

A sustainable transport and access system will simultaneously address economic, social and environmental issues. It will pursue enhancement of a city's economic performance, its social equilibrium and justice and the state of the urban and natural environment.

(Planning Institute of Australia) <sup>1</sup>

## Transport

### **Problems with transport sustainability**

- 5.1 Australian cities have largely been constructed around the automobile, creating a culture heavily reliant on private automobile access. Impacts are:
- environmental (such as urban sprawl, smog and air pollution);
  - economic (from providing urban infrastructure across a more dispersed geographical area); and
  - social (including isolation, economic stratification of areas and reduced access to public services).
- 5.2 The transport sector is a user of energy, a contributor to greenhouse gas emissions and a user, through infrastructure, of large tracts of public land.
- 5.3 Sustainable transport logistics are vital to reversing the problems caused by automobile dependence and to building cities which are equitable, accessible and economically viable.

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<sup>1</sup> Planning Institute of Australia, *Submission 168*, p. 52.

- 5.4 Transport systems encompass more than the movement of people or commuters across the city. Transport logistics must also take into account the needs of businesses and industry to service the city and manage incoming and outgoing goods. The transport logistics of a sustainable city recognise the need for a more comprehensive network of complementary transport systems with transport nodes forming the focus of urban villages. As Mrs Marilyn Horgan states, transport infrastructure needs to be:
- . . . long term and integrated, and not just integrated at a local community level. It needs to be through the federal, state and local government, particularly in the area of transport strategies and integrated transport strategy at three levels of government to address the issues of movement of freight and issues of huge volume of traffic growth and things like that – maybe as part of the AusLink program.<sup>2</sup>
- 5.5 This transport network has multiple systems operating in a decentralised manner that enables a web of travel directions and nodal hubs of work, industrial, residential and recreational connections. Many major cities have been constructed around a feeder transport system that channels cars and public transport into the city centre – which is the traditional employment and commercial hub. The sustainable city must deal with these issues. However, a transformation must take place alongside changes in residential planning patterns and employment centres.
- 5.6 Transport logistics must also ensure that alternative means of transport, such as train, tram, pedestrian or cycling, are well serviced.
- 5.7 The infrastructure must exist to facilitate interconnecting commuting travel (eg bus-rail interchanges, commuter parking at major railway stations, lockable bicycle sheds at transit nodes, workplaces with showering facilities, well lit pedestrian walkways which bypass major road crossings), as well as a range of public transport systems which are complementary, safe and affordable.
- 5.8 The opportunity to secure the advantages offered by different nodes of transport needs to be pursued with measures to enhance their complementarity through coordination and integration.

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2 Mrs Marilyn Horgan, Perth Area Consultative Committee, *Transcript of Evidence*, 31 March 2005, p. 28.

- 5.9 The need for a complementary array of public transport systems is also underpinned by the possibilities of using renewable energy sources to power these vehicles, further reducing air emissions and reliance on conventional fuels.
- 5.10 There are at least three options to improving the sustainability of transport. These are:
- Change current transport patterns.
  - Change transport modes.
  - Increase the efficiency or environmental performance of transport modes.

## Current programmes

- 5.11 Prior to addressing how these options might be pursued, the committee looked at the contributions of two existing Federal Government programmes: 'Auslink' and 'Roads to Recovery'.

### Auslink

- 5.12 In June 2004, the Australian Government released its new land transport plan, AusLink. It sets out \$11.8 billion in land transport spending, including a large scale upgrade of Australia's east coast road and rail systems.<sup>3</sup>
- 5.13 It is a \$3.6 billion increase in the Government's land transport funding, and is in addition to the \$872 million that the Australian Rail Track Corporation (ARTC) will invest in the east coast rail system as a result of its lease of the NSW interstate and Hunter Valley rail systems.
- 5.14 The highlights of the major projects in the plan are:
- \$765 million to upgrade the Pacific Highway in NSW and Queensland and \$714 million for the Hume Highway in NSW and Victoria. The Government's aim is to duplicate the Pacific Highway by 2016 in partnership with NSW, and to duplicate the Hume Highway by 2012. The Government will also contribute \$253 million towards building a new connector between the F3 and the New England Highway at Branxton.

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3 See Department of Transport and Regional Services, [www.dotrs.gov.au/auslink/index.aspx](http://www.dotrs.gov.au/auslink/index.aspx)

- a \$422 million contribution to the Scoresby Freeway, provided the Victorian Government reverses its decision to impose tolls. The Government will also contribute \$186 million to the Geelong Bypass, \$114 million to the Calder Highway and \$80 million to start work on the Deer Park Bypass and Leakes Road Interchange.
- \$627 million to improve the major urban links in Brisbane, particularly the Ipswich Motorway, as well as \$429 million to upgrade the Bruce Highway.
- a \$96.8 million contribution to complete the Port River Expressway in Adelaide and the associated road and rail upgrades on the LeFevre Peninsula, as well as continued improvements to the major highways in South Australia.
- an investment of up to \$150 million to extend the Kwinana Freeway and construct the Mandurah Bypass in Western Australia, as well as \$14 million to improve rail links between the Kewdale intermodal precinct and the Port of Fremantle.
- \$68 million to complete the duplication of the Bass Highway between Burnie and Devonport in Tasmania and \$57 million to replace the Bridgewater Bridge on the Midland Highway.
- a \$13.7 million contribution to upgrade the road access to the East Arm Port in Darwin, including the construction of an overpass over the new Adelaide-Darwin railway.
- a total of \$1.8 billion in rail projects, including the \$872 million that the Australian Rail Track Corporation (ARTC) will invest under its 60-year lease of the NSW interstate and Hunter Valley rail networks.
- \$4 billion for local roads, under the extended Roads to Recovery programme and untied road grants to local councils.

5.15 The committee notes that sustainable transport is not provided for under Auslink. The funds are being spent mainly on additional traditional road infrastructure. The South East Queensland Regional Organisation of Councils observes that:

Despite its critical role in achieving a more sustainable pattern of growth in Australian cities, sustainable urban transport has not been a funding priority for the Commonwealth Government. The responsibility for efficient, safe and environmentally responsible transport infrastructure and services in urban areas has been directly deferred to state, territory and local governments and the private sector.

The current Commonwealth policy on non-investment in urban transport and its focus on investment outside of the city regions should be questioned.<sup>4</sup>

- 5.16 Ms Lisa Brideson from the Conservation Council of Western Australia suggests that the Federal Government broaden Auslink's scope to include 'urban passenger transport' and projects for funding be 'subject to independent sustainability assessment - the triple bottom line assessment'.<sup>5</sup>
- 5.17 The committee believes that the COAG agreed targets and contingent funding control discussed in chapter 3 would ensure future funding will take into account sustainable outcomes and will examine all transport options in order to develop sustainable and integrated transport links for all Australians.

## Roads to Recovery

- 5.18 The Roads to Recovery programme is designed to provide road infrastructure funding for expenditure by local governing bodies.
- 5.19 The annual allocations for Roads to Recovery are:
- 2000-2001: \$150 million
  - 2001-2002: \$300 million
  - 2002-2003: \$200 million
  - 2003-2004: \$300 million
  - 2004-2005: \$250 million
  - 2005-2006: \$340 million<sup>6</sup>
- 5.20 The distribution of the Roads to Recovery funds between States and Territories is based on historical precedents, length of local roads and population.

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4 South East Queensland Regional Organisation of Councils, *Submission 60*, p. 12.

5 Ms Lisa Brideson, Conservation Council of Western Australia, *Transcript of Evidence*, 31 March 2005, p. 32.

6 *Building the future of our local roads*, Budget media releases, TRS12/Budget, 10 May 2005.

- 5.21 Allocations between councils within each State are in accordance with formulae adopted by State Grants Commissions for the distribution of Financial Assistance Grants identified for roads. The allocations to councils are fixed for the life of the programme. Local councils must maintain their own roads spending.
- 5.22 Commenting on Roads to Recovery, the Bus Industry Confederation proposes that this funding be linked to public passenger transport planning and infrastructure provision.<sup>7</sup>
- 5.23 The Australian Bicycle Council also believes that Roads to Recovery delivers benefits directly to communities but should be expanded so councils can 'invest in improving non-motorised transport infrastructure to encourage sustainable modes for local travel'.<sup>8</sup> Bicycle New South Wales goes further and proposes that active transport should be promoted above road development projects, which may necessitate a 'Paths to Recovery' programme.<sup>9</sup>
- 5.24 The committee recognises that many of the innovative funding arrangements for road transport could be extended to other modes of transport and suggests that the Department of Transport and Regional Services investigate options to facilitate this. This could be done in conjunction with the Australian Sustainability Commission as outlined in chapter 3.

### Recommendation 5

- 5.25 **The committee recommends that the Department of Transport and Regional Services, in consultation with the Department of the Environment and Heritage, investigate options to extend the Roads to Recovery programme to include other modes of transport as a step towards including sustainability in the funding criteria.**

7 Bus Industry Confederation, *Submission 97*, p. 8.

8 Australian Bicycle Council, *Submission 70*, p. 6.

9 Bicycle New South Wales, *Submission 54*, p. 3.

## More urban rail – an alternative to more roads

- 5.26 One particular mode of transport that appears to be overlooked is that of rail, particularly light rail.<sup>10</sup>
- 5.27 Professor Peter Newman and Dr Garry Glazebrook alerted the committee to the many benefits expanded rail networks (both heavy and light rail) could provide for Australian cities. Reliable, swift and affordable urban rail systems can have positive impacts on savings (both personal and city), health, and transit speed.
- 5.28 The committee notes that one of the most important aspects of encouraging use of any rail transport is security. There is little benefit in having on time, efficient and cost effective rail transport, if people are unwilling to use it because of perceived or real security issues.
- 5.29 The committee was informed that if one car is saved within a family, that family will save \$750,000 in superannuation equivalent and that strong rail cities are 45 per cent wealthier than weak rail cities. Strong rail cities spend less on road transport and are more cost effective in their transit operations. Public transport in those cities is faster than the vehicle traffic, which is an encouragement to use the public transport system. Proper use of rail saves money and time.<sup>11</sup>
- 5.30 Dr Philip Laird from the Railway Technological Society of Australasia also pointed out the very real energy saving benefits that comes with the use of rail transport:

One fully laden train uses 20 per cent of the energy that a person uses sitting in an average sized family car. It is so much safer, it is so much more energy efficient.<sup>12</sup>

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10 Heavy rail is an electric with the capacity for heavy – volume of traffic, and characterised by exclusive rights-of-way, multi-car trains, high speed and rapid acceleration, sophisticated signalling, and high platform loading. Light rail is an electric railway with a light volume traffic capacity compared to heavy rail. Light rail may use shared or exclusive rights-of-way, high or low platform loading, and multi-car trains or dingle cars. (Definitions from the American Public Transit Association).

11 Professor Peter Newman, *Transcript of Evidence*, 28 April 2005, p. 19.

12 Dr Philip Laird, Railway Technological Society of Australasia, *Transcript of Evidence*, 8 June 2004, p. 67.

- 5.31 Train lines take up considerably less space than freeways. If the passengers currently used rail to travel each day to the Sydney CBD were to shift to private automobiles, an additional 65 lanes of freeway and 782 hectares of car parks would be required. This would require a multi-storey car park 1,042 floors high.<sup>13</sup>
- 5.32 The committee was also told that individuals do not take into account all of the costs associated with using their cars. The average person perceives the cost per kilometre for car use as being six cents for every passenger kilometre, for train use as being 11 cents and 20 cents for bus use. Once externalities are taken into account, the actual cost of car use is in fact around 60 cents per passenger kilometre, with the true cost for trains and buses being 20 to 30 cents per passenger kilometre. Individuals perceive only one-eleventh of the true cost.<sup>14</sup>
- 5.33 One of the main issues identified, particularly in Sydney, is that the train system is getting slower, while cars are getting faster through improved road infrastructure. Transport choices are informed by this. Looking at distanced travelled as a temporal and not a purely linear concept it does not come as a surprise to observe that people are quite prepared to pay for travel time savings.<sup>15</sup>
- 5.34 Parking policies, road pricing and real time road pricing needs to be considered in order to change people's mode of transport. For instance, a lot of retailers provide 'free' parking which is actually subsidised by prices of goods and by those people who do use public transport.<sup>16</sup>
- 5.35 It was suggested to the committee that Sydney needs, and Perth is moving towards this already, a public transport system that is faster than cars in all main corridors and urban areas need to be built around this.<sup>17</sup> Since 1994, 100 cities worldwide have now built or reintroduced light rail systems, but in Australia, government funding for urban rail transport is lacking.<sup>18</sup>

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13 Professor Peter Newman, *Transcript of Evidence*, 28 April 2005, p. 21; see also Mr Andrew Inglis, *Submission 76*, p. 12.

14 Dr Garry Glazebrook, *Transcript of Evidence*, 28 April 2005, p. 27.

15 Dr Garry Glazebrook, *Transcript of Evidence*, 28 April 2005, p. 28.

16 Dr Garry Glazebrook, *Transcript of Evidence*, 28 April 2005, p. 30.

17 Professor Peter Newman, *Transcript of Evidence*, 28 April 2005, p. 24.

18 Dr Garry Glazebrook, *Transcript of Evidence*, 28 April 2005, pp. 34-35.



- 5.36 A congestion tax, as introduced recently in London, may be an option. The revenues of the tax are being invested in mass transport and traffic management.<sup>19</sup>
- 5.37 The committee is confident that its recommendation requiring innovative funding arrangements for road transport being extended to other modes of transport will go some way to dealing with the issue of mass urban transit.

## Changing current transport patterns

- 5.38 Transport usage patterns are closely linked to types of settlement patterns. In developing new settlements, infrastructure needs must be considered during the initial planning.

## Anticipating infrastructure needs

- 5.39 Mr Matthew Pike drew attention to the difficulty of establishing public transport infrastructure:
- With public transport, do you put the infrastructure in first or do you put it in after there is demand? It probably makes more sense to put it in after the demand has already grown. But to ensure that that can happen you need to make sure that the corridors remain open so that there is somewhere for that public transport.<sup>20</sup>
- 5.40 Delfin Lend Lease told the committee that it designs communities with active transport in mind, ensuring that internal car trips are minimised through the provision of walking and cycling paths that 'link homes to local facilities such as parks, schools and shops'.<sup>21</sup>
- 5.41 The Hickinbotham Group also emphasised the need to plan transport infrastructure within its developments before going ahead with building a community.<sup>22</sup>

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19 International Association of Public Transport, *Submission 171*, p. 6.

20 Mr Matthew Pike, Engineers Australia, *Transcript of Evidence*, 17 June 2004, p. 11.

21 Delfin Lend Lease, *Submission 66*, p. 19.

22 Hickinbotham Group, *Submission 51*, p. 2.

## Infrastructure costs of road transport

5.42 In 2002-2003, the Australian Government spent \$1.72 billion on roads Australia-wide.<sup>23</sup> Table 5.1 shows the Bureau of Transport and Regional Economics (BTRE) Road Construction and Maintenance Price Index. It depicts the increasing cost of constructing and maintaining road infrastructure.<sup>24</sup>

Table 5.1 BTRE road construction and maintenance price index

| Year    | Index |
|---------|-------|
| 1989-90 | 89.5  |
| 1990-91 | 96.2  |
| 1991-92 | 97.0  |
| 1992-93 | 98.8  |
| 1993-94 | 100.0 |
| 1994-95 | 102.3 |
| 1995-96 | 102.9 |
| 1996-97 | 103.6 |
| 1997-98 | 103.9 |
| 1998-99 | 104.9 |
| 1999-00 | 109.1 |
| 2000-01 | 115.1 |
| 2001-02 | 117.7 |
| 2002-03 | 124.0 |

Source [http://www.btre.gov.au/docs/indicate/r\\_construct.htm](http://www.btre.gov.au/docs/indicate/r_construct.htm)<sup>25</sup>

23 See Bureau of Transport and Regional Economics, *Australian Transport Statistics June 2005*, table 10, p. 13.

24 The index allows the Australian road industry to monitor price movements of inputs to road construction and maintenance. It is an input-price index and does not measure movements in the actual cost of provision of roads. It is a means of calculating real changes in road expenditures and government road funding levels. Input components for the index include salaried labour, other labour, bitumen, concrete, quarry products, plant hire and depreciation and fuel. Where possible, time series for these components are based on nation-wide information. Weights for the input components are based on information obtained from a survey of state road authorities, local government authorities and private contractors. Thanks to Mr Tony Carmody, Senior Research Officer from the Bureau of Transport and Regional Economics for the explanation of the Index.

25 Index figures up to 1993-94 are not directly comparable with later years because, the method of constructing the index was modified in 1994-95.

## Transport infrastructure provision and funding

- 5.43 The committee believes that the way in which transport infrastructure is currently budgeted for undermines the type of transport interconnectedness that is necessary for sustainability. The PIA draws attention to the fact that there are still separate budgets for roads, public transport, airports and pedestrian and cycling infrastructure, leading to a 'rather narrow vision'.<sup>26</sup>
- 5.44 The PIA suggests that transport infrastructure funding should actually aim to reduce private transport needs. The way infrastructure is conceived of can add to the sustainability of the transport system:
- An infrastructure approach more in tune with sustainability goals would look into transport reduction potential rather [than] trying to further expand mobility. For instance, this approach would examine how the excess of traffic demand that leads to congestion could be shifted to other modes of transport, to closer destinations and even prevented through alternative, non-transport inducing activities such as working at home or shopping through the internet. This highlights the importance of a close integration of infrastructure (supply) management and travel demand management approaches.<sup>27</sup>
- 5.45 The Australasian Railway Association puts the case for increased use of rail as the safest form of land transport and also the lowest contributor to greenhouse gas emissions, commenting that 'the sustainability advantages of rail are often not taken into account in infrastructure investment decisions'.<sup>28</sup>
- 5.46 The PIA also highlighted the lack of funding for rail infrastructure, pointing out that there is no designated Commonwealth funding programme for urban railway infrastructure similar to those for freeway construction. This is 'severely out of tune with urban transport funding regimes in practically every other OECD country' and explains why 'Australian urban rail systems have been struggling to keep up with the pace of metropolitan growth'.<sup>29</sup> This means outer suburbs are highly car-dependant. The Institute recommends a 'significantly boosted federal

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26 Planning Institute of Australia, *Submission 168*, p. 56.

27 Planning Institute of Australia, *Submission 168*, p. 56.

28 Australasian Railway Association Inc, *Submission 82*, pp. 2-3.

29 Planning Institute of Australia, *Submission 168*, p. 56.

commitment to upgrading and expanding fixed public transport systems'.<sup>30</sup>

5.47 Decisions on infrastructure that are made now will have an impact on future sustainability. The committee reiterates that it is important for decision-makers to understand the interconnectedness of the urban environment settlement and transport environment.

5.48 The Australian Government has an opportunity to benchmark infrastructure planning decisions against the recommended Australian Sustainability Charter and make a commitment to boosting funding to public transport systems in major cities.

## Recommendation 6

5.49 **The committee recommends that:**

- **transport infrastructure planning decisions be benchmarked against the recommended Australian Sustainability Charter; and**
- **the Australian Government significantly boost its funding commitment for public transport systems, particularly light and heavy rail, in the major cities.**

## Public private partnerships

5.50 In commenting on the AusLink green paper, the Australian Trucking Association observes that finding alternative methods of road and infrastructure funding is a priority. The Association believes that the public private partnerships (PPP) model is underutilised and could be advantageous, as long as monopolistic power is not exercised and that the safety of road users is not compromised by the return expected by investors.<sup>31</sup>

30 Planning Institute of Australia, *Submission 168*, p. 56.

31 Australian Trucking Association, *Submission 125*, p. 4.

- 5.51 The South Sydney Development Corporation advised the committee on the set-up of public private partnerships, including a public/ private board structure, and ensuring that the limited taxpayers' money available can be used to leverage additional funds from the private sector while still allowing the government to deliver on its responsibilities.<sup>32</sup>
- 5.52 There are advantages to the PPP approach:
- Experience is showing that professional consortia can access the international capital and technical expertise to implement world's best practices, and to do so cost-competitively.<sup>33</sup>
- 5.53 However, entering into a PPP needs to be done carefully. The Railway Technical Society of Australasia suggests that:
- Australia's record is mixed with situations such as Sydney's Airport Rail Link showing a need for caution. PPP should not be seen as getting public debt off the government balance sheets or 'finding a market response' to funding requirements. Lumbering future generations with inappropriate debt - unable to generate returns, should be guarded against.<sup>34</sup>
- 5.54 The exact terms of a PPP can vary and will depend on the nature of the government agency and the commercial consortium involved. Mr Geoff Noonan explained to the committee that the important issues to focus on are owners, operators and accountability.<sup>35</sup>
- 5.55 Aspects that will influence the agreement include:
- the level of up-front government funding offered;
  - whether the assets created eventually transfer to government ownership;
  - whether the government regulates the prices charged for the public's use of the service;
  - who negotiates with the community involved;
  - who is accountable for any breaches of environmental or planning permits;
  - who is responsible for correcting faults; and

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32 South Sydney Development Corporation, *Submission 169*, p. 2.

33 The Middle Way Pty Ltd, *Submission 32*, p. 22.

34 Railway Technical Society of Australasia, *Submission 166*, p. 11.

35 Mr Geoff Noonan, The Middle Way Pty Ltd, *Transcript of Evidence*, 8 June 2004, p. 9.

- whether communities have sufficient recourse to make sure sustainability criteria are met by developers.<sup>36</sup>
- 5.56 The committee has not sought to evaluate the benefit, per se, of PPPs and is aware that there is considerable debate in the community regarding this funding mechanism. Nonetheless it appears likely that PPPs will remain at least to some degree a significant aspect of future transport infrastructure provision and will therefore impact on transport patterns. It is important therefore that PPP arrangements incorporate sustainability principles.

### Services to fringe developments

- 5.57 The City of Newcastle's submission advised the committee that:
- The concentration of residential populations at the urban fringe creates community isolation, increased car dependency and the growth of residential populations without basic support services, facilities or transport.<sup>37</sup>
- 5.58 Developments on the fringe of cities generally lack public transport infrastructure and there is no option other than car use. This deficit in public transport is 'particularly exposed in the new release areas'.<sup>38</sup>
- 5.59 The committee also noted that a lack of public transport often increases social division within Australia:
- Higher-income groups tend to be located in well-serviced, inner urban areas where they are mobility-rich; while lower-income groups tend to be located in poorly-serviced areas, often at the fringe of cities where they are mobility-poor.<sup>39</sup>
- 5.60 Delfin Lend Lease, within its Fully Planned Community, acknowledges the need for transport infrastructure to be set up early in the development process to establish public transport use. In several Delfin Lend Lease projects, this has 'encouraged the development of meaningful public transport initiatives'.<sup>40</sup>

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36 The Middle Way Pty Ltd, *Submission 32*, pp. 21-22.

37 City of Newcastle, *Submission 147*, p. 3.

38 Urban Frontiers Program, *Submission 113*, p. 6; Mr John Stanley, Bus Industry Confederation, *Transcript of Evidence*, 13 May 2004, p. 19.

39 Planning Institute of Australia, *Submission 168*, p. 51; see also Regional Cities Victoria, *Submission 98*, p. 6.

40 Delfin Lend Lease, *Submission 66*, p. 18.

5.61 Regional Cities Victoria's submission also draws attention to the importance of the 'social cohesion' of communities relying on 'their ability to access efficient and coordinated transport systems':

It encourages interaction between communities and individuals, improves accessibility to education, health and community services, attracts more skilled workers, improves links between townships and encourages locally employed communities.<sup>41</sup>

5.62 The City of Newcastle's submission gives examples of fringe developments in its locality and sums up the impact as follows:

. . . suburbs developed at lower densities and without adequate public transport infrastructure are having a long term significant impact both on the local natural environment and ultimately, social and economic impacts for the residents.<sup>42</sup>

5.63 It is a matter of great concern to the committee that there is adequate sustainable transport infrastructure to service newly developed communities, particularly in urban fringe areas.

5.64 The committee feels that, as part of the planning approval process, there must be requirements for state governments and/or developers to include the provision of transport infrastructure to new (and especially fringe) developments.

## Recommendation 7

5.65 **The committee recommends that the provision of Australian Government transport infrastructure funds include provision of funding specifically for sustainable public transport infrastructure for suburbs and developments on the outer fringes of our cities.**

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41 Regional Cities Victoria, *Submission 98*, p. 6.

42 City of Newcastle, *Submission 147*, p. 4.

## Changing transport modes

### Impact of current policies in reducing car dependency

- 5.66 The committee was advised that a reduction in car dependence could have a vast impact on current and future land usage. As Bicycle New South Wales points out, inherent in Australia's pattern of urban sprawl is use of the car as the dominant mode of transport:

As a result of this up to one third of Sydney's 'available' public land is dedicated to car usage through the provision of roads, parking and areas to support motor vehicles. This is an inefficient use of space that could be alternatively used as urban green zones or as community space.<sup>43</sup>

- 5.67 The committee is concerned that some Australian Government policies may be having the unintended outcome of encouraging car usage (through FBT concessions) and the purchase of less fuel efficient vehicles (through four wheel drive import concessions).

- 5.68 Mr Wallace Wight from the Northern Subregional Organisation of Councils commented on FBT and taxation incentives for four wheel drives:

Various taxation systems have quite a lot of unintended consequences. An example might be the fringe benefits tax formula that encourage people to drive large cars long distances. That has implications for the transport systems, people's behavioural choice in choosing locations to live and work—all having a negative effect on sustainability. Another example is the incentives to import wasteful vehicles ... While there may be a good reason somewhere along the line to have those sort of things, the unintended consequences of them can be quite counterproductive.<sup>44</sup>

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43 Bicycle New South Wales, *Submission 54*, p. 1.

44 Mr Wallace Wight, Northern Subregional Organisation of Councils, *Transcript of Evidence*, 6 April 2004, p. 17.



## Fringe benefit tax concessions

- 5.69 The committee was advised that 'at the moment over \$750 million per annum is spent on subsidising car use'.<sup>45</sup>
- 5.70 One of the impediments to reducing car dependency on Australian roads is the ability of people to salary sacrifice for the novated lease of a car and the incentives to increase the kilometres travelled.
- 5.71 In this taxation scheme, a deduction is made from employees' gross salary so they are able to salary sacrifice (use pre-tax dollars) the lease payments and the running costs of the vehicle. Fringe benefits tax (FBT) is then payable. Salary sacrificing for a car means that the more kilometres a person travels in an FBT year, the less tax is assessed.
- 5.72 The following scale (table 5.2) is used to determine the statutory percentage. This is based on the number of kilometres travelled each FBT year. The greater the distance travelled, the lower the taxable value will be. At the beginning of the lease, estimated kilometres supplied by the lessee for the FBT year are used for the initial calculations. Included in the statutory percentage is an assumption of implied business use.

Table 5.2 Statutory percentages of FBT for vehicle use

| Number of Kilometres per FBT year |           | Statutory % |
|-----------------------------------|-----------|-------------|
| From                              | To        |             |
| 0                                 | 14,999    | 26%         |
| 15,000                            | 24,999    | 20%         |
| 25,000                            | 40,000    | 11%         |
| 40,000                            | And above | 7%          |

Source Australian Taxation Office

45 Dr Gabrielle Kuiper, Bicycle New South Wales, *Transcript of Evidence*, 27 January 2004, p. 6.

5.73 Below is an example calculating taxable value and FBT payable: vehicle travelling 20,000 km pa with a base value of \$20,000, available for the full year with no after tax contributions.

|                                    |          |                 |
|------------------------------------|----------|-----------------|
| Vehicle base value                 |          | \$20,000        |
| Multiplied by Statutory Percentage | 20%      | \$ 4,000        |
| (as per table above)               |          |                 |
| Taxable value                      |          | <b>\$4,000</b>  |
| Multiplied by Gross up             | 2.129189 | \$ 8,517        |
| Total FBT payable                  | 48.5%    | <b>\$ 4,131</b> |

5.74 Several submission and witnesses drew attention to the fact that the above concessions are not available to other forms of transport such as public transport or bicycle riding and that 'the whole system is skewed towards car use'.<sup>46</sup> FBT concessions should be taken off cars and put on other forms of transport, and the money saved 'could be invested by the Commonwealth in public transport infrastructure'.<sup>47</sup>

5.75 Dr Chloe Mason told the committee that, in Sydney, some 50 per cent of car use during peak hour is estimated to be a result of Commonwealth concessional car use. To avoid 'political mayhem', Dr Mason advocates the gradual claw-back of the FBT concessions to 'provide the signal' that it is not a sustainable concession.<sup>48</sup>

5.76 Mr Hugh Ralston, Director of the Warren Centre for Advanced Engineering, also supported these arguments and described the salary-sacrificing scheme for cars as a distorting tax and 'against the use of public transport'.<sup>49</sup>

46 Dr Gabrielle Kuiper, Bicycle New South Wales, *Transcript of Evidence*, 27 January 2004, p. 10; see also Mr Neil Tonkin, Bicycle New South Wales, *Transcript of Evidence*, 27 January 2004 and Dr Chloe Mason, *Transcript of Evidence*, 27 January 2004.

47 Dr Gabrielle Kuiper, Bicycle New South Wales, *Transcript of Evidence*, 27 January 2004, p. 6.

48 Dr Chloe Mason, *Transcript of Evidence*, 27 January 2004, p. 88.

49 Mr Hugh Ralston, Warren Centre for Advanced Engineering, *Transcript of Evidence*, 8 June 2004, p. 16.

- 5.77 Evidence to the committee also suggested that Australia is seen as out of step with world thinking in relation to FBT. Mr Peter Moore, Executive Director of the International Association of Public Transport, Australia and New Zealand, told the committee that 'Europeans are totally perplexed' by this policy and also suggested that companies be encouraged to provide tax incentives for the use of public transport.<sup>50</sup>
- 5.78 The committee agrees that there is a need to review the current regulations regarding salary packaging of cars and FBT concessions.

### **Recommendation 8**

- 5.79 **The committee recommends that the Australian Government review the current FBT concessions for car use with a view to removing incentives for greater car use and extending incentives to other modes of transport.**

### **Import duty for four wheel drives**

- 5.80 Another distorting Australian Government policy appears to relate to the reduced tariff rate on four wheel drives. Originally conceived to assist primary producers, the concession is now subsidising vehicles that are creating 'additional, unnecessary environmental impacts and reducing the sustainability of Australian cities'.<sup>51</sup>
- 5.81 This is because, while once mainly used by farmers, four wheel drives are now 'increasingly common on urban roads', making up over 20 per cent of new car sales. The tariff rate on four wheel drives is 10 per cent lower than for all other imported cars, providing 'an incentive to the urban use of the least efficient, most polluting and dangerous forms of passenger transport'.<sup>52</sup>

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50 Mr Peter Moore, International Association of Public Transport, Australia and New Zealand, *Transcript of Evidence*, 19 February 2004, p. 11.

51 Bayside City Council, *Submission 101*, p. 6.

52 Australian Conservation Foundation and Environment Victoria, *Submission 162*, p. 19.

- 5.82 The issue of safety is also of particular concern to the committee. Of note is that the 2004 report on National Road Safety by the Transport and Regional Services Committee recommended that the Australian Government:
- ... bring the tariff on four wheel drive vehicles into line with the tariff on other imported cars, with genuine primary producers and others who have legitimate need for four wheel drive capability receiving tariff exemption.<sup>53</sup>
- 5.83 The committee believes that, given the environmental impact of increasing private use of four wheel drives, in addition to the safety concerns, the Australian Government should go further in its review of the tariff policy in this area.

### Recommendation 9

- 5.84 **The committee recommends that the Australian Government review the tariff policy on four wheel drive vehicles with a view to increasing the tariff rate on four wheel drive vehicles, except for primary producers and others who have a legitimate need for four wheel drive capability.**

### Promoting and increasing the use of active transport and living

- 5.85 The committee noted earlier in this report that there is increasing evidence of urban living contributing to increasing incidence of a wide range of illnesses. There is no doubt that greater physical activity would contribute to lowering these incidences. Mr Neil Tonkin uses the term 'active transport', referring to walking, cycling and public transport, 'as forms of transport that involve human physical activity with substantial benefits to health, safety and wellbeing'.<sup>54</sup>

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53 House of Representatives Standing Committee on Transport and Regional Services, *National Road Safety: Eyes on the road ahead*, Parliament of the Commonwealth of Australia, Canberra, June 2004, Recommendation 27.

54 Mr Neil Tonkin, Bicycle New South Wales, *Transcript of Evidence*, 27 January 2004, p. 3.

- 5.86 The committee was told that the TravelSmart household programme in Perth, which provides information on walking, cycling and public transport to receptive households has achieved a 14 per cent reduction in the use of cars.<sup>55</sup>
- 5.87 Dr David Worth from the Sustainable Transport Coalition of WA characterised TravelSmart as a 'personalised marketing system', where people living in a particular area are asked questions about their travel habits. Around 40 per cent of people have been found to be interested in further information. The information prepared is personalised to the circumstances of that household; for example, the bus company would prepare an individual map.<sup>56</sup>
- 5.88 Dr Christopher Rissel, Director of the Health Promotion Unit of the Central Sydney Area Health Service explained how he is copying the TravelSmart system:
- We have developed transport access guides, which are maps of facilities which illustrate ways of getting to a destination without driving ...
- We have coupled this with communication strategies about the value of not driving and of walking, cycling or using public transport instead. We have also spent time doing some individual marketing where we talk through people's individual issues about transport. . . .<sup>57</sup>
- 5.89 The committee notes that the Australian Government supports these initiatives through information offered on its website [www.travelsmart.gov.au](http://www.travelsmart.gov.au).
- 5.90 While acknowledging the usefulness of TravelSmart, Mr Stephen Lucas from the Bus Industry Confederation pointed out that information does not always equal use:
- There is no point having the best information system in the world if you are giving information about a service that people do not want.<sup>58</sup>

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55 Sustainable Transport Coalition of WA, *Submission 148*, p. 2.

56 Dr David Worth, Sustainable Transport Coalition of WA, *Transcript of Evidence*, 29 April 2004, p. 17.

57 Dr Christopher Rissel, Central Sydney Area Health Service, *Transcript of Evidence*, 27 January 2004, p. 18.

58 Mr Stephen Lucas, Bus Industry Confederation, *Transcript of Evidence*, 13 May 2004, p. 19.

- 5.91 One of the difficulties again appears to be services to outer areas where there might be significant gaps between services and nothing at night and weekends.<sup>59</sup> In addition to issues relating to frequency of service, the committee also noted the need for people to feel safe on their transport.<sup>60</sup>
- 5.92 Encouraging the use of public transport services can be part of a broader planning strategy to increase densification around public transport hubs. Dr Andrew Montgomery of the WA Government informed the committee:

We are looking at focusing our efforts within the metro area on a development spine – urban corridors and densification or concentration around nodes such as railway stations. We have a substantial programme of transit oriented development – TOD, as we refer to it here – where we look at developing around all the railway stations. If you go to some of our existing railway stations that were developed 20 or 50 years ago you will see low-density development right up to the railway station. All of the new stations in our new initiative are being planned as more intense nodes. Again, we are looking at the mix of land uses to attract that. We are adopting more of an incentive based approach rather than a restrictive based approach of saying, ‘This is the line and you can’t go over it.’ Obviously, that is not the approach that is not taken by the sensible people who are working with urban growth boundaries.<sup>61</sup>

## Benefits of active transport

- 5.93 Instituting active transport regimes would have a vast beneficial impact on Australia’s environment, health and transport congestion, particularly in the main cities. Mr Neil Tonkin told the committee that this would be ‘especially achievable in Sydney’ where ‘55 per cent of all car journeys are of less than five kilometres and 33 per cent are of less than three kilometres’.<sup>62</sup>

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59 Mr John Stanley, *Transcript of Evidence*, 13 May 2004, p. 19.

60 Mr Hugh Ralston, Warren Centre for Advanced Engineering, *Transcript of Evidence*, 8 June 2004, p. 14; see also Mr Martin Laird, Railway Technical Society of Australasia, *Transcript of Evidence*, Sydney, 8 June 2004, p. 67.

61 Dr Andrew Montgomery, Western Australian Department for Planning and Infrastructure, *Transcript of Evidence*, 31 March 2005, p. 14.

62 Mr Neil Tonkin, Bicycle New South Wales, *Transcript of Evidence*, 27 January 2004, p. 3.

- 5.94 Bicycle NSW is also in favour of an integrated transport system that would include bicycle lockers at bus and train stations and making bicycles free of charge on trains. This would aid in 'reducing the amount of car dependence' and would optimise 'the access and liveability of urban communities'.<sup>63</sup>
- 5.95 The committee was told of a need to reinvigorate the National Bicycle Strategy with Australian Government funding,<sup>64</sup> and the committee notes that the Australian National Cycling Strategy 2005-2010 is currently being prepared by the Australian Bicycle Council.<sup>65</sup>
- 5.96 The committee was impressed with the outcomes of TravelSmart and similar schemes and would recommend that the Australian Government link its funding of road transport to the setting-up of such schemes in all council/local government areas.

### **Recommendation 10**

- 5.97 **The committee recommends that the Australian Government provide adequate funding to develop new programmes and support existing programmes, such as TravelSmart and the National Cycling Strategy, that promote and facilitate public and active transport options.**

## **Increasing the efficiency or environmental performance of transport modes**

### **Emission standards**

- 5.98 Transport, and in particular motor vehicles, is a major contributor to diminishing air quality in cities. Sustainability, as well as addressing transport patterns and changes to the predominant transport mode, must increase the efficiency of vehicles, to significantly reduce current environmental impacts of fuel emissions.<sup>66</sup>

63 Bicycle New South Wales, *Submission 54*, p. 2.

64 Australian Conservation Foundation and Environment Victoria, *Submission 162*, p. 20.

65 Department of Transport and Regional Services, see [www.abc.dotars.gov.au/downloads/NationalCyclingStrategy\\_Draft\\_12April2005.pdf](http://www.abc.dotars.gov.au/downloads/NationalCyclingStrategy_Draft_12April2005.pdf)

66 Bicycle New South Wales, *Submission 54*, p. 2.

- 5.99 The City of Newcastle's submission drew attention to the effect of motor vehicle emissions on regional air quality and advised that over 50 per cent of nitrogen oxide emissions and nearly 80 per cent of carbon monoxide emissions are attributable to motor vehicles.<sup>67</sup>
- 5.100 Ventura Bus Lines suggests the use of ethanol to tackle this problem as ethanol 'is totally renewable and is cleaner than diesel, emitting half the amount of emissions.'<sup>68</sup>
- 5.101 The committee was impressed by Perth's current trial of running zero emission hydrogen buses.

### **Case Study: Hydrogen Powered Buses**

#### **'EcoBus' - Perth**

As part of the Western Australian Government's commitment to working towards sustainable transport energy solutions, a number of initiatives are being introduced to encourage the development of clean fuels.

Since 2004, Perth has participated in one of the first major trials of hydrogen fuel cell buses in the world. Three Daimler Chrysler hydrogen fuel cell buses are being trialled on normal Perth service routes for two years.

Participation in the trial brings Western Australians close to the global development of this exciting technology, and will allow a full evaluation of the potential of hydrogen and fuel cells as one of the possible transport energy solutions of the future.

The hydrogen used in EcoBuses is produced by the BP Oil Refinery. The fuel cell buses use hydrogen and oxygen to create electricity through an electro-chemical process. The by-products of this chemical reaction are pure water vapour and heat, resulting in no pollution.

At the moment, fuel cell buses and hydrogen are too expensive to make the fuel cell buses competitive with conventional buses on a purely financial basis. There are several factors that could change this in the future. The costs of fossil fuels like diesel and compressed natural gas will rise, the costs of fuel cells will decrease when they are mass produced and the health and environmental costs to society caused by pollution will become more important.

67 City of Newcastle, *Submission 147*, p. 3.

68 Ventura Bus Lines Pty Ltd, *Submission 9*, p. 2.



- 5.102 The committee notes that there have been significant improvements in relation to toxic emission standards for motor vehicles. The Australian Automobile Association advises that today's new car is around 30 times cleaner than a new car in the early 1980s:
- This trend toward cleaner cars will continue with the introduction of new emissions standards and cleaner fuels. Euro 3 standards which come into effect in 2005 will reduce existing emissions by half, and Euro 4 standards to be introduced around 2008, will reduce emissions by a further 50 per cent.<sup>69</sup>
- 5.103 Emission standards for highway vehicles and engines are adopted by the Department of Transport and Regional Services. Australian emission standards are based on European regulations with certain US and Japanese standards accepted for selected applications. The long term policy is to fully harmonise Australian regulations with European standards.
- 5.104 New, more stringent emission standards have been adopted with an implementation schedule from 2002-03 to 2006-07.
- 5.105 The new Australian Design Rules apply to new vehicles fuelled with petrol, diesel, as well as with LPG or natural gas. Coupled with reviews of fuel quality and emission standards,<sup>70</sup> this will have a positive impact on the new vehicle fleet's emissions.
- 5.106 Another new Australian Design Rule is for fuel consumption labelling and will require all new model vehicles to display a label on the windscreen which states the fuel consumption in L/100km and CO<sub>2</sub> emissions in g/km of that particular model.<sup>71</sup>
- 5.107 The committee is heartened that the issue of motor vehicle emissions is being addressed. However, the committee nevertheless strongly advocates greater use of public and active transport modes (and a resultant reduction in private car use) as the most effective means of reducing car emissions in the long term.
- 5.108 The emission standards will have a significant impact on new vehicles entering service in Australia. There remains a large fleet of older cars on Australia's roads, and these cars are likely to deteriorate with age and continue to cause high emission rates.
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69 Australian Automobile Association, *Submission 121*, p. 1.

70 Department of Transport and Regional Services, *Submission 140*, p. 24.

71 Department of Transport and Regional Services, *Submission 140*, p. 25.

- 5.109 The committee believes a mandated emission standard appropriate for all older vehicles which could be disclosed at point of sale. This standard would need to be developed with due consideration for the age of existing vehicles. With the wide range of vehicles on Australia's roads the committee recommends that the Department of Transport and Regional Services develop appropriate standards and work to have these standards adopted by State and Territories to ensure compliance at point of sale.

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**Recommendation 11**

- 5.110 The committee recommends that the Department of Transport and Regional Services investigate developing emission standards for older vehicles and work with the States and Territories with a view to instituting mandatory testing and reporting at point of sale.**