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Inquiry into a Sustainability Charter

Submission from:

The Bus Industry Confederation

To

The House of Representatives Standing Committee on Environment & Heritage

The Bus Industry Confederation is the peak organisation representing the interests of the bus and coach industry in Australia. Its more than 3000 members encompass bus operators, manufacturers and suppliers, and many other associated businesses. BIC's members carry more than one billion passengers annually in Australia and employ over 30,000 people.

Inquiry into a Sustainability Charter

Terms of Reference

On 12 September 2005 the House of Representatives Standing Committee tabled the Sustainable Cities report. The committee called for the development of a Sustainability Charter based on measurable outcomes, over a certain period, with intermediate milestones.

The charter should be aspirational. It must provide targets for the Australian community to meet and, once those targets have been met they must be re-assessed so new targets can be put in place.

The Committee is now inquiring into and will report on key elements of a sustainability charter and identify the most important and achievable targets, particularly in relation to:

1. The built environment;
2. Water;
3. Energy;
4. Transport; and,
5. Ecological footprint.

The Committee invites submissions from individuals and organisations with an interest or expertise in these matters.

Submissions are to be sent to: Environment.Reps@aph.gov.au or sent to:

Environment and Heritage Committee
House of Representatives
Parliament House
Canberra ACT 2600

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1. About the Bus Industry Confederation

The Bus Industry Confederation is the peak organisation representing the interests of the bus and coach industry in Australia. Its more than 3000 members encompass bus operators, manufacturers and suppliers, and many other associated businesses. BIC's members carry more than one billion passengers annually in Australia and employ over 30,000 people.

BIC is recognised as a leading proponent of growth in travel by public transport. BIC believes this is an effective way to reduce the economic, social and environmental costs associated with excessive use of the private car for personal and business travel.

1.1 What BIC does

- Promotes and helps development of a viable and improved bus and coach industry in Australia
- Encourages and facilitates co-operation between members and among members and the general public
- Fosters public understanding of the contribution made by the bus and coach industry to Australia's economy, society and the environment
- Encourages high standards of conduct and service by its members
- Promotes and supports industry related research and development
- Promotes the use of public transport as a proper and viable alternative to the motor car
- Promotes policies and actions that are environmentally responsible
- Encourages investment in public transport infrastructure
- Fosters and promotes a viable Australian bus manufacturing industry
- Undertakes other activities to assist its members in fulfilling their mandates

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2. Executive Summary

BIC contends that Australia faces major sustainability issues in terms of personal transport systems, particularly related to:

- the economic significance our cities and the importance of ensuring that high quality transport systems are provided to facilitate future economic growth in these cities, particularly with respect to reducing the adverse impacts of congestion, balanced with meeting environmental and social needs;

- ensuring that a decent basic level of access is available to all Australians, irrespective of where they live; and,

- dealing with the continuing problems associated with road trauma.

These sustainability issues all derive primarily from our high dependence on the private car.

The submission argues that improving sustainability requires three key policy levers to be used:

- improving service levels by public transport and also encouraging travel by other low impact modes such as walking and cycling, to increase use of these modes relative to the car, particularly in middle and outer suburban areas. Bus service levels should be the primary area for public transport service improvement, because of the orientation of bus services to middle and outer urban areas;

- improving the integration of land use and transport to reduce the need for travel and to facilitate greater ease of travel by low impact modes (public transport, walking and cycling); and,

- reforming road pricing, to make road users more accountable for the costs of their travel decisions, while providing a flow of funds to assist implementation of transport sustainability initiatives. Parking levies on spaces in congested areas are a handy starting point towards improved pricing.

The Bus Industry Confederation submission suggests that the Victorian Government's target of 20% of motorized trips being made by public transport by 2020 is an appropriate target for Australian cities and that this outcome will only be achieved if all three policy levers are pointing in this direction. The benefits of achieving this target, however, are potentially huge, particularly given the scale of, and growth in, congestion costs.

The BIC believes there is a need for a major change in the nature of Federal-State land transport relationships, to assist in delivery of the desired change in policy and program direction. Cities are the main focus of the submission but the key points in favour of a more integrated approach apply more broadly than just our cities. The submission supports major change because:

- all levels of government have an interest in better sustainability outcomes in our cities & regions;

- the costs of not improving sustainability are so high; and,

- progress under current arrangements has been inadequate.

The BIC proposes an integrated approach to policy and program priority determination on land use and transport development. It proposes, in particular, a more integrated approach to transport development, pricing and funding, involving all levels of government and with involvement of other key stakeholders, including the broader community, working through central State-based agencies set up for the purpose. This would be overseen by a Sustainability Commission that has equivalent powers to the ACCC and measures state government's performance against agreed sustainability targets at the risk of future funding until targets are met.

Pricing, investment and funding processes should be integrated through this mechanism, with the Federal Government being specific about its outcome objectives and using funding leverage as a means of ensuring that these objectives are incorporated as criteria to be met by the State-based land use and transport planning and decision-making process. Federal leadership is required to drive this change process, which will rely on effective partnerships across all levels of government, business and community stakeholders. BIC believes this process is needed to allow the Commonwealth and States to articulate their respective roles and responsibilities for the provision of public passenger transport services rather than hiding behind a Commonwealth/ State Government 'Stand off'.

BIC believes that the Federal Government should kick-start this process of change by establishing a Sustainable Infrastructure Fund, to accelerate delivery of major projects that will enhance the sustainability of our cities (and regions). This fund would form part of Auslink or be a separate fund established with clear Sustainable Transport outcomes as its objective and be overseen by the proposed Sustainability Commission.

The National structures that have been established currently do not address passenger transport issues and mobility issues and have not have not been a priority for Canberra and left aside, largely as State responsibilities.

The challenges that face cities & regions in the future, as a result of congestion such as access to employment and basic essential services, rising fuel prices and an ageing population mean that a clear National Institutional framework within which public passenger transport and personal mobility issues are addressed in a co-ordinated and strategic manner is required.

To this end, the BIC is proposing a comprehensive review of current Federal Departmental and portfolio arrangements, and National Institutional arrangements as they relate to passenger transport, which would allow a Sustainability Commission to act as a coordinator between Commonwealth, State and Local government.

Currently the situation exists that several departments are involved in transport or transport related programs and initiatives at a commonwealth and state level, with various transport outcomes being sought in complete isolation of each other. This means that they are not tied to any coordinated transport strategy or any sense of a more efficient use of resources and available funding. This adhoc approach to the provision of transport services is unsustainable and a "national moving people strategy" that could coordinate the activities would assist the long term sustainability of our cities and regions.

Recommendation

Establish a Sustainability Commission that has equivalent powers to the ACCC and measures state government's performance through central state based agencies to meet agreed sustainable transport targets.

Recommendation

Establish a sustainable infrastructure fund as part of Auslink to accelerate the delivery of major projects to enhance the sustainability of our cities and regions.

3. The Sustainability of Australia's Transport Systems

3.1 Sustainability Criteria

The 1987 report of the World Commission on Environment and Development (the "Brundtland Commission") established the concept of sustainable development as referring to development that meets the needs of the present generation without compromising the chances of future generations to meet their needs.

In line with this approach, BIC's *National Policy Statement 2001* sees sustainable land transport systems in economic, social and environmental terms. Relating this to the interests of the present inquiry, sustainability criteria might be expressed as follows for Australia's passenger transport systems:

Economic sustainability = ensure that personal travel needs are met efficiently and that personal travel choices are supportive of a dynamic city economy;

Social sustainability = ensure that a reasonable basic level of access is available to all residents and visitors, irrespective of personal circumstance, and that this is provided with an acceptable level of safety;

Environmental sustainability = manage emissions from transport such that they are consistent with meeting national air quality standards and Kyoto targets for greenhouse gas emissions.

BIC has examined Australia's passenger transport systems from the perspective of these criteria.

3.2 Externalities

The concept of **externalities** is a convenient short hand indicator for many economic, environmental and safety aspects of sustainability. Externalities typically arise when the well-being of an individual or group is affected by the activities of one or more others who ignore this "spillover" effect when taking their decisions.

On the basis of a large number of studies around the world, the key externalities associated with transport are the use-related **external costs** of road damage, congestion, accidents and environmental damage, especially air pollution, noise and climate change (greenhouse gas emissions) and the major origin of these costs is road use. The transport disadvantage experienced by those without ready access to a private car in a car-dependent society can also be thought of as an external cost of a car dependent personal transport system.

Economic theory recognises that, in a market economy, the existence of external costs (and benefits) creates a situation where the market decisions of individual

consumers and producers no longer add up to an outcome that provides maximum benefits to society from resource use. Market pricing on the basis of social costs, which include external costs, is a prerequisite for market systems to produce efficient resource allocation outcomes. Pricing measures are attracting increased interest as a means of bringing external costs to account, particularly in Europe.

Pricing approaches generally seek to internalise external costs by ensuring that each transport user faces the full social (i.e. private, environmental and other) costs associated with each individual trip and therefore has an incentive to reduce the underlying problem that is causing the external costs. This requires a means of identifying and measuring the impact of the costs in question in monetary terms. This is possible, to a varying degree, for some of the costs of transport in our cities, as illustrated in BIC (2001).

3.3 Economic Sustainability

3.3.1 Congestion Costs

The most obvious indicator of economically unsustainable land transport systems in our cities is the level of traffic congestion. The Bureau of Transport Economics (1996) has estimated that road traffic congestion cost Australia $12.8 billion in 1995, with this cost expected to reach $29.7 billion by 2015 (by interpolation, annual congestion costs are probably of the order of $18-19 billion today). Analysis by BIC, for its submission to the Commonwealth Fuel Taxation Inquiry, shows that congestion (costed at $12.8 billion) is by far the largest “external cost” of road use in Australia (BIC, 2001).

Road traffic congestion costs essentially arise in our cities. Research undertaken by Stanley and Ogden (1993), in an unpublished report for VicRoads, suggests that about 60% of these costs will be incurred by the business sector, including the freight sector and business travel by car and light commercial vehicles. This makes traffic congestion a huge drain on the economic performance of our cities and national economy. The Stanley and Ogden work estimated that peak congestion costs in Melbourne were well over $1.00 per vehicle kilometre (based on 1993 prices).

The Warren Centre for Advanced Engineering (2003a) has pointed out that almost four out of five Sydney residents perceive traffic and transport as serious problems, with road congestion being the number one issue. Almost two-thirds of Sydney residents surveyed by the Centre opted for demand management rather than building more freeways to manage the congestion problem. Demand management introduces the issue of pricing.

Economically efficient pricing of road use would see road users charged for the congestion costs their road use creates for other road users. BTE work has suggested that an economically efficient charge would be about $1.26 per kilometre travelled in parts of Melbourne’s central area, falling to less than 13c/km only 9 kilometres from the CBD. A peak hour trip from Frankston to the CBD would have

incurred congestion charges of about $5. The BTCE work found that peak congestion charges in Sydney would have been about 75c/km (i.e. lower than the peak cost per kilometer in Melbourne) but high charges would have applied over a wider inner area than in Melbourne.

London is the first city in the world to specifically implement a congestion charging scheme to reduce road traffic congestion and its associated costs. The London scheme, which came into force on 17 February 2003, involves a £5 daily entry fee to the charge zone between 7am and 6.30pm, Monday to Friday, excluding Public Holidays. The charging zone bounded by the Inner Ring Road (Figure 3.1) is a small area in the city of London[1] in which very few people actually live. The scheme operates with a paper based system using Automatic Number Plate Recognition (ANPR) technology, via cameras located at cordon entry points or in mobile locations throughout the charging area.

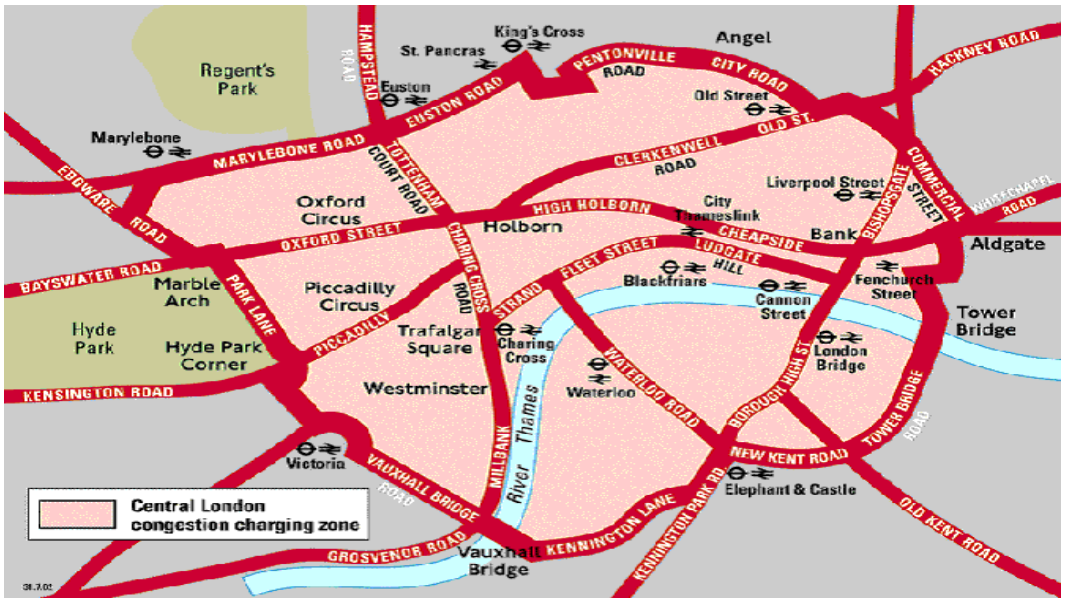

Figure 3.1: London Congestion Charging Zone

Before its commencement, the charging scheme was predicted to:

- reduce traffic volumes in the heart of the capital by between 10-15% year round (i.e. to school summer holiday levels all year round);

[1] Charges are made on vehicles entering an area bounded by an Inner Ring Road that runs along Euston Road, Pentonville Road, Commercial Street, Tower Bridge Road, New Kent Road, Kennington Lane, Elephant & Castle, Vauxhall Bridge Road, Park Lane, Edgware Road and Marylebone Road. No charge is made for driving on the Inner Ring Road itself - only the area bounded by it.

- reduce congestion by 20-30%, with journey times shortened and delivery times made more reliable;
- raise £1.3 billion over the first 10 years, for re-investment in all forms of transport in London, including roads, buses, local streets and railways; and,
- pay back set up costs within 18 months of starting.

To be eligible for entry one has to register a vehicle and the number plate becomes the basis of compliance, with the charge debited to an agreed account. There are a range of exemptions and discounts. Over 900,000 individuals have registered for discounts and/or exemptions. Residents of the zone receive a 90 percent discount (i.e. pay 50p). Freight vehicles pay the full daily charge.

What are the major findings to date? Currently there are over 100,000 payments per day made on entry to the zone, including 11,000 fleet vehicles. Before the introduction of the charge, the average speed of all traffic was 13 kph; it is now 17 kph. There has been a 20% reduction in total vehicle trips per day throughout London, with a 16% reduction of traffic in the charging zone. Congestion has decreased by 31%, as measured by travel time. This is due to 150,000 fewer car trips into, out of and through the charging zone. 10-20% of these trips have diverted around the zone with the greater percentage of the balance (50-70%) switching to public transport. This adds approximately 90,000 to 130,000 passenger trips across the charging day to public transport.

The public transport switching translates into a 14% increase in patronage, with bus journey speeds increased by 33%. The growth in motorbike use is also of interest: combined with the increased speed, motorbike use has resulted in greater exposure to the risk of driving faster.

The raising of revenue is the most controversial and unexpected outcome. One of the strong arguments for congestion charging in London was the hypothecation of revenue raised for investments back into transportation, especially public transport. The amount of revenue raised in the first six months is nowhere close to what was projected: the charging scheme has been too successful in discouraging car use! In addition, the administrative costs of the scheme have been much higher than anticipated. 67% of revenue raised has been consumed by costs of administering the scheme. Thus the net revenue is relatively small in terms of any re-investment back to public transport. It must be recognized, however, that the additional patronage using public transport has delivered sizeable increases in funds, through extra fares collected. These funds can be used to improve services, given the new level of pressure on public transport capacity. This is to be encouraged (especially in the longer term); otherwise there will be some defection back to the car.

The use of number plate recognition, while supported as the easiest way of introducing the charging scheme in a setting that has not yet taken on board electronic tolling (as exists widely in Sydney and Melbourne, for example, with full interoperability), has resulted in a range of headaches in administration. There is a growing view (unofficially) that electronic tagging may be the way in the future. Its rejection in London is linked to the absence of electronic tolling in the region and the increased expense in starting from scratch. This may turn out to be a bad decision.

While the London experience has had some problems, it shows that (relatively simple) congestion charging schemes can be effective in reducing congestion and, by implication, in reducing its high costs. Long term, BIC sees congestion charging as a central part of the long term solution to the most serious problems of traffic congestion in our cities.

Recommendation

BIC concludes that the current scale of road congestion costs in Australian cities and the growth in the size of these costs indicates that current city land transport systems are not sustainable in economic terms. Urgent policy attention should be devoted to ways of reducing these huge economic costs. Long term, congestion pricing is likely to be a central part of the solution to congestion costs, as one element in integrated urban transport and land use development strategies. A second is road infrastructure investment that includes on-road priority for buses and Bus Rapid Transit systems as conditions of receiving Federal road funding to make public transport by bus an attractive alternative to the car.

3.3.2 Dynamic Urban Economies

Australia is one of the world's most urbanised countries. Our capital cities alone account for almost two-thirds of the nation's population. These are the areas where the knowledge economy is concentrated, where knowledge-intensive manufacturing industry remains strongly focussed and through which most international and domestic tourism is channelled. These are all economic sectors of above-average growth and growth-potential. National economic growth prospects are thus increasingly tied up with the future prospects of the major urban economies. The Conference Board of Canada reflected similar thinking when it recently said[2]:

Cities are at the centre of our new economy, the cradle of innovation, and the venue for wealth creation.

Knowledge-intensive economic activities tend to be footloose by their nature and can locate almost anywhere. Studies into their locational determinants typically indicate quality of life factors as central (e.g. Porter 1990; McKinsey 1994; Ratio Consultants 1995). Urban locations dominate and traffic congestion, air pollution and noise can be significant locational deterrents. As one means of assisting the process of continued national economic growth, therefore, policy should focus on how to reduce the adverse congestion and environmental impacts of urban road use on the dynamism of our metropolitan economies.

[2] Quoted in Prime Minister's Caucus Taskforce on Urban Issues, Canada's Urban Strategy: A Blueprint for Action, November 2002, p. v.

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Recommendation

While urban traffic matters have traditionally been seen as matters for the State Government in Australia, the national economic need for dynamic urban economies, set alongside the high costs of congestion, air pollution and noise, means that these are now clearly matters of national economic concern. The contribution that urban public transport can make to reduce these problems, as one part of integrated urban transport/land use systems, means that urban public transport should become part of the scope of national land transport policy and programs. To this end State and Local Government performance should be measured against the COAG endorsed Charter for integrated land use and transport planning.

BIC notes that the US Government reached this conclusion over a decade ago, with the passage of its Intermodal Surface Transportation Efficiency Act (in 1991) and re-affirmed the conclusion with its Transportation Equity Act for the 21st Century. The Canadian Government has reached a similar conclusion in the past few years. For example, the 2002 Canadian Governor General's Speech from the Throne referred to the Canadian Federal Government's commitment to supporting safe, efficient and environmentally responsible urban transportation systems (not just road systems) to help reduce traffic congestion and assist trade. The link between healthy urban transport systems, including public transport, and healthy urban economies is a key driving force in both the Canadian and US approaches to national land transport policy. New Zealand's inclusion of public transport programs in the funding ambit of Transfund reflects a similar acceptance of the national interest in improved city public transport systems.

3.4 Improving Access

One of the two major purposes of land transport is to enable people to achieve access to goods, services and to other people. BIC contends that a reasonable basic level of access is a right that applies to all Australians, irrespective of where they live and irrespective of personal circumstance. A key role of our city land transport systems should be to ensure that this basic access right is delivered. The social sustainability of our city transport systems will depend in significant part on how well this goal is achieved.

As noted previously, most Australians now live in the major cities and other large urban areas. Cars are the dominant means of travel in these locations. However, many people living in urban areas do not have ready, or even any, access to cars. For example, young people must often rely on others to meet their travel requirements or else depend on public transport. Secondary school students are the largest customer group for Melbourne urban bus travel. Many people who do have a car available for their personal use can only achieve this position by committing a large proportion of their disposable income to car purchase and use. This is particularly the case on the fringes of Australia's cities, where low density development patterns, low incomes and relatively low house prices have created a situation where high relative proportions of household incomes are typically devoted to transport. The western suburbs of Sydney and outer east of Melbourne are

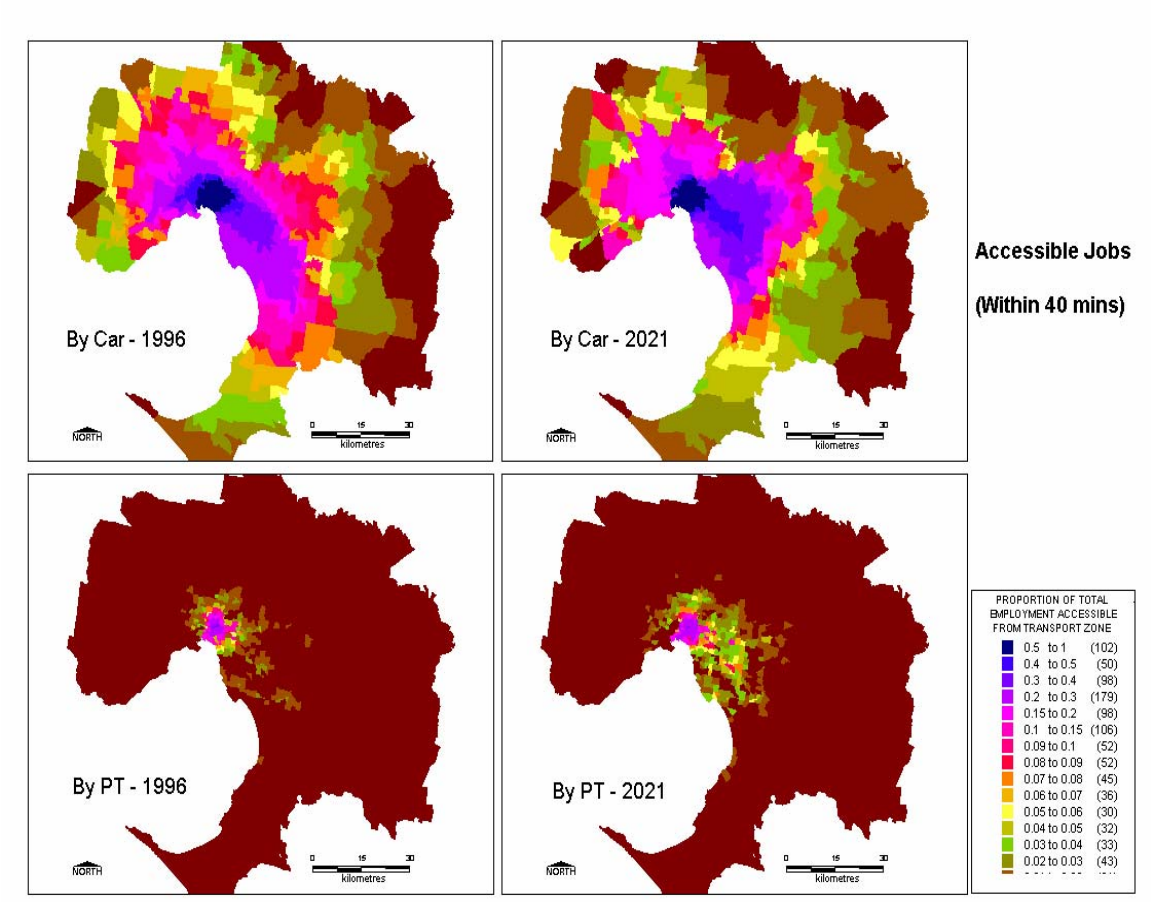
leading examples, where such "transport disadvantage" is widespread. The carer with young child or children in a single car household in these high population growth areas is very restricted in access terms, often having to rely on walking, cycling, friends or public transport with poor operating frequencies and service hours. Similar issues arise in regional Australia.

The desire for cheaper housing and/or space for young children is often an important stimulus to residents locating in outer suburban areas. At the same time, however, lower income levels typically reduce the range of residential location choices available to people who tend to reside in such places. In short, location is not simply a matter of choice.

3.4.1 Melbourne

Figure 3.2 sets out indicators of accessibility to employment in Melbourne by car and public transport, for 1996 and 2021 (projected by the Victorian Department of Infrastructure). The accessibility indicator shown is the number of jobs that can be accessed within 40 minutes. Those without access to a private car (the two lower cells in the Figure) are clearly relatively disadvantaged in terms of employment accessibility, as are those living in outer suburban areas.

Fig. 3.2: Job Accessibility in Melbourne (Source: DOI)



associated businesses. BIC's members carry more than one billion passengers annually in Australia and employ over 30,000 people.

Table 2.1 shows a range of service quality indicators for trains, trams and buses in Melbourne. Some 60% of Melbournians only have bus services (of the available public transport modes) in their immediate area (see Figure 3.3), particularly those living in middle and outer suburbs. Yet service levels by bus are far poorer than comparable service levels by train and tram, the latter mainly benefiting inner and middle urban residents.

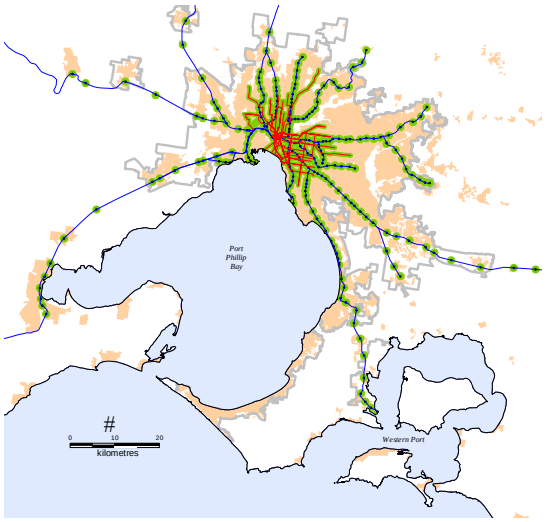
A study for Mornington Peninsula Shire council[3] on the fringe of metropolitan Melbourne showed that per capita public transport subsidies in the fringe suburbs of Melbourne were a third less than those in inner suburban areas. It also showed that the gap between outer and inner area per capita subsidies has doubled over recent years (from a 17% difference in 1996 to a 34% difference in 2000).

Table 3.1: Melbourne Public Transport Service Levels

Service Indicator	Trains	Trams	Buses
Average weekday peak headways	15 minutes	7 minutes	40 minutes
Average interpeak headways	20 minutes	12 minutes	50 minutes
Weekday average start time	5.00am	5.00am	6.46am
Weekday average finish time	midnight	midnight	6.53pm
Saturday service availability	100% of routes	100%	74% of routes
Saturday average finish time	midnight	midnight	5.14pm
Sunday service availability	100% of routes	100%	18% of routes

Source: Booz Allan Hamilton, Melbourne Bus Plan, 2002.

Fig. 3.3: Bus Dependent Areas in Melbourne



Source: Melbourne Bus Plan

[3] Booz Allen Hamilton (2001) 'Historical Review of Metropolitan Public Transport Subsidies Between Inner and Outer Areas' for Mornington Peninsula Shire Council May 2001

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Per capita usage of public transport reflects the lower service standards available in outer suburbs in Melbourne. As one moves from inner to middle to outer suburbs, the use of public transport declines. Per capita usage of public transport in Melbourne is about 110 trips per annum in inner areas, declining to about 80 trips in middle suburbs and 40 or less in outer suburbs.

Poor service frequency and coverage by buses, the major mode in the outer suburbs, underpins low usage levels. Improving these service levels in outer areas is central to growing public transport patronage and improving the sustainability of city passenger transport systems, as discussed in Chapter 3.

3.4.2 Sydney

Figure 3.4 illustrates accessibility performance for different parts of Sydney. Sydney is typical of all metropolitan areas in Australia in terms of the relative transport disadvantage of residents living in urban fringe locations. Evidence is available for Sydney from the Institute of Transport Studies (The University of Sydney) to illustrate the higher travel burden imposed on fringe dwellers relative to other parts of Sydney. Such individuals face greater costs of using available public transport modes (bus and train) to access work and non-work activities and also are "forced" to acquire more cars per capita to be able to compensate for the relatively poor provision of public transport services. Key messages are:

1. Transport accessibility per person trip is noticeably worse for residents of the urban fringe (i.e. outer west, outer south west, St George-Sutherland and Gosford-Wyong) than for those living closer to the centre. In dollars terms this equates to approximately $10 (of generalized cost) per person trip compared to $4-$5 for individuals living in other locations in the urban area. Trips by all modes (Figure 2.3) and trips by public transport (Fig. 2.5) are both more costly for outer urban residents of Sydney than for those living more centrally.
2. Individuals with the highest cost of servicing their transport needs are generally from households with relatively lower incomes (up to $50,000 per annum in $1998), giving them a substantial and inequitable burden in terms of the share of the household budget devoted to transport (the proportion of their household income spent on transport is several times higher than it is for those not living on the urban fringe).
3. Urban fringe residents travel further to accommodate their activity needs and use cars (with far less choice) more than individuals living closer to the centre of the metropolitan area. The consequence is much higher contributions to greenhouse gas emissions and other pollutants.

Figure 3.4: Generalised transport accessibility indicators for Sydney
(Source: ITS, University of Sydney)

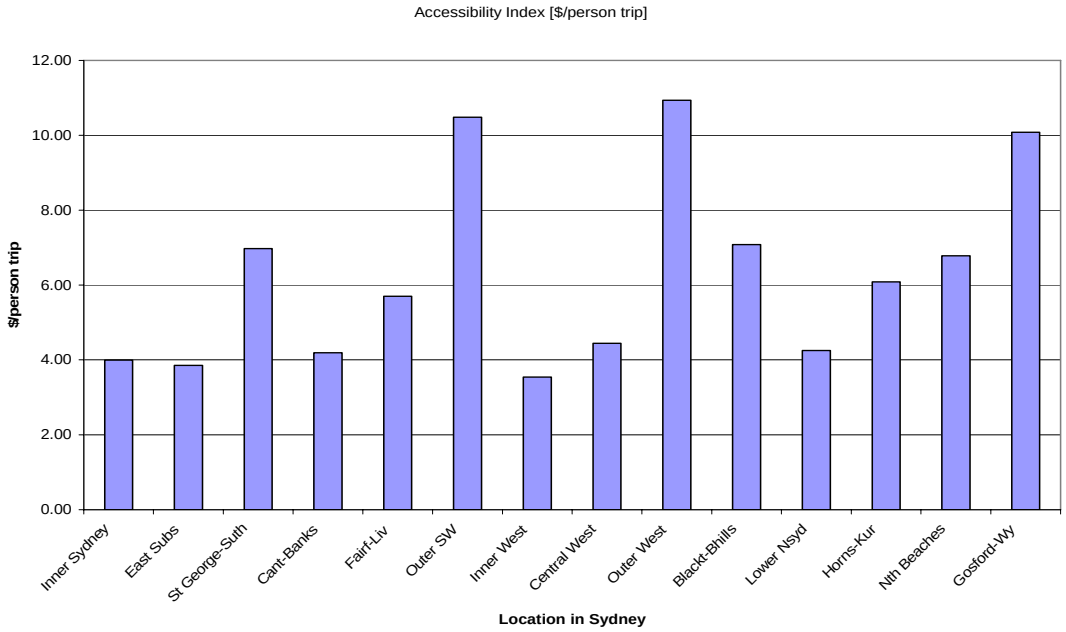
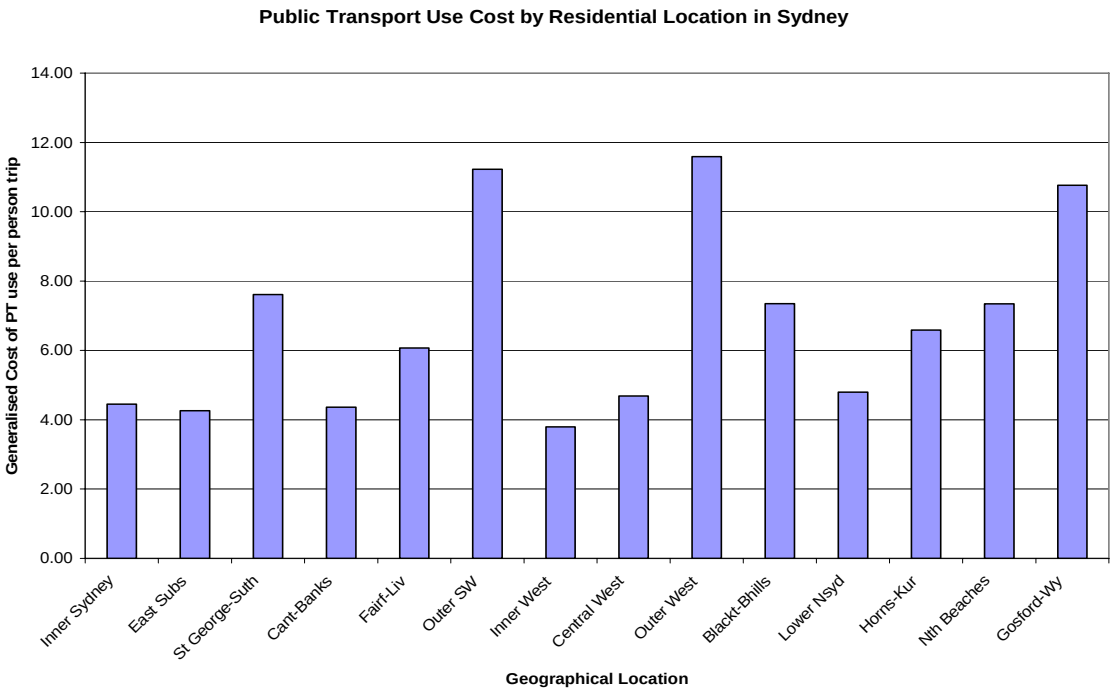


Fig. 3.5: Public Transport Use Cost by Residential Location in Sydney
(Source: ITS, University of Sydney)



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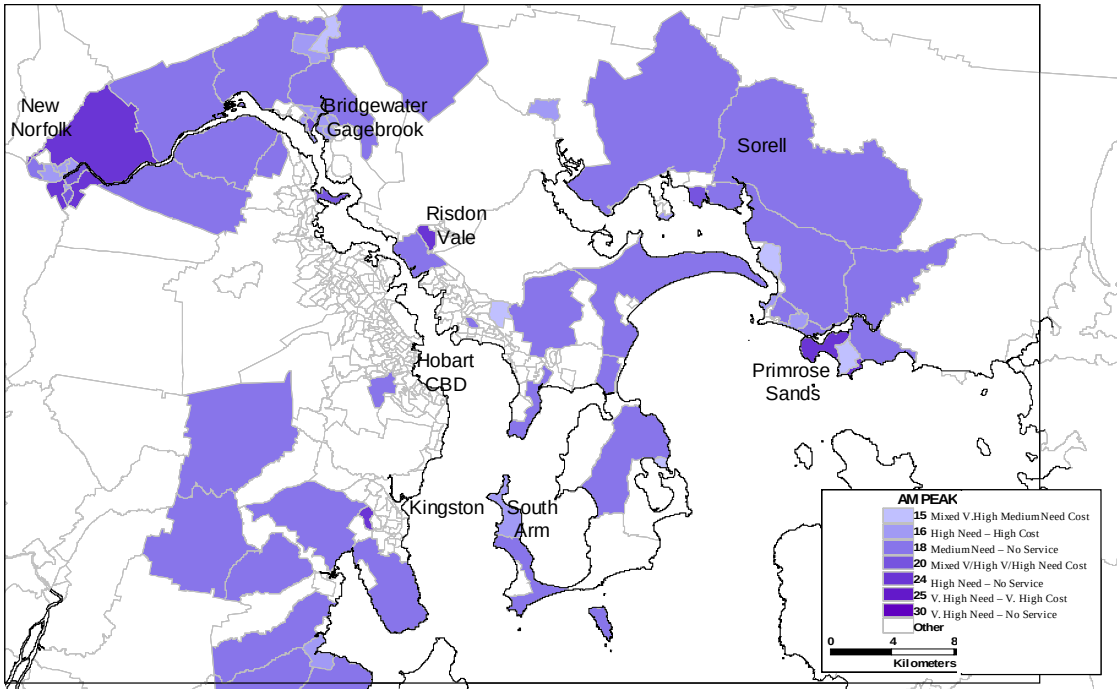
3.4.3 Hobart

Recent work in Tasmania has also illustrated the gap between the needs of the transport disadvantaged and provision of public transport. Figure 3.6 shows the results of a study of Hobart undertaken by Professor Graham Currie of Monash University[4]. The study found that the highest concentrations and numbers of people who could be described as transport disadvantaged live on the fringe of the metropolitan area in suburbs like New Norfolk. When the quality of public transport provided to these people is measured, a 'Needs Gap' emerges, since either no service or very poor quality services are provided to these people, compared with the rest of Hobart.

Figure 3.6 : Gap between Transport Need and Provision of Public Transport – Hobart Tasmania

(Biggest Gaps between Need and Service Have Heavier Shading)



3.4.4 Conclusion on Accessibility

These examples illustrate that the levels of accessibility available to people living in Australia's major cities vary substantially, which BIC believes is inequitable. In particular:

[4] Reported in Currie, Enright, Hoey and Paterson (2003) 'Quantitative Approaches to Needs based Assessment of Public Transport Services - The Hobart Needs Gap Analysis', Australasian Transport Research Forum, Wellington NZ October 2003

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- those dependent on public transport are at a disadvantage compared to those with a car available in terms of accessibility; and,

- Those living in outer suburban areas are at a disadvantage compared to inner and middle urban dwellers. Outer suburban dwellers dependent on public transport are doubly disadvantaged! Bus service improvements are most suited to meeting the latter needs.

Also, state government support provided for public transport services is not evenly spread across the community.

There are important links between the transport disadvantage experienced on the fringes of our cities and the social exclusion this causes residents on the fringe. Recent work by Hine and Mitchell (2003)[5] has illustrated that the gaps between transport provision and those with limited transport choices results in non-participation in employment, education, social and leisure activities. This tends to affect the young, those on low incomes, women, the elderly and the disabled more than other groups in society. It is a significant contributor to poverty in Australia.

BIC contends that differential accessibility reduces the social sustainability of passenger transport systems. This feeds through to reducing the economic and environmental sustainability of these transport systems because it reinforces a relatively high level of car use in areas where public transport accessibility is relatively poor.

Curitiba saw this challenge and designed a system over 30 years that recognised the different needs for mobility throughout the metropolitan area, focussing on flexible (speedy) buses throughout outer suburban areas, linking to fixed route feeders into key corridors (structural axes) for longer distant public transport trips. The experience in Sydney with the M2 cross-regional services to Sydney CBD shows that it can work, provided the appropriate infrastructure is in place (in this instance a high quality dedicated lane on a tollroad).

Recommendation

BIC contends that all Australians have the right to basic transport choices and national land transport policy should ensure that this is treated on an equitable basis across our cities and regional areas. Improved public transport systems are increasingly being recognised as one element in improving such access options, with improved bus service levels and on-road priority for buses being particularly important.

[5] Hine, J and Mitchell, F (2003) 'Transport Disadvantage and Social Exclusion' Ashgate Publishing Ltd ISBN 0 7546 1847 1

The Bus Industry Confederation is the peak organisation representing the interests of the bus and coach industry in Australia. Its more than 3000 members encompass bus operators, manufacturers and suppliers, and many other associated businesses. BIC's members carry more than one billion passengers annually in Australia and employ over 30,000 people.

3.5 Road Trauma

During the 1990s, around 1800-2000 people died and over 20,000 sustained serious injuries each year on Australian roads. While there was a significant downward trend in road accident numbers over the 70s, 80s and to about 1997, numbers have been more difficult to reduce since that time.

BTE estimates the national cost of these accidents at $15 billion annually. BIC (2001) reports analysis that suggests perhaps one-third of these costs are external to road users, being met by the broader community.

The Australian Transport Safety Bureau Monthly Bulletin, *Road Fatalities Australia*, August 2003, indicates that over the last five years, typically one-third of fatal crashes have occurred in speed zones of up to 60 kph, one-fifth in zones from 65-95 and almost one half have been in 100kph zones. However, this data does not indicate the numbers that occurred in cities. The Australian Transport Council's *National Road Safety Strategy 2001-2010* sheds light on this matter by indicating that capital cities have the lowest road fatality rate per 100,000 head of population, with the risk of dying increasing with distance from capital cities.

The Australian Transport Safety Bureau, in its report on *Australian Bus Safety* (2001), provides clear evidence that buses are the safest form of motorised travel. The report shows that the fatality rate associated with bus travel in 1997 was 0.06 fatalities per 100 million passenger kilometres. The passenger car fatality rate was 8 times as high, rigid trucks 10 times as high, articulated trucks 13 times as high and motorcycles a huge 173 times as high. For hospitalisations, the bus rate was 0.47 per 100 million pkms, cars being 14 times higher and motorcycles 316 times higher. Rigid trucks were 10 times higher and articulated trucks 8 times higher. In short, passengers are safest in a bus and behavioural change policies and programs that encourage bus use would improve safety outcomes. Trains and trams were not included in the analysis but would also have better safety records than cars.

The Australian Transport Council's *National Road Safety Strategy* recognizes that encouraging alternatives to motor vehicle use will reduce exposure to road trauma, as well as achieving environmental and other benefits. However, that strategy does nothing to promote use of such alternatives.

Recommendation

In planning for reduced road trauma in our cities, BIC believes that increased emphasis should be placed on the gains that are achievable from a greater role for public transport.

3.6 Environmental Sustainability

3.6.1 Air Pollution

Air pollution and greenhouse gas emissions associated with personal travel in our cities are significant external costs of such travel. Our high degree of reliance on the private car drives relatively high emission rates.

It is estimated some 2,400 people die each year in Australia from air pollution, and some 10-15% of the population display respiratory symptoms (NEPC, 1998). These health impacts have major economic costs, estimated at around $A18 billion/year[6]. These costs will tend to be concentrated in our cities, where the problems are based. BIC notes, however, that air pollution costs attributable to motor vehicle use can be expected to fall in coming years, as tighter emission standards and lower diesel sulphur levels come into use, under the Federal 1999 *Measures for a Better Environment* package and as in-service emission requirements are tightened.

Studies of air pollution episodes have shown that very high levels of ambient air pollution are associated with strong increases in adverse health effects. Recent studies also reveal smaller increases in adverse health effects at the current levels of ambient air pollution typically present in urban areas. Victorian EPA research, for example, has found a strong association between air pollution and daily mortality (particularly respiratory mortality in Melbourne, with the main sources of these pollutants being motor vehicles and industry.

It is now widely accepted that transport related emissions are associated with short-term health effects at the concentrations found in most cities. There is also a broad consensus that the effects of these pollutants on health can be quantified using exposure-response relationships based on epidemiological studies that link pollution concentrations or increments to levels of health effects. These health effects are usually valued using willingness to pay (WTP) estimates.

In preparing its 2001 submission to the Commonwealth Fuel Taxation Inquiry, BIC enlisted the assistance of expert consultants to the European Commission, drawing particularly on their work on air pollution and climate change. Our submission to that Inquiry presented air pollution cost estimates for Australian cities. Within the time available for that submission, it was not possible to undertake separate analysis for the range of sites and locations needed to develop original Australian cost estimates. Instead we drew on very extensive analysis of different transport systems in Europe, and transferred these values to Australia, taking into account local conditions and using unit pollution factors (costs per tonne) that were matched as far as possible to the Australian context.

BIC estimated that air pollution from motor vehicles in Australia costs about $4.3 billion annually. These costs are, of course, essentially based in our cities. They

[6] Although this estimate in NEPC (1998) is partly due to the use of a high value for loss of life, at $A7million per life lost.

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represent externalities and, if a reasonable pricing mechanism was available, it would be appropriate that they be levied on road users as charges, to make users more accountable for the implications of their travel choices.

Recommendation

BIC proposes that a comprehensive pricing regime be introduced that reflects the cost of individuals travel choice decisions including the external costs of road use, including the environmental damage associated with use of different fuels. Emission control standards should continue to be tightened, in line with international best practice, and fuel quality should continue to be improved. Road infrastructure investment should include on-road priority and Bus Rapid Transit systems as conditions of receiving federal road funding.

3.6.2 Climate Change

The effects of global climate change from greenhouse gas emissions are diverse and potentially very large. They are likely to have very large economic costs, both from adaptation (e.g. coastal protection costs) as well as from damage to health and the environment.

Transport accounts for 16.1% of total national net greenhouse gas emissions in Australia, with road transport representing 90.2% of transport emissions (or 14.5% of total national emissions). Cars alone contribute 9.1% of national emissions. Road transport emissions in 1999 were 21.5% higher than in 1990 and are among the fastest growing sources of greenhouse gas emissions. **The road transport sector must thus be a major focus of efforts to contain greenhouse gas emissions**.

A recent study commissioned by the BIC that is yet to be released and verified suggests that a 10% increase in transportation by bus would reduce greenhouse emissions by 117,370 tonnes a year.

The externalities of greenhouse gas emissions are ideally suited to recovery through fuel taxes (charges), as emissions are directly related to the energy and carbon content of different fuels. Greenhouse gas emissions should thus be a key factor taken into account in restructuring fuel taxes, to make them more reflective of external costs of road use.

3.7 Summary

This submission has presented the BIC's views on key areas in which Australia's passenger transport systems need improvement from a sustainability viewpoint. Attention has focused on:

- economic costs of congestion;

- risks to dynamic urban economic growth posed by congestion and poor urban amenity related to transport;

- transport disadvantage and road trauma as indicators of social unsustainability; and,

- Environmental sustainability concerns posed by air pollution and climate change.

These problems all stem primarily from our high reliance on the private automobile for personal travel. All are, in essence, "external costs" of automobile dependence. Given the long period of time over which our car dependence has developed, the sheer convenience which the car provides to most people for most travel in our cities and the slow rate of change of our urban systems, BIC recognizes that the car will continue to be the major means of personal transport. However, the sustainability issues raised in this submission illustrate the need for our **relative reliance** on the private car for travel to be substantially reduced. A greater role is required for more sustainable forms of transport: walking, cycling and public transport. This must be supported by land use strategies that reduce the need for travel.

3.8 Recommendations

Establish a Sustainability Commission that has equivalent powers to the ACCC and measures state government's performance through central state based agencies to meet agreed sustainable transport targets.

Establish a sustainable infrastructure fund as part of Auslink to accelerate the delivery of major projects to enhance the sustainability of our cities and regions.

BIC concludes that the current scale of road congestion costs in Australian cities and the growth in the size of these costs indicates that current city land transport systems are not sustainable in economic terms. Urgent policy attention should be devoted to ways of reducing these huge economic costs. Long term, congestion pricing is likely to be a central part of the solution to congestion costs, as one element in integrated urban transport and land use development strategies. A second is road infrastructure investment that includes on-road priority for buses and Bus Rapid Transit systems as conditions of receiving Federal road funding to make public transport by bus an attractive alternative to the car.

While urban traffic matters have traditionally been seen as matters for the State Government in Australia, the national economic need for dynamic urban economies, set alongside the high costs of congestion, air pollution and noise, means that these are now clearly matters of national economic concern. The contribution that urban public transport can make to reduce these problems, as one part of integrated urban transport/land use systems, means that urban public transport should become part of the scope of national land transport policy and programs. To this end State and

Local Government performance should be measured against the COAG endorsed Charter for integrated land use and transport planning.

BIC contends that all Australians have the right to basic transport choices and national land transport policy should ensure that this is treated on an equitable basis across our cities and regional areas. Improved public transport systems are increasingly being recognised as one element in improving such access options, with improved bus service levels and on-road priority for buses being particularly important.

In planning for reduced road trauma in our cities, BIC believes that increased emphasis should be placed on the gains that are achievable from a greater role for public transport.

BIC proposes that a comprehensive pricing regime be introduced that reflects the cost of individuals travel choice decisions including the external costs of road use, including the environmental damage associated with use of different fuels. Emission control standards should continue to be tightened, in line with international best practice, and fuel quality should continue to be improved. Road infrastructure investment should include on-road priority and Bus Rapid Transit systems as conditions of receiving federal road funding.

Sustainability Goals - 2020

The following six goals can be considered as a framework for the basis of an Australian initiative to make the nation's transport systems sustainable:

- Reduce conventional emissions and transport related noise so that they do not constitute a significant concern to public health.
- Limit greenhouse gas emission from transport to levels that will not endanger the climate.
- Significantly reduce the number of road transport related deaths and injuries
- Address and reduce traffic congestion.
- Narrow the mobility divides between levels of society and the richest and poorest members of the community.
- Improve mobility opportunities for all levels of society giving access to primary services of health, education and employment.

Sustainability Targets - 2020

- 20% of motorized trips be made by public transport by 2020.
- Reduce traffic volumes by 15%-20% by 2020.
- Reduce congestion by 20% by 2020.
- Reduce Greenhouse emissions from transport by 100,000 tonnes per year.
- Reduce road fatalities per 100,000 of the population by 40% by 2010.
- Increase investment by all levels of government to increase public transport service levels (frequency & reliability) and investment in public transport infrastructure.