Our Cities

– building a productive, sustainable and liveable future

2010 | Discussion Paper

Australian Government

Foreword

The Gillard Labor Government is undertaking an ambitious reform program to equip the Australian economy for the long term challenges our nation faces. We are investing in long-term nation building infrastructure, investing in our schools and training, improving how our health system serves our community, and building the high-speed universal broadband infrastructure our economy needs.

Helping to shape the growth of our cities is part of that reform agenda. And to do this in the right way, we are engaging with the community on the way our cities function and how we can improve them – for us and for future Australians.

The Australian Government is seeking your views to set out the best ways to improve the productivity, sustainability and liveability of our cities.

Australia is one of the most urbanised countries in the world. While 2009 marked the year that more people across the world lived in cities than not, Australia had reached this point more than half a century ago. Australia needs a long-term national agenda for how our cities should look and work, to tackle the big challenges ahead.

The Australian Government's *State of Australian Cities 2010* report, which I launched in March this year, provided a snapshot of Australia's cities, highlighting the significant changes they are undergoing and the challenges that lie ahead.

Three-quarters of Australians live in our 18 major cities with over 100,000 people, generating around 80% of our GDP and employing 75% of our national workforce. While Australians live in some of the most liveable cities in the world we face long term challenges to improve our productivity growth, meet the needs of a growing but ageing population and address the implications of climate change. The way our cities develop to accommodate growth and adapt to change will be critical to maintaining their status as some of the best cities in the world.

This means that we need to focus on better design and management of urban systems to reduce the economic and environmental costs of current urban models. This includes providing real alternatives in transport to reduce our dependence on private motor vehicles. Greater diversity of lifestyle choices, improved accessibility and affordability, and less carbon dependent ways of living need to be considered and adopted.

High on the Australian Government's agenda is the need to provide jobs; better integrate land use and infrastructure planning; invest in modern public transport; protect transport, energy and communications corridors and provide buffers to significant strategic infrastructure such as ports and airports; balance greenfields and infill development, while ensuring an adequate supply of affordable housing; reduce our resource consumption but at the same time prepare for the unavoidable impacts of climate change; and secure future water, energy and food supplies. Better planned cities and better services will make a real difference to improving social equity in our communities.

With these priorities, the Australian Government has sought to understand what is happening in our cities, what challenges they confront and how, in partnership with all other stakeholders, we can endeavour to make our cities more productive, sustainable and liveable.

The Australian Government recognises the legitimate roles of States, Territories, Local authorities and the private sector in planning, managing and investing in cities. We will not take over these responsibilities. However, through national leadership and guidance in meeting the challenges, effective Commonwealth intervention can help secure the future prosperity and wellbeing of all Australians.

The development of a *National Urban Policy* and this discussion paper is an important step towards more productive, sustainable and liveable cities.

This is about our future. I invite you to contribute to this national discussion on our cities.

ANTHONY ALBANESE
Minister for Infrastructure and Transport

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Hobart, TAS

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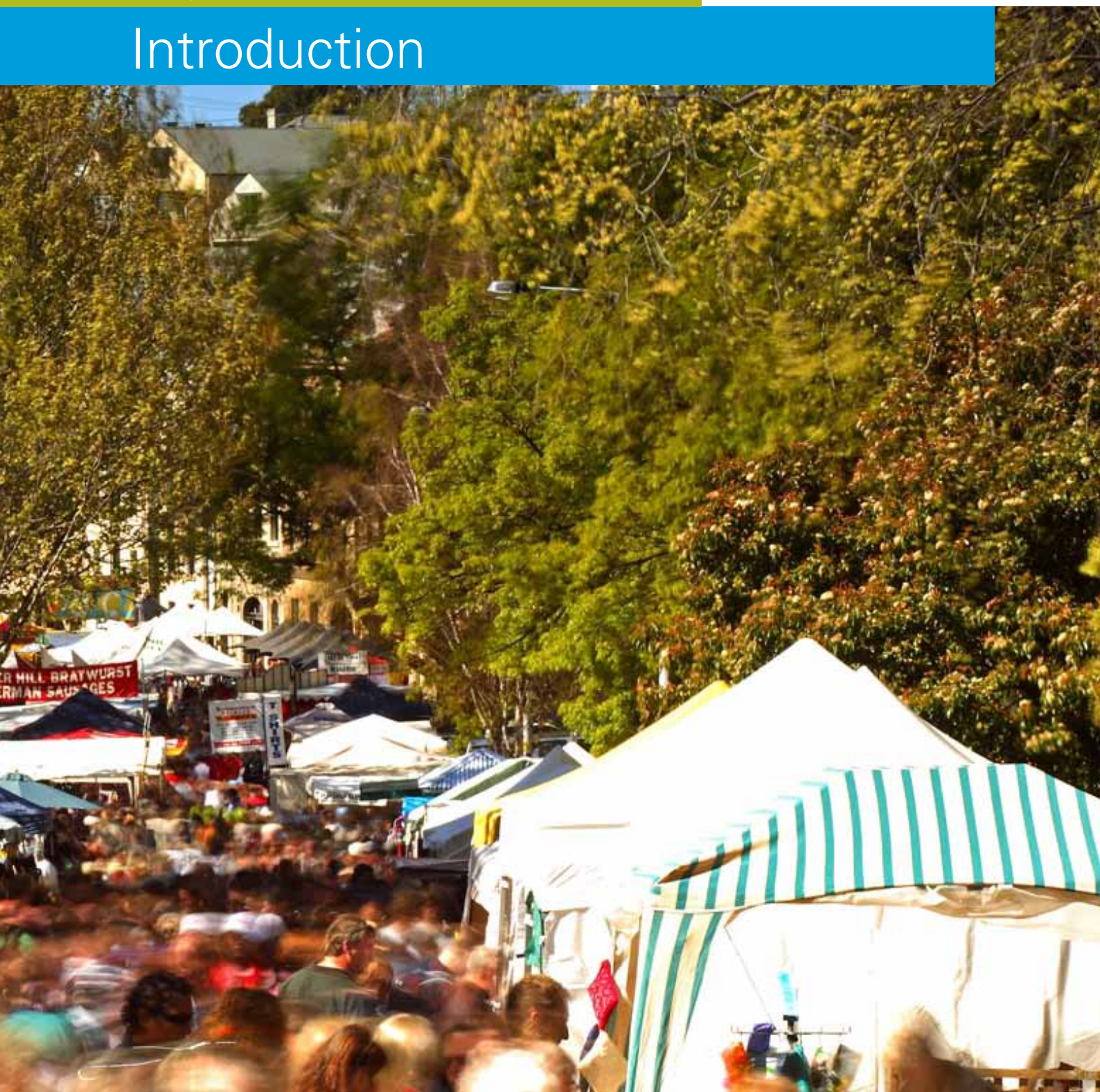


Chapter 1

Introduction

Australia's cities have grown and evolved over the last two centuries. From their historical beginnings in the nineteenth century, Australian cities have been hubs of the country's economy and society, underpinning agricultural, manufacturing and resource industries through their roles as gateways to local and export markets. Our cities have been shaped by the transport networks and infrastructure that link cities across the country; connect people to jobs, goods and services; and provide the means to deliver freight to and from air and sea ports, to domestic and international markets. Our major cities, those with populations greater than 100 000, are now home to more than three-quarters of Australia's residents (ABS 2010).

While our cities continue to face considerable challenges in their development, they have been consistently ranked among the most liveable in the world.

In the coming decades our cities face a more complex array of interrelated challenges that will require a change in our approach to urban development and to our urban way of life. The challenges for Australia's cities and communities will include not only generating economic growth and planning for more people, but preparing for and responding to climate change, competing in a global economy with new types of industries and jobs, and maintaining the health and wellbeing of the population.

The purpose of this discussion paper is to frame and seek comment on the Australian Government's policy approach to cities as the basis for a *National Urban Policy* to be released in 2011. It will establish national directions and objectives for our cities as we prepare for the decades ahead.

The discussion paper outlines the Australian Government's aspirations under the themes of productivity, sustainability and liveability, and proposes possible directions for our cities. It aims to stimulate a national discussion on the outcomes we need for our cities.

Why we need a *National Urban Policy*

There are two principal reasons for a *National Urban Policy:*

Firstly, cities are integral to our economy, and are where the majority of Australians live. The decisions that government, business and individuals make have significant effects on cities. It is imperative that we know what effects our decisions are likely to have on our cities, and to set clear directions and interventions.

Secondly, urgent challenges need to be addressed if we are to secure the long term productivity, sustainability and liveability of our nation. While these challenges are apparent both in cities and regional areas, there are particular issues, as well as opportunities, that are unique to cities.

The complexity and scale of these challenges means it is important that a national approach to cities be clearly articulated and understood.

To secure the ongoing prosperity and wellbeing of our communities, we must ensure that our cities meet the needs of current and future generations, and that economic growth can be sustained without compromising the natural environment or diminishing quality of life.

Our Cities – building a productive, sustainable and liveable future sets out the Australian Government's thinking on a national approach to urban development and the challenges we must address for our cities to become more productive, sustainable and liveable.

A national approach to cities is not just about our capital cities. Challenges are also present in large regional centres. For this reason, the *National Urban Policy* will relate to the 18 Australian major cities with populations greater than 100 000[1]. Cities of this size typically face a similar set of challenges associated with supporting a large urban population as well as being a service hub for a broader region.

The *National Urban Policy* will complement work the Government is currently undertaking in developing a *Sustainable Population Strategy* scheduled for release in 2011. The *Sustainable Population Strategy* will consider how population size, distribution, composition and growth rate affect the sustainability of Australia's economy, environment and society. The *National Urban Policy* will also have strong links to the Government's regional policy agenda currently being developed.

The discussion paper seeks your views on the issues and opportunities for our cities to guide the Government's policy into one that can facilitate more productive, sustainable and liveable cities. Following consideration of your comments, the next step will be to set out the policy and program actions that the Australian Government will take to achieve these aspirations in partnership with State, Territory and Local Governments, industry and the community.

The importance of cities

The development and management of our cities affects national prosperity and the wellbeing of all Australians–no matter where they live.

All State and Territory Governments, as well as the Australian Government, recognise the importance of cities. This was demonstrated by the Council of Australian Governments (COAG) agreement of December 2009 on a national objective and set of reforms

> *'to ensure Australian cities are globally competitive, productive, sustainable, liveable and socially inclusive and are well placed to meet future challenges and growth'.*

As part of the COAG cities reforms, States and Territories have agreed to have in place by January 2012, capital city planning systems that are consistent with agreed criteria (see Appendix A).

The Australian Government's commitment to the COAG cities reforms will involve coordination of Australian Government activities in cities, and linking its investments to capital city strategic plans. The development of a *National Urban Policy* is an important component of meeting these commitments.

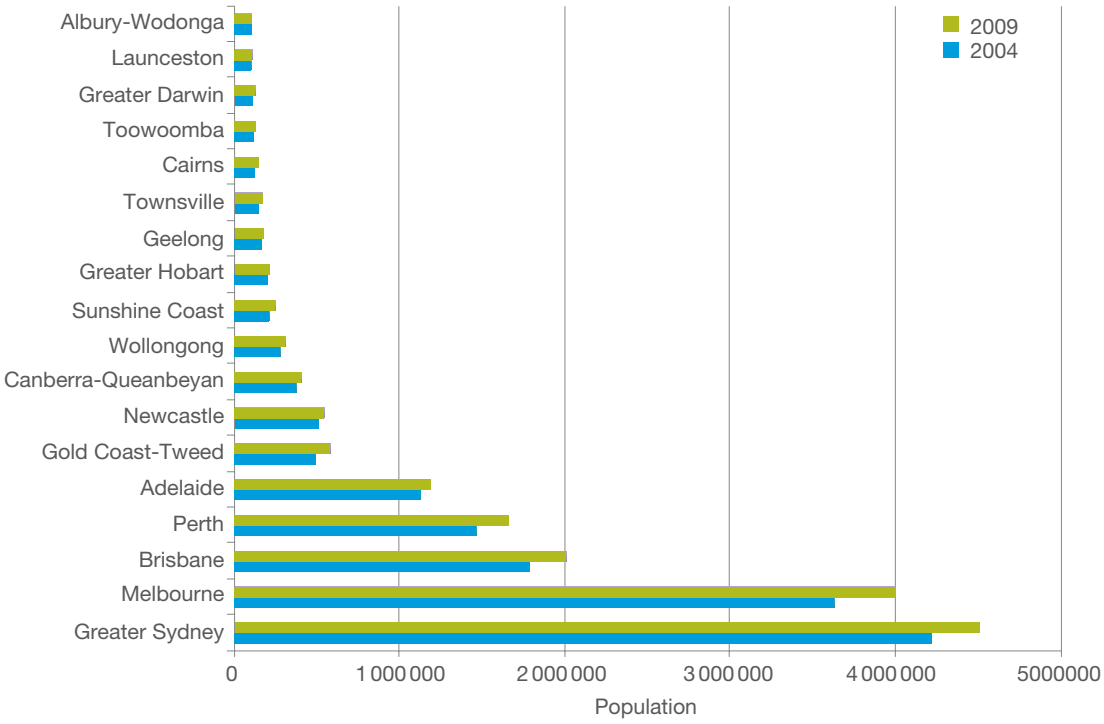
Whilst the COAG strategic planning reforms are focused on the eight capital cities, our other cities are also important. Our diverse regional cities include established inland cities, such as Toowoomba and Albury-Wodonga, which support rural industries and communities. Other major cities are coastal, such as the rapidly growing Queensland cities of the Gold Coast, Sunshine Coast and Cairns, all of which have increased in size by people from other parts of the country seeking lifestyle changes and economic opportunities.

1 The *State of Australian Cities* defined 'major cities' as those with a population of over 100 000 at the 2006 Census. Recent estimated resident population figures from Australian Bureau of Statistics (ABS 2010) show that Albury-Wodonga has now exceeded 100 000 population and is therefore included as major city in this discussion paper.

Other rapidly growing cities, such as Townsville and Darwin, support Australia's mineral export industries. These cities are significant contributors to the economy. The long established regional cities of Newcastle, Wollongong and Geelong, located close to Sydney and Melbourne and built largely around an industrial base, have suffered during periods of economic restructuring but are emerging stronger by broadening their economies.

Figure 1 shows the population of the 18 largest Australian cities in 2009 compared to 2004. Figure 2 provides a map of Australia's 18 major cities (ABS 2010).

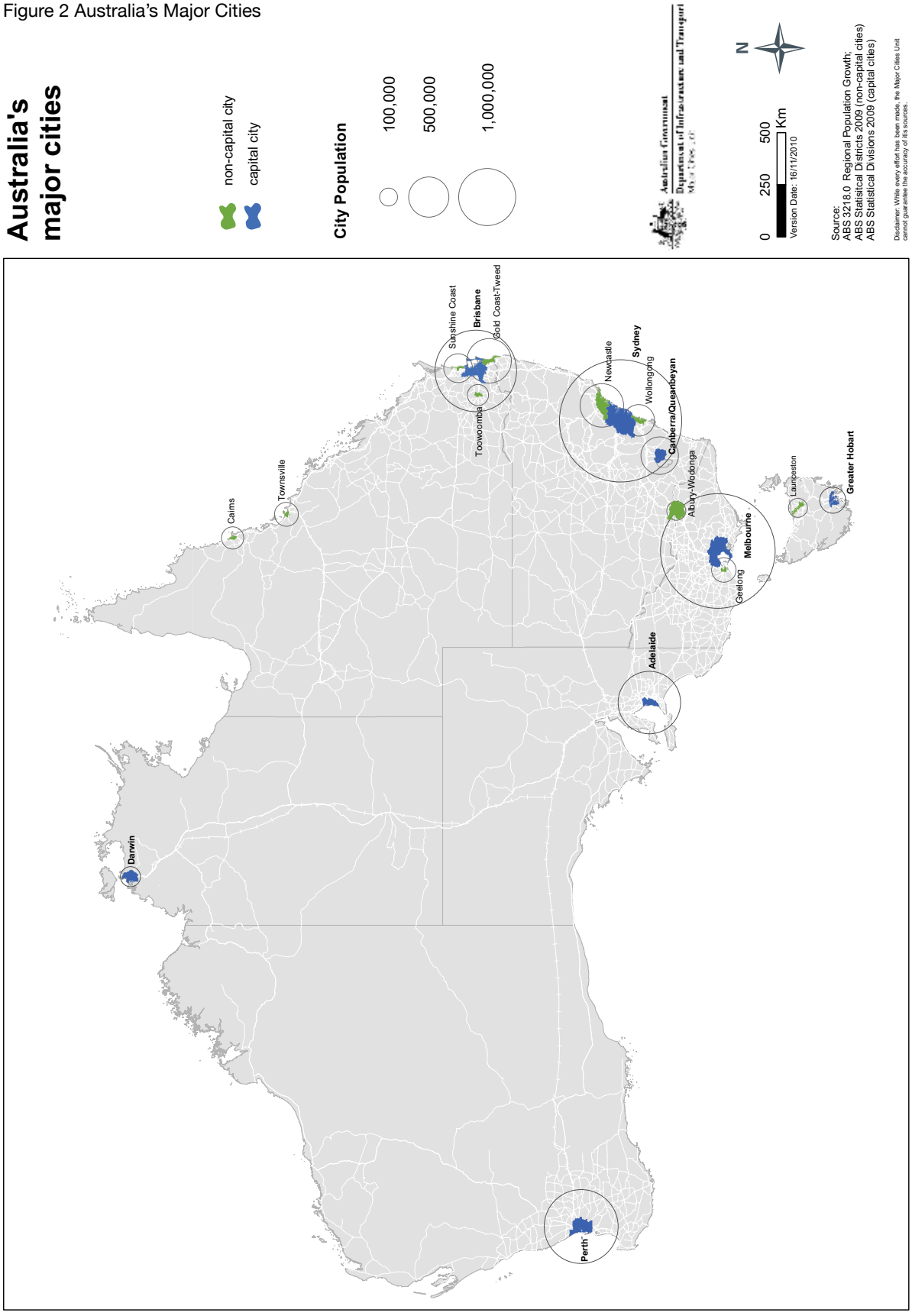
Figure 1 Population of Australia's 18 major cities (2004–2009)



Source: *Regional Population Growth* (ABS 3218.0)

Outside of the major cities are smaller urban centres, such as Mandurah in Western Australia and Mackay and Gladstone in Queensland, which do not yet have populations greater than 100 000 but which are experiencing such rapid growth that they face many similar challenges to the larger cities. In these areas and more sparsely settled regions, the Australian Government has made a commitment to improving outcomes for regional Australians. This includes ensuring that regional Australia has its needs and special circumstances considered diligently, is able to benefit from economic development and has fair access to services.

Figure 2 Australia's Major Cities



The challenge of change

Our cities reflect their geography and resources; technology and innovation; and their social and political past. As our cities have developed, they have continued to be shaped by the lasting legacy of planning, infrastructure, transport networks and significant buildings constructed decades earlier.

Demographic trends will combine with other long-term forces, such as climate change, to have a profound effect on Australia in coming decades, with implications for our economy, environment and society.

In March 2010, the Australian Government released the *State of Australian Cities 2010* report which, for the first time, presented a national snapshot of the country's major cities. The report highlighted many of the significant changes our cities have experienced over recent decades, and the challenges they will face in the future.

The report showed that while our cities are recognised as successful economic entities and are among the most liveable in the world, the development patterns of the past may not provide sustainable solutions for present and future challenges. The way in which our cities develop to accommodate growth and adapt to change will have a substantial influence on how well we meet these challenges as a nation.

In saying this, the report also identified a number of positive trends. These included: increasing density in inner urban areas which corresponded with higher rates of public transport use and alternative transport such as walking and cycling; reduced water consumption; using energy efficiently; uptake in renewable energy by households and business; and increased recycling of waste.

The following is a brief summary of the most significant challenges and drivers of change in our cities. Further detail is provided in the accompanying background paper *Our Cities – the challenge of change*.

Population Ageing

The *2010 Intergenerational Report* released in February 2010, also provides an analysis of the challenges that Australia will face over the next 40 years.

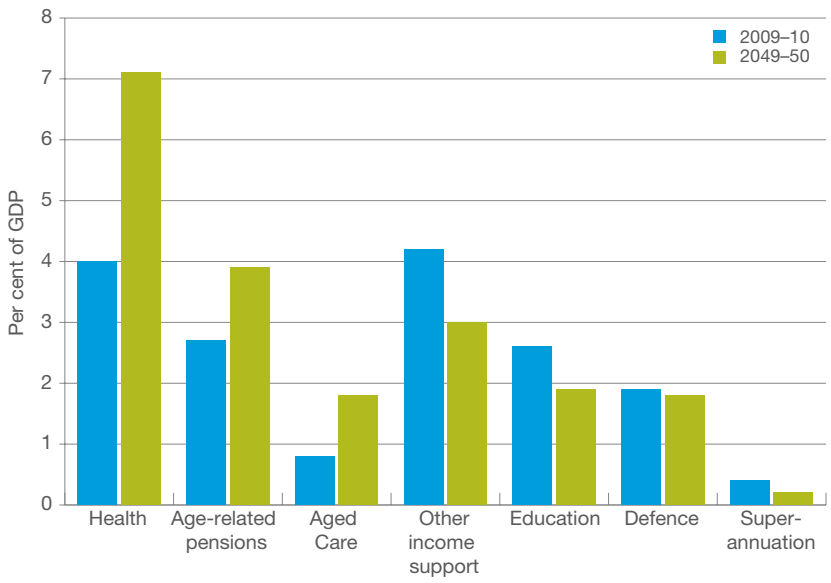
Our ageing population, and the associated decline in workforce participation, is projected to reduce the potential economic growth rate of the Australian economy. Over the past 40 years, real GDP growth has averaged 3.3% a year. For the next 40 years, real GDP growth is expected to slow to 2.7% a year. Population ageing will also create substantial fiscal pressures.

Figure 3 Population projections by age group, Australia

Source: Australian Bureau of Statistics 2008a

The economic impact of ageing will be particularly felt on government spending on health, age-related pensions and aged care services. The proportion of spending directed to these three areas is expected to rise from 25% of total government budgets in 2010 to around 50% by 2050 (Figure 4), thereby reducing the available budget for spending in other areas.

Figure 4 Australian government spending as a proportion of gross domestic product (GDP)



Source: Treasury Projections

The best way to respond to the economic and fiscal challenges of an ageing population is to support strong, sustainable economic growth through supporting productivity, participation and population.

Productivity growth will be the main driver of economic growth and living standards in the future. Policies that support higher productivity, including investments in nation building infrastructure and skills and education, will raise economic growth, improve living standards and enhance Australia's capacity to fund the fiscal pressures of an ageing population.

Steps to improve participation will also minimise the impacts of an ageing population.

A growing population assists in managing the pressures of an ageing population and provides the skills needed for continued economic growth.

Population growth

The *2010 Intergenerational Report* drew attention to Australia's growing population, projecting that Australia's population will grow from 22 million people today to 36 million by 2050. Whilst the projected population growth is slower than experienced over the last 40 years, a population expansion of this magnitude still presents a number of challenges and opportunities for the provision of social and economic infrastructure, the urban environment, transport and housing.

Through careful planning, sound investment decisions in infrastructure and using existing infrastructure more efficiently, population growth can be managed sustainably and can potentially deliver improvements in productivity.

Population growth pressures will increase demand for social and economic infrastructure. The National Housing Supply Council (NHSC 2010) in its *State of Supply 2010* report has estimated that this rate of growth will create a need for 3.2 million additional homes by 2029 and predicts that there will be a shortfall in housing supply of 640 600 dwellings over this period if the market fails to respond to increasing demand.

Population growth pressures have a direct impact on the transport networks in cities. Vehicle congestion reduces urban liveability and is detrimental to the environment. Congestion also reduces national productivity as businesses cannot efficiently move their supplies, products and services. Congested road systems result in private vehicles competing with other road users such as heavy vehicles carrying freight from ports and airports, buses providing public transport, and small commercial vehicles carrying goods within urban locations

The Bureau of Infrastructure, Transport and Regional Economics (BITRE 2007) estimates that the avoidable cost of road congestion is currently in excess of $10 billion per annum, and that this cost will continue to rise over the coming decade, reaching around $20 billion nationally by 2020 if we continue 'business as usual'.

In Australia most new housing development occurs on the outer edges of cities, but often lack good social infrastructure and the necessary public transport infrastructure that provides households with genuine alternatives to the car. That has driven higher reliance on private car travel and, in turn, creates new vulnerabilities to oil price shocks and the risk that households in these newer parts of our cities will become socially isolated and less able to access jobs, essential services and other opportunities.

In the past, demand for transport has been addressed by building new roads or creating new lanes on existing networks. That option, particularly in isolation, is becoming less affordable and sustainable. The real cost of building roads has increased by around 65 per cent over the last 15 years. There is also less suitable land for new roads in our cities, and evidence increasingly suggests that new roads are not in themselves a solution to congestion.

Whilst the Australian Government has supported cities with record investments in public transport to address these concerns, further reforms and investments are required into the future.

The transport challenges facing our cities are considerable and the solutions are complex and long-term, requiring more sophisticated approaches than just building more roads. People and businesses need genuine alternatives to reduce their reliance and dependence on motor vehicles. There are a number of means available, including better land use planning, adequate freight and public transport and encouraging more people to walk and cycle, as well as travel demand management such as user pays charging.

Climate change and the environment

Rapidly growing urban populations place pressure on the environment through the demand for resources such as water, energy and land, and through the production of waste. Our environment, housing and infrastructure will increasingly be affected by the adverse impacts of climate change, such as higher average temperatures, changed rainfall patterns, increased storm events and rising sea levels.

As well as the need to adapt, cities are the source of a large proportion of greenhouse gas emissions and have both responsibility and opportunity to contribute positively to reducing emissions.

The impact of our cities on the natural environment, the use and depletion of resources, and the risk implications of climate change, are significant motivators for changing how we manage and live in our cities. The built environment has the potential to deliver cost-effective approaches to climate change mitigation and adaptation. To realise this potential our urban areas need to be planned and built to reduce consumption of land and natural resources as well as reduce their greenhouse gas emissions by moving to renewable energy sources and reducing use of carbon-based fuels.

Addressing the challenges

Due to their complexity, addressing the challenges faced by cities is frequently beyond traditional government policy and planning approaches. A more integrated and systematic approach is required. There are already many State, Territory and Local Government initiatives underway to address these challenges through innovation, investment, intergovernmental cooperation, and flexible governance arrangements. Industry is also leading many approaches to tackle these challenges.

Notwithstanding the efforts of State, Territory and Local Governments in recent years, many of these challenges have become recognised as nationally significant issues. The COAG has been progressing reforms in the following areas:

- capital city planning reforms to ensure capital cities are well placed to manage population and economic growth, address climate change, improve housing affordability and alleviate urban congestion (See Appendix A)
- development of a housing supply and affordability agenda to ensure housing supply can keep pace with growth in demand, and that adequate housing is available to all Australians
- micro-economic reforms to reduce costs to businesses and consumers, and contribute to productivity growth and improved living standards
- steps towards a truly national freight transport system with an agreed national regulatory framework that will reduce transport costs and help lift productivity and safety
- vocational educational and training reforms to increase economic opportunities for all, and contribute to productivity.

COAG has also considered a number of other policy reforms in the areas of water, health and hospitals, and climate change. These all contribute significantly to addressing the challenges facing cities, however, more still needs to be done.

The *National Urban Policy* will help focus the efforts of all levels of government and across sectors to make our cities more productive, sustainable and liveable, taking into account the work they are already doing, and the respective roles they play.

Roles and responsibilities within cities

Role of The Australian Government

The Australian Constitution retains the principal responsibility for managing the planning and governance of cities with the State and Territory Governments. Nevertheless, since Federation, Australian Governments have had a substantial role in cities through direct investment in housing and infrastructure, property ownership, regulatory functions and service provision. Over the years, this has meant the Australian Government has had influence in many facets of city life, which has helped to shape our cities into what they are today.

The Australian Government has a limited but important set of tools and levers that can influence outcomes in cities. It makes some direct investments associated with its operations, such as in its purchasing policies and defence operations; invests in transport networks of national importance that are operated and maintained by other levels of government and industry; and is a substantial funder of social infrastructure such as hospitals, schools and universities. It also has legislative and regulatory powers such as taxation and corporate governance.

Where regulatory responsibility has clearly resided with other levels of government, the Australian Government has used incentive payments to encourage regulatory reform. Competition payments to States and Territories were a prominent example of this.

As with other levels of government and the business community, and indeed at a household level, how the Australian Government plans and coordinates its activities can influence how effective it can be in delivering the outcomes it aspires to achieve.

There has been wide support and calls for the Australian Government to further increase its involvement and leadership in cities. Appendix B provides a summary of perspectives from industry and other governments, as well as the aspirations of communities for their cities.

Appendix C outlines a number of initiatives currently underway by the Australian Government that contribute to our cities.

States, Territories, Local Governments, industry and the community

States, Territories, Local authorities, and the communities from which they are elected, are key players in shaping and managing our cities. These levels of government provide most of the facilities and services that maintain community wellbeing such as health, education, law and order. States, Territories and Local Government enable our cities to operate and compete globally through investments in infrastructure such as roads and railways, and direct investment in, or regulation of, other utilities like power and water. Together, these levels of government have prime responsibility to plan for urban growth and change and have responsibility for statutory land use planning and the determination of applications for development.

In nearly all major Australian cities—Canberra being the notable exception—municipal functions and governance arrangements are shared between the State or Territory Government and Local Governments. To ensure infrastructure and services best meet the needs of communities, it is important these are delivered by the closest level of government to the people equipped for the task. This is the principle of subsidiarity. The Australian Government considers that its role complements the role played by other levels of government in acting as the main infrastructure and service delivery arms.

The private sector, through a myriad of individual decisions and investments, guided and constrained by government investments, regulation or charges, is a powerful shaper of cities. Construction of regional shopping centres and residential developments, the proliferation of small businesses, and increasing freight traffic are prominent signs of private sector operations in cities. Indeed, the business community has been involved in some way or another in building the entire fabric of cities—from firing the bricks in the homes we live in, producing the vehicles we drive or ride in, driving technological advancements that are continually improving our telecommunications, and operating the markets for goods and services within and beyond our shores.

Australia's private sector has also been progressively increasing its involvement in providing critical city infrastructure which was previously concentrated within governments. Investment areas include power and gas, telecommunications and transport infrastructure.

Individuals and households, as consumers of goods and services, and as employees and voters, interact with governments and businesses in influencing how our cities are planned and operate.

Principles to guide urban policy development

The *National Urban Policy* will aim to facilitate a whole-of-government approach to working with State, Territory and Local Governments, and the communities and businesses they represent and support – toward the agreed COAG objective for our major cities, which is to make them more productive, sustainable and liveable.

Some guiding principles for planning, decision-making and investment in our cities include:

ADAPTABILITY	Our cities need to be adaptable to changes in technology, environment, economy, population and demographics
RESILIENCE	Our cities need to be resilient to events such as natural disasters, the effects of climate change and global socio-economic processes
EQUITY	Our cities should support the equitable distribution of access to opportunities such as education, jobs and housing
INNOVATION	The planning, design, construction and management of our cities requires creative ideas and solutions to meet the current and future challenges
INTEGRATION	Policies and programs need to be integrated across the different levels of government; and within government, across portfolios that influence or are impacted by cities. Industry and community activities also require integration
EFFICIENCY	Our cities and the social and economic infrastructure and services that support them should be planned and managed to maximise their efficient use
VALUE FOR MONEY	Investments in our cities should be cost-effective to return maximum benefits to communities and investors
SUBSIDIARITY	For the quality of governance to be the best, and cost the least, planning and services should be delivered by the most local level of government that has sufficient scale and capability to reasonably deliver them

Aspirations for our cities

The three main aspirations the Australian Government has for cities are that they increasingly become more productive, sustainable and liveable.

With careful long-term planning and investment, our cities can contribute to growing national productivity, to reducing energy consumption and waste, and to achieving better health and wellbeing for our communities.

Productivity

Productivity growth will be the key driver of economic growth and prosperity over the long-term. Productivity growth contributes to the growth in per capita income. Such income growth and its distribution help families to provide for themselves, industries to grow, and governments to fund infrastructure and social services to support our communities.

Many factors contribute to productivity: the skills of the workforce; technology and innovation; and how efficiently capital and labour are allocated to their most productive use. These factors in turn depend on a range of policy settings such as the openness of economy; competitive and efficient product markets and flexible labour markets.

Cities are centres of economic activity, where the workforce, industry and the institutions that support their activity are concentrated. How efficiently our cities connect people, industries, other business and markets—and how effectively their economic and human capital is utilised—can affect the productivity performance of our industries and their ability to contribute to national productivity growth.

In addition, unless we make our urban environments more resilient to future climate and reduce our reliance on high carbon emitting technologies, productivity will suffer. Climate change impacts on infrastructure alone could reduce GNP by 1.2% by 2050 and 2.4% by 2100. (Garnaut, 2008)

The Australian Government's aspirations for our cities are to realise their productive capacity by:

- improving labour and capital productivity by facilitating economic activity, as well as regulatory and competition reform, including reforming infrastructure assessment and pricing
- providing a robust economic setting in which industry can invest with high degrees of certainty
- supporting long-term and strategic planning in conjunction with the States, Territories and Local Government, the private sector and communities
- investing in quality, efficient infrastructure, including transport, communications and smart infrastructure
- fostering innovation and high-value employment
- working with the States and Territories to provide high quality education, skills, incentives to work and economic opportunity
- managing the level and skill composition of migration to ensure this is highly targeted to labour demand needs.

Sustainability

Sustainable development encompasses managing our consumption of resources and production of wastes to better preserve our ecosystems and reduce our impact on the environment. Our rapidly growing urban population places pressure on the environment through demand for water, energy, land and other resources, and through the production of wastes including greenhouse gas emissions. Sustainable cities aim to reduce these environmental pressures and become more resilient to the projected impacts of a changing climate.

The Australian Government's aspirations for our cities are for them to make a significant contribution to improved environmental sustainability by:

- encouraging planning and development of more energy efficient, low carbon urban forms and transport systems
- working with stakeholders to introduce a price on carbon as one way to reduce greenhouse gas emissions
- encouraging innovation and investment in renewable energy
- leading regulatory reforms to encourage more efficient use of resources, including energy and water
- working with stakeholders to establish appropriate sustainability standards for buildings and infrastructure
- providing national data and best practice examples of reducing resource consumption and managing risks such as climate change and security of water, energy and food
- leading national reforms to ensure Australia is well placed to deal with climate change risks
- investing in technology and infrastructure which delivers services and goods to communities and businesses more sustainably
- using 'smart infrastructure' to improve sustainability

Liveability

Liveable cities offer a high quality of life, and support the health and wellbeing of people who live and work in them. Liveable cities are socially inclusive, affordable, accessible, healthy, safe and resilient to the impacts of climate change. They have attractive built and natural environments. Liveable cities provide choice and opportunity for people to live their lives, and raise their families, to their fullest potential.

The Australian Government's aspirations are that our cities will become more liveable by:

- linking Australian Government and State and Territory investments to planning systems that ensure cities are being planned, designed and managed as attractive and equitable places to live, visit and do business
- pursuing regulatory reforms that will help deliver an adequate supply and a diverse range of secure, appropriate and affordable housing
- ensuring equitable access to a full range of employment and educational opportunities, services, facilities, as well as natural and recreational space
- improving public health outcomes through health care infrastructure and services, and also by fostering urban planning and design of the built form that encourages active lifestyles and social interaction, improves air quality, and reduces risks to personal safety and injury
- improving transport options and reducing our dependence on private motor vehicles in urban areas
- improving social inclusion and redressing spatially concentrated social disadvantage.

Strengthening our governance frameworks

Well governed cities follow the principle of integration, ensuring that all levels of government are aligned toward similar goals aimed at harnessing productivity, advancing sustainability and enhancing liveability. Well-governed cities follow the principle of subsidiarity, ensuring that the most local level of government is used where appropriate and that consideration is given to the needs of stakeholders and communities. Well-governed cities have streamlined administrative processes and are well planned and managed, so that communities, businesses and other stakeholders have certainty and confidence that governance systems will deliver infrastructure and services in a cost-effective, timely and efficient manner, and will serve their best interests in the long term.

The Australian Government's aspirations are for our cities to become better planned and managed by:

- improving alignment and integration of planning and investment across all three levels of government to support the nationally agreed COAG objective for Australian cities
- improving metropolitan planning and infrastructure delivery
- minimising costs and time in the planning and development of land, infrastructure, housing, business development and vital services through streamlined administrative processes
- balancing consideration of the views and the needs of stakeholders and communities, and implications for the environment
- ensuring that policies and decisions, where they directly or indirectly affect urban areas, have due consideration for their place-based impacts and associated outcomes for communities
- encouraging best practice, evidence based policy, and innovative planning, management and urban design.

Wodonga, VIC

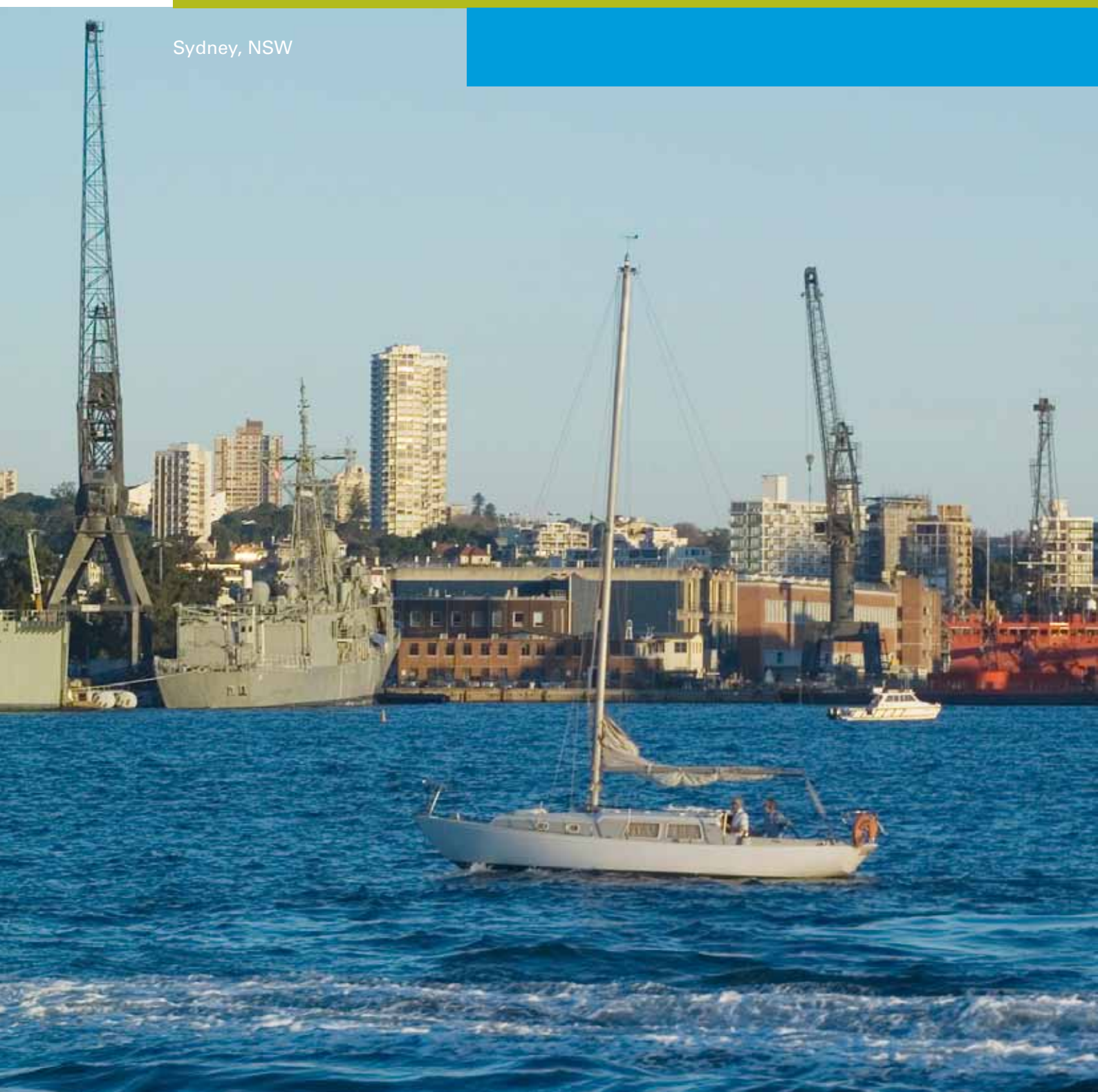
Toowoomba, QLD

To meet the challenges of productivity, sustainability, liveability and governance, the Australian Government has identified a number of areas of priority for its engagement in cities:

PRODUCTIVITY	Improving labour and capital productivity
	Integrating land use and infrastructure planning
	Protecting corridors, sites and buffers
	Investing in urban passenger transport
	Improving economic infrastructure
	Utilising smart infrastructure
	Enhancing connectivity through the National Broadband Network
	Supporting education, research and innovation
SUSTAINABILITY	Protecting and sustaining our natural environment
	Improving water, energy and food security
	Reducing resource consumption
	Reducing greenhouse gas emissions and improving air quality
	Increasing resilience to the effects of climate change
LIVEABILITY	Balancing infill and greenfield development
	Facilitating the supply of appropriate housing
	Supporting affordable living
	Improving transport options and reducing our dependence on private motor vehicles
	Improving the quality of the public domain
	Improving public health outcomes
	Redressing spatially concentrated social disadvantage
GOVERNANCE	Improving the planning and management of cities
	Streamlining administrative processes

While listed here as separate themes as an aid to presentation in this discussion paper, these themes are inextricably linked. For example, enhancing the environmental sustainability of our cities will generally improve their amenity and liveability. And improved amenity is likely to attract and retain a more productive workforce.

These themes and priorities are described in more detail throughout the next four chapters.



Sydney, NSW

Chapter 2

Productivity

Chapter 2

Productivity

Many factors contribute to productivity: the skills of the workforce; technology; openness of the economy and trade barrier liberalisation; micro economic reforms; and workplace relations. Cities are centres of economic activity, where the workforce, industry and institutions are concentrated. How efficiently our cities connect people, industries, business and markets, and how effectively their economic and human capital is utilised has significant impact on the productivity of our cities and their contribution to national productivity growth.

Australia's cities with populations of greater than 100 000 people contribute nearly 80% of the national Gross Domestic Product and employ nearly 75% of its workforce. They are the principal location for approximately 70% of Australia's businesses, including 80% of large corporations (Australian Government 2010a). In Australia, our cities are also important conduits for our strong resource and agricultural sectors and export industries.

The Australian Government has been pursuing an extensive reform agenda to improve productivity, recognising that productivity growth is crucial to increasing the living standards and overall wellbeing of Australia's people. The Australian Government's policy agenda for productivity includes infrastructure investment, education and skills development, innovation and technological advancements, energy efficiency, and consideration of various ways to encourage an increase in workforce participation. These directions are all aimed at securing the nation's long term prosperity whilst maximising educational and economic opportunities for all.

Cities offer the potential for greater productivity gains where specialised or complementary activities can cluster together. The benefits that accrue from such concentrations of activities known as agglomerations, include greater opportunities for innovation and sharing of knowledge and services.

The *Intergenerational Report 2010* was unequivocal about the potential impact that an ageing population and associated decline in workforce participation may have on future economic growth. With an ageing population, productivity will be the key driver of living standards in the future.

> The development of Australia's cities will also be central to improving productivity performance. Much of a city's capacity to accommodate population increases while supporting productivity growth is reliant on the efficacy and adequacy of its infrastructure, including its housing stock. The sustainability of Australia's cities will also be dependent on better governance in the planning and organisation of city infrastructure and more efficient use of existing infrastructure.

2010 Intergenerational Report, page xv

The challenge of lifting the productivity of our cities is two-fold: improving their efficiency; and encouraging innovation, training and development of knowledge and skills.

> 'Australia remains a prime location for doing business ... To progress even further, the country will need to increase the sophistication of its businesses ... and strengthen its innovation capacity.'

The Global Competitiveness Report 2010–11, World Economic Forum page 28

The potential for cities to further unlock productivity and agglomeration opportunities is constrained by a number of factors. These include competition for space and infrastructure use and investment; conflicts between land uses; heavy vehicle congestion around airports or sea ports; complex, inconsistent and inadequate cross-border rules for the freight industry; and inadequate coordination and governance structures within and across the three levels of government and into the private sector.

A federal partnership is warranted to address the productivity and global competitiveness challenges facing our cities.

IMPROVING LABOUR AND CAPITAL PRODUCTIVITY	Improving the performance of both labour and capital is required to secure long-term national productivity. Sustained and targeted investments in people and capital are required into the future.
INTEGRATING LAND USE AND INFRASTRUCTURE PLANNING	The distribution of people and jobs, inadequate infrastructure, and conflicting land use activities, can serve to limit the productive capacity of our cities. However, effective integration of land use and infrastructure planning can deliver economic efficiencies and social opportunity.
PROTECTING CORRIDORS, SITES AND BUFFERS	A major impediment to the placement of new infrastructure or the expansion of existing infrastructure is the lack of planning for, and protection of, critical infrastructure corridors and sites. A further concern is the need for adequate protection of buffers to prevent facilities from being encroached upon by incompatible land uses. Best practice approaches to plan and protect corridors, sites and buffers are required as part of good integrated land use and infrastructure planning.
INVESTING IN URBAN PASSENGER TRANSPORT	Transport infrastructure is costly in terms of both capital investment and maintenance. Yet it is often not managed or used to its full capacity. How we may use smart infrastructure, pricing and travel demand mechanisms to gain increased efficiency in the use of transport investments is the subject of much national and international investigation and trialling.
IMPROVING ECONOMIC INFRASTRUCTURE	Ensuring our roads, railways, ports, airports, communications, water and electricity networks can adequately provide for economic and population growth is a constant challenge. The Australian Government is continuing to strengthen its relationship with industry, State, Territory and Local Government to facilitate the provision and efficient use of nationally significant infrastructure.
UTILISING SMART INFRASTRUCTURE	New technologies can improve and enhance safety, efficiency, cost-effectiveness and the environmental performance of infrastructure networks. Smart infrastructure encompasses a broad range of information and electronics technologies.
ENHANCING CONNECTIVITY THROUGH THE NATIONAL BROADBAND NETWORK	An accessible high speed national broadband network is fundamental to improving communications and connectivity for businesses and communities and to maximise the application and benefits of smart infrastructure. Increasing the capacity for industry and communities to access information and services, and to conduct business transactions online can reduce the need for travel and improve our international competitiveness by overcoming our relative geographical isolation.
SUPPORTING EDUCATION, RESEARCH AND INNOVATION	While the nation develops many innovative approaches to city problems, in too many instances opportunities to generate new wealth for the nation are missed. There is a need to help foster more innovative systems and approaches within our cities, and to share this knowledge, information and expertise across regional areas.

Improving labour and capital productivity

Improving Australia's productivity requires an understanding of why a decline of productivity has occurred and what can be done to accelerate productivity growth? Australia's Productivity Commission estimates that the decline in multifactor productivity growth can be attributed to three industry sectors: mining; agriculture; and electricity, gas, water and waste services (Productivity Commission 2010). The Commission estimates indicate that these three sectors accounted for almost 80% of the recent decline in productivity growth relative to the 1998–99 to 2003–04 cycle. More explanation is available in chapter 4 of the background paper to this discussion paper.

The need for large recent urban infrastructure investments (not including the stimulus package) highlight the importance of on-going investment over the long term to prepare for population growth and a changing climate—including less predictable rainfall patterns, sea level rise and coastal erosion. Whilst this recent infrastructure investment will contribute to supporting our productivity over the long term, ongoing productivity improvements will depend on the efficient use of infrastructure and sustained and well targeted investments to harness our productivity potential.

This is particularly true in our cities. Our investment in education and training is continuing to support long term productivity improvements by ensuring we maintain our skilled workforce into the future. Infrastructure investments in our cities which facilitate people accessing education and training opportunities and jobs also underpin improved productivity by harnessing the potential of our workforce.

Integrating land use and infrastructure planning

The efficiency of Australian cities as economic systems is diminished by poor planning, coordination and/or implementation. The low density nature of our cities compared with many of our international competitors means that we travel further each day to complete our daily activities and to move freight around.

These challenges are compounded by the vast distances between our cities, and between Australian cities and the rest of the world, as well as the limited investment in economic infrastructure in our cities in the last decade compared with earlier decades, leading to congestion and delays on our roads and on public transport.

Recent population and economic growth has put a spotlight on the need for governments to expand their investment and reform agenda in economic infrastructure to ensure that road and rail freight networks are well planned and managed, not just to the edges of cities but through them to the economic gateways of the nation, our ports and airports. We also need to ensure that the movement of people within cities is well planned and managed, and that conflicts between incompatible land uses do not undermine productivity.

Launceston, TAS

Case study: Gold Coast light rail

The Gold Coast is Queensland's second largest city and is one of the fastest growing regions in Australia with a population of 600 000 that is increasing by 15 000 each year.

The Australian Government is investing $365 million towards the Gold Coast Rapid Transit system. This involves the construction of a 13 kilometre light rail system to link key activity centres from Griffith University (Gold Coast Campus) to Broadbeach via Southport. This is the first stage of a broader system that is planned to connect Helensvale with Coolangatta. The capital cost to governments of the project is now expected to be in the order of $949 million with the final cost to be determined through the tender process for the Operator Franchise Public Private Partnership. The Queensland Government and Gold Coast City Council are meeting the balance of costs.

The project is expected to see a reduction in greenhouse gas emissions over 10 years that is in the order of 114 000 tonnes (net). In addition, it is expected to see significant reductions in the number of daily car trips to key activity centres along the light rail corridor.

As a result of the rapid transit system, the wider public transport network will be enhanced with four million bus service kilometres to be re-directed across the city.

The rapid transit system will also support the Council's "Our Living City" Urban Planning Scheme through new urban planning opportunities with Council planning to upgrade precincts around key stations and provide for Transit Oriented Developments along the corridor.

The first section of the Gold Coast Rapid Transit system is expected to be completed in 2014.

Protecting corridors, sites and buffers

In managing growth effectively, a specific area of concern is the need to improve the planning, protection and acquisition of corridors, strategic sites and buffers for nationally significant economic infrastructure networks in, and between, the major cities of Australia. The capacity of jurisdictions to implement long-term plans without the encroachment of incompatible land uses into areas needed for infrastructure, or prohibitively expensive land purchases, depends on long term planning and timely statutory protection of critical lands.

The Australian Government is working with the other levels of government in analysing best practice approaches to facilitating the efficient planning and development of nationally significant economic infrastructure, particularly in relation to the long term planning and protection of critical infrastructure corridors, strategic sites and buffer zones.

The Australian Government is also investing in the possibility of high speed rail along the eastern seaboard and is working with the NSW Government on an aviation strategic plan for the Sydney region. Both these investigations may call for the protection of corridors and/or strategic sites.


Gold Coast, QLD


Townsville, QLD

Case Study: Long-term planning and acquisition of strategic corridors and sites in Western Australia

The Western Australian Planning Commission is a statutory authority with state-wide responsibilities for urban, rural and regional land use planning and land development matters. The Commission is supported by the Department of Planning through human resources and professional advice.

The Commission can plan, then provide statutory protection for, and ultimately acquire, properties reserved under regional schemes for primary and regional roads as well as other transport modes, non-transport infrastructure needs, parks and conservation areas, and major land development projects. As such, it has the power to plan and reserve land for major infrastructure corridors and interchange sites such as freight terminals and rail lines.

The Western Australian Planning Commission acquires reserved land on a long-term strategic basis and mostly acquires land voluntarily, as land is offered for sale to the general market or at the request of landowners. In this way land acquisition is generally not of community concern. Land which is affected by a reservation in a regional scheme can generally remain in private ownership or at least private management until the government needs it for a public purpose.

The purchase of land is funded by the Metropolitan Region Improvement Tax–a small and secure component of land tax which the Commission receives annually and outside the normal budget allocation processes of the Western Australia Government. In 2009–10 the Planning Commission acquired 46 properties totalling 195.7 hectares at a cost of approximately $68 million.

The Planning Commission provides a role model for long-term planning and strategic land acquisition for significant projects.

Investing in urban passenger transport

The transport challenges facing our cities are considerable and the solutions are complex and long-term, requiring sophisticated approaches to ensure optimal outcomes from investments. People and businesses need genuine options for their transport needs, including alternatives to reduce their reliance and dependence on motor vehicles. A number of means are available, including better land use planning; improving the efficiency of freight and quality of public transport; encouraging more people to walk and cycle; use of technology and smart infrastructure; and appropriate pricing and travel demand management.

Historically, the Australian Government has not been a major funder of city public transport systems. However, in recognition of the critical role public transport plays to improve the liveability of our cities, the Australian Government has committed over $7.3 billion for metropolitan rail system improvements in capital cities since 2008 (refer to the case study).

It makes sense to make the most of the infrastructure we have already before investing in any more. Optimising our existing networks is a high priority and one that Infrastructure Australia, in particular, is pursuing.

The option of more effective pricing gives clearer and more consistent signals to commuters and carriers of freight about the real cost of road use or other mode such as air or rail. Road congestion charging has already been introduced in cities like London, Singapore and Stockholm. The experiences and lessons from these international examples are worthy of further consideration. There are also ongoing debates about whether road pricing is warranted, or even cost effective, in Australia's biggest cities. However, the widespread adoption of affordable Global Positioning System technologies may provide more options in future. The social implications of such approaches will also need careful consideration.

Local Government too, has an important role in maximising returns on our investment in urban transport. Local jurisdictions in Brisbane, Melbourne and inner Sydney, for example, are taking the lead on developing 'active transport' options—making it easier to ride bicycles and walk throughout the city. They are also supporting local infrastructure to encourage motorists to consider the benefits of electric vehicles. While these vehicles will not reduce congestion, they will at least start to lessen the worst environmental aspects of vehicle use within cities.

Recently, Australia has experienced some pronounced changes in personal transport use. Between 2004 and 2008, Australia's population grew by an average rate of 1.5% per annum, but travel demand grew by only 0.6% per annum. In addition, while in earlier decades 90% of growth was in the form of increased car travel, more recently this has fallen to 30% of growth. Taken together, these two factors have led to growth in car travel of only 0.2% per annum in recent years (BITRE 2009a). These trends reflect similar changes in Europe and the United States where car travel has been falling as an overall proportion of travel.

Investment in urban rail and bus transport can also be used to leverage more sustainable urban development forms. For example, combining infrastructure investment with new forms of housing and commercial development along transport routes can create more accessible, less carbon dependent communities and businesses.

Case Study: Investment in urban railways

Investment in railways in Australia's urban centres has not kept pace with population growth in recent decades.

The Australian Government has sought to assist State and Territory Governments to address this by investing in urban rail projects. Federal investment is now planned at $7.4 billion and provides for a major rail project in every state capital on the mainland.

Long term integrated land use and transport planning in Victoria identified the need for significant new rail investment in response to the rapid growth in ridership on Melbourne's trains, including growth of about 47 per cent in the preceding five years alone. In addition, there was a need to develop a new rail line to serve the rapidly growing western suburbs and to separate regional trains from metropolitan trains in order to improve the capacity and reliability of both. A seven-stage rail network strategy was developed to, firstly, maximise utilisation of the existing infrastructure through operational and pricing initiatives and, subsequently, to construct a new rail link through the western suburbs (the Regional Rail Link) and a new metro crossing beneath central Melbourne.

Similar planning for the development of the rail network in Adelaide identified the need to lift the speed and frequency of train services on the Gawler rail line, including electrification and re-sleepering of the line, and to extend the Noarlunga line to Seaford to serve the rapidly growing southern suburbs.

The Regional Rail Link, Melbourne Metro, Gawler and Noarlunga-Seaford rail projects were submitted to Infrastructure Australia for advice to the Australian Government on their importance and on the robustness of the work done in preparing the projects for funding. Infrastructure Australia advised that the projects met the stringent criteria applied by Infrastructure Australia and were ready to proceed.

In 2009, the Australian Government committed $3.2 billion for the construction of the Regional Rail Link in Victoria and more than $584 million for the Adelaide projects. All these projects are now in construction. The Australian Government also provided funding of $40 million for a business case for the first stage of the Melbourne Metro project.

Improving economic infrastructure

Economic infrastructure is the hard infrastructure—such as roads, railways, communications, water and electricity networks—that is essential for cities to effectively function and contribute to Australia's economic capacity. In Australian cities, productivity is directly linked to infrastructure that supports the economy. In comparison with other countries, Australia relies heavily on its transportation sector, which accounted for 4.7% of GDP in 2007–08 (BITRE 2009), continuing a growing contribution over the past 20 years.

Ensuring that infrastructure can adequately provide for economic growth, population growth and transport demands is a constant challenge. Freight and passenger transport between major cities is projected to double by 2025 (BITRE 2009a).

In many Australian cities growth has outpaced the ability or priority given to fund and build new infrastructure. Increasingly, cities need to overcome shortfalls through innovative approaches to ensure that infrastructure is used more efficiently and alternative funding sources are secured.

The Australian Government has, for a long time, contributed funding to the nation's economic infrastructure. However, until recently, its focus has generally not been in the cities, but rather on connecting Australia's cities with a quality road and rail network.

Infrastructure Australia was established by the Australian Government in 2008 to review, and advise on, infrastructure reform and investment initiatives of national significance. Infrastructure Australia has a crucial role in developing long-term strategies and national regulatory reform and is working with the Council of Australian Governments to agree to, and deliver on, these objectives. To this end it has published National Public-Private Partnership Guidelines and initiated work on a National Ports Strategy, a National Freight Strategy, as well as strategies for energy, water and public transport network planning.

The Building Australia Fund was established on 1 January 2009 by the *Nation-Building Funds Act 2008* to finance capital investment in transport infrastructure (such as roads, rail, urban transport and ports), communications (such as broadband), and energy and water infrastructure (such as dams and power stations).

The Government committed $22 billion in its 2009–10 Budget to improve the quality, adequacy and efficiency of transport, communications, energy, education and health infrastructure across Australia.

A number of other significant Australian Government funding programs for economic infrastructure also exist. Some of these are project based and others are in the form of special purpose grants. Much of this funding has been focussed on land transport, particularly roads. Without the use of complementary demand-side measures, such as road pricing and congestion charging, some proposals for additional road capacity are unlikely to lead to sustained reductions in congestion and may further impact the environment and reduce urban amenity. However, there is a role for road projects to support the transformation of our cities and improve access to our ports and major road freight networks, provided they make better use of existing networks and facilitate the efficient movement of road based freight transport.

Further realignment and reprioritisation of existing and planned funding for nationally significant economic infrastructure would seek to ensure that:

- there is a clear policy framework for economic infrastructure, building on existing policy reforms
- air and sea ports are well supported by connecting infrastructure
- major national infrastructure is resilient to future climate scenarios
- infrastructure corridors and sites are protected for the long term
- regulatory and planning reform is leveraged to obtain the best value from Australian Government investments

Case Study: Proposed Moorebank Intermodal Freight Terminal

An example of the Australian Government's interest in major productivity-based infrastructure is the proposed Moorebank Intermodal Freight Terminal in New South Wales. The Government will provide funding to be used to develop a comprehensive business case, create designs, gain approvals and develop and implement a strategy for an intermodal transport hub at Moorebank, as well as relocate the Defence's School of Military Engineering to Holsworthy.

It is envisaged that the Moorebank Intermodal Freight Terminal could become an integrated transport solution for the movement of freight to, from, and within the Sydney basin. It would therefore support national productivity, reduce business costs and reduce urban traffic congestion, through more efficient distribution of containers by rail.

Preliminary analysis by Infrastructure Australia projects that the terminal will take over 1 million trucks off Sydney roads every year from 2020, which will also reduce greenhouse gas emissions and motor vehicle accident rates. A decision to proceed with the project will be dependent on the outcomes of detailed community consultation and assessment.

Utilising smart infrastructure

Smart infrastructure involves combining information technology with infrastructure to provide information that can help to improve an asset's operation. Smart infrastructure initiatives and technologies present us with an opportunity to build intelligence into the systems on which the Australian economy depends, such as transport, communication, health, energy and water.

It can be used to deliver productivity benefits that directly address some of the key challenges faced by our cities, particularly those being faced by Australia's urban transport systems.

The potential benefits of next generation smart transport infrastructure, especially cooperative systems, are expected to be substantial. This is largely because these systems are able to 'see further' to generate real-time information, and provide drivers with more time and advice to support safety, congestion mitigation and driving in a way that maximises fuel efficiency.

Most transport-related smart infrastructure may broadly be categorised as:

- Direct traffic management technologies, such as traffic light synchronisation, ramp meters, and responsive speed limits. The main benefits are reduced congestion with associated environmental and safety benefits, as well as the potential for increased throughput.
- Provision of information to transport users (both public and private transport), with the direct benefit of allowing greater choice, certainty and reliability for users, and with the indirect benefits associated with reducing congestion.
- Smart infrastructure to inform maintenance decisions, such as sensors embedded in infrastructure, which can improve safety and reduce maintenance costs.

Examples currently in use or being developed on roads and motorways in Australia are:

- monitoring of freeway conditions and identifying flow impediments
- ramp metering (signals that control the flow of traffic onto the freeway)
- dynamic messaging signs and variable messaging signals
- emergency vehicle notification systems and incident management systems
- variable speed limits
- real time traffic information
- collision avoidance systems
- dynamic traffic light sequence
- cordon zones with congestion pricing
- electronic toll collection.

A recent report undertaken by Access Economics—*The Economic Benefits of Intelligent Technologies 2009*—reviews the potential economic benefits that may flow from the implementation of smart technologies and systems in different parts of the economy, including transport.

The report found that the benefits far outweigh the initial capital costs involved, estimating that the implementation of smart, integrated transport systems, accompanied by regulatory and governance reform, could boost the net present value of GDP by between $6 billion and $13 billion over a 10 year period, and boost the number of jobs by 30 000.

Case Study: Advanced Train Management System

Much of the signalling infrastructure across the interstate freight rail network is at the end of its physical life. The cost to replace this infrastructure on a like-for-like basis is high. At the same time, advances in information technology systems (software and hardware) and communications systems have created opportunities to move to a new generation of train control.

The Advanced Train Management System (ATMS), proposed by the Australian Rail Track Corporation replaces track-side infrastructure with digital mobile communications based control and global positioning technology. This technology will improve train control and deliver system-wide efficiencies for rail freight, resulting in increased capacity. It will also benefit passengers who use the interstate network.

Following the Australian Government-funded $15.8 million ATMS 'Blueprint' (Phase 1) completed in 2006, the Australian Government has invested a further $45 million to trial the ATMS between Port Augusta and Crystal Brook in South Australia (Phase 2) as part of the Nation Building Program - Economic Stimulus Package equity contribution to the Australian Rail Track Corporation.

The trial will further develop the ATMS and, if successful, full implementation across the rail network will be considered. If deployed, the system will replace existing high-maintenance, geographical-based track side signalling infrastructure with 'rolling virtual proximity' signalling. The system will utilise Global Positioning System technology and high speed 3G broadband data to define safe travelling distances between trains, provide real time information to drivers and enable new digital network control centres to direct all traffic on Australian Rail Track Corporation's network.

Enhancing connectivity through the National Broadband Network

For a city and its residents to compete globally in a world dominated by rapid flows of information, the infrastructure connecting the city to the commercial telecommunications network must be able to meet both current and future requirements. This warrants dramatically increasing bandwidth.

For these reasons the Australian Government has announced the roll-out of the National Broadband Network.

The National Broadband Network is fundamental to realising the potential of 'smart infrastructure' and is central to the Government's strategy on improved communications. With the utility of a wide spread, high speed network the applications of the new information and communication technologies will extend into almost all facets of work and life.

The roll-out of high speed broadband is expected to:

- improve the productivity of Australian businesses, allow them to expand their customer base and grow revenues, regardless of their location
- enhance education, health and other services delivery for all Australians regardless of location
- connect our cities and regional centres nationally and globally
- facilitate greater take-up of teleworking, which, in turn, allows workplace flexibility, eases traffic congestion and enhances regional employment opportunities
- allows the use of smart technology to better manage our natural resources, infrastructure and issues such as congestion

Through the Australian Government's investment, high speed broadband will increasingly become available to all Australians. Under current Government policy, 93% of Australian homes, schools and businesses, will be connected via fibre optic cabling, capable of delivering speeds up to 100 megabits per second. The remaining premises will be connected via next generation wireless and satellite technologies delivering broadband speeds of 12 megabits per second or more.

Supporting education, research and innovation

To compete globally, cities increasingly rely on 'human capital' for competitive advantage. Human capital is developed through access to education and training—highly skilled people are more likely to engage in paid work, and to work for longer. Cities can build, retain and attract skilled workers if they offer accessible employment and training opportunities and a desirable quality of life.

The current reforms to education, training, employment services and workplace relations will help all areas of Australia, including its cities, to build human capital and a more skilled workforce. In the recent economic crisis, while the Australian labour market displayed remarkable resilience, it was not immune to the impact of the downturn. In general, metropolitan areas fared better than non-metropolitan areas, but a number of metropolitan regions were disproportionately affected, as a result of their reliance on industries that were particularly vulnerable to the impact of the global recession, such as manufacturing. In building productivity and resilience, it will be important to recognise these vulnerabilities and be aware of the significant threats cities must prepare for, including economic down-turns, security threats, natural disasters and climate change.

Innovation is critical to future productivity and maintaining or building competitive advantage. It requires the bringing together of a broad range of educational, social and physical enablers. Encouraging innovation in our cities requires:

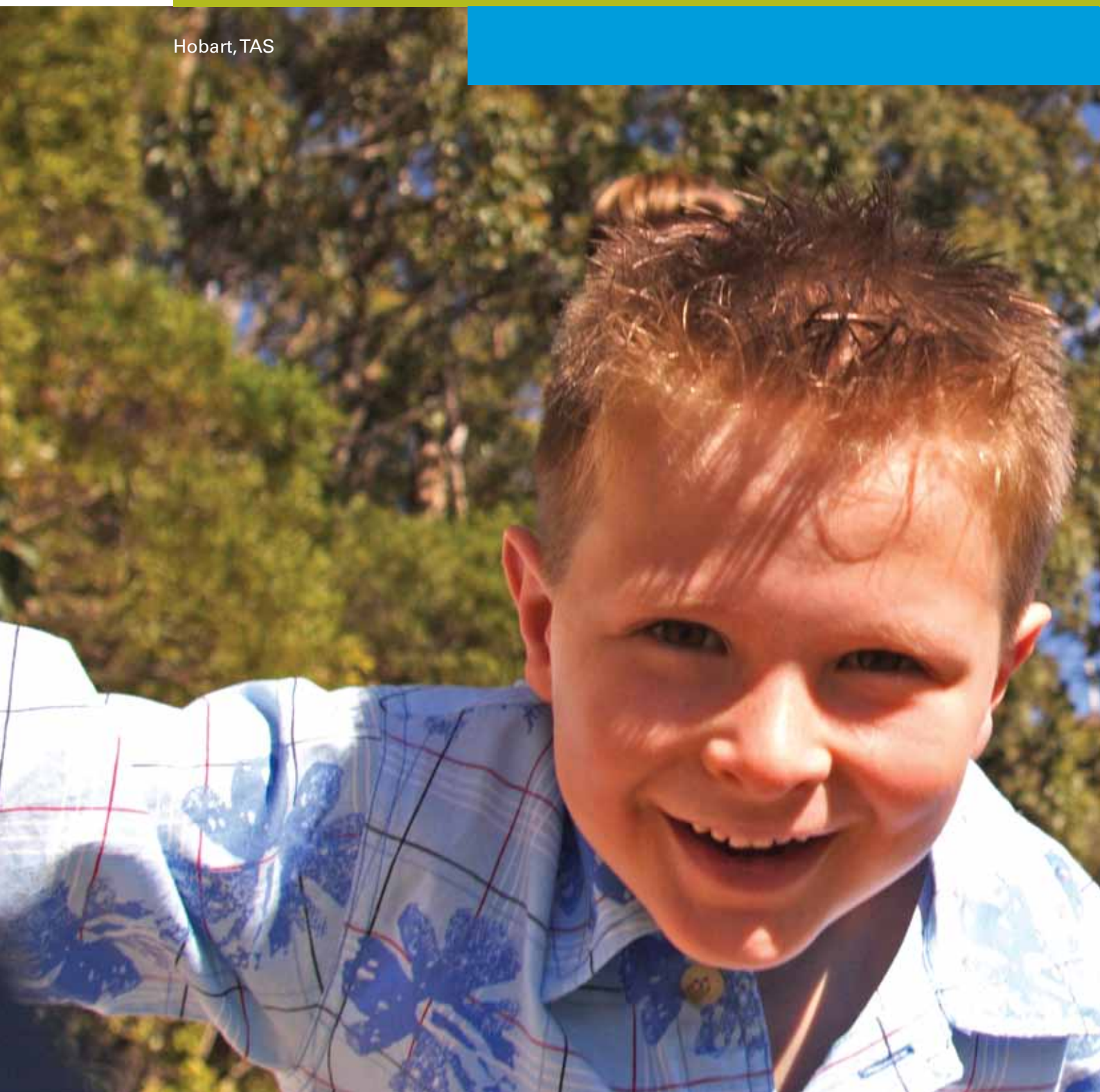
- economic opportunities for talented individuals and businesses
- lifestyle opportunities that attract talented individuals
- transport and communications to provide connections within and beyond our cities.

Innovation does not just happen. It will involve decisions made in both private sector and government sectors to invest time, effort and money in exploring new ideas and business models. From a business perspective, the profit motive and competition will be important drivers of innovation. Similarly, flexibility in the workplace and regulatory environment can facilitate the adoption of new practices and processes.

The Organisation for Economic Co-operation and Development (OECD) *Innovation Strategy,* released in May 2010, states that innovation is central to economic performance and social welfare, and notes evidence confirming the links between innovation and growth. The strategy states that innovation "is a powerful engine for development and for addressing social and global challenges. And it holds the key, both in advanced and emerging economies, to employment generation and enhanced productivity growth through knowledge creation and its subsequent application and diffusion."

To compete globally, cities increasingly rely on 'intellectual capital' for competitive advantage. In recent decades, skill shortages have imposed constraints on economic growth and continue to do so.

Developing a skilled labour force and increasing the participation rates within city populations is related to the availability and accessibility of employment and training opportunities. There is also a strong relationship between economic success and the amenity offered by cities. With an increasingly mobile global workforce, attracting people with high levels of skill to our cities is related to the quality of life that the cities offer.



Hobart, TAS

Chapter 3

Sustainability

Chapter 3

Sustainability

Sustainable development refers to 'development that meets the needs of the present without compromising the ability of future generations to meet their own needs' (Brundtland, 1987).

Recent trends in population growth and urban development are intensifying the challenges facing our communities and the pressures on our built and natural environments.

> The projected increase in Australia's population over the next 40 years, together with continued economic growth, will put pressure on our increasingly fragile ecosystems. It will also place pressure on our cities and their supporting infrastructure.
>
> *Australia's Future Tax System 2010 Report to the Treasurer, December 2009*

Demand for essential goods and services such as water, energy and land continues to increase whilst supply comes under mounting pressure. At the same time, waste generation in Australia continues to grow. If left to develop in an unsustainable manner, Australian cities and regions will increasingly contribute to and be impacted by the degradation of the physical environment that underpins our way of life. An added pressure is the physical consequences of climate change, which will add to—and in some cases compound—other environmental challenges.

Solutions to these challenges require a co-ordinated and comprehensive response, targeted at all areas of the urban form and its associated systems such as energy, water, sewage, transport, waste management communications, urban planning and development processes. It is essential that mechanisms be established to allow for effective decision-making and that communities, the private sector and government work together to better manage the environment and prepare for climate change.

The Australian Government has several roles with respect to sustainability, including the facilitation of changes to how we plan for and construct new developments, buildings and infrastructure; support for other levels of government to help them manage their existing assets; the regulation of matters of national environmental significance; and support for communities as they adjust to a changing climate and better manage areas of conservation or heritage importance.

Sustainable Population

The Government is currently developing a *Sustainable Population Strategy* scheduled for release in 2011. The Strategy will consider how population size, distribution, composition and growth rate affect the sustainability of Australia's economy, environment and society. Australia's cities play an important role in meeting the nation's future population needs and the Strategy will have strong links to the development of the *National Urban Policy.*

PROTECTING AND SUSTAINING OUR NATURAL ENVIRONMENT	Cities and their populations are having a detrimental impact on natural ecosystem services vital to human life. Native ecosystems are at risk of being displaced or degraded by expanding urban areas with negative consequences for air and water quality, biodiversity and amenity. Options to support the 'greening' of Australian cities include promoting the importance of green infrastructure into the fabric of urban systems, revising the current patterns of city development and continuing to protect our natural environment and ecosystems.
IMPROVING WATER, ENERGY AND FOOD SECURITY	The secure supply of water, energy and food to our cities is becoming an increasing issue as our cities expand and adapt to a changing climate. Options to support the security of these vital systems are continually being developed, with considerable investments being made in many of Australia's major cities.
REDUCING RESOURCE CONSUMPTION AND WASTE	Cities and their populations greatly affect the environment through the demand for resources. Current patterns of consumption of non-renewable resources and production of waste are a key challenge for the future of our cities. Options to reduce our consumption of finite resources include using and reusing resources more efficiently and minimising waste production through incentives and regulatory reform. It will also be important to examine how our cities can provide additional resource security through effective management and alternative supplies.
REDUCING GREENHOUSE GAS EMISSIONS AND IMPROVING AIR QUALITY	Australia has one of the highest per capita carbon emissions in the world, with our cities being significant emitters of greenhouse gases. The Australian Government is committed to reducing carbon emissions and is supporting innovation in renewable energy technology and investing in energy efficiency measures. There is also scope to further reduce ambient levels of the main air pollutants in urban areas by focusing on the major sources of these pollutants, including motor vehicles, wood heaters, non-road engines and paints.
INCREASING RESILIENCE TO THE EFFECTS OF CLIMATE CHANGE	Australian cities and regions (both on the coast and inland) will likely face increased challenges from climate change. Depending on location this may include extreme weather and storm surge events, rising sea levels, cyclonic activity, increasing temperatures, heatwaves and bushfires. Options that continue to minimise the exposure of our cities and regions to climate change risk need to be developed and applied. In doing so, future investment and work with other levels of government, industry and the community will need to fully consider climate change risks.

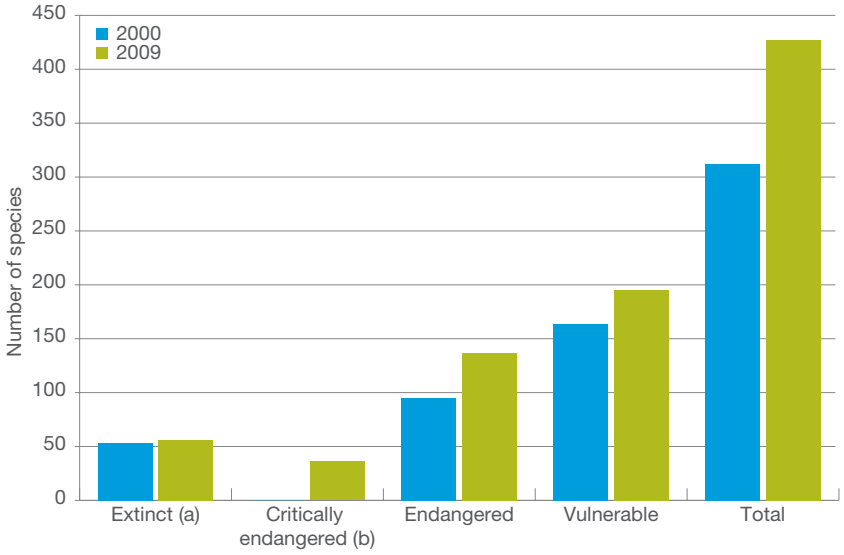
Protecting and sustaining our natural environment

The Australian community values its natural areas and places of open space within cities, for recreation and relaxation opportunities as well as for the positive influence they have on visual amenity and urban liveability. Supporting the greening of our cities and infrastructure is therefore important.

In addition, conserving ecosystems and biodiversity is important for maintaining the essential ecological services that underpin life and are fundamental to continuing high living standards. Native plants, animals and other organisms contribute to a healthy environment through the maintenance of clean water, clean air and healthy soils. They also provide significant economic benefits, for example through tourism, agriculture, and a range of cultural and recreational services.

Over the past decade, there has been an increase in the number of threatened fauna species from 312 in the year 2000 to 427 in 2009. Of the list of threatened fauna species in 2009, just under half (46%) were listed as vulnerable, around two-fifths (41%) were listed as endangered or critically endangered, and just over one in 10 (13%) were listed as extinct.

Figure 5 Threatened fauna species



(a) Includes the category 'extinct in the wild'. (b) The conservation status category 'Critically endangered' was not used until October 2001. (c) The conservation status category 'Conservation dependent' was not used until December 2006.

Source: Department of Environment, Water, Heritage and the Arts, *Environmental Protection and Biodiversity Conservation Act 1999* list of threatened fauna (last viewed April 2010)

Water pollution from urban development can impact on our natural fresh water and marine life, threatening one of Australia's greatest natural assets.

Many actions can help protect the environment. Land use planning in particular, is vitally important in shaping urban form and ensuring that Australia's most productive and environmentally sensitive land is protected. Whilst the States and Territories have direct responsibilities for land use planning, the Australian Government has a role in regulating matters of national environmental significance, including those in and around urban areas, under the *Environmental Protection and Biodiversity Conservation Act 1999*.

Improving water, energy and food security

Over the last decade some Australian cities experienced electricity and water shortages, resulting in brownouts and blackouts in relation to energy, and the need for stringent water restrictions in the case of potable water. There has been significant investment in these utilities over recent years to address both production and distribution of water and energy. Managing competition for water allocations for agriculture, communities and industry is currently a national priority.

Agriculture is one of Australia's major export industries. Australian cities have generally been located in the most fertile and agriculturally productive parts of the continent which is otherwise largely characterised by low fertility soils and low or unreliable rainfall. Many cities, as they expand, have urbanised areas which previously served as food sources for the city and export markets, placing greater reliance on produce being provided from neighbouring regions and pushing some food production into more marginal agricultural lands.

The north-west and south-west growth centres of Sydney, for example, contain 52% of Sydney's vegetable farming properties, 60% of greenhouse industries and 46% of hydroponic vegetables in the region (Malcolm & Fahd, 2009). These areas are also designated to be progressively released for urban development over the next two decades. If these farms are unable to relocate to other parts of the Sydney region, their eventual loss will have a significant impact on local food production.

Case study: Water for the Future

Australia faces major challenges in ensuring sustainable water supply in the face of drying climate and rising demand for water. Population growth will necessitate further investments in urban water infrastructure and increase the potential benefits from reform. The Australian Government is responding through its *Water for the Future* initiative, which is built on four key priorities: taking action on climate change; using water wisely; securing water supplies; and supporting healthy rivers and wetlands.

In the urban water sector, *Water for the Future* is helping cities and towns secure their water supplies and prepare for a future with less water by:

- supporting Local Governments in the Murray-Darling Basin to assist in community-wide planning and water savings initiatives
- investing in desalination, water recycling and stormwater harvesting and reuse projects to reduce reliance on rainfall
- funding practical projects that save water and reduce water losses in towns and cities across Australia.

Through *Water for the Future*, the Government is investing over $1.5 billion to help communities to diversify and secure urban water supplies and respond to reduced and more variable rainfall. This funding is being provided through a range of programs for stormwater harvesting and reuse, wastewater recycling, desalination, water metering and other practical water saving initiatives.

Almost half of this funding is delivered through the National Urban Water and Desalination Plan for water security projects in larger urban centres. Funding has been provided to State and Local Governments and state authorities to support the construction of: desalination plants in Adelaide and Perth; 35 stormwater harvesting and reuse projects located in most metropolitan areas; and water recycling projects in Adelaide, Geelong, West Werribee and Newcastle. Two centres of excellence have also been funded under this plan to support research, development and commercialisation of new energy efficient water recycling and desalination technologies. The Centre of Excellence in Desalination is located in Perth and the Centre of Excellence in Water Recycling is located in Brisbane. In 2010, the Australian Government announced a further $100 million for stormwater harvesting and reuse.

In managing future growth in our cities, it will be important to continue to challenge the assumptions and values of past urban development. As the Prime Minister has stated:

> We need to reconsider whether our current model of growth is right for an Australia where land use is increasingly contested, for example, between market gardens versus development on our suburban outskirts.

Prime Minister Julia Gillard, Speech to the Western Sydney Regional Organisation of Councils, 2010.

In recent years, many farming regions in Australia have been subject to drought, affecting the price and availability of produce. Drought also brought many urban regions, such as South East Queensland, to the brink of running out of water. Continuing to service the food, water and energy needs of urban Australia will remain a constant challenge to ensure they are reliable, secure and sustainable. Climate change is also placing further strains on these systems.

Urban expansion and increased demand for energy and water also presents challenges in so far as these demands need to be met through costly infrastructure and network upgrades.

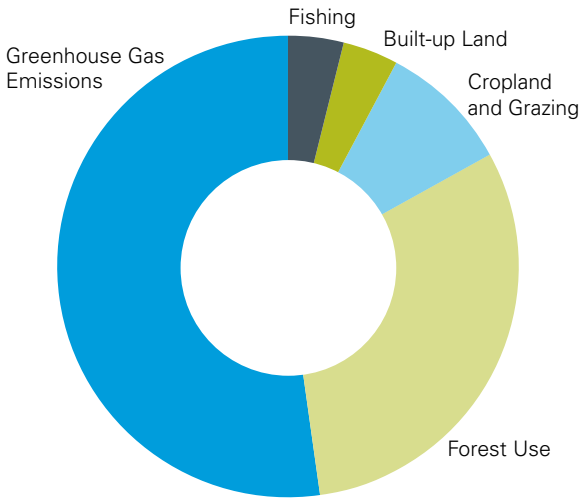
Albury, NSW

Reducing resource consumption and waste

As a result of high intensity industrial and urban activities, cities consume vast amounts of resources and produce large amounts of waste. Cities around the world are under increasing pressure to improve environmental outcomes, with many addressing these challenges through creativity and technology. Community attitudes are also shifting towards a greater concern for the environment and the need for a sustainable future.

An 'ecological footprint' is a measure of resource consumption and waste production. The State of the Environment Report 2006 highlighted that Australian cities have ecological footprints two to three times the global average. The human settlements chapter refers to an indicator for ecological footprint that uses data from the Living Planet Report, produced by the World Wildlife Fund. According to the Living Planet Report 2010 (Pollard et al 2010) Australia's ecological footprint is estimated to be approximately 7.5 global hectares per capita, with more than 50% due to greenhouse gas emissions (Figure 2).

Figure 6 Composition of Australia's ecological footprint, 2010



Source: Adapted from Pollard et al 2010 p 39

Energy consumption across the nation has also steadily increased over the past three decades, with most of this energy produced from non-renewable sources such as coal and oil. These resources will become progressively depleted in the years ahead.

Case study: National Waste Policy: Less Waste, More Resources

In November 2009, all Australian governments agreed to the National Waste Policy: Less Waste, More Resources—a strategic approach to reducing the amount of waste being created and turning waste into a resource. The Australian Government has committed $23 million over a five-year period to drive implementation of the policy, support product stewardship arrangements, reduce market impediments to recycled materials, improve sustainable procurement by governments, provide meaningful national data and deliver better management of hazardous waste.

The National Waste Policy: Less Waste, More Resources sets the direction for Australia over the next 10 years, to produce less waste for disposal and manage waste as a resource to deliver economic, environmental and social benefits. The policy establishes a comprehensive work program for national coordinated action on waste across six key areas:

- taking responsibility
- reducing hazard and risk
- improving the market
- providing the evidence
- pursuing sustainability
- tailoring solutions

Under the policy the Australian Government agreed to develop and enact national legislation to support voluntary, co-regulatory and mandatory product stewardship and extended producer responsibility schemes. The Australian Government is working in partnership with States and Territories to implement this plan.

There are other concerning environmental trends such as an increase in per capita waste production. Australia is generating increasing levels of waste and the nature of this waste is changing, with more electronic and other complex goods entering the stream. Australia's obligations relating to hazardous and toxic materials and waste are also evolving. We need to be smarter and more innovative as a nation in addressing these trends. Australians have, however, substantially increased efforts to recycle.

The decisions we make today to protect our environment, enhance our resource use and locate, design and construct the infrastructure and services that support our cities and regions, will have lasting consequences. Fortunately many actions that can be taken are mutually beneficial to addressing climate change and protecting and enhancing our natural environment.

Brisbane, QLD

Reducing greenhouse gas emissions and improving air quality

Globally, greenhouse gas emissions grew by 70% between 1970 and 2004 (Intergovernmental Panel on Climate Change, 2007).

Australian cities generate very high carbon emissions and air pollution from our heavy reliance on carbon fuels for energy and transport. Carbon emissions from transport are principally due to the length of trips necessitated by our dispersed cities and our extensive use of private motor vehicles. There are options to reduce emissions and improve air quality from all transport modes (for example by shifting to hybrid and electric vehicles, and changing to cleaner fuels) and to encourage a shift from higher to lower impact modes (such as rail freight, public transport, walking and cycling).

Australia's consumption of carbon-based energy not only contributes to our greenhouse gas emissions, it also potentially exposes many businesses and households to the impacts of price rises associated with a predicted depletion of fossil fuel resources. To address these concerns, there is a need for continued investment in renewable energy technology, energy efficiency measures and consideration of the energy implications of any new infrastructure.

The high intensity nature of cities provides opportunities to exploit economies of scale in reducing emissions through energy efficient design and construction of the built environment, including the performance of residential and commercial buildings, transport systems, and urban planning and management. Australia has adopted a target of 20% renewable energy by 2020 and current initiatives in energy efficiency are expected to deliver more than 38 tonnes of abatement over the next 10 years (Prime Minister's Task Group on Energy Efficiency, 2010). However, addressing the high consumption behaviours and lifestyles of Australians is also fundamental to the transition to more sustainable cities.

Other options for addressing greenhouse gas emissions include modifications to taxation and regulatory frameworks; higher standards for new buildings and supporting energy efficient retrofits of existing structures; and what conditions we place on investments. Carbon offset business opportunities linked to funding programs can provide incentives for behaviour change.

In terms of air quality, Australian cities compare relatively well with many cities across the world, including neighbouring countries in South East Asia. However, levels of some air pollutants for Australia's largest cities remain at or above accepted air quality standards and have relatively high rates of respiratory illness such as coughs, bronchitis and asthma and, in severe cases, developmental problems in children (DEH 2005).

An increasing population and associated increase in energy use, along with higher temperatures as a result of climate change, will place great pressure on our ability to maintain air quality.

The Australian Government is working with the States and Territories to introduce new national measures to reduce air pollutants. There is scope to reduce ambient levels of the main air pollutants, particles and ozone, in urban areas through tackling the major sources, including motor vehicles, wood heaters, non-road engines and paints.

Increasing resilience to the effects of climate change

According to current estimates for Australia undertaken by CSIRO, average temperatures are expected to rise by approximately 1°C by 2030. By 2070, best estimates indicate warming could be 3.4°C based on a high emissions scenario. In the absence of effective mitigation, greenhouse gas emissions will continue to exacerbate the physical impacts of climate change (CSIRO & Bureau of Meteorology (BOM) 2007).

Most of Australia's cities are in coastal regions, which are vulnerable to rising sea levels and extreme weather events. In the past decade, Australian cities have all been affected by extreme weather events, such as long droughts, heatwaves, severe storms, bushfires, and extensive flooding. As these events are forecast to rise in frequency and intensity, Australian cities have to become more resilient through adapting to, and mitigating the effects of climate change.

Case study: Responses to climate change

The impacts of climate change will have significant regional variation across Australia and are likely to require specific localised responses.

Local Governments have an important role in educating and preparing their communities for natural disasters and the local impacts of climate change. However, local councils are also faced with many competing responsibilities and resource constraints.

A number of Australian Government programs (including Local Adaptation Pathways Program, National Disaster Resilience and Regional and Local Community Infrastructure Program) are enhancing State and Territory Government initiatives in supporting local Councils to plan and manage change.

In 2009, the Cairns Regional Council completed a local climate change risk assessment focusing on its urban management systems (including local land use planning, development frameworks and decision-making processes), and prepared a detailed action plan recommending priorities to adapt existing policies to high-risk climate variables.

The Council's corporate plan was then updated to embed 'planning for the impacts of climate change mitigation and adaptation measures' as a core component in delivering integrated planning for the region. A five-year climate change strategy was adopted and disaster mitigation works, including stormwater drainage and beach protection, are now well underway to protect the city centre and surrounding suburbs against flooding.

The new multi-purpose community centre, which will function as a coordination facility for emergency services in the event of a disaster, will be located to ensure it is outside the storm surge risk area and will be built to withstand Category 5 cyclone standards.

The effects of drought and extreme weather events such as bushfires and heat waves illustrate the potential for damage and loss, as such events become more frequent or severe. Changes in long term rainfall and temperature patterns are affecting traditional water supplies, particularly in the southern and eastern regions of the country where the largest cities and populations are located. Currently, Perth is the most adversely affected major city in Australia, with water storage levels at less than 30% of capacity as at October 2010 (BOM 2010).

Our coastal communities, which are experiencing high growth rates as a result of the 'sea-change' phenomenon, are particularly vulnerable. Based on the findings of a risk assessment undertaken by the Australian Government, up to 247 600 existing residential buildings nationally (worth up to $63 billion) are at potential risk from inundation under a sea level rise of 1.1metre (Department of Climate Change 2009).

There is opportunity to drive emissions reductions and climate change adaptation simultaneously in urban environments. Land use planning, for example, can reduce the exposure of communities and infrastructure in vulnerable regions through the allocation of land to particular developments or the prevention of certain activities. It can also reduce emissions through better integration of land use and infrastructure planning.

Planning processes have generally not taken risks from a changing climate into account and existing infrastructure has generally been designed, constructed and maintained, based on historical climate data. There are significant areas of existing development at risk from rising sea levels and storm surge. Similarly, the outward expansion of our cities has located some new residential development into areas of increasing bushfire risk.

Individuals, communities, governments and the corporate sector are beginning to weigh up the impacts of land use and development decisions in light of climate change risks and environmental constraints, such as future water supply, although more still needs to be done to support effective decision making.

Townsville, QLD

The Australian Government, in its position paper Adapting to Climate Change in Australia, identified six initial priority areas for adaptation action - coastal management, water, infrastructure, natural systems of national significance, preparation for and management of natural disasters, and agriculture.

Strategies to support these priority areas of action may include updated and nationally consistent design standards and performance criteria to reflect new risks, or providing investment in ongoing science and research at a national level to help inform decision-makers.

Consideration of future climate change in the planning and management of major infrastructure, communications, power, water, transport and buildings will improve the resilience of our cities and regions. The development of strategies to address the vulnerability of existing infrastructure and residential development to climate change will also be needed.

How our businesses, communities and governments respond to the challenges and seize opportunities to minimise the ecological impact of Australia's cities and regions, will be crucial in determining the nation's progress towards economic, social and environmental sustainability.

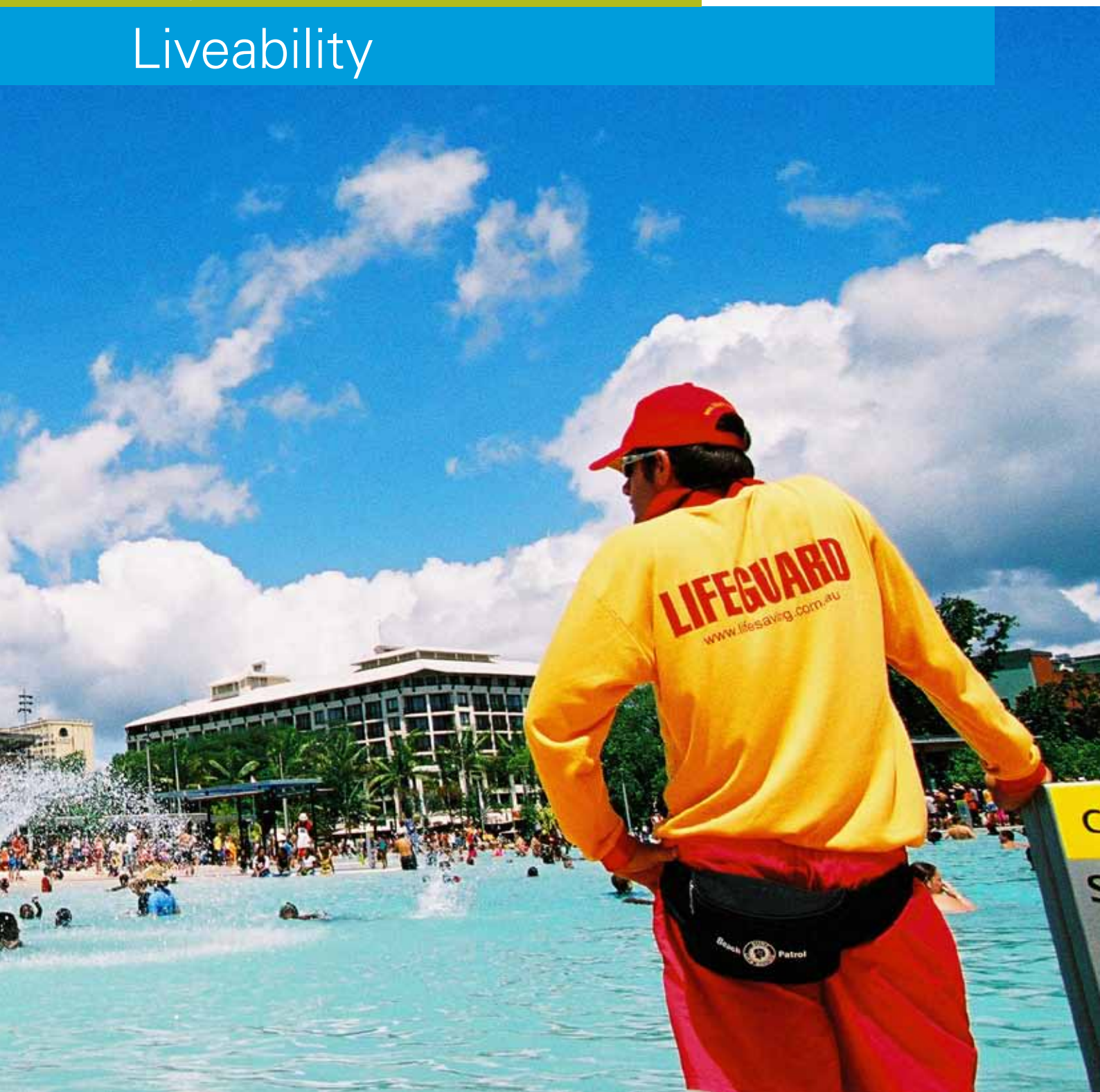
Some State, Territory and Local Governments and bodies such as the Council of Capital City Lord Mayors have begun to implement initiatives to adapt to climate change. Industry partnerships such as the Green Building Council and the Australian Sustainable Built Environment Council have been promoting the good economic sense that it makes for industry to be strong participants in the sustainability agenda.

Newcastle, NSW

Cairns, QLD

Chapter 4

Liveability



Chapter 4

Liveability

Liveability refers to the way the urban environment supports the quality of life and wellbeing of communities. Quality of life and well-being encompasses mental and physical health, happiness and life satisfaction for individuals and supportive social relationships in communities. Quality of life is enhanced by environmental sustainability, in particular with regard to low levels of pollution and access to quality open space and natural landscapes. Well-being is important to economic prosperity as poor health and depleted social cohesion have high economic costs as well as social costs.

Our city populations are projected to grow and change over the next 50 years. The increasing proportion of older people, in particular, will need to be considered in planning and designing our cities.

A critical question for urban policy makers is how and where we can accommodate growth in order to maximise economic efficiency, minimise impacts on the environment, and retain a good quality of life for our communities.

The patterns of urban development that characterised Australian cities for the latter half of the twentieth century—of expanding low density 'greenfield' suburbs of detached houses accessed mostly by car—are no longer considered environmentally sustainable, do not meet the needs and preferences of all Australian households, and economically are not the best use of scarce resources such as land and water.

There is growing public debate about the desirability and the necessity of more compact city forms, with more medium and higher density housing replacing older forms of residential development and other uses within existing urban 'infill' areas. The suggestion is also that mixed land uses are desirable so that residents have convenient access to facilities and services.

Alternative types of city development, such as concentrations of residential housing and commercial activity in centres supported by good public transport or along transport corridors, known as 'transit-oriented' development, offer the potential to supply more housing in locations that are accessible to a range of jobs, services and community facilities in our cities.

Healthy, safe and inclusive communities are imperative for ensuring Australian cities are vibrant, positive places to live, work, raise families and visit. Communities with poorer health, higher rates of crime and social disadvantage tend to be concentrated in locations with poor accessibility to education, employment and services. The social exclusion experienced in these communities affects the broader fabric of society. A continuing challenge in cities is to ensure people can live in an environment which is safe, has opportunities, and has access to education, health services, and jobs.

BALANCING INFILL AND GREENFIELD DEVELOPMENT	Low density urban expansion has been the standard solution to accommodating population growth in Australian cities. The upfront capital cost may be cheaper for home owners, but the long term costs for households (travel, time and social), the impacts on the natural environment, and the costs of infrastructure and maintenance for governments, are considerable. On the other hand, simply infilling existing areas without improving the amenity for existing residents, is problematic. A suitable balance between infill development, located in existing urban areas and along transport corridors, and greenfield development, which should also be supported with adequate infrastructure, is required.
FACILITATING THE SUPPLY OF APPROPRIATE HOUSING	The current and projected supply of dwellings does not match the changing needs of the growing population in terms of amount, diversity, accessibility and affordability. A variety of dwelling types is required to suit the growing proportions of smaller households and older people. Governments across Australia, including through the COAG, are considering ways to encourage a greater supply of housing, a greater diversity of dwelling types and a better range of affordable, appropriate housing to meet the needs of households over their life stages. It is recognised that housing also needs to be located in well serviced and connected communities, distributed across metropolitan regions.
SUPPORTING AFFORDABLE LIVING	Living affordability includes the costs of running a home and transportation to and from home, work and other activities. Residents in some outer-metropolitan growth areas are particularly vulnerable to rising energy and fuel prices. Governments are considering options to improve the distribution of a more diverse range of affordable housing in existing well-connected location and improving accessibility by public transport, as well as generating more diverse employment opportunities and services, in outer urban centres.
IMPROVING TRANSPORT OPTIONS AND REDUCING OUR DEPENDENCE ON PRIVATE VEHICLES	The planning of Australian cities has been largely based around private motor vehicles as the primary means of transportation. The increase in car usage has a number of consequences for our cities, including pollution, greenhouse gas emissions, traffic congestion, road safety issues and increasingly sedentary lifestyles. Many residents of our cities do not have access to, or cannot drive, a car. As a result, these residents are greatly restricted when it comes to accessing jobs, services, shops, social and other activities. Transport options that allow people who do not drive to participate equitably in the life of the city, need to be a priority. These include supporting improved land use planning, funding public transport improvements and supporting Local Government to provide amenable cycling and walking environments.
IMPROVING THE QUALITY OF THE PUBLIC DOMAIN	The public domain can provide environmental amenities such as shade and greenery, aesthetically pleasing buildings and infrastructure, art and cultural facilities and a sense of safety and security. Whether publicly or privately owned, the public domain provides much of the character and amenity of a place. It influences whether a person can enjoy spending time in that place, whether they would like to live in a particular locality and whether they would locate their business there. Local Government, in particular, is responsible for planning and managing much of the public domain. However, the decisions of all levels of government, as well as individuals, impact on the quality of our cities. Continued investment in the public domain in our urban centres and neighbourhoods is needed to ensure they are enjoyable, encourage social interaction, and provide opportunities for a variety of activity and exercise. Attention to detail and design in public spaces can improve quality of life for residents and attract visitors to our cities.

IMPROVING PUBLIC HEALTH OUTCOMES	Built environments that are designed to enable people to travel safely by walking, cycling or using public transport, and that provide access to quality open space, can help increase levels of physical activity and reduce car use. This has positive benefits for the health and wellbeing of people in urban communities. Many public health outcomes for urban communities can be improved through better designed built environments and transport networks that encourage active travel.
REDRESSING SPATIALLY CONCENTRATED SOCIAL DISADVANTAGE	Socially disadvantaged households tend to be spatially concentrated in cities, particularly in locations with poor accessibility to education, employment and services. Spatially concentrated disadvantage can be addressed in a number of ways, including by facilitating appropriate housing with good accessibility, and helping to upgrade, revitalise and provide better infrastructure in specific risk areas.

Balancing infill and greenfield development

The economic, environmental and social outcomes of our cities are heavily influenced by their shape and structure.

One common problem faced in all metropolitan planning is how to address the overall shape and growth of the metropolitan area. There is a difficult balance between expanding city development outwards into agricultural lands or native landscapes (otherwise referred to as 'greenfield' development) versus infill in existing urban areas.

Most new urban development occurs in greenfields areas at the urban edge. Sydney, in contrast to other Australian cities, had less than a quarter of its growth in new areas between 2001 and 2006 (BITRE 2010), and this trend continues.

Melbourne is looking at how it can accommodate more of its population along transport corridors such as tram lines, whilst leaving surrounding areas unaffected by an increase in urban density (see case study below).

Communities in many new growth areas in outer metropolitan regions have a shortage of employment and education opportunities, and often have longer travel times and distances to services and facilities. Households therefore spend more of their income on transport costs and are highly vulnerable to rising fuel costs where public transport options are limited (Dodson & Sipe 2009).

On the other hand, increasingly strong demand for housing in inner city areas closer to the employment, services and cultural facilities of the central business district puts pressure on house prices and rental costs, making inner-city housing less affordable to low and middle income households.

The comparative costs of providing and maintaining physical and social infrastructure to support new development in urban infill, as opposed to greenfield development, are not straightforward for governments because the costs of the construction of higher density housing and augmenting infrastructure in established areas are relatively high. On balance, there appear to be greater overall benefits in favour of infill over greenfield.

In developing its strategic plan for Melbourne, *Melbourne 2030*, the Victorian Government commissioned a cost-benefit analysis that explored options for Melbourne's future growth and development. The report concluded that moving to a more compact city with broader housing choice and supported by investment in public transport, would result in significant social, economic and environmental benefits, far outweighing the increased additional capital infrastructure costs. The report suggested that the added value associated with a movement to the urban form advocated by *Melbourne 2030* would result in a 2.8 percent lift in Gross State Product for Victoria.

Case study: Intensification of land use in transport corridors

Intensification of land use in existing transport corridors has the potential to achieve both land use and transport objectives. Intensification is important in providing an alternative to urban expansion, and allows people to live closer to where jobs and other activities are most concentrated. It can also maximise the utilisation of existing transport and social infrastructure, rather than creating the need for new infrastructure.

A joint study was undertaken by the City of Melbourne and the Department of Transport (Victoria) to examine the potential to intensify development along tram and bus routes in inner Melbourne. The study was a joint winner of the 2009 Prime Minister's Award for Urban Design.

The study concluded that there was considerable scope for such developments. A funding proposal for a demonstration project on the Route 86 tram line through Melbourne's inner northern suburbs was subsequently submitted to Infrastructure Australia. It was initiated by Local Government (Darebin Council) and subject to extensive community consultation. The project includes initiatives to encourage land use intensification (including improvements to the public realm) and improvements to the tram route to better support the redevelopment. Infrastructure Australia has reviewed the project and concluded that it meets all of its criteria and is ready to proceed.

Polycentric city structures refer to the concentration of development into activity centres, rather than broadly dispersed across suburbs or concentrated solely within an inner central business district. Parramatta, Dandenong and Joondalup are all examples of polycentric-type regional centres.

Regional centres can efficiently and cost-effectively provide transport and other infrastructure closer to where a large proportion of the urban population lives. Locating a range of activities, such as offices, shops, services and housing in and around centres reduces the need to travel. This consequently provides convenience and time savings, and reduces greenhouse emissions. Centres in inner cities are already home to many of our major corporations, universities and civic functions, and have the best public transport. Further development of the inner cities can maximise agglomeration potential (that is, organisations may be more productive if they are located close to one another, even if they are competitors).

The Australian Government and its COAG partners have acknowledged the need for long-term planning and investment strategies to support urban growth and change. This is particularly reflected in the national criteria for future strategic planning of capital cities that call for 15 to 30 year, long-term integrated strategic plans supported by five to 15 year, medium-term prioritised infrastructure and land-use plans (refer to Appendix A).

Whilst there continues to be community debate about the merits of different urban forms, what is clear is that our community is changing and growing, requiring a greater diversity of options for where and how people live, work and enjoy recreation time.

The Australian Government can support the directions of States and Territories to plan for growth in more sustainable urban forms and structures through the taxation system, divestment of its land assets and capital investments. It is already helping to shape and renew our cities for the future through the investments it makes in housing, transport and economic infrastructure. The decisions that governments make about the location of nationally significant infrastructure like airports, defence force facilities and major public facilities (such as tertiary education institutions and hospitals and community facilities) all have an impact on shaping our cities. By linking a broader set of outcomes to infrastructure investment, and joining up investments across governments and into the private sector, greater benefits can be achieved for communities.

Facilitating the supply of appropriate housing

Access to adequate and affordable housing is fundamental to supporting our quality of life. An important concern is that, on current trends, our national housing stock will not meet the needs of our growing and changing communities in terms of sufficient supply, diversity, affordability, and mobility requirements. As described in the *State of Australian Cities 2010* report, houses are, on average, being built with more bedrooms, but the number of people per household has generally been shrinking.

Housing is recognised as a high priority by COAG, which has placed a particular emphasis on the need to increase the quantity and affordability of housing.

Despite significant public and private resources directed to housing, there is an undersupply in the total number of dwellings, particularly for lower income households. Projected population growth, expected to mainly occur in our four largest cities, means that there will be a need for 3.2 million additional homes by 2029 to meet underlying demand. The National Housing Supply Council (2010) predicts that the current shortfall in housing supply will increase to 640 600 dwellings by 2029 unless the market responds to increasing demand. An ongoing shortfall will put pressure on housing affordability.

While the built form in many older areas is being progressively upgraded by owners, there are significant areas where the capital value in homes is much lower than the underlying value of the land on which it sits. Of particular significance is the existence of large public housing estates which are in need of upgrade, presenting opportunities for a co-ordinated approach to better community and environmental outcomes.

Population ageing means our cities will also need to be planned and designed to cater for the needs of a greater proportion of older people, and this can be achieved by incorporating universal design features in both residential and non residential building, transportation and in the public domain. The need to facilitate age friendly housing and match housing stock to demographic change is also a challenge.

Affordable living

Consideration of living affordability, which includes transportation and the operational costs of a home as well as the initial cost of house and land, reveals significant community vulnerabilities and inequities. Many less affluent households live in outer lying areas where housing costs are more affordable. They therefore, however, carry a higher cost burden for transport and are particularly vulnerable to increasing petrol prices.

How we invest in housing has the potential to deliver not only on the goal of liveability but also on sustainability and productivity. Connecting investment in housing and social and economic infrastructure to achieve improved living affordability and accessibility, as well as productivity, has substantial further potential.

To provide for our communities, urban development needs to offer a diversity of housing options that incorporate a substantial component of affordable housing that is age-friendly, innovative and has good environmental performance. Such developments will be best placed in areas that are well serviced by public transport, that are close to facilities and services, and promote active travel. Areas that are disadvantaged, and/or regional centres that are able to support growth could be targeted.

Australia's Future Tax System (Treasury 2009) noted that some existing taxes on housing, especially stamp duties, are inefficient and can impede housing supply. The review suggested that reforms such as introducing a broad based land tax, along with changes to the taxation of rental housing and rent assistance, would go some way toward improving housing affordability. The report also suggested that a serious community discussion is needed on the distribution and quality of housing across Australia.

Improving transport options and reducing our dependence on private vehicles

In many respects, the private car provides unparalleled efficiency, flexibility and convenience. On the other hand, there are significant downsides associated with our level of dependence on vehicle usage, particularly in our cities. Traffic congestion, carbon emissions and other pollutants, increased obesity and morbidity due to sedentary lifestyles, vulnerability to increased petrol prices and social isolation for those without access to a car are all problems associated with urban forms that don't offer effective transport alternatives to car usage.

Spending time commuting also has a social cost, for example, reducing the amount of time available for families to spend together, impacting on their quality of life.

Investment in infrastructure to support travel using public and active transport, as discussed earlier in this paper, when coordinated effectively into existing networks and integrated with land use and good urban design, can help reduce car dependency and enhance liveability for communities across metropolitan areas. Improving the frequency, flexibility and reliability of public transport services, making information about services readily available, and ensuring services are accessible to people with disability, can also help make public transport a more a favourable option for communities and provide more opportunities for disadvantaged individuals and households.

Improving the quality of the public domain

The planning and design of local neighbourhoods and urban centres affect well-being and quality of life. Contributing factors include water and air quality, noise, temperature, access to open space and opportunities to exercise and socially interact.

We need to ensure that neighbourhoods and centres in our cities encourage social interaction, provide opportunities for activity and exercise, and can be enjoyed by people of all ages and abilities. The potential of high amenity environments to generate economic activity and support environmental sustainability is encouraging, and many of Australia's major cities have seen significant investments in the quality of the public realm on this basis.

To improve the quality of the public domain, the Australian Government encourages innovation in the built environment, funding approaches and governance arrangements.

Capturing a significant proportion of the land value uplift that results from urban domain improvements could help fund the associated capital investments.

Protecting our heritage

So much of the quality of our public domain is influenced by our built and natural heritage. Heritage is vital to Australia's identity—our spirit and ingenuity, our historic buildings, and our unique, living landscapes. Our heritage is a legacy from our past, a living, integral part of life today, and the stories and places we pass on to future generations.

Indigenous heritage, often neglected in highly built up areas, is a unique part of Australian cities to be honoured.

Governments are committed to the preservation of our heritage and continue to support the identification, management and protection of heritage places around Australia, including in our cities.

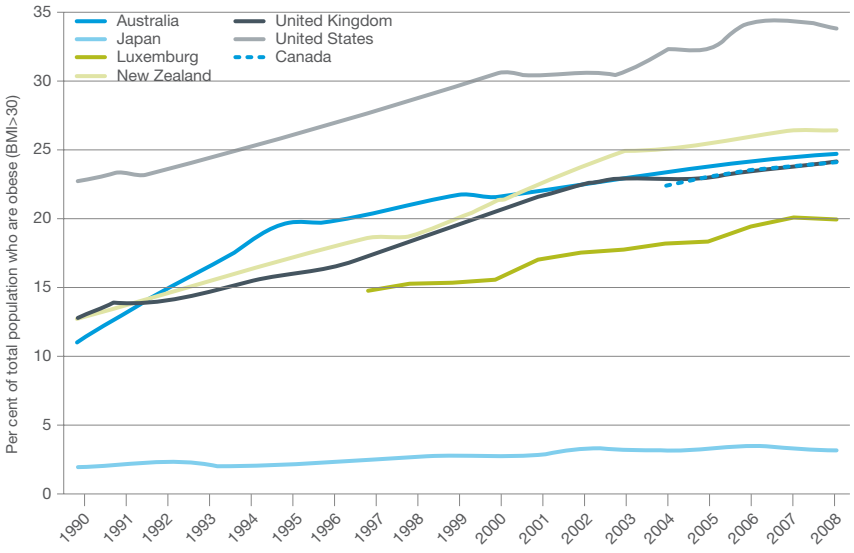
Improving public health outcomes

A worrying trend in Australia in recent decades has been the increasing rates of obesity, diabetes and other lifestyle-related health problems. This has coincided with more sedentary lifestyles and increased reliance on private motor vehicles for travel. Of most concern today is that one in four children and three in five adults are now classified as overweight or obese, part of a bigger public health concern for governments. The cost of obesity, and related health risks, is increasing every year.

The Preventative Health Taskforce identified that *'There is an urgent and immediate need to address the growing prevalence of obesity and overweight in Australia'* (Australian Government 2009). The principal factors for the rising prevalence of obesity are poor diet and insufficient exercise. Whilst the Taskforce acknowledged that the major cities have lower rates of obesity compared to regional Australia, it also identified that urban environments are a major factor in determining activity levels amongst the adult population of Australia.

Active travel, that is walking, cycling and where these are in combination with the use of public transport, can contribute to increased levels of physical activity. Whereas walking, cycling and public transport accounted for over 80% of trips to school in Sydney in 1971, the proportion of children driven to school rose from 15% to 57% by 2003 (New South Wales Ministry of Transport 2008). Prioritising walking and cycling infrastructure in local areas and addressing concerns about safety (for example traffic safety or personal safety) can help encourage more people to use active travel modes rather than driving.

Figure 7 Prevalence of obesity in Australia and selected OECD countries



Source: OECD health data (June 2010). Chart shows averages based on measured data (not self-reported) for body mass index.

Creating liveable places can contribute to improving public health outcomes through urban design by providing opportunities for incidental physical activities such as walking and cycling for travel, as well as easy access to social, sporting, recreational and cultural activities.

The planning and design of the urban environment can also improve public health outcomes by reducing noise, air pollution and exposure to high summer temperatures by providing quality green and open spaces, and good building and precinct design. Design for safe and socially inclusive living is essential for mental health.

Redressing spatially concentrated social disadvantage

There are concentrations of disadvantaged communities in poorly connected and underserviced areas in our cities. The potential for social isolation of individuals and families in these locations is an issue of concern particularly in outer suburbs where jobs, education and health services are less accessible and where transport options are limited. Isolation affects an individual's wellbeing, and depletes the social cohesion and productivity of the community at large.

With areas of substantial unemployment or under-employment constituting a waste of human capital and a loss of both social and economic opportunity, governments need to explore innovative approaches to maximising workforce potential. Upgrading, revitalising and providing infrastructure in specific places can help arrest these trends, which, if unaddressed, risk undermining the goals of national productivity and social cohesion.

The Government's key role is to improve the life chances of vulnerable Australians. Therefore, decisions regarding housing, transport and other infrastructure must consider how to achieve the best outcomes for these communities and reduce locational disadvantage of these areas. Consultation with relevant government agencies, and private and not-for-profit sectors, will be critical to enhancing the opportunities for these communities by aligning and building upon existing initiatives and reforms, and enabling a linked up approach to service delivery.

Gold Coast, QLD

Canberra, ACT

Chapter 5

Improving the governance and planning of cities

Chapter 5

Improving the governance and planning of cities

Most of the major cities in Australia have a suite of metropolitan plans and infrastructure investment programs underway.

The Australian Government, with the COAG Reform Council, is working with State and Territory Governments to support improvements in capital city strategic planning, and to share best practice planning approaches (see Appendix A). The *National Urban Policy* will provide a framework for the Australian Government to support the State and Territory Governments to meet their capital city and broader strategic planning objectives.

In managing cities, considerable time and resources are used in administrative processes. Despite statements of continuing commitment over the last two decades to reduce red tape and pursue micro-economic reforms within all levels of government, there is frustration that reforms are progressing too slowly.

The experience in many reform areas is that the process of problem identification, policy development and agreement, legislative change and actual implementation, is extremely time-consuming. There are varying reasons for this, including lack of resources allocated to the reform task, resistance to change from stakeholders, internal and external to governments, and other competing priorities.

IMPROVING THE PLANNING AND MANAGEMENT OF CITIES	Lack of integration and poor strategic alignment of metropolitan planning and infrastructure delivery detracts from productivity, sustainability and liveability of cities. A high proportion of Local Government authorities are struggling to keep up with infrastructure demands and the delivery of facilities and services to local communities. In addition, there are sites of national or State or Territory significance that are affected by the decisions of multiple jurisdictions and planning bodies. Options to ensure that metropolitan planning and governance supports nationally agreed principles and outcomes need to be considered. Consideration should also be given to what are the most appropriate levels of government to deliver facilities and services in the most efficient and effective ways.
STREAMLINING ADMINISTRATIVE PROCESSES	Cumbersome administrative processes and 'red tape' can slow down the planning, release and development of land, infrastructure and vital services. This represents significant cost to businesses, government and the community. Efficient and effective assessment and approval processes for development is in everybody's interests. The focus should be on minimising time and costs for proponents and government administrative bodies, but this needs to be balanced with appropriate consideration for, and input from, stakeholders and communities.

Improving the planning and management of cities

Extending the use of COAG-agreed criteria

The COAG agreed criteria for planning systems (see Appendix A) currently only apply to the planning of our capital cities. Yet the criteria are about sound planning generally, and could usefully inform planning beyond the capitals. It is suggested that State and Local Governments broadly embrace the COAG national objective for cities and the planning criteria, for all major cities.

Planning systems

Finding the right balance between public and private rights and expectations in planning systems at all levels of government raises heated debate around the nation. Yet there is an interest for business, communities and governments alike not to waste time and resources in unnecessary regulation. An appropriate balance of community participation and individual freedom, and certainty over what can be developed on public and private land, should be sought.

The Australian Government will continue to work with COAG to foster and assist with creating more integrated planning systems for our cities. This includes a commitment to work closely with States, Territories and Local Government to facilitate a more integrated approach to planning on and around Commonwealth land and areas of Australian Government responsibility.

Local Government

Managing cities and facilitating change strategically within cities is at times made more difficult by the fragmentation of Local Government in some of our largest cities

As described in the *State of Australian Cities 2010* report, most of Australia's capital cities have acquired a patchwork of Local Government jurisdictions covering relatively small land areas. This includes Sydney (43 local government areas), Melbourne (31), Perth (30) and Adelaide (19). The exception is Brisbane, which has only five Local Government areas.

As with planning reform, there is debate over wasted resources and opportunities associated with smaller local authorities versus a local desire for adequate representation and decision-making power.

In cities that have many small councils there may be merit in a national and community discussion involving all levels of government on reforming Local Government through the creation of larger entities that can plan, finance and coordinate over larger population areas, and achieve greater economies of scale in service delivery and asset management.

A detailed assessment of the outcomes resulting from recent council amalgamations, particularly in city areas, could be a good next step.

Research and measuring our success

The Australian Government produced the *State of Australian Cities 2010* report to gain a better appreciation of Australian cities, their dynamics and the challenges confronting them. *Our Cities—Building a productive, sustainable and liveable future* builds on that work and draws upon further research within and external to governments. BITRE has also been increasing research into cities, and recently published a report into *Population growth, jobs growth and community flows in Perth 2010*. This will be followed by reports on other major cities.

It is clear, however, that with the increasing complexity of cities and the interrelationship between components of cities and their communities, we need to develop a deeper understanding of cities to manage and guide them well.

Whilst the research community is endeavouring to understand the complex dynamics and interrelationships within and between cities, such research is not coordinated. There are overlaps and continuing gaps.

In particular there is a lack of spatial data on all of our cities to show the impact of population growth, planning decisions and urban development patterns.

Streamlining administrative processes

The private sector and COAG have expressed frustration at the complexity, delays and costs associated with planning systems, particularly getting land rezoned and development approvals. There is concern that this is unnecessarily contributing to increased costs of housing and other development.

Housing supply is a major challenge for the Australian Government today, with associated issues including housing affordability, mortgage and rental stress, homelessness and rising demands on social housing providers. As well as the timeliness of development approvals, there is concern about the inability to translate State strategic plans into the statutory land use plans administered, and usually initiated, by Local Government.

Adelaide, SA

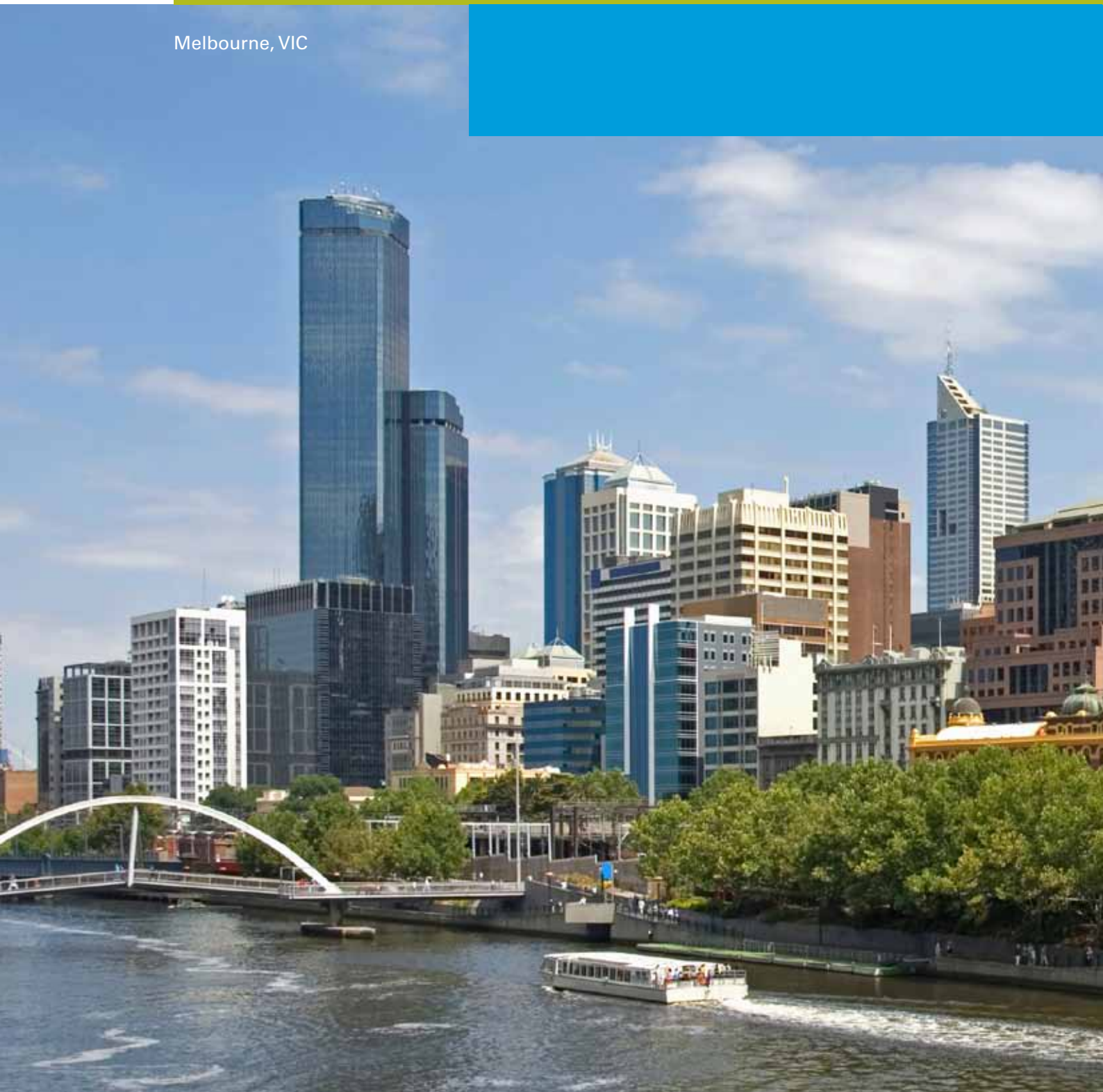
Case study: Adelaide Integrated Design Strategy

One initiative connecting governance reform with improved amenity outcomes and economic opportunity is the Adelaide Integrated Design Strategy, supported by the Australian Government under the Local Government Reform Fund. The project will identify opportunities to improve the productivity, liveability and sustainability of Adelaide as well as plan for future growth. An Integrated Design Commission, involving both the South Australian and Local Governments, has been established to consider a broad range of areas including planning, infrastructure, transport and energy, urban ecology and landscape, and industrial and product design.

Consequently, there is strong national interest in microeconomic reform of development approval processes associated with housing as well as significant development proposals, such as resource and infrastructure approvals. A number of ministerial councils are progressing work in these areas, but there is not uniform agreement across jurisdictions or among Local Governments on the nature and pace of reform.

There are elements of State and Territory planning legislation, such as whether States can undertake rezoning not initiated by Local Government, and the extent of third party appeals, which could be amended to enhance the ability of jurisdictions to put strategic plans into effect.

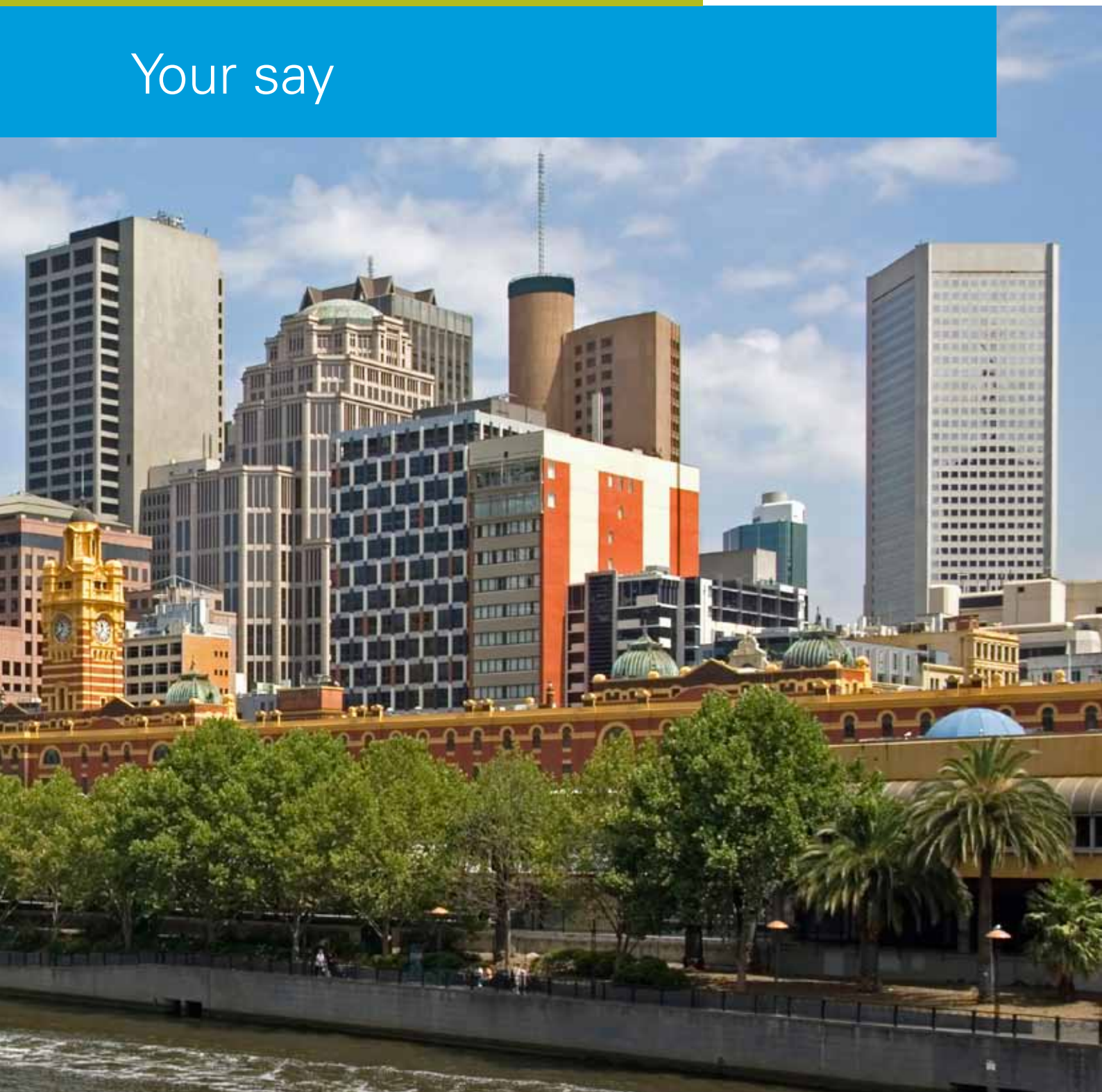
Brisbane, QLD



Melbourne, VIC

Chapter 6

Your say



Chapter 6

Your say

To meet the challenges of our cities, the Australian Government will focus its role in Australian cities on the three aspirations of increased productivity, sustainability and liveability as well as for improving the governance and planning of cities.

This discussion paper is the Australian Government's next step towards a comprehensive long term policy to help shape our cities to meet these aspirations.

Your feedback will guide how we make our cities more productive, sustainable and liveable. Following consideration of your comments, the Australian Government will set out the policy and program actions that are needed to achieve what we want for our cities.

A website at <www.majorcities.gov.au/discussion_paper> allows you to:

- view and download this *Our Cities* discussion paper and associated background paper
- respond to *Our Cities* discussion paper by either:
  - » downloading and filling out a discussion paper feedback survey which can then be submitted by pressing the 'submit' button on the last page, or
  - » registering your details and uploading a written submission.
    Note: you need to register for this process and this may take up to three business days.

You will need to submit your response by **Tuesday 1 March 2011.**

If you are not able to access the website, you can request a feedback survey or submission form to be mailed out to you. Please contact 1800 155 798.

Questions to guide your comments

Our aspirations

1. What is your vision for Australian cities? What should our **cities look like in 2030 or even 2050?**
2. What do you think may be the **differing challenges and opportunities** faced by regional cities or cities of different sizes and stages of development?

Harnessing our productivity

3. What would you consider to be the **biggest productivity challenges** for our cities and what approaches would you encourage governments and businesses to pursue?
4. To what extent can infrastructure planning and investment guide more **efficient use of existing infrastructure and resources?**
5. How do we better plan for and protect the **infrastructure corridors, strategic sites** and **buffers** we need for the future operation of our cities?
6. What do you consider to be the most **significant transport issues** affecting our cities, and what approaches would you encourage governments to pursue?
7. How do we best **integrate and leverage** continuing **investment in infrastructure** by all levels of government, especially for **transport, water, sewerage and energy supply?**
8. What is the role for **pricing reform** (such as water, roads or carbon pricing) in meeting the challenges of Australian cities?
9. How do we best promote and harness **private investment** in the infrastructure needs of our cities?
10. What opportunities do you see for governments to achieve better outcomes for urban communities, by **leveraging their investments in other activities** such as **health and education?**
11. What performance targets should governments set for our **public transport systems?** How would these be applied, and what would their effect be?
12. How can governments best use their leverage to **foster more innovation** and support the economy of our cities? How will this enhance our competitive advantage in a global context?

Advancing our sustainability

13. How can we best **protect and enhance land and habitats** in and around our cities where they are ecologically sensitive, of heritage value, or highly productive agriculturally?
14. How do you think we can best support more efficient use of **resources** (such as water, energy and food) in our cities?
15. How can we best plan and build our cities and infrastructure to achieve a **lower ecological footprint?**
16. What are the best steps that could be taken to encourage a concerted effort by communities, businesses and all levels of government to **reduce greenhouse gas emissions** in cities?
17. How can we ensure that **climate change risk** is taken into consideration in the design, construction and operation of cities, infrastructure and buildings?

Enhancing our liveability

18. What do you think of the concept of more **compact development** using a variety of building types (such as townhouses and apartments) rather than primarily expanding on the urban fringes?
19. What is the best way to **balance density** with **urban amenity and renewal?**
20. What do you think about the suggestion that transport, housing and social infrastructure should be **concentrated in and around activity centres** and along **transport corridors** so that jobs and services are located near where people live? How could this be done most effectively?
21. How do we achieve a greater **diversity of dwelling types** and range of affordable, appropriate housing to meet the needs of occupants across their life stages?
22. What actions, incentives and disincentives do we need to reduce people's **dependency on private motor vehicles** in urban areas?
23. How can **active transport** (walking and cycling) and **public transport** be most effectively used to meet the transport challenges of our cities?
24. What characteristics of the urban environment can encourage people to **walk or cycle** more?

Improving the governance and planning of cities

25. How could the **planning arrangements** (across all three levels of government) operate differently to improve outcomes for Australia's cities?
26. Do you think that COAG's current review of **capital city planning systems** should be expanded to incorporate more of Australia's major cities?
27. What could governments do to **improve planning and management** of our major cities?
28. How can we better coordinate and plan **across local government boundaries?**

Cairns, QLD

Appendix A

Council of Australian Governments planning criteria for cities

COAG has agreed to reforms to ensure our capital cities are well placed to meet the challenges of the future. The COAG Reform Council has been asked to:

- review capital city strategic planning systems against agreed national criteria
- support continuous national improvement in capital city strategic planning
- build and share knowledge of best practice planning approaches.

There are nine criteria for future strategic planning of capital cities. These are described below. These criteria will provide the platform to re-shape our capital cities. The criteria are intended to ensure that our cities have robust, transparent and long-term planning systems in place to manage population and economic growth, address climate change, improve housing affordability and tackle urban congestion.

The Australian Government is working with each of the State and Territory Governments to support improvements in strategic planning, and to share best practice planning approaches. This sharing of knowledge and best practice benefits not just the capital cities but all the cities of Australia.

The Reform Council's report on the review of capital cities strategic planning systems against the national criteria will be submitted to COAG in December 2011.

NATIONAL OBJECTIVE AND CRITERIA FOR FUTURE STRATEGIC PLANNING OF CAPITAL CITIES

Objective

To ensure Australian cities are globally competitive, productive, sustainable, liveable, socially inclusive and well placed to meet future challenges and growth.

Criteria

Capital city strategic planning systems should:

1. Be integrated across:
   a. functions, including land-use and transport planning, economic and infrastructure development, environmental assessment and urban development
   b. government agencies
2. Provide for a consistent hierarchy of future oriented and publicly available plans, including:
   a. long-term (for example, 15 to 30 years) integrated strategic plans
   b. medium-term (for example, 5 to 15 years) prioritised infrastructure and land-use plans
   c. near-term prioritised infrastructure project pipeline backed by appropriately detailed project plans.

3. Provide for nationally-significant economic infrastructure (both new and upgrade of existing) including:
    a. transport corridors
    b. international gateways
    c. intermodal connections
    d. major communications and utilities infrastructure
    e. reservation of appropriate lands to support future expansion
4. Address nationally-significant policy issues including:
    a. population growth and demographic change
    b. productivity and global competitiveness
    c. climate change mitigation and adaptation
    d. efficient development and use of existing and new infrastructure and other public assets
    e. connectivity of people to jobs and businesses to markets
    f. development of major urban corridors
    g. social inclusion
    h. health, liveability and community wellbeing
    i. housing affordability
    j. matters of national environmental significance.
5. Consider and strengthen the networks between capital cities and major regional centres, and other important domestic and international connections.
6. Provide for planned, sequenced and evidence-based land release and an appropriate balance of infill and greenfields development.
7. Clearly identify priorities for investment and policy effort by governments, and provide an effective framework for private sector investment and innovation.
8. Encourage world-class urban design and architecture.
9. Provide effective implementation arrangements and supporting mechanisms, including:
    a. clear accountabilities, timelines and appropriate performance measures
    b. coordination between all three levels of government, with opportunities for Australian Government and Local Government input, and linked, streamlined and efficient approval processes including under the Australian Government's Environment Protection and Biodiversity Conservation Act 1999
    c. evaluation and review cycles that support the need for balance between flexibility and certainty, including trigger points that identify the need for change in policy settings
    d. appropriate consultation and engagement with external stakeholders, experts and the wider community.

Geelong, VIC

Appendix B

Perspectives on Australian cities

Australian Parliament

The past five years have seen renewed interest in the role of the Australian Government in urban policy and planning. In 2005, the House of Representatives Standing Committee on Environment and Heritage conducted an enquiry—*Sustainable Cities*—to report on issues and policies related to the development of sustainable cities to the year 2025. The vision adopted by the Committee was for cities to be 'vibrant and healthy—environmentally, socially and economically'.

The Committee called for coordinated and concerted action by government, industry and the community. It recommended that the Australian Government assume a leadership role in securing more sustainable outcomes for cities. The Committee also made recommendations in the areas of planning and settlement patterns, transport, water, building design and management, energy, research and monitoring. Many of the recommendations have been, or are in the process of being, addressed.

In addition, the *Australia State of the Environment Report 2006* brought attention to the environmental risks of continued population growth along the coastline, projecting the formation of mega-metropolitan regions with the potential to consume or degrade areas of highly-valued biodiversity and agricultural land. The report also argued that a reduction in net individual consumption and waste is required to improve the sustainability of our cities and settlements through various measures, including greater population densities in cities and major urban areas; increased recycling and reuse of building material; the capture and use of stormwater; the recycling of wastewater and biological waste, and improved urban form and urban structures.

The report also argued for the development and implementation of national policy under the leadership of the Australian Government to provide guidance to government, industry and consumers and achieve a common approach to the creation of sustainable settlements.

State and Territory Government

State and Territory Governments accept that they have principal responsibility for effectively planning and managing their cities, and all have slightly unique mechanisms for undertaking this task. Most have metropolitan and regional city planning strategies that are agreed at a whole of government level but have considerable variation in implementation and in the regulatory planning systems that aim to deliver on the plans.

Through the COAG agreement for cities of December 2009 a united position has now been adopted about the importance of cities and the need for effective planning.

It is noteworthy that State and Territory Planning and Local Government Ministers and the Australian Local Government Association have advocated stronger involvement from the Australian Government in our cities.

Local Government

Council of Capital City Lord Mayors

The Council of Capital City Lord Mayors is a voluntary collective of councils whose jurisdictions cover the central business districts of the eight capital cities, and a much broader area in the case of Brisbane. The Council has a history of more than 40 years and aims to provide effective co-ordination and representation of the special interests of the capital cities of the Australian States and Territories, especially in their relations with other levels of government.

The Council of Capital City Lord Mayors has recently invited the participation of the major cities of Newcastle, Gold Coast, Wollongong and Geelong to form a major cities working group dedicated to achieving the sustainability of our cities.

The Australian Government has ongoing discussions with the Lord Mayors and will continue to collaborate with them to improve sustainability of our major cities.

National Growth Areas Alliance

The National Growth Areas Alliance is a recently formed collective of councils representing the interests of 24 of the fastest growing Local Government areas across Australia. The populations of these councils represent one in four Australians and the Alliance is advocating for a commensurate amount of funding and infrastructure to support these communities.

The National Growth Areas Alliance formed in response to recognition by these Local Governments that the cost of building socially vibrant, economically viable and environmentally sustainable communities is high and is projected to increase.

Many of these growth area councils have identified that their capacity to deliver the quantity and quality of facilities and services required by these new communities will become increasingly compromised over time. The Australian Government is also concerned that in working towards a balance between infill and greenfield development that communities in new growth areas have a level and quality of services and urban amenity that is of a standard equitable with established urban areas.

Perth, WA

Community perspectives

Since November 2007, the Australian Government has sought the participation of the wider community in policy development. It has sought initial input from the community to inform the development of the *National Urban Policy* directions by conducting independent community focus groups in different sub-regions of metropolitan areas across the nation. This research indicated that people:

- want to contribute to and share in the nation's prosperity and benefit from opportunities created by growth and innovation in our cities
- value their quality of life and want to maintain and enhance this
- would like to reduce their environmental impact and preserve the environment for future generations.

While there is broad agreement on these general aspirations for our cities there are some differences in opinion about how to achieve them. Industry and government consider governance of cities to be of primary concern, whereas the community is more concerned with outcomes rather than the process of delivery.

Industry perspectives

Peak industry organisations and professional associations have also advocated for a national approach to policy and planning in cities to address future challenges of growth and change. Among these are:

- A draft principles-based framework for strategic planning of cities and communities that emerged from the 'Built Environment Meets Parliament' initiative. The 2009 consultation draft noted there is: 'broad agreement that reshaping the future development of cities through better integrated infrastructure and land-use planning arrangements will be critical to Australia's future GDP and productivity growth as well as providing improved access to services for the growing populations of the nation's cities, enhancing quality of life and conserving the environment.'
- The *Sustainable Communities 2006* report, prepared by the Sustainable Communities Roundtable (comprising the Planning Institute of Australia, Property Council of Australia, Australian Institute of Architects, and Intergovernmental Planning Officials Group) advocated the development of a national sustainable communities strategy; setting targets linked to planning outcomes; independent review and guidance through the establishment of a Sustainable Communities Commission; and the establishment of a National Sustainable Communities Fund.


Perth, WA


Sunshine Coast, QLD


Darwin, NT

- Infrastructure Partnerships Australia's, *Australia's Infrastructure Priorities: Securing Our Prosperity* report (2009) focused on strategic infrastructure planning and investment to underpin national productivity. It made recommendations on governance, approval processes, procurement, skills base, supply chain reforms, specific infrastructure initiatives, and market or regulatory reforms. The report also called for Australian Government and State and Territory Governments to address impediments to better urban liveability and functionality of cities, with a focus on affordable housing, health, justice, sport, cultural and education needs.
- The Business Council of Australia's policy agenda highlights the economic and social necessity of increasing workforce participation, and that infrastructure quality and capacity plays an important role in determining the structure and strength of economic growth and activity.

The views of leading industry groups were also among the submissions received by Infrastructure Australia in October 2008 in undertaking the first national audit of Australia's infrastructure. These submissions covered issues related to infrastructure in cities and of sustainability and liveability. Of particular relevance for cities were the challenges and opportunities presented by organisations such as the Council of Capital City Lord Mayors, the Property Council of Australia, the Urban Development Institute of Australia, the Planning Institute of Australia, among other industry, stakeholder and professional associations. Recurring themes were the importance of national leadership, governance reforms and partnership approaches to managing the array of complex and interrelated issues faced by cities. Adequate planning for and investment in cities was also seen as vital.

Geelong, VIC

Urban research leaders

Various leading urban researchers have made valuable contributions to informing policy on urban issues and have similarly argued that sustainable development of our cities requires the collective efforts of all levels of government, industry and communities.

The biannual State of Australian Cities Conference, established in 2005, and other national research conferences serve to highlight emerging issues and new approaches to urban challenges.

Since 2008 there have been a number of initiatives between industry and research organisations which have contributed to the growing body of research and position papers that are helping to inform the *National Urban Policy*. These include, but are not limited to:

- *ADC Cities Report : Enhancing Liveability,* Australian Davos Connection Forum
- *Cities for the Future Report: Transport Baseline Emissions,* Australian Sustainable Built Environment Council
- *Green Star Communities Framework,* Green Building Council of Australia
- *The Cities We Need,* Grattan Foundation
- *Sustainable Cities Index,* The Australian Conservation Foundation
- *Towards a City Strategy,* Council of Capital City Lord Mayors
- *New Ideas for Australia's Cities,* Urban 45
- *Spotlight on Australia's Capital Cities,* KPMG
- *Melbourne Beyond 5 Million,* Committee for Melbourne

Melbourne, VIC


Darwin, NT

Appendix C

What the Australian Government is doing now

Since November 2007, the Australian Government has pursued policy reforms and invested significantly in our cities. Its involvement in major cities is discussed further in this Appendix, under the themes of productivity, sustainability and liveability.

Population policy

The Australian Government is currently developing a *Sustainable Population Strategy* scheduled for release in 2011. The Strategy will consider how population size, distribution, composition and growth rate affect the sustainability of Australia's economy, environment and society. The *National Urban Policy* and the role of Australia's cities will have strong links to the development of the Strategy.

Three Advisory Panels have been appointed to provide advice on the issues that a *Sustainable Population Strategy* will need to address. A public discussion paper will be released towards the end of this year, with the strategy being finalised in the middle of the year.

The Government recognises that a growing and ageing population presents both challenges and opportunities for Australia. With better information, and the right policy settings, particularly around natural and built environments, infrastructure provision and use, immigration, and fiscal sustainability, the Government believes that it can meet the challenges, while making the most of the opportunities.

Regional policy

Complementary to the development of the *National Urban Policy*, the Australian Government is developing its regional policy agenda. This agenda will reflect the Government's commitment to the following four principles:

- acknowledging regional diversity
- ensuring place-based thinking and localism—developing approaches or encouraging responses which effectively address and meet local and regional needs
- empowering communities to innovate and shape their own future
- ensuring a fair balance of investments and access to services for regional Australia.

These principles are consistent with the principles broadly reflected in COAG's capital city strategic planning system reforms, which stress the importance of coordinating across government and working with communities and the private sector to create productive, sustainable and liveable cities.

The Australian Government has also acknowledged the importance of the diversity of Australia's regional communities to the character of Australia.

Productivity

Infrastructure

Our cities' capacity to accommodate a larger population while supporting productivity growth will depend on the efficacy and adequacy of their infrastructure, particularly future communication and transport systems.

Along with State, Territory and Local Governments, the Australian Government has a direct role in funding and facilitating investment in major productivity-based infrastructure vital to the national economy. At the same time, it has a role in pursuing reforms to ensure that existing infrastructure is efficiently and effectively utilised to further increase productivity and meet future demands.

Infrastructure Australia

Infrastructure Australia was established by the Australian Government in April 2008 to review and advise on infrastructure reform and investment initiatives of national significance. One of its early priorities was the development of national *Public-Private Partnership Guidelines for Infrastructure Projects*, in conjunction with the States and Territories.

Following an audit of the nation's transport, water, energy and communications infrastructure in 2008, Infrastructure Australia strongly advocated a new, national, structured approach to infrastructure planning and policymaking. The approach was founded on a clear seven step Reform and Investment Framework to develop and assess infrastructure strategies, investments or actions.

The Australian Government is investing $37 billion in infrastructure commitments through the *Nation Building Program* over the period 2008–09 to 2013–14. This includes unprecedented funding under Infrastructure Australia's theme 'Transforming Our Cities' for urban projects such as the Regional Rail Express in Melbourne, Seaford Rail Extension and Gawler line in Adelaide, Northbridge Rail Link in Perth, and Light Rail on the Gold Coast. Further, it provided contributions to studies of urban railway projects in Brisbane and Sydney.

A suite of proposals worth $4 billion received priority under Infrastructure Australia's recommendation (Infrastructure Australia 2010) for managed motorways in Brisbane, Sydney, Adelaide, Melbourne and Perth. The intention is to improve the operation of the motorway networks in major cities via the construction and retrofitting of intelligent transport systems. These include loop detectors, motorway ramp signals and lane use management systems, including variable speed limits and message signs.

Case Study: Perth Airport Transport Master Plan

The Australian Government provided $3 million to Western Australia to develop the Perth Airport Transport Master Plan in 2007–08. The Western Australian Government contributed $0.5 million.

The transport master plan will provide a strategic framework for the transport network around Perth Airport to address congestion and increasing demands as a result of growth in passenger numbers and the proposed consolidation of terminal operations and commercial and industrial development on the airport and in the surrounding areas of Kewdale and Forrestfield.

The master plan will be important in the prioritisation of the $530 million in funding that has already been committed to Perth's Urban Freight and Transport Corridor by the Australian Government. It will also inform the Australian Government in its consideration of future investment in Western Australia's urban infrastructure, such as the $480 million announced during the 2010 election towards Western Australia's 'Gateway WA' project.

The Australian Government committed $236 million from the *Building Australia Fund* for a link project in Northbridge, Perth. The project involves sinking the Fremantle rail line between the Horseshoe Bridge and Milligan Street to connect Perth's Northbridge precinct with the main city retail and business area, to enable redevelopment of the land in this important urban renewal project. The Western Australian Government and City of Perth will contribute the balance of the estimated total cost of $335 million and fund associated bus station works.

Economic and gateway infrastructure

Cities are the international gateways for 96% of air passengers and 89% of imports by value—both of which are expected to double by 2030.

Key components of our national transport infrastructure are located in our major cities as hubs of people and as gateways to both international and domestic markets.

Seaports and airports, most of which are located in our major cities, are the hubs around which the shapes of the urban freight and rail passenger systems are determined.

The Australian Government, through Infrastructure Australia, is preparing a *National Ports Strategy* and *National Freight Strategy*. The first of these is aiming to reduce truck queues at ports, to minimise the potential for urban encroachment, and to improve and sustain the competitive position of our international trade gateways. It notes the importance of comprehensive planning at national and state level, as well as at the level of metropolitan transport such as urban road and rail systems, and at the port precinct level. The second of these is aimed at the network of freight movement across the nation, including where it affects urban areas.

Likewise, airports are critical components of the nation's economic infrastructure, supporting trade and tourism and helping to drive growth across the economy. The Australian Government has regulatory control of planning at Australia's 22 federally leased airports.

In the 2009 *National Aviation Policy White Paper* the Government committed to working with airports, State, Territory and Local Governments to achieve a more balanced airport planning framework to support more integrated planning outcomes.

One of the most important long-term infrastructure challenges is meeting the future aviation needs of the Sydney region—Australia's biggest city and one of our key international and domestic tourist destinations. For this reason the Australian Government has committed, with the NSW Government, to develop a strategic plan by 2011 for aviation capacity in the Sydney region. This will help inform future infrastructure planning and investment by governments and industry and enable the proper integration of future airport operations with surrounding state land use planning and land transport networks.

Case study: The tourism industry

The Australian Government is committed to maximising tourism's net economic contribution to our economy and to fostering an industry that promotes the principles of environmental responsibility and sustainable development.

Major cities are integral to Australia's tourism industry. Cities are attractions in themselves as centres of people and culture, and they are convenient gateways for tourists to visit other areas of Australia.

The 2009 *National Long-Term Tourism Strategy* outlined how the Australian Government is working with industry and State and Territory Governments to strengthen our tourism industry by addressing issues including labour and skills outcomes, regulatory impediments to investment, integration of tourism into transport access and infrastructure planning and better use of internet technology.

High speed rail

With passenger travel between the capital cities of Brisbane, Sydney and Melbourne each set to double over the next two decades, investigations into the capacity of the existing and alternative modes of transportation are necessary. In this context the Australian Government has committed $20 million to undertake a feasibility study for a high speed rail network along the east coast between Brisbane and Melbourne.

Regulatory framework

The Australian Government has both a direct and indirect role in overseeing the regulatory framework underpinning road, rail, maritime and aviation transport which move goods and people around, and to, Australia. Aside from directly regulating aviation and maritime transport, given that the national transport network covers all jurisdictions, the Australian Government also works with State and Territory Governments to improve efficiency to provide nationwide economic benefits.

The Australian Government is responsible for the policy and regulatory framework for Australian airports and the domestic and international aviation industry, as well as for the efficient management of Australian airspace and aircraft noise and emissions. Similarly the Australian Government manages the regulatory framework for shipping, which includes environmental and safety regulations.

The Australian Government sets and enforces a preventive transport security framework for aviation, air cargo and the maritime sector, as well as working with State and Territory Governments to implement effective and consistent preventive security measures in surface transport.

The Australian Government is working through COAG to put in place single national regulators for rail, maritime and heavy vehicles. This will contribute to national productivity by reducing transaction costs, improving safety outcomes, encouraging intermodal accessibility and providing a solid framework through which to influence the global and regional regulatory development.

Communications and broadband

Fast, reliable, modern communications is an essential element in a modern knowledge-based economy.

Currently, Australia is behind other OECD countries on a range of telecommunications indicators. These indicators suggest that in the long-term Australia's existing telecommunications infrastructure could jeopardise Australia's productivity and global competitiveness.

High-speed broadband will increasingly become available to all Australians through the Government's National Broadband Network.

High-speed broadband will have significant impact on the way cities work, particularly in the following areas:

- delivering government services
- delivering health services
- providing opportunities for flexible work
- providing education
- ensuring social and community connections
- developing smart infrastructure to manage transport (traffic flows, public transport)
- enabling commercial transactions.

Economic impacts of Australian Government operations

The decisions that the Australian Government makes about the location and distribution of its services, agencies and employees impact on, and contribute to, the economies of cities and regional areas.

For example, the Australian Defence Force (ADF) maintains 60 major bases and many other facilities across all States and Territories. These bases occupy millions of hectares of land, making the ADF the largest real estate portfolio in Australia. In addition, Defence Housing Australia manages around 17 000 residences which are occupied by members of the ADF. These bases and facilities make a significant economic contribution, in terms of employment opportunities and benefits, to local businesses and service providers.

The location and purchasing policies of the ADF and other portfolios in the Australian Government also have significant business flow-on effects for communities. The most notable example is the existence of the national capital of Canberra itself. Whilst the private sector is continually growing and diversifying the economic base of Canberra, the Australian Government provides a significant and stable economic base for the city, indirectly fostering innovation and supporting a multitude of private sector businesses.

The Australian Government also has an impact on cities through its decisions on direct spending, for example income support payments, and indirect spending through funding delivered by other jurisdictions, such as education and health.

Human capital, education and skills

The accumulation of human capital, like physical capital, requires investment of both resources and time. The attributes and skills people learn through formal education and work experience determines how productive they are in their workplaces and in society.

The Australian Government's agenda in building human capital includes the following:

- Recognising the pivotal role early childhood development plays in productivity, through support for a nationally consistent, accessible, affordable and high-quality early childhood education and child care system for all Australian children and their families.
- Major reforms to school education, including improving quality, transparency, addressing educational disadvantage and improving school infrastructure through the *Building the Education Revolution*, the *Trade Training Centres in Schools Program* and the *Digital Education Revolution.*
- Targets to increase the proportion of the population with vocational and university qualifications, demand-driven funding and a focus on quality, transparency, access and sustainability in higher education.

Higher education, research and innovation are central to achieving the Australian Government's vision of a stronger and fairer nation. In the 2009-10 Budget the Australian Government announced it would invest $5.7 billion in higher education and innovation over the next four years and commit substantial additional resources over the next 10 years. The key reforms include:

- promoting greater diversity and quality by
  - » allocating student funding to universities on the basis of student demand
  - » providing significantly greater opportunities for participation in higher education for students from disadvantaged backgrounds through equity initiatives and better targeted student income support

  - » driving a sharper focus on quality and participation through funding tied to achievement
- providing a substantial boost in research funding to better meet the cost of research and enable universities to achieve research excellence against internationally recognised benchmarks
- supporting improved international competitiveness and sustainability by providing improved indexation arrangements for universities
- establishing a new national body to manage regulation and quality assurance
- providing world class infrastructure for universities and Vocational Education and Training providers.

The Australian Government's *Skills for Sustainable Growth* package is a $660 million investment in training, apprenticeships, adult literacy and numeracy. It aims to reduce skill shortages and address ageing workforce issues by investing in training, and is designed to ensure Australia has the skills it needs to support a growing economy. The strategy includes an emphasis on regions (including cities) and sectors under stress as a result of skilled workers being attracted to major projects in other industries and regions.

The Australian Government has the primary responsibility for funding higher education. Australia's higher education system makes a fundamental contribution to the future of our cities, playing a vital role in Australia's intellectual, economic, cultural and social development.

Australia's 39 universities have campuses across the nation and overseas with most located in Australia's major cities. Universities play an important role in cities by promoting them as the centres of the knowledge-based economy, acting as hubs for innovation and connecting business and industry directly with research. Universities also contribute to urban economies and enhancing Australia's international reputation by attracting international students to live and study in Australia.

The Australian Government also funds employment services to reconnect unemployed people with the labour force, as well as the income support system and associated compliance framework for working age people.

The Australian Government supports workplace productivity through the *Fair Work Act 2009*. The implementation of the paid parental leave scheme, scheduled to start on 1 January 2011, and the commitment to provide two weeks paid paternity leave for fathers from 1 July 2012 will help employers retain skilled staff and boost workforce participation.

Special measures, such as those introduced through the *Keep Australia Working* package, provided additional assistance to communities hardest hit by the global recession, including a number of urban regions and it has been agreed that the *Priority Employment Area* initiative will be extended. As well as investing in future school infrastructure, the *Building the Education Revolution* ensured that skills were not lost from the construction sector during the economic downturn. The on-going implementation of this program continues to deliver economic activity in communities across Australia, including in cities.

Sustainability

The challenges facing cities are not unique to Australia, with the United Nations predicting that more than 70% of the world's population will live in cities by 2050. Cities will come under increasing pressure if this growth is not managed effectively.

Climate change, water and the environment

Today Australia is grappling with multiple challenges: economic, social and environmental, including water and climate change. As the impact of climate change becomes more evident, it is clear that our economic future depends on helping Australian householders live more sustainably in a healthy and resilient environment.

The *Environmental Protection, Biodiversity and Conservation Act 1999* (EPBC Act) is the Australian Government's central piece of environmental legislation. The EPBC Act provides a decision-making framework for ecologically sustainable development which balances the protection of environmental and cultural values with economic and social needs.

The Australian Government has embarked on strategic assessments of EPBC Act-listed species and habitat in many urban growth areas around Australia. These include Sydney's western growth centres; Melbourne's urban growth boundaries and new suburbs in Canberra. The purpose of the assessments is to reduce regulatory burden, facilitate timely environment and planning approvals, and maximise environment protection outcomes.

The Australian Government is working with States and Territories to progress the implementation of urban water policy reforms to improve the long term security and sustainability of urban water supplies. These include the COAG work program on water, which covers microeconomic reform in the urban water sector and urban water planning, and the *National Water Initiative* (NWI), which identifies reform opportunities including developing water sensitive cities.

Important reforms have already been implemented, such as the *NWI Planning Principles*, which were adopted by COAG in 2008 and endorsed by the Natural Resource Management Ministerial Council in April 2010. They provide governments and water utilities with the tools to better plan the development of urban water and wastewater service delivery in a sustainable and economically efficient manner.

The *National Water Initiative Planning Principles* to achieve optimal urban water planning outcomes are to:

- Deliver urban water supplies in accordance with agreed levels of service
- Base urban water planning on the best information available at the time and invest in acquiring information on an ongoing basis to continually improve the knowledge base
- Adopt a partnership approach so that stakeholders are able to make an informed contribution to urban water planning, including consideration of the appropriate supply/demand balance
- Manage water in the urban context on a whole-of-water-cycle basis
- Consider the full portfolio of water supply and demand options
- Develop and manage urban water supplies within sustainable limits
- Use pricing and markets, where efficient and feasible, to help achieve planned urban water supply/demand balance
- Periodically review urban water plans

Future work in the urban water sector will be informed by the Productivity Commission inquiry into microeconomic reform of Australia's urban water sector. The inquiry scope includes investigating opportunities for efficiency gains in the structural, institutional, regulatory arrangements in the Australian urban water and wastewater sectors. The Commission is due to report in July 2011, and will deliver clear policy recommendations for future action.

Reducing greenhouse gas emissions

Managing climate change and environmental pressures will be vital to the way our cities develop. Reduced carbon footprints and improved energy efficiency in cities could be assisted through more efficient buildings, lower-emission transport fuels, more fuel efficient vehicles, lower-emissions transport modes and better planned public transport systems.

The Australian Government is investigating options for the introduction of a carbon price that will help the Australian economy make a multi-decade transformation to a low-carbon future. For cities, a carbon price will provide greater certainty for investing in transport infrastructure and in the built environment.

Energy efficiency also has a key role to play in mitigating climate change, in assisting households and businesses to adjust to rising electricity prices, and in enhancing the reliability and security of energy supply for cities. The Australian Government has an extensive and busy energy efficiency agenda. Work includes improving the efficiency of appliances and buildings, providing incentive programs, providing a wide range of information resources, and working on improving the energy efficiency of the Government's own operations.

Adapting to a changing climate

Many investment decisions taken today by governments, industry and the community will have lasting consequences and involve long-lived, critical and costly assets. The sensitivity of existing development to extreme weather events is increasing and the reliance on historical climate data to inform infrastructure design standards, construction, maintenance and service delivery, does not provide a reliable forecast of future climate.

The Australian Government has a role in promoting efficient risk management and is committed to working with other levels of government, businesses and the community to build understanding of climate change risks and support cost effective adaptation.

In the 2010 position paper *Adapting to Climate Change in Australia*, the Australian Government identifies national priority areas for adaptation action over the next five to 10 years, including:

- coastal management
- water
- infrastructure
- natural systems of national significance
- preparation for and management of natural disasters
- agriculture

On the basis of these priorities, the Australian Government proposes to work through COAG to develop a national adaptation agenda.

In November 2009, the Australian Government released a first-pass national assessment, *Climate Change Risks to Australia's Coast*. This assessment provides the evidence base around which to develop national co-operation in the coastal zone, along which many of Australia's major cities are located.

To assist in the integration of climate change adaptation within emergency management planning a climate change adaptation action plan has been developed. From 2009 to 2010, the Australian Government has also committed approximately $110 million over four years to enhance the resilience of our cities and regions to the impacts of natural disasters. A key focus is on improving resilience to extreme weather events arising from climate change.

Liveability

The Australian Government's vision for a stronger, fairer, more resilient nation implies that in our cities we must aim to strike a balance between productivity and sustainability and liveability. We must also ensure that the advantages and opportunities available in cities are distributed equitably.

Social inclusion

Improving liveability and removing disadvantage is an important consideration in ensuring that cities create opportunities and reduce the chances that pockets of disadvantage become entrenched.

The Australian Government, assisted by the Social Inclusion Board, has developed principles to guide governments, businesses, community organisations and individuals as they formulate social inclusion programs. These principles focus on building on individual and community strengths by developing tailored services and whole-of-government solutions.

A range of policies target social inclusion. The Australian Government launched *Job Services Australia* in 2009, which represents an investment by the Australian Government of $4.7 billion in flexible, tailored and specialist employment services. *Disability Employment Services* was launched in 2010 and is a $1.2 billion package to improve employment prospects of job seekers with a disability. Both *Job Services Australia* and *Disability Employment Services* aim to achieve greater social inclusion through increased workforce participation of Australian job seekers, particularly the disadvantaged and persons with a disability. *Closing the Gap* initiatives will increase social inclusion for significant numbers of Aboriginal and Torres Strait Islander Australians who live in major cities.


Adelaide, SA

Housing affordability

The *Housing Affordability Fund* is designed to increase housing supply, particularly for Australians on the lowest incomes, and is vital to improving housing affordability. With an investment of $512 million, it helps to reduce the costs incurred by homebuyers as a result of planning delays and infrastructure costs. The Fund does so by contributing to development costs such as water, sewerage, transport and the provision of open space.

The Government has committed to investing $200 million to help build up to 15 000 more affordable homes in regional cities over three years to relieve pressure on our major capital cities, and help regional cities to grow. This program will give participating councils new funding to invest in local infrastructure projects that support new housing developments, such as connecting roads, extensions to drains and sewerage pipes, and community infrastructure such as parks and community centres. 46 regional cities across Australia have been invited to participate.

The Australian Government has also been active in making rental housing more affordable, with the *National Rental Affordability Scheme* stimulating the supply of new affordable rental dwellings, investing $500 million to reduce the cost of building new homes by removing 'supply' barriers through the *Housing Affordability Fund,* and introducing *First Home Saver Accounts* to encourage individuals to save for their first home.

COAG agreed in April 2010 to a housing supply and affordability reform agenda which includes an examination of zoning and planning approval processes, infrastructure charges, environmental regulations and opportunities to identify currently underutilised land. In addition, the National Housing Supply Council will focus on the impacts of the planning system and the difficulties and merits of infill developments.

The Australian Government, with State and Territory Governments, has also sought to support first home buyers and the construction industry through a range of measures, including the first home buyers grants and stamp duty concessions.

Social housing and homelessness

The *National Affordable Housing Agreement* establishes a framework to improve access for all Australians to affordable, safe and sustainable housing that contributes to social and economic participation. The Agreement sets out clear responsibilities for each level of government and links programs at the Australian Government, State and Territory and Local Government levels to improve housing affordability for low and moderate income households, and to support and accommodate people who are homeless or at risk of homelessness.

Governments have committed to undertake reforms in the housing sector, including better integration of homeless and mainstream services; reduced concentrations of disadvantage in social housing estates; improved access by Aboriginal and Torres Strait Islander people to mainstream housing, including home ownership; and enhanced capacity and growth of the not-for-profit housing sector.

Case study: The Social Housing Initiative

Due to crippling medical costs and other financial burdens a mother and her son could not afford to rent a home in the private market in South Australia. They were homeless and sleeping on a mattress in a friend's house. The mother had a number of medical conditions including Multiple Sclerosis and cancer, and was a victim of domestic violence.

Under the Social Housing Initiative a property owned by Housing SA, which was in a state of disrepair and slated to be sold, was upgraded to reflect the needs of the family including the provision of specialised furniture required for the mother.

The Australian Government has invested $5.6 billion in the *Social Housing Initiative* to boost public housing and housing administered by the not-for-profit sector, as well as to assist low income Australians who are homeless or struggling in the private rental market. The Initiative will stimulate the building and construction industry, both through funding additional dwellings and increasing expenditure on repairs and maintenance. More than 19 300 new social housing dwellings will be built in urban and non-urban areas, with 57% of these in major cities. Another 80 000 dwellings will be repaired under the Initiative, including 12 000 social housing dwellings that would have otherwise remained vacant or become uninhabitable without this work.

More than 60% of new housing will be constructed within 500 metres of public transport. In stage two, 97% of dwellings will be six star energy efficiency rated. Universal design standards will be incorporated into 99% of dwellings and at least 30% (more than 5 000 dwellings) will meet the higher Class C standard, which incorporates such elements as moveable walls to provide appropriate access for a person in a wheelchair.

The *National Partnership Agreement on Social Housing* provided $400 million from 1 July 2008 to 30 June 2010 to increase the supply of social housing and stimulate the building and construction industry. The outcomes under the Agreement include tenants being able to rent housing that meets their needs, improved social inclusion, better housing amenity, and reduced overcrowding.

Under the Agreement, the States and Territories committed to increase the supply of social housing by 1 600 – 2 100 dwellings. Of the dwellings built under the Agreement, 50% have been allocated to households who were homeless or at risk of homelessness, and 67% are in major cities.

Homelessness is not just a housing challenge. Homelessness has many drivers and causes, including the shortage of affordable housing, long term unemployment, mental health issues, substance abuse, and family and relationship breakdown. Homelessness is also more prevalent in urban areas.

The Australian Government's White Paper on homelessness, *The Road Home*, sets out a national approach to reducing homelessness by 2020. In the White Paper, the Australian Government, with the agreement of State and Territory Governments, committed to halving overall homelessness by 2020; and offering supported accommodation to all rough sleepers who seek it by 2020. The Prime Minister's Council on Homelessness is overseeing the implementation of the White Paper.

Human services

The Australian Government makes significant contributions to the liveability of our cities through the human services provided by key agencies such as Centrelink, Child Support Agency, CRS Australia, Medicare Australia and Australian Hearing.

Population ageing and growth will increasingly place pressure on government service delivery. The locations of government services are based on number of factors including population and need. Decision makers in Australia's major cities must take into account the placement of these types of service and have regard for social inclusion issues including transport accessibility.

Health

Major cities, as population centres, are important hubs for the delivery of health services to the community.

The Australian Government, through the Department of Health and Ageing, sets national health policies and subsidises health services provided by State and Territory Governments and the private sector. Total expenditure on health by all levels of government and the private sector accounts for nearly 10% of Australia's gross domestic product.

The Australian Government is undertaking important reforms of the health sector through COAG, establishing the Australian Government as the majority funder of public hospital services, general practice and primary health care, as well as a national aged care system.

A part of these reforms, the Health and Hospitals Fund invests in major health infrastructure programs, and makes strategic investments in the health system that will underpin major improvements in efficiency, access or outcomes of health care. Many of these investments will be made in major cities. Under this program, for example, the Australian Government has committed to invest $560 million in new or upgraded cancer centres across the country.

On 20 April 2010, it was agreed under the the *National Health and Hospitals Agreement*, by all States and Territories, except Western Australia, that the Australian Government will become the majority funder of Australia's public hospitals and will take full funding responsibility for primary care and aged care. A significant portion of this funding, especially in hospitals and aged care, will be directed to capital infrastructure. The Australian Government also funds specific capital projects through the *Health and Hospitals Fund*, the *GP Superclinics Program* and other initiatives that fund health-related infrastructure.

In the case of aged care, facilities are dispersed in the community and provide different levels of care according to residents' needs. The *Ageing in Place* policy has resulted in more than one level of care being provided at each site. This means that residents that enter a facility with low care needs, can remain in the facility if their needs increase to higher care. The Australian Government has been involved in the formal planning for the geographical distribution of funded aged care places since 1997 through the Aged Care Planning Advisory Committees (ACPACs) in each State and Territory.

The Australian National Preventive Health Agency, announced in November 2010, will focus on preventing chronic disease related to physical inactivity, poor nutrition, smoking and alcohol consumption. The Australian Government has committed $872.1 million over six years under the COAG *National Partnership Agreement on Preventive Health*. It will target the lifestyle risk factors of chronic disease including: interventions to support behavioural changes in the social contexts of everyday lives; social marketing aimed at obesity and tobacco; and enabling infrastructure.

Of particular concern for the Preventative Health Taskforce is the increasing level of obesity in the Australian population. The annual financial cost of obesity is estimated at $8.3 billion, with additional costs of lost well-being of $49.9 billion. Over 60% of Australian adults and 25% of children are overweight or obese.

The *Healthy Spaces and Places* project provides information and guidelines on how to create environments that support physical activity. It was developed by a collaborative team comprising the Australian Local Government Association, the National Heart Foundation of Australia and the Planning Institute of Australia and was funded by the Australian Department of Health and Ageing. It is based on the premise that the quality and design of the urban environment plays an important role in facilitating exercise. 'Walkable' neighbourhoods encourage incidental exercise where people can walk or cycle, rather than drive, to local amenities such as shops, schools, services and public transport. Quality open space and recreational facilities also encourage a greater level of participation in recreational exercise.

Heritage and the arts

Australia has a rich and unique natural and indigenous heritage that is protected and celebrated across portfolios in the Australian Government.

Vibrant and diverse arts and cultural activities are an important contribution to the liveliness and vitality of an urban environment. Arts and culture can be seen as having both economic and social value.

Studies of community attitudes have indicated that the conservation of heritage places sustains a sense of community wellbeing and identity.

Thirty one National Heritage Listed places are in capital cities, including the Sydney Opera House; the Royal Exhibition Building and Carlton Gardens in Melbourne. The World Heritage List also includes some of Australia's convict sites. Many of these places are major tourism attractions and generate considerable economic and social benefits.

The Australian Government supports national visual and performing arts organisations.

Regional and local community infrastructure

The *Regional and Local Community Infrastructure Program* has provided more than $1 billion to Local Government to build and modernise community infrastructure, including town halls, libraries, community centres, sport and recreation infrastructure and facilities, and environmental infrastructure. These types of facilities are integral to the liveability of towns and cities around Australia. Around $391 million has been invested so far in community infrastructure projects in cities through the *Regional and Local Community Infrastructure Program*.

The Australian Government provides important funding to Local Government across Australia through Financial Assistance Grants. These grants include a general purpose component and a component for local roads. They were first provided in the mid 1970s and to date the Australian Government has provided around $35 billion through this program. The grants are now worth around $2 billion annually to Local Government.

Albury, NSW

Launceston, TAS

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