NATIONAL WEALTH**  
*continued*

new wealth. The headline indicator, 'real national net worth per capita' exhibits features that make it an informative indicator of national progress.

- It is a net measure – it shows the amount by which Australia's assets exceed its liabilities to the rest of the world.
- It is a per capita measure – total wealth could rise if the population grew, even though there may have been no improvement in Australians' average wealth.
- It is a real measure – it is adjusted to remove the effects of price change.

Between June 1996 and June 2006, Australia's real net worth per capita rose at an average annual rate of 1.0%. However, the headline indicator does not take account of everything that might be regarded as valuable. For example, it does not include: native forests and other natural assets not used for economic production; human capital (e.g. knowledge and skills); or social capital (e.g. social networks and trust).

**HOUSING**

Housing provides people with shelter, security and privacy. Having an adequate and appropriate place to live is fundamental to people's wellbeing, and there are many aspects to housing that affect the quality of people's lives. Dwelling attributes, such as size, number of bedrooms, physical condition, location relative to amenities and services, and price, are all important in this regard and there is no one indicator that succinctly captures whether people's many needs and desires for suitable housing are being met.

Australians are continuing to invest significantly in the homes that they own. From June 1997 to June 2006, around \$517 billion (in real terms) was invested in dwellings (excluding land) (see Endnote 9). The value of land and dwellings owned by the household sector at 30 June 2006 represented 59% of the value of all assets owned by the sector.

In 2003–04, while 3% of households across Australia required one or more extra bedrooms to accommodate their residents, 77% had one or more bedrooms spare (see Endnote 10). But poor or inadequate housing is currently a problem for some groups, especially for Aboriginal and Torres Strait Islander peoples living in remote areas.

**PRODUCTIVITY**

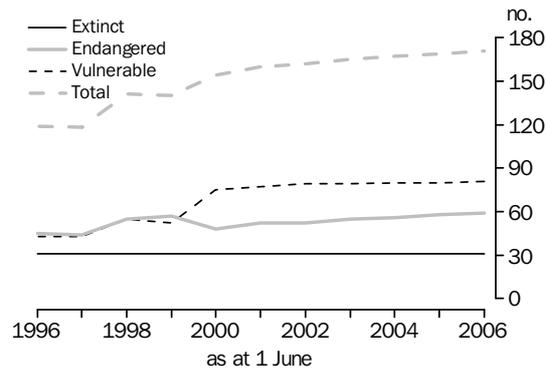
A nation's productivity is the volume of goods and services it produces (its output) for a given volume of inputs (such as labour and capital). A nation that achieves productivity growth produces more goods and services from its labour, capital, land, energy and other resources. Much, but not all, of Australia's output growth can be accounted for by increases in the inputs to production. The amount by which output growth exceeds input growth is the productivity improvement. Productivity growth can generate higher income and benefits might also accrue in the form of lower consumer prices.

Productivity can be measured in a variety of ways. The most comprehensive Australian measure available at present is multifactor productivity for the market sector. Multifactor productivity represents that part of the growth in output that cannot be explained by growth in labour and capital inputs. During the decade 1995–96 to 2005–06, Australia experienced improved productivity growth, and multifactor productivity rose by 1.2% per year on average.

HEADLINE GRAPHS

When measuring progress for the environment, three headline dimensions are considered: The natural landscape; The air and atmosphere; and Oceans and estuaries. It is difficult to obtain national time series data that encapsulate the changes in Australia's natural resources. However, for those dimensions where such data are available, progress over the past decade was varied.

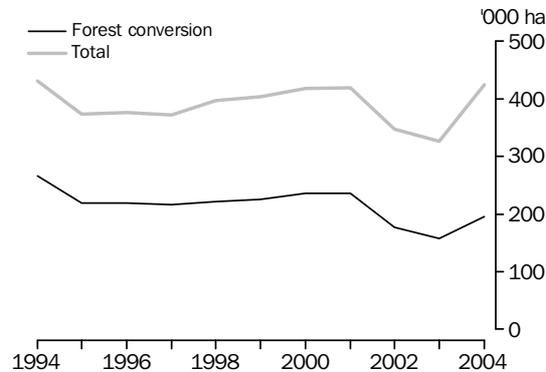
THE NATURAL LANDSCAPE,  
Biodiversity – Threatened bird and mammal species



For technical information see Endnote 11.

Source: Data compiled from schedules to the Commonwealth Acts: the *Endangered Species Protection Act 1992* and the *Environment Protection and Biodiversity Conservation Act 1999*.

THE NATURAL LANDSCAPE,  
Biodiversity – Annual area of land cleared



Estimates for 2003 and 2004 are preliminary.

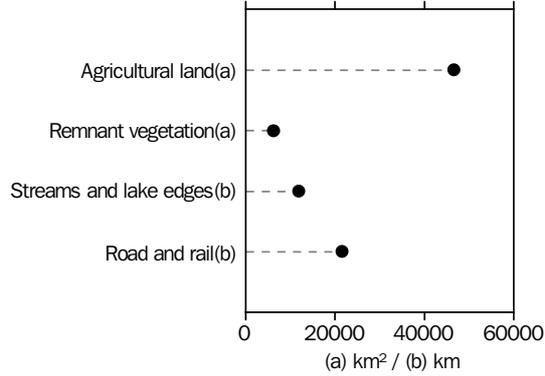
For further technical information see Endnote 12.

Note: This graph has been revised with new data from the Australian Greenhouse Emissions Information System. Data for 2005 has not been included as the area of land cleared was not re-estimated for the 2005 National Greenhouse Gas Inventory.

Source: Australian Greenhouse Office 2007, Australian Greenhouse Emissions Information System.

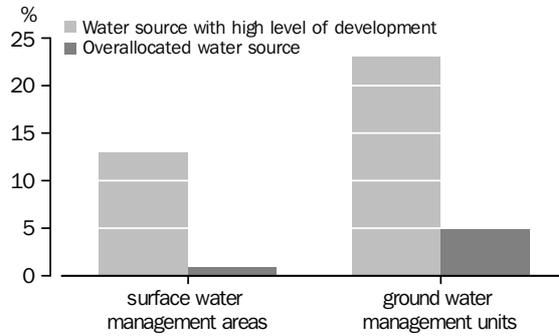
HEADLINE GRAPHS  
*continued*

THE NATURAL LANDSCAPE,  
Land – Assets affected by, or at risk from, salinity — 2000



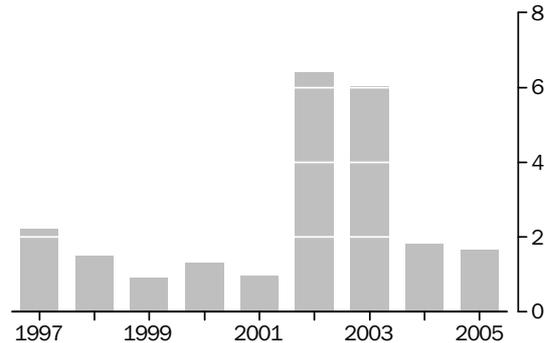
For technical information see Endnote 13.  
Source: Australian Dryland Salinity Assessment 2000, *National Land and Water Resources Audit 2001*.

THE NATURAL LANDSCAPE,  
Inland waters – Water resources level of development — 2004–05



For technical information see Endnote 14.  
Source: National Water Commission, *Australian Water Resources 2005*.

THE AIR AND ATMOSPHERE,  
Days fine particle health standards were exceeded  
no. of NEPM one-day standard exceedences

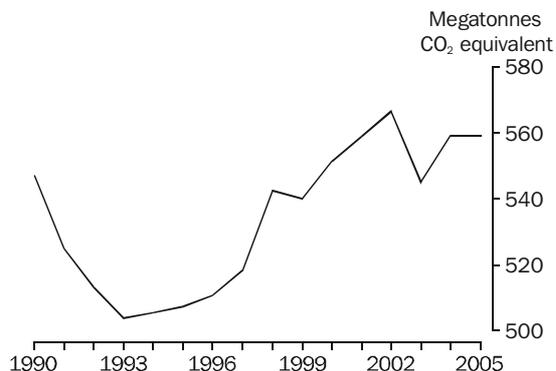


For technical information see Endnotes 15 and 16.  
Source: State environmental protection agencies, 2006;  
*Regional Population Growth, Australia* (cat. no. 3218.0).

HEADLINE GRAPHS

*continued*

THE AIR AND ATMOSPHERE,  
Australia's net greenhouse gas emissions



Estimates for 2003, 2004 and 2005 are preliminary.

For further technical information see Endnote 17.

Note: This graph has been updated with data from the 2005 National Greenhouse Gas Inventory.

Source: Australian Greenhouse Office 2007, National Greenhouse Gas Inventory 2005.

THE NATURAL LANDSCAPE

*Biodiversity*

No single indicator can hope to encapsulate biodiversity, and so we focus on two aspects: the numbers of extinct and threatened Australian birds and mammals; and the clearing of native vegetation.

Although the numbers of threatened birds and mammals are only a small part of the overall biological diversity, a decline in these groups of species threatens ecological processes and can point to a wider decline in biodiversity. The list should not be construed as a census of threatened species as species can be added to or removed from the list as their status changes or due to improved knowledge (see Endnote 11). However, the list is as accurate an account of the status of these species as can be currently compiled.

Between 1996 and 2006 the number of bird and mammal species assessed as extinct, endangered or vulnerable rose by 44% from 119 to 171 (of which 68 were birds and 103 were mammals). At 1 June 2006, just under half (47%) of these species were vulnerable, around one-third (35%) were more seriously threatened (endangered) and the remainder (18%) were presumed extinct over the 10 year period. There were increases in the numbers of both endangered and vulnerable species, but the rise in species assessed as vulnerable was much higher (88%) than those assessed as endangered (31%).

Land clearing destroys plants and local ecosystems and removes the food and habitat on which other native species rely. Clearing allows weeds and invasive animals to spread, affects greenhouse gas emissions and can lead to soil degradation, such as erosion and salinity, which in turn can affect water quality. The land clearing estimates include information about forest conversion (land cleared for the first time) and total land cleared which includes forest conversion plus reclearing, both of which have environmental impacts (see Endnote 12).

*Biodiversity continued*

The estimated 424,600 ha of Australian land cleared in 2004 is 1% less than the 430,900 ha cleared in 1994. Of the land cleared in 2004, just under half (195,900 ha) was 'forest conversion' (forest cleared for the first time). This was 26% less than the area converted in 1994 (266,000 ha) (see Endnote 12). *(Note: This paragraph has been revised with new data from the Australian Greenhouse Emissions Information System. Data for 2005 has not been included as the area of land cleared was not re-estimated for the 2005 National Greenhouse Gas Inventory.)*

*Land*

Australia's soils are old and shallow, and are susceptible to degradation by agricultural activities. Dryland salinity for example, occurs when trees or other deep-rooted vegetation are replaced with vegetation that uses less water. This causes the water table to rise bringing natural salts to the surface, and in sufficient quantity, these salts are toxic to most plants. Dryland salinity threatens biodiversity, through loss of habitat on land and in water, and also impacts on water resources, pipelines, houses and roads. Areas near water are often worst affected because they occupy the lowest parts of the landscape where saline groundwater first reaches the surface.

In 2000, about 46,500 km<sup>2</sup> (4.65 million hectares) of agricultural land were already affected with a high salinity hazard or in an area at high risk from shallow watertables. Salinity can also damage structures, as well as flora and fauna. The salt contained in rising groundwater levels can damage bitumen and concrete and so affect roads, footpaths, housing, pipelines and other assets. In 2000, about 11,800 km of streams and lake edges, as well as 1,600 km of rail and 19,900 km of roads were affected or at risk.

The salinity data presented above for this headline indicator have not been updated since the first release of MAP in 2002, as there is no more recently available data. However, the effects of dryland salinity are still considered an important measure of environmental progress.

*Inland waters*

Water is fundamental to the survival of people and other organisms. Apart from drinking water, much of our economy (agriculture in particular) relies on water. The condition of freshwater ecosystems has a critical impact on the wider environment.

In the year ending June 2005, about 1% of Australia's 340 surface water management areas were overallocated and a further 13% were developed to a high level. This proportion was greater for the 367 groundwater management units, where 5% were overallocated, and a further 23% had a high level of development (see Endnote 14). This data is not directly comparable with the data previously presented in MAP (e.g. National Land and Water Resources Audit 2001, *Australian Water Resources Assessment 2000*) for a number of reasons including management changes, and changes to the definitions of sustainable yield and level of development.

THE AIR AND  
ATMOSPHERE

*Urban air quality*

Poor air quality has a range of negative impacts: it can cause health problems, damage infrastructure, reduce crop yields and harm flora and fauna. Air pollution occurs both naturally and as a result of human activities. Australians consistently rank air pollution as a major environmental concern. The headline indicator considers the concentration of fine particles in the atmosphere, a measure of the form of air pollution about which many health experts in Australia are most concerned. The measure summarises data

*Urban air quality continued*

from continuous air monitoring stations in Sydney, Melbourne, Adelaide, Perth and Brisbane (see Endnote 15).

The common air pollutants are found at higher levels in urban and industrial areas than in rural Australia. It is important to note that daily changes in air quality depend on ambient conditions, like wind direction and the monitoring station's proximity to pollution sources. Further, high concentrations of fine particles from irregular events, such as bushfires, can obscure the longer trend in levels produced by regular sources, like car emissions.

Overall, air quality in Australia is relatively good. Fine particle health standards (see Endnote 16) were exceeded in the selected urban areas on average between one and two days each year between 1997 and 2005 with the exception of 2002 and 2003. The number of days where standards were exceeded was higher in 2002 and 2003, mainly due to severe bushfires and dust storms around the Sydney and Melbourne areas, causing the National Environment Protection Measure (NEPM) to be exceeded on 13 days in Sydney in 2002 and 10 days in Melbourne in 2003. The NEPM was also exceeded on eight days in Brisbane in 2002.

*Net greenhouse gas emissions*

Global warming is widely perceived as one of the most significant international environmental concerns. Australia's contribution to the changing global warming levels is an important aspect of progress.

The main gases in the atmosphere, nitrogen and oxygen, are almost completely transparent to the sun's rays. But water vapour, carbon dioxide and other gases form a blanket around the Earth, trapping heat – a process called the greenhouse effect. Human activity is increasing atmospheric concentrations of existing greenhouse gases (such as carbon dioxide and methane) and adding new gases such as chlorofluorocarbons (CFCs). Net emissions are estimated using information about total emissions, less any credits from forest sinks (the credits are estimates of how much carbon dioxide has been absorbed by new and expanding forests established in Australia since 1990).

For 2005, Australia's net greenhouse gas emissions were estimated to be 559.1 megatonnes of carbon dioxide-equivalent (CO<sub>2</sub>-e) (see Endnote 17). Australia's net emissions in 2005 were the same as 2004 emissions, 2.6% higher than in 2003, and 2.2% above 1990 levels. (The year 1990 is the base period for the reporting of emissions under the Kyoto protocol.) Emissions tended to rise gradually over the period from 1993. The sharpest rise was between 1997 and 1998 when emissions from land use change rose rather than fell as they had done during most of the decade. (*Note: This paragraph has been updated with data from the 2005 National Greenhouse Gas Inventory.*)

OCEANS AND ESTUARIES

Australia's coastal and marine regions support a large range of species, many of them found only in Australian waters. These regions are also important to Australian society and the economy. Although this dimension has no headline indicator, it does have important aspects which different organisations have attempted to measure.

OCEANS AND ESTUARIES  
*continued*

One such aspect is the sustainability of fish stocks. Australia's major fisheries target prized species such as lobsters, prawns, abalone and tuna, which despite modest production tonnage in world terms, are subject to high fishing pressure. Overfishing occurs when the fishing pressure is too heavy to allow the fish population to replenish itself, or when too many small fish are taken, and therefore too few grow to a size that provides the largest yield from that fishery. Overfished species are those for which the current stock is below a reference point set by scientists and managers.

In 2005, for fish stocks managed by the Australian Government, 24 of the 83 principal species that are classified were overfished or subject to overfishing. This compares with 3 species in 1996. In contrast, some progress has been made in reducing overfishing for some species. In the Northern Prawn Fishery, stocks of Grooved and Brown tiger prawns have recovered in recent years to the extent that these species are no longer classified as overfished (see Endnote 18).

Measuring the condition of estuaries not only reports on the state of our oceans; it sheds light on how land use around the water that flows into the estuary is affecting the sea. The Estuarine Condition Index, developed by the National Land and Water Resources Audit (NLWRA), provides a snap shot of estuary health. While there is no recent data for this measure, it has been reported in *MAP: Summary Indicators 2006* (cat. no. 1383.0.55.001).

# THE HEADLINE DIMENSIONS LIVING TOGETHER

## HEADLINE GRAPHS

When measuring progress for living together in our society, we consider three headline dimensions: Family, community and social cohesion; Crime; and Democracy, governance and citizenship. However, headline indicators are only available for the second dimension.

CRIME, Victims of selected personal crimes



For technical information see Endnote 19.  
Source: *Crime and Safety, Australia, 2005* (cat. no. 4509.0).

CRIME, Victims of selected household crimes



For technical information see Endnote 20.  
Source: *Crime and Safety, Australia, 2005* (cat. no. 4509.0).

## FAMILY, COMMUNITY AND SOCIAL COHESION

Family and community are important aspects of society, but the way in which they contribute to progress is difficult to define and measure, and so there is no single indicator that captures all that might be important. The effective functioning of families and communities depends on a wide range of factors. For example, the quality and strength of people's relationships and bonds with others – their family, friends and the wider community – are important elements which contribute to social cohesion. A more cohesive society is one in which communities are strong and inclusive, in which inequalities are reduced, and people have a sense of belonging and shared values. When the support offered by people's families and communities declines or is absent, it can contribute to a range of social problems such as poverty, illiteracy, ill-health and social exclusion.

Children living without an employed parent may be at greater risk of experiencing financial hardship, and lack of employment within the family may also impact on children's long-term personal development. It is important to note however that children living without an employed parent do not always experience adverse outcomes (see

### FAMILY, COMMUNITY AND SOCIAL COHESION *continued*

Endnote 21). Since the mid-1990s, the proportion of children aged under 15 years living without an employed parent in the same household has been relatively steady at between 16% and 19%. In 2003–04, the number of children who lived without an employed parent was approximately 620,000 and around 67% of these lived in one parent families (see Endnote 22).

The vast range of services provided within communities by groups, clubs and charitable organisations are a crucial adjunct to the care provided by families and the more formal types of support provided by governments. Community bonds can be strengthened through volunteering and donating money to groups and organisations in the community. Giving time to do some work for an organisation or group might be regarded as one of the stronger expressions of social capital, as it involves providing assistance, fulfilling needs and providing opportunities for community engagement. Between 2000 and 2006, the proportion of people aged 18 years and over who reported that they did some voluntary work during the previous 12 months increased from 32% to 34% (35% on a basis comparable to 2000) (see Endnote 23). While the volunteer rate increased, the amount of time volunteers gave decreased. The median annual hours contributed by volunteers fell from 72 hours per person in 2000 to 56 hours per person in 2006. (*Note: This paragraph has been updated with data from the ABS publication: Voluntary Work, Australia, 2006 (cat. no. 4441.0)*).

### CRIME

Crime takes many forms and can have a major impact on the wellbeing of victims, their families and friends, and the wider community. Those most directly affected may suffer financially, physically, psychologically and emotionally, while the fear of crime can affect people and restrict their lives in many ways. There are other costs as well, including the provision of law enforcement services by the police, courts and associated legal services, and corrective services.

Although it would be desirable to have a single indicator of the cost of crime to society, one does not exist. Instead the headline indicators are two measures of victims of common criminal offences: 'selected household crimes' and 'selected personal crimes'. The former refers to actual or attempted break-in and motor vehicle theft. The latter refers to assault, sexual assault or robbery. Personal crimes are not restricted to crimes committed in the victim's home, and so include crimes at people's place of work or study and so on. The victimisation rates for selected personal crimes are for assault and robbery victims among people aged 15 or over, and sexual assault among people aged 18 and over (see Endnote 19). The victimisation rates for selected household crimes are for actual or attempted break-ins and motor vehicle thefts across all households.

Though small, the victimisation prevalence rates for selected personal crimes showed an increase between 1998 and 2005 from 4.8% to 5.3%, the same level as in 2002. Most of these people were assaulted. Between 1998 and 2005, the proportion of households that were victims of selected household crimes fell from 9.0% to 6.2%.

DEMOCRACY,  
GOVERNANCE AND  
CITIZENSHIP

National life is influenced by both the wellbeing of individual citizens in terms of tangible factors such as income, wealth, health and education and by less tangible factors such as the quality of our public life, the fairness of our society, the health of democracy and the extent to which citizens of Australia participate actively in their communities or cooperate with one another. While these areas are important to the functioning of society, it is difficult to measure these aspects, and there is no single indicator that summarises this dimension of progress.

It has been argued that a healthy democracy needs citizens who care, are willing to take part, and are capable of helping to shape the shared values and aspirations of a society. And so participation – whether through the institutions of civil society, political parties, or the act of voting – is seen as important to a stable democracy. In Australia, enrolment and voting in State and Federal elections is compulsory. In March 2006, the Australian Electoral Commission (AEC) estimated that 94% of eligible Australians were enrolled to vote in the correct division, a similar proportion to five years earlier (95% enrolled in June 2001). However, there were differences in the proportions enrolled among different age groups, with the most notable difference being for younger people where the AEC estimates that 77% of eligible 18–25 year olds were enrolled (Endnote 24).

Another principle underpinning a healthy democracy is that parliament should represent and express the will of the people. The representation of women in parliament is one indicator of the extent to which different groups in society are represented in our public institutions. The proportion of women in the Parliament of Australia has risen over the past 20 years. On 1 January 1987, one in twenty (5%) members of the House of Representatives were women, as were around 1 in 5 (21%) senators. By the beginning of 2007, the representation of women had risen to one in four (25%) in the House of Representatives and just over one in three (36%) in the Senate (see Endnote 25).

## ENDNOTES

1. Data are three-year averages, with the year shown being the last year of the three-year period.

2. See: Steering Committee for the Review of Government Service Provision 2005, *Overcoming Indigenous Disadvantage: Key Indicators 2005*, Productivity Commission, Canberra, viewed 16 March 2007, <<http://www.pc.gov.au/gsp/reports/indigenous/keyindicators2005/index.html>>.

3. Data relate to the person's highest non-school qualification only, and some people may have more than one qualification. Components do not sum to the total as the total with non-school qualifications includes those where the level could not be determined.

Qualifications are defined as formal certifications, issued by a relevant approved body, in recognition that a person has achieved learning outcomes or competencies relevant to identified individual, professional, industry or community needs. Statements of attainment awarded for partial completion of a course of study at a particular level are excluded.

Non-school qualifications are awarded for educational attainments other than those of pre-primary, primary or secondary education. They include the higher education qualifications and vocational education qualifications listed above. Collectively, this group of qualifications is referred to as non-school qualifications instead of post-school qualifications because students can now study for vocational qualifications, such as certificates and diplomas, while attending high school.

The level of education classification contains several levels of non-school qualifications, and for the purposes of this indicator have been combined into two groups:

- Bachelor degree or above – Postgraduate degree, Master degree, Graduate diploma, Graduate certificate, and Bachelor degree.
- Advanced diploma or diploma or below – Advanced diploma, Diploma, Advanced certificate, and Certificates I to IV.

4. The unemployment rate is the number of unemployed persons expressed as a percentage of the labour force (employed plus unemployed persons). The annual rates shown are the average of each month's unemployment rates, over the 12 months of the calendar year. Original data (rather than trend or seasonally adjusted data) have been used. Unemployment rates for each month can be obtained from *Labour Force, Australia, Spreadsheets* (cat. no. 6202.0.55.001).

The labour force underutilisation rate is the number of persons who are either unemployed or underemployed (defined below), expressed as a proportion of the labour force. It relates to September each year. Labour force underutilisation rates for September of each year can be obtained from *Underemployed Workers, Australia* (cat. no. 6265.0).

People who are unemployed or underemployed are defined as follows:

- Unemployed – people aged 15 years and over who were not employed, and:
  - had actively looked for work at any time in the four weeks up to the end of the reference week and were available for work in the reference week; or

## ENDNOTES *continued*

- were waiting to start a new job within four weeks from the end of the reference week and could have started in the reference week if the job had been available then.
- Underemployed – people working part-time (i.e. people who usually work less than 35 hours a week in all jobs) who wanted to work additional hours and were available to work more hours, either in the reference week or in the four weeks subsequent to the survey; and full-time workers who worked less than 35 hours in the reference week, for economic reasons.

5. Reference year for real net national disposable income is 2004–2005.

6. Disposable (after income tax) income amounts are equivalised by applying the OECD equivalence scale. The equivalised income amounts are also adjusted for changes in living costs as measured by the Consumer Price Index (CPI). No surveys were conducted in 1998–99, 2001–02 or 2004–05. The respective data for these three years shown in the graph for economic hardship are just the midpoint values between the survey values of the previous year and the following year. The base of each index is at 1995–96 and equals 100.

The low income group comprises people in the 2nd and 3rd income deciles from the bottom of the distribution after being ranked, from lowest to highest, by their equivalised disposable household income. The middle income group comprises people in the middle income quintile (5th and 6th deciles) when all people are ranked, from lowest to highest, by their equivalised disposable household income.

People falling into the lowest decile are excluded from the low income group because, for many of them, the value of their income does not appear to be an appropriate indicator of the economic resources available to them. Their income tends to be significantly lower than would be available to them if they were reliant on the safety net of income support provided by social security pensions and allowances. At the same time, their expenditure levels tend to be higher than those of people in the second decile, indicating that they have access to economic resources other than income, such as wealth, to finance their expenditure.

7. Real national net worth is based on a volume measure with reference year of 2004–2005.

8. Reference year for multifactor productivity index is 2004–05.

9. See Australian Bureau of Statistics 2006, *Australian System of National Accounts, 2005–2006*, cat. no. 5204.0, ABS, Canberra. Investment in dwellings is based on a volume measure with a reference year of 2004–05.

10. There is no single standard measure for housing utilisation. However, the Canadian National Occupancy Standard for housing appropriateness can be used as an indicator of potential overcrowding. It is based on a comparison of the number of bedrooms in a given dwelling and household demographics such as the number of usual residents, their relationship to one another, age and sex. Where the standard cannot be met, households are considered to be overcrowded. For more details see *Housing Occupancy and Costs, Australia 2003–04* (cat. no. 4130.0.55.001).

## ENDNOTES *continued*

11. Excludes seabirds, marine mammals and animals living on islands far offshore. Subspecies are included. Extinctions data have been backcast to take account of rediscoveries. There is likely to be a time lag between a species being identified as threatened and being listed. Data has been compiled from schedules to the *Endangered Species Protection Act 1992*, and the *Environment Protection and Biodiversity Conservation Act 1999*. Increases in listings since the latter Act are not necessarily reflecting an actual increase but can be the result of taxonomic revisions and improved information from field investigations.

12. Forest conversion is land that has been cleared for the first time and total land cleared includes forest conversion plus reclearing (clearing of land which has previously been cleared). Reclearing only refers to land areas where a conversion was previously identified. Areas are for deliberate human activities where a land use change has occurred. The figures do not distinguish between the type of vegetation (whether native or non-native) that was cleared.

Data was revised with new data from the *Australian Greenhouse Emissions Information System* and can be viewed at the following page of the Australian Greenhouse Office website: <<http://www.ageis.greenhouse.gov.au/GGIDMUserFunc/QueryActivity/QueryActivity.asp>>.

The data for 2005 has not been included as the area of land cleared was not re-estimated for the *2005 National Greenhouse Gas Inventory*. Estimates for 2003 and 2004 should be considered as interim only and will be revised when areas of forest conversion are confirmed in the next update of the *National Carbon Accounting System*. For further information, see the *National Inventory Report 2005 Vol 2 Part A* on the Australian Greenhouse Office website: <<http://www.greenhouse.gov.au/inventory/2005/national-report.html>>.

13. The National Land and Water Resources Audit 2001 (NLWRA) defines land as having a high potential to be affected by salinity if groundwater levels are within two metres of the surface or within two to five metres with well demonstrated rising watertables. Remnant vegetation includes planted perennial vegetation. The NLWRA's salinity projections are based on a range of assumptions and data including an assumption of a continued rate of increase and no change to water balances.

14. Australia has 340 surface water management areas and 367 groundwater management units (hydraulically connected groundwater systems).

A water source with a high level of development is one where the sum of water access entitlements is between 70% and 100% of sustainable yield. An overallocated water source is one where the sum of water access entitlements is more than 100% of sustainable yield.

15. Data are from representative sites in Sydney (Liverpool), Melbourne (Footscray), Brisbane (Rocklea), Perth (Duncraig) and Adelaide (Thebarton from 1997 to 2002 and Netley for 2003 to 2005), and have been combined in proportion to each city's population. The data are the number of days when the National Environment Protection Measures (NEPM) average daily PM<sub>10</sub> (see Endnote 16) standard is exceeded. The PM<sub>10</sub> data from each state environmental protection agency (EPA) was obtained using the Tapered Element Oscillation Microbalance method, which continuously monitors PM<sub>10</sub>

## ENDNOTES *continued*

levels in the air averaged over a 24 hour period. 1997 was the first year all of the five EPAs used this method.

16. Fine particles in the atmosphere come from a wide variety of sources, including soil (dust), vegetation (pollens and fungi), sea salt, fossil fuel combustion, biomass burning (including bushfires) and industry. Particles suspended in air have the ability to penetrate the lower airways of the lung if smaller than 10 micrometres in diameter (referred to as PM<sub>10</sub>). Increasing evidence suggests the acute health effects may, in fact, be the result of exposure to very fine particles, such as those smaller than 2.5 micrometres in diameter (referred to as PM<sub>2.5</sub>). It is these finer particles that are the main cause of urban haze, which typically appears white. Most of these particles are generated by people, rather than occurring naturally. The human health effects are many and depend on the size and chemical composition of the particles. Particles can aggravate existing respiratory and cardiovascular disease and asthma, can affect eyesight and cause allergies.

17. The indicator measures million tonnes (megatonnes) of carbon dioxide (CO<sub>2</sub>) equivalent emissions. Different greenhouse gases have different effects and remain in the atmosphere for different periods of time. A tonne of methane, for example, contributes as much to global warming as 21 tonnes of CO<sub>2</sub>. To assess the impact of the different gases together, emissions of each gas are converted to a common CO<sub>2</sub> equivalent scale and added. For example, a tonne of methane and a tonne of CO<sub>2</sub> would equate to 22 tonnes of greenhouse gases CO<sub>2</sub> equivalent.

Estimates for forest conversion, a component of overall greenhouse gas emissions, should be considered as interim only for 2003, 2004 and 2005, and will be revised when areas of forest conversion are confirmed in the next update of the *National Greenhouse Gas Inventory 2006*. In particular, the forest conversion component was not re-estimated for 2005 and, as an interim measure only, was assumed to be unchanged from the 2004 estimate. For further information, see the *National Inventory Report 2005 Vol 2 Part A* on the Australian Greenhouse Office website:

<<http://www.greenhouse.gov.au/inventory/2005/national-report.html>>.

The data are based on estimates produced using Kyoto accounting methods.

18. See McLoughlin, K (ed) 2006, *Fisbery Status Reports 2005: Status of Fish Stocks Managed by the Australian Government*, Bureau of Rural Sciences, Canberra; and Caton, A, McLoughlin, K and Staples, D (eds) 2000, *Fisbery Status Reports 1999: Resource Assessments of Australian Commonwealth Fisheries*, Bureau of Rural Sciences, Canberra.

19. The victimisation rates for personal crimes are for assault and robbery victims among people aged 15 and over, and sexual assault among people aged 18 and over. Completion of the sexual assault questions for the ABS Crime and Safety Survey was voluntary, and some respondents chose not to complete them. For these respondents selected data items were imputed following a standard set of rules based on the assumption that the victimisation rates were equal for respondents and non-respondents within age groups and sex categories.

20. The victimisation rates for household crimes are for actual or attempted break-ins and motor vehicle thefts across all households (private dwellings).

## ENDNOTES *continued*

21. See for example: Dawkins, P, Gregg, P, & Scutella, R 2001, *The Growth of Jobless Households in Australia*, Melbourne Institute of Applied Economic and Social Research, University of Melbourne, Melbourne, viewed 4 March 2007, <<http://melbourneinstitute.com/wp/wp2001n03.pdf>>; and Gregory, R 1999, *Children and the Changing Labour Market: Joblessness in Families with Dependent Children, Discussion Paper No. 406*, Centre for Economic Policy Research, Australian National University, Canberra, viewed 5 March 2007 <<http://econrsss.anu.edu.au/pdf/DP406.pdf>>.
22. Australian Bureau of Statistics 2004, ABS data available on request, Survey of Income and Housing 2003–04, ABS, Canberra.
23. The volunteering rate of 35% for 2006 has been presented on a basis comparable to data collected in 2000 and therefore differs slightly from the volunteering rate of 34% which is published in *Voluntary Work, Australia, 2006 (cat. no. 4441.0)*. For more detailed information, see comparison table A2 and the discussion in the appendix in: Australian Bureau of Statistics 2007, *Voluntary Work, Australia, 2006*, cat. no. 4441.0, ABS, Canberra.
24. According to the Australian Electoral Commission's Annual report 2005–06 'the results of Sample Audit Fieldwork indicate that, in March 2006, an estimated 93.6% of the eligible population was enrolled for the correct division.' In addition, 'the estimated participation of eligible 18–25 year olds at 30 June 2006, derived using Australian Bureau of Statistics population data, was 76.7%...' Australian Electoral Commission (AEC) 2006, *AEC Annual report 2005–06*, viewed 5 January 2007 <[http://www.aec.gov.au/About\\_AEC/Publications/Annual\\_Reports/2006/index.htm](http://www.aec.gov.au/About_AEC/Publications/Annual_Reports/2006/index.htm)>.
25. Information on women in parliament can be found on the following pages of the Parliament of Australia website:
- For number of women in Parliament see <[http://www.aph.gov.au/library/handbook/historical/women\\_number.htm](http://www.aph.gov.au/library/handbook/historical/women_number.htm)>.
  - For list of women senators see <<http://www.aph.gov.au/Senate/senators/womensen.htm>>.
  - For House of Representatives list of members by gender see <<http://www.aph.gov.au/house/members/index.htm#dmi>>.

## APPENDIX 1 CRITERIA FOR CHOOSING HEADLINE INDICATORS

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Measures of Australia's Progress (MAP) is designed for the Australian public, and the summaries are meant to be easily understood by readers who may not be expert in either the subject matter or statistical methods. In many cases, our choice of indicator has had to strike a balance between considerations of approachability, technical precision, and the availability and quality of data.

The headline indicators in MAP are concerned with assessing dimensions of Australia's progress, not with explaining the underlying causes of change.

In the view of the ABS, ideally a good headline indicator should:

- be relevant to the particular dimension of progress
- where possible, focus on outcomes for the dimension of progress (rather than on say, the inputs or processes used to produce outcomes)
- show a 'good' direction of movement (signalling progress) and 'bad' direction (signalling regress) – at least when the indicator is considered alone, with all other dimensions of progress kept equal
- be supported by timely data of good quality
- be available as a time series
- be available at a national level
- be sensitive to changes in the underlying phenomena captured by the dimension of progress
- be summary in nature
- preferably be capable of disaggregation by, say, geography or population group
- be intelligible and easily interpreted by the general reader.

For some dimensions, it is not yet possible to compile an ideal indicator meeting all these criteria. So an example of a relevant indicator, which sheds light on one aspect of the dimension of progress, has been presented.

### PROCESS OF DEVELOPING HEADLINE INDICATORS

When deciding which indicators should be used to encapsulate each aspect of Australian life, the ABS was guided by expert advice as well as the criteria listed above. During the development of MAP, the ABS undertook wide-ranging consultation with experts and the general community of users. This consultation considered the indicators that would be ideal for each aspect of Australian life, and the best currently available approximations to those ideal indicators. For some aspects – Health, Crime, National income, Productivity and Urban air quality, for example – there was already some broad consensus regarding indicators that would meet MAP's criteria. But for other aspects – Family, community and social cohesion, and Democracy, governance and citizenship, for example – the effort to develop statistical indicators is more recent, and stakeholder agreement has not yet been reached. For the newer or less settled aspects, MAP generally provides an array of indicators and invites readers to form a view about progress.

Our first step was to take each dimension of progress in turn, and to ask 'Why is this dimension particularly important to Australia's progress? What are the key facets of progress in that dimension that any headline indicator should seek to express?'

There were usually several competing indicators that might be included. In choosing among them, each of the criteria were considered, as illustrated below.

Indicators should focus on the outcome rather than, say, the inputs or other influences that generated the outcome, or the government and other social responses to the outcome. For example, an outcome indicator in the health dimension should if possible reflect people's actual health status and not, say, their dietary or smoking habits, or public and private expenditure on health treatment and education. Input and response variables are of course important to understanding why health outcomes change, but the outcome itself should be examined when assessing progress.

## APPENDIX 1 CRITERIA FOR CHOOSING HEADLINE INDICATORS

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### PROCESS OF DEVELOPING HEADLINE INDICATORS

*continued*

It was also judged important that movements in any indicator could be positively or negatively associated with progress by most Australians. For instance, the number of divorces could be considered as an indicator for family life. But an increase in that number is ambiguous – it might reflect, say, a greater prevalence of unhappy marriages, or greater acceptance of dissolving unhappy marriages.

Applying this criterion depends crucially on interpreting movements in one indicator, assuming that the other indicators of progress are unchanged. For example, some would argue that economic growth has, at times, brought environmental problems in its wake, or even that the problems were so severe that the growth was undesirable. Others would argue that strong environmental protection might be retrograde to overall progress because it hampers economic growth. However, few would argue against economic growth or strong environmental protection if every other measure of progress was unaffected: that is, if economic growth could be achieved without environmental harm, or if environmental protection could be achieved without impeding economic growth. Of course, although keeping other things equal might be possible in theory, it seldom, if ever, occurs. The links between indicators are important, and *Measures of Australia's Progress 2006* (cat. no. 1370.0) discusses some of these links after trends in the individual indicators have been described.

## APPENDIX 2 CONTINUING DEVELOPMENT AND OTHER INITIATIVES

### CONTINUING DEVELOPMENT

The headline indicators form a core set of statistics for reporting on Australia's progress. However the dimensions chosen or the indicators presented may change over time. For example:

- thinking may change about what is important to national progress
- there may be conceptual developments relating to one or more dimensions of progress (such as social cohesion)
- there may be statistical developments that allow the measurement of aspects of progress which currently do not exist.

The content of *Measures of Australia's Progress* (cat. no. 1370.0) is being reviewed prior to the production of the next edition.

### OTHER INITIATIVES

There are a number of initiatives relating to measuring progress and wellbeing at the international, national and sub-national levels. A selection is mentioned below.

- The *OECD World Forum on "Statistics, Knowledge and Policy"* was held in Istanbul in June 2007. The Forum provided an opportunity for discussion on the measurement of progress, as well as other issues facing the world. More information can be found at:  
<[http://www.oecd.org/site/0,2865,en\\_21571361\\_31938349\\_1\\_1\\_1\\_1\\_1,00.html](http://www.oecd.org/site/0,2865,en_21571361_31938349_1_1_1_1_1,00.html)>.
- A number of Australian state governments have developed indicator frameworks that reflect the priorities and goals of their citizens in terms of building a better society. The following describes a selection of this work:
  - *Growing Victoria Together* is a 10 year strategic plan beginning in 2001 and ending in 2010. It contains 10 goals which balance social, economic and environmental considerations. More information can be viewed at:  
<<http://www.dpc.vic.gov.au/>>.
  - *Tasmania Together* is a 20-year strategic plan (from 2001 to 2020) which contains 12 goals for Tasmania's long-term social, economic and environmental future. The plan can be viewed at:  
<<http://www.tasmaniatogether.tas.gov.au/>>.
  - *South Australia's Strategic Plan*, updated in 2007, focuses on six themes including Growing prosperity, Improving wellbeing, Attaining sustainability, Fostering creativity and innovation, Building communities and Expanding opportunity. The plan can be viewed at:  
<<http://www.stateplan.sa.gov.au/>>.
  - *A New Direction for NSW State Plan*, released in 2006, sets out five areas of activity for the New South Wales Government including Rights, respect and responsibility, Delivering better services, Fairness and opportunity, Growing prosperity across NSW, and Environment for living. More information can be found at:  
<<http://www.nsw.gov.au/stateplan/>>.
- The *Australian Collaboration* (a group of major peak bodies for national non-government organisations) in 2006 produced the report: *Which Direction? A review of monitoring and reporting in Australia*. The report can be found at:  
<<http://www.australiancollaboration.com.au/booksreports/>>.
- Statistics New Zealand's *Monitoring Progress Towards a Sustainable New Zealand*, released in 2002, provides a selection of information related to sustainable development. It can be found at:  
<<http://www.stats.govt.nz/analytical-reports/monitoring-progress/default.htm>>.

## APPENDIX 2 CONTINUING DEVELOPMENT AND OTHER INITIATIVES

*continued*

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### OTHER INITIATIVES *continued*

- The UK Government launched a new Sustainable Development Strategy in March 2005, called "*Securing the Future*", which sets out the vision of sustainable development through to 2020. In 2006, data on the indicators were updated in *Sustainable development indicators in your pocket 2006*. The report can be viewed at:  
<<http://www.sustainable-development.gov.uk/progress/index.htm>>.
- In 2004 the USA's *General Accounting Office*, as part of their Key National Indicators Initiative, published a report called *Informing Our Nation: Improving How to Understand and Assess the USA's Position and Progress*. It can be found at:  
<<http://www.gao.gov/mpi>>.
- Ireland's *Central Statistics Office* produced *Measuring Ireland's Progress* in April 2007. The publication provides an analysis of the economic, social and environmental situation in Ireland and can be viewed at:  
<<http://www.cso.ie/releasespublications/measuringirelandsprogress2006.htm>>.
- Other useful references are provided on the web site of the *International Institute of Sustainable Development*, at:  
<<http://www.iisd.ca/>>.

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