

A Sustainable Population Strategy for Australia

Submission by the Bus Industry Confederation



March 2011

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Context

The Bus Industry Confederation of Australia (BIC) is the peak body representing bus and coach operators and suppliers in Australia. The industry carries approximately 1.5 billion passengers a year and employs over 40,000 people. As a key service industry whose primary role is to enable Australians and international visitors to access the many opportunities that our society provides. Australia's bus and coach industry is vitally concerned about the size, growth rate, composition and distribution of Australia's population.

This submission sets out BIC's views on the Commonwealth Government's Issues Paper, *A Sustainable Population Strategy for Australia* (Commonwealth of Australia 2010a). We have chosen to structure this submission around the fourteen questions posed in the Issues Paper. Our submission makes extensive use of two key publications. The first, *Moving People: Solutions for a growing Australia*, was published in March 2011 by BIC, together with the Australian Railways Association and the International Public Transport Association (UITP). It sets out a comprehensive national land transport policy and associated program directions for Australia. The second is the ADC Forum Report, *Cities Summit: Enhancing Liveability* (September 2010), in which BIC's policy adviser (Professor John Stanley) wrote the Integration Chapter and co-edited the publication. We also draw on parts of our response to the Commonwealth Discussion Paper *Our Cities: building a productive, sustainable and liveable future* (BIC 2011).

Question 1: What issues do you think a Sustainable Population Strategy for Australia should address?

The Issues Paper does not clearly set out what it means by a "Sustainable Population", other than suggesting that it means "... compatibility with the sustainability of our economy, environment and communities". This does not answer the question of what sustainability actually means. The paper also suggests that "The ultimate goal ... is to improve the wellbeing of current and future generations..." Quite so, but the Paper provides no insights as to how wellbeing will be measured and how the interests of future generations will be taken into account in the process. This is emerging as a major issue in the climate change policy debate. The first issue that BIC therefore believes that a Sustainable Population Strategy must consider is: *What does sustainable population actually mean and how will we know if we have achieved, or are approaching, a sustainable population?* It is disappointing that the Issue Paper does not seek to go further on this pivotal matter, although answers to questions posed by the Issues Paper should assist in forming such a view. The strategy must tackle this question as a central priority.

BIC supports the Brundtland Commission's definition of sustainable development (WCED 1987, p.8):

Humanity has the ability to make development sustainable – to ensure that it meets the needs of the present without compromising the ability of future generations to meet their own needs.

Accepting this definition, then it is difficult to imagine how a sustainable population strategy could not engage with questions of absolute population size, population growth rates and the distribution of population. These issues all bear on meeting current needs and future needs. This does not necessarily mean that any particular country should settle on an absolute and immutable target for population size at any date but it does suggest that, like interest rate targeting by the Reserve bank, there is probably a **range** over time within which acceptable answers will lie. BIC thus expects to see the strategy provide guidance on future population size ranges over time for Australia that are seen as sustainable, with growth rates being inextricably bound up in this issue and the distribution of population also being fundamental, because of the way sustainable economic, social and environmental outcomes are likely to vary with all these dimensions of population.

Implicit in this expectation is that the strategy will enunciate the relevant economic, social and environmental outcomes that condition its target range, justifying the analysis that produces these outcome estimates.

The Issues Paper refers to sustainability indicators and some questions relate specifically to such indicators. These are clearly central to the idea of sustainability. BIC has strongly supported the ADC Forum Cities Summit productivity, liveability and environmental sustainability targets in its submission on the Commonwealth Government's *Our Cities* report (BIC 2011). While those targets, that are set out in Table 1, were specifically nominated for Australian cities, they can readily be extended to national targets without change. For example, an 18% targeted increase in GDP per capita in our cities is just as relevant nationally as for cities. Similarly, a 30% cut in greenhouse gas emissions by 2020 is as relevant nationally as for our cities. BIC suggests that the Table 1 targets be read as national targets to be used to shed light on whether population strategies are likely to be sustainable.

The indicators relate to **outcomes** that BIC believes are indicative of more sustainable Australian cities. Outcome objectives provide key elements of transparency and accountability for performance. The inclusion of outcome criteria that cover all three goal areas (productive, sustainable, liveable) will highlight the vital importance of an integrated approach being taken to plan development and add performance pressure on government to take responsibility for real achievement. Table 1 sets out the various outcome indicators and the specific outcome area (productivity, liveability, environmental sustainability) to which each relates.

Some particular additional areas that BIC would expect to see incorporated in indicators of population sustainability are indicators of biodiversity impacts, energy security, water security and social inclusion. Our answer to question 2 provides some further ideas in this regard.

In analyzing population settlement strategies that might assist the achievement of the targets set out in Table 1, BIC expects that a considerable focus of attention will be the question of **bigger cities versus better cities**, a theme reflected in the ADC Cities Summit. The Summit report points out that no city in the Mercer or The Economist top ten liveability rankings has over 5 million people and that only two cities in each ranking exceed 2 million population. With liveability being such an important part of 'brand Australia', the population strategy must show how Australia can sustain its high liveability ranking in the face of larger cities.

BIC's preference is for better cities, not necessarily bigger cities. This enables the external costs of city size to be mitigated, without any necessary loss of the agglomeration benefits that are so important to productive and liveable cities.

Table 1: Proposed Strategic Criteria and Targets for Sustainable Cities

Major focus of criteria and targets for 2020, against a 2010 base	Productivity outcome	Liveability outcome	Environmental Sustainability outcome
Productivity 1. 18 % increase in city GDP per capita 2. Youth unemployment rate <3% above overall rate 3. 10 percentage point increase in mode share for walking, cycling and public transport 4. 95 % coverage of Fibre to the Property 5. 75% of working age tertiary/trade qualified at certificate III or above	Yes Yes Yes Yes Yes	Yes Yes Yes Yes Yes	Maybe Maybe Yes Yes Maybe
Liveability 1. Gross urban density to increase >20% 2. All city residents to live within 300m of public open space 3. Halve the percentage of people living below poverty line 4. Halve the number of homeless 5. At least 90% agree that their neighbourhood is a good place to live 6. 10 percentage point increase in school children walking/cycling to school	Yes Yes Yes Yes Yes Yes	Yes Yes Yes Yes Yes Yes	Yes Yes Yes Unlikely Likely Yes
Environmental Sustainability 1. 30% reduction in GHG emissions on 2000 2. Solid waste disposal rates to be less than 0.4 tonnes per capita 3. Reduce drinking water consumption by 30% 4. 100% achievement of national air quality targets 5. Increase in native bird species and numbers (work required to set targets)	Opportunity Opportunity Opportunity Opportunity Likely	Yes Yes Yes Yes Yes	Yes Yes Yes Yes Yes

Source: ADC Forum 2010, Table 3.

The ADC Cities Summit pointed out that idea of Better Cities encompassed a number of components, including (ADC Forum 2010, p. 34):

- encouraging growth in new cities/regional centres as well as adding numbers to existing cities, with the significance of the new cities option increasing with absolute population size. Past experience with attempts to drive much faster growth in selected Australian inland cities, such as Albury-Wodonga and Bathurst-Orange, suggests a need to think carefully about possible locations for New Cities, but a possible Very Fast Train along the Brisbane-Sydney-Melbourne corridor could open up new options in this regard;
- substantially upgrading the condition of our existing cities, such that they too might be seen as new cities (adapting/retrofitting our cities). A particular focus of Summit discussion was the middle ring suburbs in our capital cities, which were seen as ideal locations for a greater share of population and economic activity, including a focus on developing a small number of major activity centres (or secondary CBDs) within the larger capital cities;
- focusing on enhanced liveability of villages/precincts within all cities. This is more finely grained than in the preceding point. The “local” level within our cities was widely seen as critical in

terms of developing the future. (with)... issues such as driving job creation and innovation from the local level, in areas like energy efficiency, distributed energy generation and water self-sufficiency, promoting local place making and community building ... illustrative of the opportunities seen for Better Cities, coming from a local level perspective. Ideas such as lifting density, delivering mixed use, improving connectivity, enhancing local character and providing high quality public realm permeated the discussions on this point...;

- pursuing greater community involvement in both planning for, and then delivering, city futures. This was seen as integral to building Better Cities at both city-wide and village/precinct levels;
- much wider roll-out of universal design features as the norm, within new and existing buildings and in public places. This has an immediate advantage in terms of inclusion but also creates business development opportunities, given Australia's leading position on accessibility issues;
- designing passive security features in to urban spaces, to make them safer (and hence better) places for all;
- tackling growing problems associated with climate change, such as the urban heat island effect and growing wild fire risks (in the latter case, including a much greater emphasis on the relatively neglected matter of fire prevention); and,
- increasing the availability and affordability of housing, to close the overall demand-supply gap ... and, in particular, to better meet the housing needs of those in the lower income groups.

BIC expects that the Population Strategy will consider such matters in detail in advising on a sustainable future direction for Australia's population.

Question 2: What do you think are the key indicators of an environmentally sustainable community?

On an environmentally sustainable community, BIC supports the thinking of the late Professor David Pearce OBE, who spent many years at University College London as Director of the Centre for Social and Economic Research on the Global Environment (CSERGE) and was a pioneer of environmental economics. Professor Pearce, in grappling with the question of how to allow for the preferences of future generations on issues such as climate change, uses the idea of natural capital assets. The Issues Paper recognizes this issue when it refers to Australia's heavy dependence on its natural environment for ecosystem services. Natural capital assets include, for example, tropical forests, ocean habitats, wetlands and fisheries, atmospheres and stratospheres, which contribute to life support functions (and for which substitutability with physical or man-made capital, such as roads and factories, is limited). Pearce argues (Pearce and Kerry Turner 1990, p. 225):

... conserving the stock of natural capital is consistent with the idea of sustainability. Therefore, when evaluating decisions, we can integrate sustainability into the decision by imposing the constraint that, whatever the other benefits and costs associated with the decision, the stock of environmental capital should be constant. Essentially, the normal decision-aiding rules would be applied, for example that benefits must exceed costs for the decision to favour a particular development. But it would be a requirement that whatever environmental damage is done by the development should be compensated for by restoration and rehabilitation.

This idea is just as relevant at national level as at project/development level. It provides a mechanism that will help to ensure that future generations are able to meet their needs (without diminution of the stock of natural capital assets, on which many of their needs will depend). At national level, in relation to sustainable population strategy, for example, the approach would require that the sum of environmental damage (to natural capital assets) done by a sequence of development would be offset by separate projects within the portfolio of decisions being taken, with these projects aiming at

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compensation for the reduced capital stock by deliberate creation and augmentation of environmental capital. The Net Gain principal applied to vegetation is an example of this concept in practice. BIC commends this high level principle as an important foundation for thinking about sustainable population.

At a more detailed level, the indicators we have included in Table 1 include five environmental indicators. These are high level targets and can be complemented by more detailed targets, whose achievement will contribute to achievement of the five targets and to conservation of natural capital. The Ecological Working Group (EWG) for the ADC Cities Summit proposed setting a number of targets for our capital cities, to help build resilience and lower their ecological footprints. Some of the relevant targets are based on the rather modest (current) national target of a 60 per cent cut in greenhouse gas emissions by 2050, which BIC believes is likely to be increased to about 80% in coming years. BIC has amended some of the EWG targets to reflect its own views on environmental sustainability. Our suggested targets for 2020, as a pathway to 2050 and much higher targets, are set out below.

Water

1. Reduction in mains drinking water use: no mains water for outdoor use; 30 per cent per capita reduction from 2000 levels (to 107 litres person/day).
2. Storm water: run-off (quantity and quality) to be at pre-urban levels.
3. Alternative supply: any augmentation from now to be carbon neutral.

Carbon emissions

1. Industrial emissions: 30% reduction from 2000 levels.
2. New buildings and suburbs: 100% carbon neutrality for new buildings.
3. Retrofit buildings and suburbs: 35% reduction from 2000 levels.
4. Transport: 20% reduction on 2010 levels by 2020.
5. Electricity supply: 20% reduction from 2000 levels.

Biodiversity and open space

1. Vegetation cover (in hectares): maintain and improve each year.
2. Terrestrial carbon improvement: Net increase in urban green space.
3. Fauna: No species loss.

Land

1. Minimum residential density: an average of 25 dwellings/hectare for all new developments.
2. Proximity to mass transit: design to ensure 100% of new dwellings are within 400m of mass transit.

Food security

1. High value sites are identified (includes areas with productive soils, amenity buffer zones, irrigation assets, biosecurity values): 100% of high value sites remain.

Waste

1. Organic waste: 95% diverted from landfill.

Climate change adaptation

1. All major urban expansion and critical infrastructure: all assets have been assessed for resilience to climate change.

Urban policy more generally needs to actively promote the achievement of such outcomes, in an integrated way. They include some of the next layer of detail to the targets we have set out in table 1.

Question 3: How have changes in the population impacted on your local environment?

As an industry association, we answer this question at a strategic level, rather than in terms of the specifics of a particular environmental impact on a particular location. In answering this question, we take a broad view of environment, to include the social environment as well as the natural and physical environments.

Perhaps the major impact of population change on the environment within which bus services are provided has been the rapid growth in population numbers on the fringes of Australian cities, with substantial concentrations of young people within the population mix. Table 2 illustrates this pattern for the nine municipalities that occupy the fringe of Melbourne, called the Interface Councils. The Interface Councils are the Local Government Areas of Mornington Peninsula, Casey, Cardinia, Yarra Ranges, Nillumbik, Whittlesea, Hume, Melton and Wyndham. In 2009, 1.23 million people resided in this area (Table 2), representing 30.9% of the Metropolitan population. In 2001, the Interface Councils had accounted for 27.6% of Melbourne's population. The rapid increase in population share between 2001 and 2009 is a reflection of the area's very high population growth rate, at a time when Melbourne's population overall was also growing solidly.

Table 2 shows population numbers in each municipality at 2001, 2006 and 2009, together with population growth rates over the 2001-06 and 2006-09 periods, compared to Melbourne as a whole. The IC's population grew twice as fast as Melbourne overall from 2001 to 2006 and about two-thirds faster over the 2006-09 period. The IC grew, on average, at 3.0% per annum from 2001- to 2006 and at an even faster 3.6% p.a. from 2006-2009. Such high rates of population growth are typically accompanied by lags in provision of infrastructure and services.

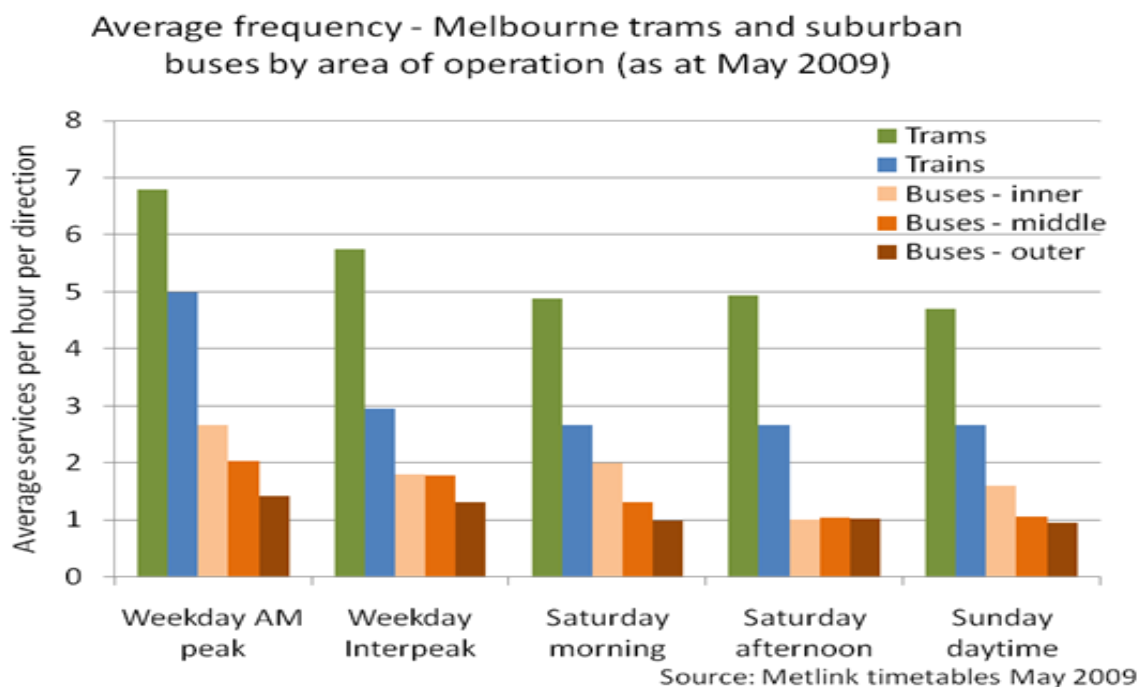
A high rate of population growth is also typically associated with a large proportion of young people in the population. This is the case for the IC area, where 22.9% of the population was aged under 15 in 2006, compared to 17.2% aged under 15 for the rest of Melbourne. Young people are typically dependent on others for many of their mobility requirements in low density settlements, which usually means parents/carers or public transport. In low density outer suburbs, public transport usually means bus. Public transport (route bus) services typically lag population growth in outer suburbs, as illustrated in Figure 1, as governments struggle to cope with infrastructure and service backlogs and pressures from population growth. This is a particular constraint on the mobility options of young people, with consequential knock-on effects for those performing chauffeuring duties when public transport is not available.

Table 2: Population Growth in Interface Council Areas, Compared to Melbourne Major Statistical Region: 2001-09.

Area	2001 Pop'n ('000)	2006 Pop'n ('000)	2009 Pop'n ('000)	Growth 2001-06 (%)	Growth 2006-09 (%)
Cardinia	47,010	58,540	68,641	24.5	17.3
Casey	181,562	222,681	247,357	22.6	11.1
Hume	135,986	154,351	167,540	13.5	8.5
Melton	52,830	81,414	100,000	54.1	22.8
Mornington Peninsula	132,387	140,734	148,394	6.3	5.4
Nillumbik	60,818	62,142	63,827	2.2	2.7
Whittlesea	118,118	129,793	146,132	9.9	12.6
Wyndham	87,141	116,332	143,879	33.5	23.7
Yarra Ranges	142,553	144,848	148,912	1.6	2.8
TOTALS	958,405	1,110,835	1,234,682	15.9	11.1
Melbourne	3,472,207	3,744,982	3,996,160	7.9	6.7

Source: ABS various sources.

Figure 1:



Population growth and lagged public transport provision means high car ownership rates in outer suburban areas. A shortage of local service and employment opportunities means long trip lengths, far longer than for those living in inner and middle suburbs (our answer to question 11 provides further detail). Dodson and Sipe (2008) have shown how the fringe areas of

Australia's capital cities are vulnerable to high fuel prices and interest rates. BIC's own research has shown that risk of social exclusion is higher in such areas.

In short, population growth is increasing the prospective market for public transport in outer growth suburbs but slow supply responses are increasing the risks of social exclusion for residents and compounding the external costs that associate with car dependence, costs such as traffic congestion, greenhouse gas emissions, air pollution, road fatalities and serious injury accidents and the costs from increasing obesity. Our *Moving People* report analyses these costs, arguing that they demand a national response (our answer to question 13 summarises the *Moving People* report's argument).

The other major way in which population growth is impacting the environment of bus operation is through the growing pressures for more compact urban settlement patterns, which are emerging in all capital cities in response to the high external costs of continued urban sprawl. While urban intensification is occurring more slowly than most state governments would probably wish to see, this focus on greater population densities in inner and middle suburban areas will substantially increase demand for public transport services, because of a simple inability to add significant new road space for cars in built up areas. Significant additional new funding is required for such public transport services, ideally ahead of development taking place, to help ameliorate local backlash against increasing densities. This additional funding is not being provided at a sufficient rate present, as evidenced by public transport funding applications to Infrastructure Australia and the success rate of such applications.

Question 4: How might technological or governance arrangements mitigate the environmental impacts of population growth?

Our response to question 1 raised the strategic issue of bigger cities versus better cities. In that discussion, we drew attention to the possible role of a Very Fast Train (VFT) in the north-south corridor (Brisbane-Sydney-Melbourne) being possibly significant in encouraging faster growth in cities outside the state capitals, reducing the environmental costs of continued growth being so highly concentrated in the largest cities. This technological option should receive close attention.

High speed broadband (through the NBN) could possibly reduce the need to travel, by improving the speed and quality of interactions that can be accomplished remotely. However, similar claims for new electronic technologies have been common for the past two decades, or more, with little impact on trip rates or travel distances. However, linked to dramatically improved long distance travel opportunities by VFT, where the environmental impacts are lower than air, high speed broadband starts to appear more promising. The two technologies, in tandem, might help to overcome Geoffrey Blainey's 'tyranny of distance', as it impacts on some of the environmental impacts of population growth. The ecological impacts of population growth in existing capitals and other cities must, of course, be considered as part of this calculus.

Governance arrangements are critically important in terms of the economic and environmental impacts of population growth. In particular, improved governance arrangements will be critical to what can be delivered in terms of better cities. The ADC Cities Summit pointed out that,

across the developed world, there is widespread agreement among urban planners about the **principles of effective city planning** that should contribute to cities becoming “Better Cities”. These were seen, in broad terms, as follows (ADC Forum 2010, p. 34):

- *planning should be for “whole communities”, providing for access to jobs, schools, shops and services, recreational facilities, open space, and for access to other people;*
- *outward growth of cities should be constrained;*
- *“green” areas should be retained within and around cities;*
- *“close to market” agricultural and horticultural land should be retained as far as possible;*
- *large cities should have a networked polycentric shape rather than a single central business district;*
- *higher density and mixed use development should be encouraged at public transport stops, particularly rail stops but also along major public transport routes (e.g. tram lines; key trunk bus routes);*
- *all neighbourhoods should have access to urban villages and be walkable and cyclable;*
- *use of public transport should be encouraged wherever possible;*
- *use of the car should be discouraged wherever possible;*
- *both open space and recreational space should be accessible to every neighbourhood;*
- *public space should be human scale, well designed and encourage concentrated and varied activity;*
- *neighbourhoods should have a diversity of housing to enable people of a wide range of ages and economic levels to live there;*
- *housing, neighbourhoods and cities should be planned to maximize energy and water efficiency;*
- *planning for industry and freight should include consideration of neighbourhood amenity as well as economic efficiency;*
- *regional residential and employment land use should be built around public transport;*
- *regional institutions and services should be located in urban areas;*
- *cities should have the capability to respond to disasters and the resilience to respond and rebuild.*

Some Cities Summit participants suggest that, without a new governance model, it will be very difficult to reflect these principles. If they cannot be reflected in a new governance model, then the environmental costs of population growth will be hard to curtail because successful urban intensification will be very hard to deliver at the rate that is required.

Probably the single most difficult issue identified by the ADC Cities Summit was a governance matter, concerning resolution of the conflict between **desired strategic directions for city development** (as summarized in the above principles), which will involve increases in densities in some parts of our cities, and the **preferences of local people**, who frequently do not accept that increased densities are appropriate in their locality. Long delays in development frequently result, which often leads to Ministers calling projects in, taking local government out of the planning decision. This is a vital issue because of the importance attached to the village or precinct level in future city growth.

The **city-wide level** is where broad policy and program directions for city development are set. It is at this level where strategic land use plans are settled and major supportive, city-shaping infrastructure investment decisions are made (seeking to reflect the above principles). The **village/precinct level** is the urban space in which people conduct their daily lives and is where their sense of community is likely to be most firmly based. Village/precincts can range from small local centres, through large activity centres to Central Business Districts or parts thereof, with a sense of distinctiveness/identity being a key defining quality. Planning and developing villages/precincts such that a greater range of activities can be undertaken locally will support local job creation, social inclusion and enhance accessibility, while reducing emissions and the broader ecological impacts of population growth. In the knowledge economy, the village/precinct assumes much locational significance.

Attempts to increase densities in inner and middle suburbs frequently encounter NIMBY responses, vital village/precinct and personal space and history being seen as challenged by those who are seeking to lift densities. Many among the community simply reject the planners' solution. In part, these circumstances describe a clash between what planners see as the "public good" and the costs that pursuit of this policy direction are perceived as imposing on particular groups/individuals. Governance arrangements must bridge this gap.

Successful delivery of higher densities requires both strategic and local level engagement, which clearly considers and explains the reasons for changing density (social benefits in the broadest sense of the term) and works through ways of minimising the costs to individuals/groups who perceive they are adversely affected, while maximizing local benefits from increased activity possibilities.

A key focus for governments and other stakeholders must be the identification of ways to most effectively build up the village/precinct level as a key part of future urban development strategy and innovation. Local government will need to be a key player in this devolution of focus. If the village/precinct is to assume greater strategic significance, then a way to empower and support village/precinct development must be found, while accommodating the strategic requirements of increasing density. This resolution might be approached in the following way:

1. The relevant State Government establishes population/job growth targets (growth potential) for each individual municipal area within the capital city, for a specific future time frame (e.g. 20 years) and targets for affordable housing, as part of its capital city strategic plan. These targets must be reached in negotiation with local government as a collective, to internalize the debate over location within the State/local government decision framework, and both the State and collective of municipal government should sign-off on the targets. The relevant collective for local government in a city will probably be at regional level (an aggregation of councils) but could be all councils in a given city, if that worked for the councils in question. The sum of the resulting targets across a city would exceed expected population/job growth, because the market will influence where people ultimately live and work, not just governmental targets for growth potential. Having targets with upside capacity should help avoid the need for subsequent protracted delays. The targets that are the result of this process would then be a key input to State Infrastructure Planning processes and to service planning,

- including provision for what the State will do to help meet affordable housing requirements.
2. The agreement process should identify principles that need to be taken into account in locating the target population/job increases in particular areas. These principles would, inter alia, reflect the intention to pursue transit-oriented development, encourage growth of key activity centres/hubs in a mixed use compact format, achieve high quality public realm, increase diversity in housing choice, provide for affordable housing, optimize the use of existing infrastructure, protect heritage areas and open space, etc.
 3. Starting from scratch, a two year period should be sufficient to negotiate agreed targets, particularly since some States are already engaged in this process. The resulting targets and development principles would need to be taken into account by individual councils in preparing strategic plans for their areas. The existence of a signed agreement(s) could be a precondition for a state and its capital city being eligible for possible Federal financial assistance for urban development projects/programs that might emerge through the COAG Capital City Strategic Planning processes (including via Infrastructure Australia processes).
 4. Individual municipalities would negotiate with their own communities how to best accommodate the future population/job increases and affordable housing numbers that are included within their respective targets and be given a set period of time within which to make this decision. Since much of this local negotiation could take place in tandem with the strategic negotiation with the State over municipal targets, it would probably only add a year to the maximum two years suggested for negotiation of new strategic targets. If a council failed to make its local decisions about areas where increased densities would be concentrated within the set time frame, the State could take over negotiations in its stead and/or some governmental funding to the municipality could be withheld. The resulting decisions on density (housing diversity, etc) would be incorporated in local planning schemes, with a view to speeding up development implementation timeframes (which will help to contain costs).

These ideas allow democratic processes to work at both strategic and local levels, the former in negotiating the respective targets and the latter in settling locations for increases in population/jobs within each municipality.

A Sustainable Population Strategy must review governance arrangements for our cities in particular to ensure that they minimize the environmental costs of growth. The above proposals should assist in this regard.

Question 5: How do population driven changes in your local economy affect your environment?

Our answer to question 3 has been written so as to respond to this question as well.

Question 6: What lessons have we learnt that will help us to better manage the impacts of population change on the environment?

The most important lesson some have learnt is that silo-based approaches, based on narrow functional thinking, will not solve problems and should be replaced by integrated approaches.

Our *Moving People* report focused on an integrated approach to Australian land transport policy and planning. That report highlighted how a range of program measures/actions that emerge as high priorities to tackle critical national land transport issues will produce benefits across a range of outcome areas, underlining the importance of an integrated approach.

This general proposition needs to be seen alongside our earlier proposal for the conservation of natural capital stocks, as a way of protecting the interests of future generations (who have no way of expressing their preferences in our decision making). BIC thus sees an absolute environmental constraint in the area of natural capital stocks and emphasizes the importance of an integrated approach to decision making against this constraint. An implication of this learning is that the Sustainable Population Strategy must be developed and implemented in an integrated way with the impending Urban Policy and climate change policy, and with policies in areas such as housing, transport, land use, industry development, energy, social policy and the list goes on. Australian experience in this regard is generally not encouraging and the continued institutional focus on function, rather than place, makes the task difficult. However, the growing interest in alignment of policy thinking and development across some of these areas is promising of a higher degree of integration in future.

Australian Governmental responses to climate change show very clearly that we are not good at taking decisions where the potential costs of change are concentrated (on polluters) and the benefits are widespread and largely future based. BIC's suggestions for improved governance arrangements for urban planning and development were framed *inter alia* to try to help overcome this problem in the urban setting. The level of achievement that emerges from the current re-consideration of climate change policies will be a good indicator of prospects for success elsewhere in this regard.

A key to the future economic, social and environmental impacts of population lies in the approach taken to making the most efficient use of our existing infrastructure base. Pricing systems that charge users for the marginal social costs attributed to their consumption choices, while taking care to protect disadvantaged groups, is a recognized way of improving the efficiency of resource use and generating funds for infrastructure development.

Australia currently prices its resource use poorly in land transport, water and energy, sectors where external costs are largely ignored and where pricing is little used to ration peak demands. Our *Moving People* report argues for reform of Australia's land transport pricing arrangements to better reflect the costs of individual travel choices. The Henry Tax Review proposed changes in this direction. However, there is little demonstrable progress to this end. If Australia is to better manage the environmental impacts of population growth, it must take a stronger approach to efficient pricing of resource use, including environmental externalities, drawing on the widespread international experience that is accumulating in this field.

Question 7: What do you see as the defining characteristics of a flourishing and sustainable economy?

BIC sees a flourishing and sustainable economy as one that necessarily meets the outcome targets we have listed in Table 1.

GDP targets should be in per capita terms, not gross numbers, since the latter has little relationship with the economic welfare of our population. The Table 1 GDP per capita growth target we have supported, of an average increase in GDP per capita of 18% over a decade, means about 1.65% real increase per annum, which would ensure rising economic wellbeing. The target of increasing the proportion of the working age population that is tertiary qualified is supportive of the target growth in GDP per capita, recognizing that the knowledge economy will be the foundation of long term economic sustainability for Australia, notwithstanding the current attention devoted to the (exhaustible) resource sector.

A flourishing and sustainable economy would achieve the educational target listed in Table 1 and associated target for GDP per capita. Attracting and retaining talent in the era of the knowledge economy is fundamental to a flourishing and sustainable economy. As location becomes less central to knowledge exchange, lifestyle becomes more central to the location decision for talent. Better urban density outcomes, good movement systems, high quality liveability, cultural diversity, nodes of high entertainment quality, best practice knowledge generation, finance and good venture capital infrastructure (to translate invention through innovation into productivity) are supportive in this regard.

Geographic clusters (of businesses/business networks) are becoming increasingly more global. In a flourishing and sustainable economy, it is vital that Australia focuses on building stronger language links with its regional communities. This is likely to require a greater focus on languages such as Mandarin and Indonesian, for example.

Development of the knowledge economy needs to be linked back to the increasingly important village/precinct level of development. Learning needs to be integrated in a much closer way with workplaces and neighbourhoods. Online access will be an important means of gaining access to knowledge but the learning from engagement will continue to occur predominantly through physical presence in learning centres, which are typically smaller and more accessible. *Learning centres* are expected to become significant at neighbourhood level. People will utilise services available in learning centres, either as part of a formally designed learning program or on an as-needed basis, recognizing that such needs can also encompass recreational type purposes.

Rising economic welfare is one thing. Ensuring that this rising tide lifts all boats is also important. The Table 1 target of substantially reducing the difference between the youth unemployment rate and the overall unemployment rate is partly about improving the equity of economic outcomes. Raising educational achievement is one important contributor here, as is the development of neighbourhood learning centres. The Table 1 liveability targets related to halving the percentage of people living in poverty and halving the numbers of homeless are also part of a flourishing and sustainable economy.

Question 8: Is your community, business or industry facing skills shortages or other immediate economic pressures, and how are these best managed?

The Australian bus industry has an ageing workforce and growing demand for services, which have combined to put pressure on recruitment in areas such as drivers and mechanics in an already highly competitive transport and mining workforce environment.

At the same time, a change is occurring in the ownership of bus and coach businesses. Traditionally a family based industry with most bus and coach operations owned and operated by families through generations, the last decade has seen national and multinational bus and coach companies become a bigger player in the Industry as family based business have sold.

The impact of this is beginning to be recognized in the form of a “brain drain” as the knowledge from these family based companies is lost to the Industry and finding experienced or trained managers and transport planners is becoming more difficult as the population ages.

The Industry has attempted through Industry Associations and individual companies to manage this skills challenge through campaigns to promote and attract new entrants to the industry such as school leavers and university students through to specific campaigns to target woman, semi retirees and second career seekers.

The industry is also working to fundamentally change the qualifications required to make the industry a more attractive employment option.

Question 9: In the decade to come, what challenges and opportunities will our economy face, and how will they interact with changes in our population?

BIC sees the major challenge facing the Australian economy in the coming decade as one of how to successfully shift from being such a highly carbon intensive resource-based economy to a more sustainable knowledge-intensive economy.

Climate change pressures are suggesting there are significant constraints on Australia’s future as a major coal exporter and that our high level of domestic dependence on coal for electricity generation must be wound back very substantially. Mustering the political courage to drive change to a more sustainable economic structure is proving difficult but becoming more urgent by the day.

It is important for Australia to protect itself against the “Dutch Disease”, the mining boom driving up the exchange rate and a number of other trade-exposed industries (e.g. manufacturing, tourism) consequently losing some competitiveness. The importance of broadening our economic base away from such a relatively high reliance on exhaustible resource exports, while boosting productivity more generally, is critical. Knowledge intensive sectors must be the focus for our economic restructuring for sustainability.

In this regard, the mining tax and carbon pricing are both strongly supported by BIC as positive steps in the right direction, so long as the value of such initiatives (the carbon price in

particular) is not undermined by paying compensation to those creating the externality. Revenues raised from these charges can be used *inter alia* to help facilitate growth of knowledge-intensive activities. Switching our economic focus away from such a high reliance on mining exports has a corollary in the need to ensure our cities, which are the seed beds of the knowledge economy, remain highly liveable and able to attract the talent to drive growth in the knowledge economy. BIC expects to see a substantial investment by the Federal Government in developing the liveability of our cities, to assist them to remain magnets for talent and great places to live. Mining tax and carbon price revenues are one way to part fund such initiatives. BIC has argued elsewhere (in *Moving People*) that road pricing reform can also generate a pool of funds that can assist in enhancing the liveability of our cities (e.g. by improving public transport service levels).

The population implication of the challenge outlined above is to emphasise the economic importance of the liveability qualities of our cities as places for population growth. This raises the challenges discussed in answer to a number of other questions, challenges that relate to how we can build better cities, not necessarily bigger cities.

Question 10: How should we measure the sustainability of our local, regional and national economies?

In Table 1 we set out a range of indicators for sustainable cities, pointing out that these indicators were equally relevant at higher spatial levels. The target for GDP per capita growth is an obvious high level indicator for economic sustainability at local, regional and national levels. However, on its own, this measure is not sufficient. For example, it takes no account of the distribution of the benefits of economic growth or of those costs of growth that do not appear in GDP measures (e.g. private travel time lost because of traffic congestion; greenhouse gas emissions; pain and suffering from road accidents). For this reason economic sustainability must be seen in integrated economic, social and environmental terms and the targets set out in Table 1 are a good basis to start thinking about sustainability, complemented by the more detailed targets we set out in answer to question 2.

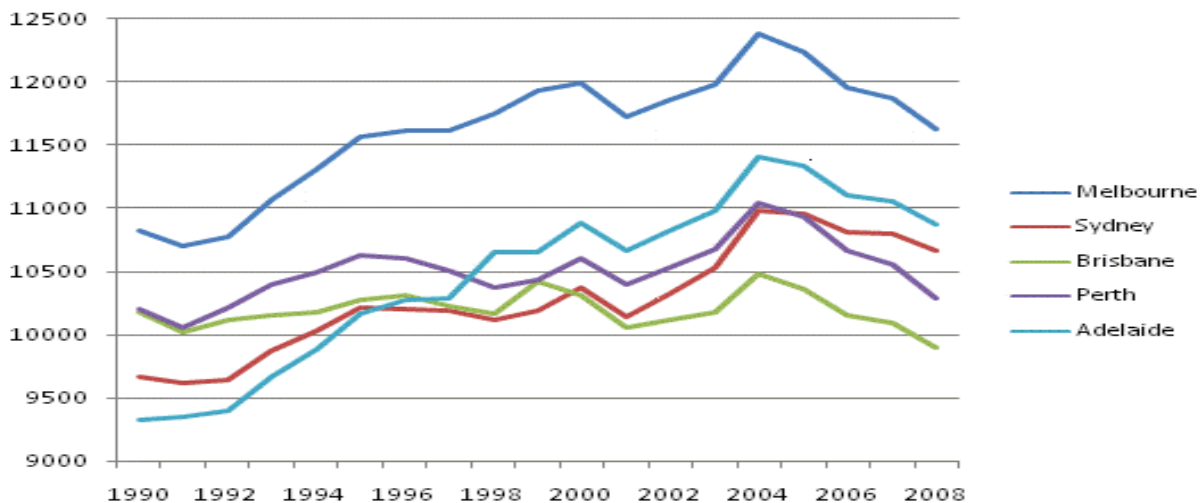
We also argued, in answer to question 2, that the conservation of natural capital stocks is particularly important in terms of helping to ensure that future generations will have the opportunity to meet their needs, recognizing the dependence of much economic activity (and life itself) on a functioning natural environment. Uncertainty and irreversibility arguments are also supportive of this approach. This idea is particularly relevant at regional and national levels and BIC suggests it should be a requirement for economic sustainability at both levels. The implication is that measurement of the quantity and quality of natural capital stocks should be undertaken at regional and national levels, as an indicator of economic sustainability over time. This is no easy task but a very important one for a sustainable economy.

Question 11: How have changes in the population changed the way you live your life?

Our response focuses on land transport considerations.

Growing traffic congestion is a well recognized phenomenon in Australian cities. In simple terms, traffic congestion is a product of demand for road use and road space availability. Demand derives from a requirement for person and goods movement. Person movement depends on travel rates per capita and the number of capitas. Figure 2 shows trends in per capita car travel in Australian capital cities from 1990 to 2008, with a marked peak in about 2005 and typical declines of 5-10% since that time. This peak was apparent in all the five cities shown. The decline in per capita car use has been strongest in cities whose public transport systems have shown significant improvements in service levels. Figure 3 shows, however, that total vehicle kilometers of travel in our capital cities generally continued to grow, albeit at a slower rate than in the period before 2005.

Figure 2: Estimated car passenger kms per capita (FY1990-2008)



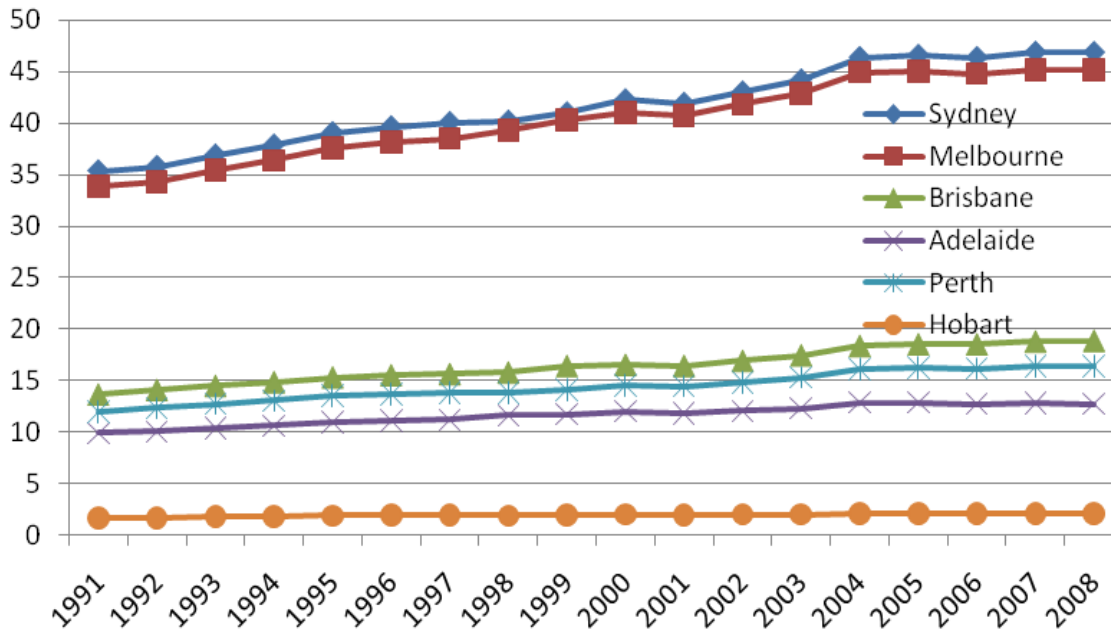
Source: Bureau of Infrastructure, Transport and Regional Economics (2009), *Australian Transport Statistics Yearbook 2009*, Department of Infrastructure, Transport, Regional Development and Local Government, Canberra; Australian Bureau of Statistics (2009), *Regional Population Growth*, Cat. no. 3218.0, ABS, Canberra.

The immediate implication of this data is that the component of the recent growth in traffic congestion in Australian capital cities that is attributable to car use is entirely attributable to population growth and to the fact that a significant proportion of that population growth is occurring in urban fringe locations, where average trip lengths are high (e.g. because of a shortage of local jobs and services). Figure 4 uses Melbourne VISTA travel survey data to show how trip lengths increase with distance from the inner suburbs (and with personal income level). Improving public transport service levels is an important way of helping to mitigate the adverse transport externality impacts of population growth.

The conclusion about population growth being a driver of growing urban congestion costs is also immediately relevant to other external costs of car use in our cities. For example, Figure 5 shows Australian land transport greenhouse gas emissions, which have not declined as rapidly as the decline in per capita car use. By implication, growing population plus growing freight

demand explain the reasons why GHG emissions have stabilized rather than shown a 5-10% reduction.

Figure 3: Total car passenger kilometres for capital cities (FY1991-2008)
(billion passenger kms)



Source: Bureau of Infrastructure, Transport and Regional Economics (2009), *Australian Transport Statistics Yearbook 2009*, Department of Infrastructure, Transport, Regional Development and Local Government, Canberra.

Figure 4: VISTA 07 v1.3 - Daily Distance Travelled per Person

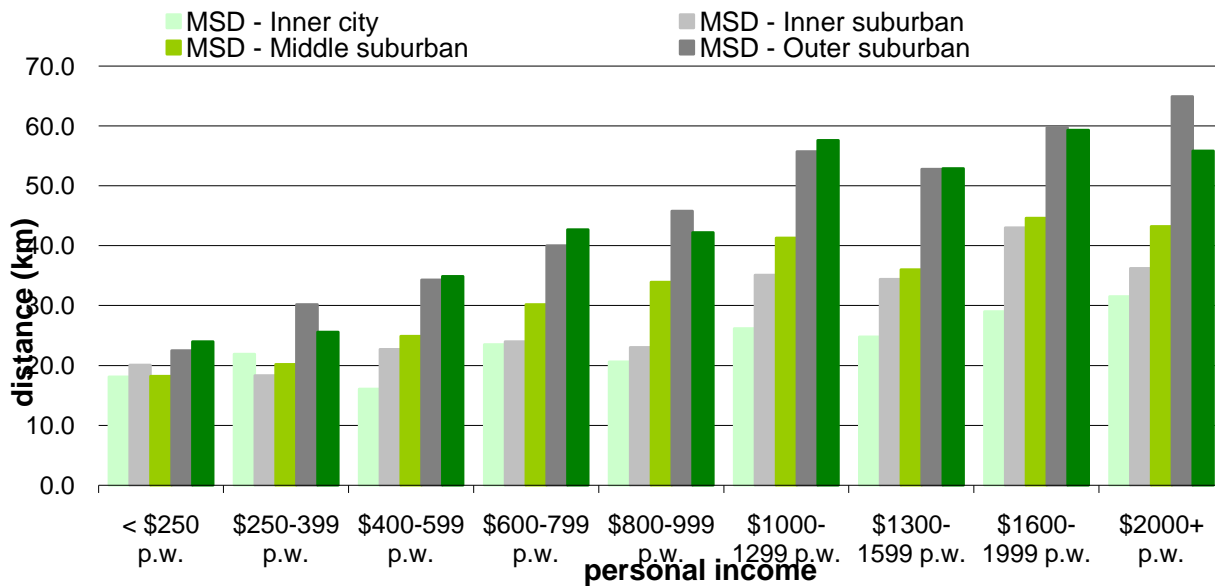
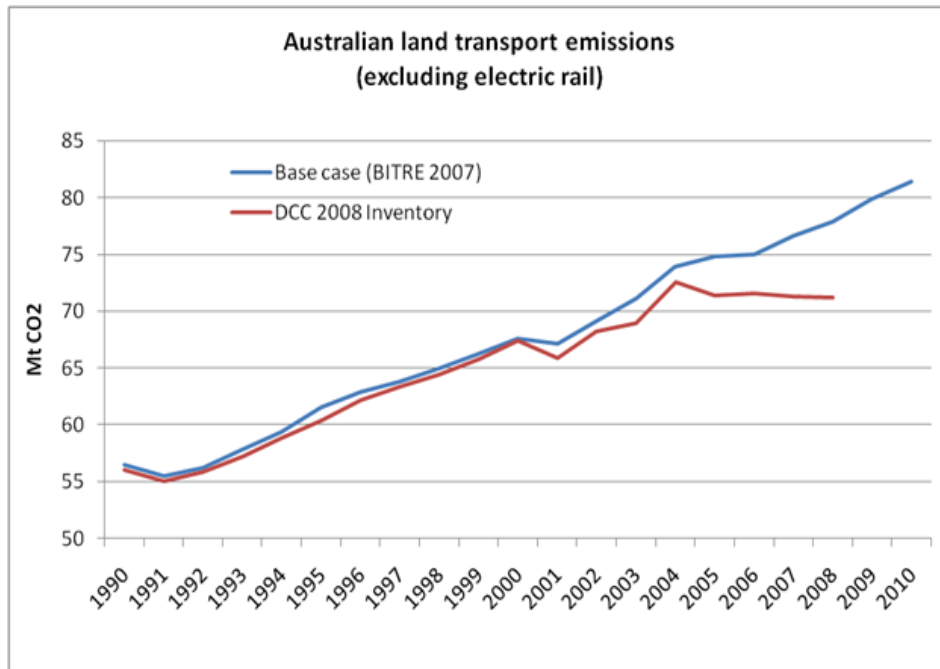


Figure 5



Question 13: What sustainability issues need to be addressed in order for your community to accommodate a changing Australian population?

Again our reply is with respect to person movement issues. It draws on our published report, *Moving People: Solutions for a growing Australia*.

Australia's current land transport systems face several major sustainability problems. Current travel choices for people and freight movement have resulted in:

- congestion costs of about \$10 billion annually, and rising;
- relative greenhouse gas emissions that are exceeded by few countries. At a medium term marginal carbon cost of \$60/t, the 80 Mt CO₂-e road transport emissions constitute an externality of about \$5 billion annually;
- a road toll of about 1,450 or more annually, costed at almost \$10 billion annually in terms of the fatality cost alone (excluding injury costs and hospital and related costs to deal with accidents);
- many people being at risk of social exclusion because of our high reliance on the motor vehicle;
- obesity becoming an increasing concern, partly because of a lack of exercise (related to car dependence);
- a reduced degree of energy security, as our self-sufficiency in petroleum fuels declines from about half today to about 20% by 2030;
- a significant and rising funding requirement on Governments.

State governments, in particular, have been targeting the issues raised above for a number of years. The evidence that these issues are generally getting worse, not better, indicates that **transformational change**, not the incrementalism of the past, will be required to deliver more sustainable long term outcomes. This was the conclusion from the Australian Davos Connection Infrastructure Summit held in October 2008 (ADC 2009). That Summit concluded that land transport and urban transport/land use were two particular areas where such transformational change was required.

To substantially improve the sustainability of Australia's land transport systems, national land transport policy for at least the next decade needs to be framed around:

- managing congestion costs and improving economic competitiveness and liveability as it is affected by land transport;
- achieving substantial cuts in transport greenhouse gas emissions;
- ensuring adequate mobility options are available for all Australians (and international visitors);
- making the transport system safer;
- encouraging healthier transport choices; and
- increasing our energy security, by reducing our reliance on imported fossil fuels.

Policy approaches need to be integrated, and focus on sustainability. An "integrated approach" in this context means:

- consistently and comprehensively pursuing goals of economic competitiveness, environmental sustainability and social inclusion (triple bottom line outcomes);
- consistency between policy measures to address the critical national transport issues, across the three levels of government, other stakeholders and sectors, not just via land transport policy. While land transport must be the primary focus in the search for solutions through national land transport policy, solutions to land transport problems will often arise elsewhere, such as in land settlement policies and programs or from social policy changes. To be effective, these policies must be integrated.

A compelling reason for pursuing an integrated approach is that there is often not a one-to-one alignment between issues and solutions. For example, measures that reduce road congestion may also cut greenhouse gas emissions and enhance, or reduce, the risks of social exclusion from mobility origins, while also cutting the road toll. An integrated policy package should seek to maximise beneficial outcomes across as many problem areas as possible, to deliver maximum value for money.

The key **Policy Objectives** that are required to improve the sustainability of our land transport systems are:

1. changing the modal balance for transport of people and goods away from such a high dependence on motor vehicles to methods of transport with less impact on the triple bottom line;
2. improving the environmental performance of all transport modes but particularly of cars and trucks, because of their dominant roles; and
3. ensuring that travel opportunities are available to all, irrespective of personal circumstances.

These three elements should form the core elements of national land transport policies, with the goal of achieving more sustainable outcomes on the triple bottom line. These three policy objectives can be translated into six major **Program Directions**, with indicative actions of the type shown below.

1. Reducing the demand for travel

- Land use planning (density, co-location)
- Maximising opportunities for walking and cycling

2. Achieving a shift to lower carbon transport modes

- Cars to public transport, walking and cycling
- Trucks to rail

3. Improving vehicle utilisation

- Higher car occupancy
- More efficient freight movements

4. Reducing vehicle emissions intensity

- More efficient vehicles (the largest single contributor)
- Smaller passenger vehicles
- Alternative fuels
- Intelligent transport systems
- Better driving practices

5. Increasing mobility opportunities

- Provision of reasonable base public transport service levels
- Using existing public transport opportunities (e.g. school and community buses) more effectively

6. Creating a more sustainable freight network

- Focus on freight movement to ports, hubs and to connect key manufacturing/distribution centres

These are major national issues that flow from our current travel patterns and choices. These, in turn, derive to a significant extent from our low density land settlement patterns, particularly in our cities. Improving the sustainability of Australia's land transport systems for people movement cannot be separated from the need to re-shape our cities, with travel and land use systems being reconfigured to reduce the need to travel, increase travel choices and make travel by low impact modes easier. The same principles should also apply to freight movement. At the same time, the motor vehicle will remain critical for land transport movement of people and freight. Therefore the environmental and safety performance of the motor vehicle must be transformed if it is to continue play such a role. Population is a critical driver in relation to the above issues, since it typically provides a direct scalar of the externality costs involved.

Table 3 shows how seven key action items will contribute towards achievement of progress against many of the major national issues, showing the importance of an integrated approach to Australian land transport. The seven key action items are:

1. Increased investment in public transport
2. Freight capacity investment and efficiency improvements
3. Road pricing reform
4. Improved accessibility opportunities for all
5. More compact, walking and cycling friendly urban settlements
6. Improved fuel efficiency
7. Improved transport research and development.

Table 3: Alignment of Intended Policy Outcomes and Action Plan Content in Australian Land Transport

Policy Outcomes						
Seven Point Plan		A. Congestion Management	B. Environmental Improvement	C. Social Inclusion	D. Health & Safety	E. Energy security
	1. Increased investment in public transport	Modal shift to PT	Lower emissions	Greater accessibility	Fewer injuries and fatalities	Investment in new technologies
	2. Freight capacity investment & efficiency improvements	Reduced road congestion	Less freight related emissions		Fewer severe accidents	Increased energy security
	3. Road pricing reform	Less peak congestion	Lower emissions		Lower emissions	
	4. Improved accessibility for all			Mobility for socially at risk		
	5. More compact walking & cycling friendly urban settlements	Reduced travel need. More cycling and walking require less road space	Lower emissions	Mobility options easier to provide	More physical activity through walking and cycling	
	6. Improved fuel efficiency		Emission standards		Better air quality	Reduced need for imported fossil fuels
	7. Improved R & D	Better transport R & D to meet these outcomes.				

Question 14: What are some useful indicators to help measure the liveability and sustainability of our communities?

At the risk of excessive repetition, BIC draws attention again to the set of indicators that were presented in Table 1, which have been specifically developed to indicate high level progress towards more productive, liveable and sustainable Australian cities. Interpreted more broadly than just for cities, the targets are not exhaustive but they are certainly comprehensive and they illustrate many of the critical trade-offs that must be resolved for a sustainable population and economy. The achievement of the Table 1 targets will provide some assurance that Australia is becoming more productive, is retaining its highly valued liveability and is enhancing its environmental sustainability. We again emphasise the importance of retaining natural capital stock as an underlying foundation against which the targets set out in Table 1 should be interpreted.

The targets could be applied both nationally and at state/territory level and be implemented by commitments through the COAG capital City Strategic Planning process. While variation on individual targets between different States/Territories is a reasonable expectation, “short targets” in any particular jurisdictions, against a large number of the objectives/targets

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nominated below, would need to be defended, to provide some assurance that the jurisdiction will be achieving real progress in terms of productivity, liveability and sustainability. The proposed targets leave the choice of ways to achieve the nominated outcomes up to individual jurisdictions. To help maintain performance pressure on outcomes, annual achievement against the proposed objectives/targets should be reported annually by the States/Territories through COAG, reinforcing the national significance of capital cities to COAG.

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