

6. TRANSPORT POLICY AND PROGRAMS IN AUSTRALIA

Transport policy and planning in Australia has been and remains focused on road transport, particularly the private car. While some Australian cities such as Melbourne were blessed with an extensive rail and/or tram network, patronage languished as urban development spread well beyond the reach of the network, line extensions were overlooked in favour of road construction, and service frequencies diminished. Bus services established in outer areas provide an indirect and generally poor weekend and evening service.

People using non-motorised forms of transport (walkers and people riding bicycles) have fared worse. Their needs have generally been subsumed by those of motorists to the point where most people have eschewed perceptions of walking and cycling on the grounds of safety and distance. As the Victorian Road Safety Committee noted, urban planners do not consider the needs of all the community when they build new estates or permit buildings such as nursing homes and schools to be erected on arterial roads (Victorian Road Safety Committee, 1999). The standard approach to the construction of roads has been to see them as a conduit for traffic where little is allowed to get in the way of a smooth flow (Newman, 1992).

The dominant element of transport policy has been the construction of road capacity to facilitate the movement of people and goods. By providing this capacity, transport policy has acted to increase the growth in traffic and elevate Australia to one of the world's highest producers of transport generated greenhouse gases.

Creating sufficient road capacity to cater for predicted traffic growth, based on current trends, will place a significant financial, environmental and health burden on the economy. While schemes have been devised to shift the financial burden of road construction to the private sector and road users, the environmental and health consequences of further expanding road capacity will fall squarely on the community and the public purse.

To date, Australia's efforts to reduce vehicle emissions and improve air quality have focused on technological improvements to vehicles but the benefits of these measures are being outstripped by a continuing rise in the volume of road traffic.

There is now a growing realisation that technological changes alone will not resolve problems of increasing car use and that a range of strategies is required to deal with traffic growth. However, policies and strategies that make a realistic attempt to tackle the problem of traffic growth and motor vehicle dependency have so far been thin on the ground. Expenditure on roads continues to far outweigh expenditure on programs facilitating non-car forms of transport.

Many European cities, and cities such as Portland, Vancouver and Toronto in North America show that traffic growth can be curtailed and that alternative transport modes can be prioritised viably in modern, wealthy cities (Newman, 1999b). To reduce car use in Australian cities, there needs to be more transport options available for non-car users, less distance to travel, and a long term commitment to change transport habits. The pressing need for Australia to reduce its greenhouse gas emissions, consistent with the Kyoto protocol, adds further support to demands for change.

There are signs that Australian governments are starting to move along this route. States such as Queensland are investing large sums of money in public transport while NSW recently announced a major boost in funding for rail and bicycle infrastructure. Programs and pilot studies aimed at modifying travel behaviour and changing travel patterns with a view to reducing car usage are operating, albeit in a small way, in most states but particularly in Western Australia and South Australia. Signs of change are less clear in Victoria which has been slower than NSW, Queensland or Western Australia in putting dollars into dedicated public transport. Here, the State government's gaze for some time has been firmly fixed on the construction of urban freeway networks.

Obtaining a clear picture of the relative position of the various states with regard to expenditures on different transport policy elements is extremely difficult because of variations in policy composition, project structure and funding, timing of implementation, and availability of data. Rather than attempt to make a direct comparison, a summary of key elements of the various transport strategies has been provided and their relative importance in expenditure terms, together with an outline of some of the programs being undertaken around Australia aimed at changing travel patterns.

6.1 The national approach

At present, there is no national transport strategy in Australia. This omission is astounding given the importance of transport, both passenger and freight, to Australia's economic and social wellbeing. The Department of Transport and Regional Services (DOTRS) which has principal responsibility for transport policy at the Commonwealth level is currently undertaking a review of transport and is working towards a nationally integrated approach to land transport. Completion of a draft strategy document for comment is expected some time in late 1999.

The development of competitive and safe land transport infrastructure (road and rail) is an important part of the Commonwealth government's role in transport. To this end, the Government provides infrastructure funding and ensures the establishment of nationally consistent regulatory and safety arrangements.

Key road and rail agencies within the transport portfolio include:

- Federal Office of Road Safety (FORS), housed within the Australian Transport Safety Bureau;
- National Road Transport Commission (NRTC), established to develop uniform arrangements for vehicle regulation and operation;
- AUSTRROADS, the national association of road transport and traffic authorities in Australia;

- National Rail Corporation which is jointly owned by the Commonwealth, NSW and Victorian governments and operates mainland interstate rail freight services (the Government is currently negotiating with shareholders to enable the sale of its equity);
- Australian Rail Track Corporation, established to control and manage access to the interstate rail network.

The Bureau of Transport Economics also has an impact on land transport policy through its research program.

Other organisations with a direct interest in transport policy include:

- Environment Australia;
- National Environment Protection Council (NEPC);
- National Greenhouse Office;
- Motor Vehicle Environment Committee (MVEC), established by the NRTC and NEPC with a focus on reducing the environmental impacts of motor vehicle use;
- Commonwealth Department of Health and Aged Care (DOHAC).

The environmental agencies are primarily concerned with the impact of road transport on air quality and greenhouse gas emissions. DOHAC's interest centres on the effect on health of vehicle emissions and of declining physical activity due to the growing use of private motor vehicles.

Privatisation of the major national rail bodies (Australian National Railways Commission and National Rail Corporation) leaves the Commonwealth government's direct responsibilities in land transport firmly embedded in road transport. Although the Government is continuing to fund capital investment in rail (it is providing \$250m over 4 years to ARTC), road transport dominates its approach to land transport. Agency strategy plans are principally directed at boosting road transport productivity, enhancing road safety (for motor vehicles), and reducing the environmental

impacts of motor vehicle use through improved vehicle technology.

Despite their involvement in strategies to reduce vehicle emissions, the transport agencies have yet to accept the need to curtail the current growth in road traffic. Unlike their NZ counterparts, they have vacated the field of travel demand management and left the environment portfolio to be the main driving force behind air quality improvement. Recently, however, there have been indications that this may be changing. AUSTRROADS recently completed a major paper on the implications of environmentally sustainable development for transport and there has reportedly been some interest in the possibility of transferring a portion of road transport to rail because of the high costs of maintaining the national road network¹.

Perhaps even more influential is the fact that, in future, agencies will have to account for all greenhouse emissions created by their projects. In the transport context, this could mean a dramatic change in the relative priority of road projects. If competitive neutrality was introduced between road and rail, then the relatively higher rate of use of diesel by the road freight fleet could result in a shift from road to rail.

Commonwealth efforts to minimise the environmental impact of motor vehicles are largely occurring through the MVEC which has both policy advice and project management responsibilities. Its key objectives are to ensure the continual improvement in motor vehicle technology, optimise the environmental performance of existing fleets, and promote appropriate measures to manage transport demand. As part of its work program, the MVEC manages or provides input to projects in the areas of atmospheric emissions, noise emissions, greenhouse gas emissions, and waste stream effects which have the potential to help it achieve its key objectives. (National Road Transport Commission, 1999c).

The focus of the MVEC's current work program is on improving vehicle technology and vehicle use as the means of reducing the environmental impact of road transport. Managing transport demand does not figure prominently although mention is made in the MVEC Strategy of the

need to consider initiatives such as improved traffic and modal management, taxation, vehicle and fuel pricing regulation, and tradeable permits during the development of transport environmental policies beyond 2000. The strategy also includes a detailed listing of the health effects of the major air pollutants associated with vehicle use (ibid).

The apparent lower priority given to demand management is perhaps not surprising given that the organisations consulted by the MVEC in developing its strategic plan were predominantly associated with or reliant on road transport. No state health department, medical or consumer body, or education agency, was included in the consultation list. It may also reflect limited knowledge and experience in travel demand management within the Commonwealth given that responsibility for implementing demand or traffic management type measures typically rests with the States.

The relationship between health and transport (beyond traffic accidents) is not generally recognised in transport policy. An exception is the *National Cycling Strategy, Australia Cycling*, released jointly in early 1999 by the Minister for Transport and Regional Services and the Minister for Health, which specifically refers to the role that physical activity can play in improving health outcomes (Commonwealth Department of Transport and Regional Services, 1999). Even in environmental policies and strategies associated with air quality, the relationship between health and greenhouse gas emissions is often implied rather than made explicit. Forums recently held between DOTRS and DOHAC will hopefully go some way towards improving understanding of the relationship between health and transport.

The key document outlining Australia's response to greenhouse is the *National Greenhouse Strategy* (NGS) released in 1998. A product of Commonwealth, State and Territory governments, the NGS includes a range of actions to be implemented by governments acting individually, jointly and through partnerships with the community and other stakeholders. It identifies transport as a key sector for action to reduce greenhouse gas emissions and highlights five areas where transport-related measures are to be delivered:

¹ DOTRS personal communication

1. integrating land use and transport planning;
2. travel demand and traffic management;
3. encouraging greater use of public transport, walking and cycling;
4. improving fuel efficiency and fuel technologies;
5. freight and logistics systems.

Specific initiatives outlined in the NGS include:

- the *Environment Strategy for the Motor Vehicle Industry* aimed at enhancing the environmental performance of the industry through such actions as mandatory fuel efficiency labelling, faster phasing out of leaded fuel, tightening of emissions standards, improved fuel efficiency targets for new passenger vehicles for 2005 and 2010; and extension of fuel efficiency targets to light commercial vehicles and larger 4WDs.
- *Light Commercial Vehicles – Compressed Natural Gas Infrastructure program* aimed at facilitating the switch to the use of natural gas in light commercial vehicles through the creation of a distribution network of service stations in major urban centres.
- Programs to improve the maintenance of in-service vehicles to reduce fuel consumption.
- Dissemination of information to transport users on the financial, social and environmental impacts of transport.
- Establishing a forum to investigate new public transport modes and technologies, and evaluate best practice options for application to Australian urban conditions.
- Study of the opportunities to reduce freight transport emissions.
- Policy guidelines and research to support more efficient outcomes from urban land development decisions (Australian Greenhouse Office, 1998b)

Detailed plans for the implementation of the actions set out in the NGS are being developed. These are in the form of State or Territory

greenhouse strategies or nationally co-ordinated measure-specific plans. The State plans were listed for completion by the end of July 1999.

The heads of transport agencies reportedly dislike the NGS, seeing it as replicating work already underway. But in the absence of a national strategic plan, they are not in a position to offer any alternative.

Other national initiatives with an impact on transport include the Cities for Climate Protection™ Australia program administered by the Australian Greenhouse Office; and the Air Pollution in Major Cities program administered by Environment Australia.

Cities for Climate Protection™ Australia is an International Council of Local Environment Initiatives (ICLEI) program in collaboration with the Australian Greenhouse Office which provides local government with a framework to identify council and community emissions, to set a reduction target, and to implement an action plan to reach that target. Local government initiated actions could include incorporating public or non-car transport into urban planning, or traffic management measures to encourage use of non-motorised modes of transport (Australian Greenhouse Office, 1998c).

Air Pollution in Major Cities is a \$16m program focusing on the six pollutants to which most people in Australia are exposed: carbon monoxide, nitrogen dioxide, ozone, lead, particulate matter and sulphur dioxide. Several projects in the transport area are funded by the Natural Heritage Trust through the Air Pollution in Major Cities program. These projects are part of *CLEAR THE AIR*, a Commonwealth government initiative in response to the recommendations of the Independent Inquiry into Urban Air Pollution conducted by the Australian Academy of Technological Sciences and Engineering in 1997. Transport-related Clear the Air projects that have been funded include:

- Fuel quality review;
- Development of emissions standards for replacement engines;

- Proposal for a diesel National Environment Protection Measure;
- Strategies for promotion and support of alternative fuels and alternative fuel technologies;
- Nitrogen oxides catalyst for diesel engines;
- Smogbusters: a community education program jointly managed by the Conservation Councils and Environment Australia aimed at increasing community understanding of, and willingness to adopt, less polluting transport practices (Environment Australia, 1998).

Finally, although traditionally outside the realm of transport policy, taxation has an important influence on transport patterns. The tax treatment of, for example, fuel, motor vehicles, income, fringe benefits, business expenses, and private investment in transport projects, can have a significant impact on transport choices and modal shift.

Reference has already been made to the incentive to car travel provided by changes foreshadowed under the tax reform package and in the Ralph report². There are inherent and sizable contradictions in the Commonwealth's pursuit of a taxation policy that encourages motor vehicle use at the same time as funds are being directed to measures aimed at reducing the environmentally damaging effects of those vehicles. The incentive being given to the use of diesel powered vehicles through a reduction in the cost of the fuel is particularly worrying when the serious risks to health posed by particulates from diesel exhaust are becoming increasingly evident and the Government attaches little urgency to reduction in the very high sulphur levels present in Australian diesoline.

6.2 Transport at the state level

State government transport policy has traditionally been infrastructure focused, directed at expanding infrastructure supply, usually road capacity, to satisfy the likely growth in peak period travel demand. The emphasis has been on moving vehicles, not people. Planning for each mode has been carried out in isolation with

² For example, see section 4.2

little consideration of the effect that capacity expansion in one mode would have on another or on broader urban development issues.

The situation is now changing with most states adopting an integrated approach to transport planning that emphasises development of the transport system as a whole and its co-ordination with land use and urban planning. The focus on infrastructure continues but is being tempered by the knowledge that road space cannot be expanded at rates that will match projected traffic growth without jeopardising future prosperity and lifestyle.

Integration of health and transport has yet to occur although the health impacts of declining air quality from the growth in vehicle emissions are acknowledged in some state transport documents. In one case, the health benefits of cycling are also noted. To date, health agencies have not become involved in transport planning, decision-making or impact analysis of transport projects. Much of the motivation for a change in travel patterns is coming from the environmental area, driven by concern over deteriorating air quality and the need to reduce Australia's greenhouse gas emissions.

All the mainland states have prepared or are finalising integrated transport strategies/plans for their major metropolitan area, and in some cases, for non-metropolitan and regional areas:

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| WA | <i>Perth Metropolitan Strategy 1995-2029</i> (released 1995) |
| | <i>The Way Ahead: Metropolitan Transport Directions for Western Australia</i> (released 1995) |
| Vic | <i>Transporting Melbourne: A Strategic Framework for an Integrated Transport System in Melbourne</i> (released 1996; progress report due soon) |
| Qld | <i>Integrated Regional Transport Plan for South East Queensland</i> (released 1997) |
| NSW | <i>Action for Transport 2010: An Integrated Transport Plan for Sydney</i> (released 1998) |
| | <i>Action for Transport 2010: An Integrated Transport Plan for NSW</i> (released 1998) |

SA *Metropolitan Transport Strategy*
Rural Transport Strategy
Outer Metropolitan Transport Strategy
(all in draft format but not for public release at this stage).

The strategies have in common an expressed desire to:

- find a better balance between private, public and non-motorised forms of transport;
- reduce car use, particularly, driver only use;
- increase public transport use;
- encourage cycling and walking;
- reduce the environmental impact of transport;
- integrate urban development with public transport services and infrastructure;
- provide an accessible passenger transport system with equity in coverage;
- improve road safety;
- make freight more competitive.

Despite this commonality, there are differences between the states in emphasis and approach to transport issues and solutions and in the nature and level of financial commitment made to achieve strategy objectives.

Although most states refer to the need to reduce car travel, the road network continues to consume the major portion of transport resources. In NSW, the State's roads program for 1999/2000 amounts to \$2.27 billion, an increase of \$107m on the previous year and almost three times the allocation for heavy and light rail, ferry and bus services. Road maintenance takes up 27% (\$610m) of the total roads budget. Major roads projects proposed in *Action for Transport 2010* over the next 10-12 years include the Pacific Highway, completion of the Sydney Orbital, upgrading the Princes Highway and the Penrith to Orange route, roadworks in Western and Southern Sydney, and rebuilding rural roads. If this program remains unchanged, it seems unlikely that roads

expenditure will experience much of a decline in the near future.

"Sydney has one of the largest and best public transport systems in the world...But the network has been outgrown by rapid urban development and overtaken by car use....Reducing the current rate of growth in car use is essential to improve our air quality."

NSW Government (1998)
Action for Transport 2010, Sydney, p. 6,11

Approximately \$775m has been allocated for rail, ferry and bus projects this financial year in NSW. Rail is the major recipient of these funds with the State Government committing an average of \$300m per year for 10 years to the rail network to extend rail links, upgrade stations, reopen rural lines in the Central West, and upgrade rail carriages. A total of \$750m is being spent on other non-road improvements such as the upgrading of rail passenger information, security and station accessibility; construction of new rail links; the refitting and purchase of ferries; the acquisition of low floor buses; and the extension of the light rail service. An additional \$26m has been allocated from the roads program budget for the construction of the first of seven rapid bus only transitways to be built between 2000 and 2014.

Further public transport projects proposed in the NSW transport strategy include the introduction of a new real time bus information system on all transitway routes; an integrated ticketing system with a smart card payment option; the purchase of compressed natural gas powered buses; and expansion of cross regional bus services.

In Victoria, approximately \$800m is spent annually on the roads program of which 73% is directed to road system management (construction and maintenance). Construction of major roads in the metropolitan area is an important part of the Victorian roads program even though Melbourne has a very extensive rail system and the fourth largest tram and light rail system in the world. Large infrastructure projects completed this decade include the Eastern Freeway extension, SE Freeway upgrade, and the \$600-\$700m Western Ring

Road. Those proposed include a further extension of the Eastern Freeway (\$255m), Geelong Road upgrade (\$240m - joint State and Commonwealth funding), Hallam bypass (\$175m), Springvale bypass (\$30m) and the Cooper Street corridor (Epping) upgrade (\$19m). These are in addition to the \$2 billion privately owned and operated City Link project and rural road projects such as the Calder Highway.

Victorian government funding for 'public' transport post privatisation is not particularly clear but this financial year is likely to be in the order of \$500m when payments to the new private operators of the rail and tram system are taken into account.

While most states have encouraged private sector participation in large public transport projects, only Victoria has embraced privatisation of all public transport modes. Since mid 1999, rail, tram and bus services in Victoria have been in the hands of private companies.

Under the service provision contracts, the dominant public transport provider, National Express, who operates Bayside Trains, Swanston Trams, V/Line Passenger and the National Bus Company, is to invest \$733m in new train and tram rolling stock (62 three-car metropolitan trains, 59 low-floor trams and 58 high speed diesel Sprinter trains) and \$70m in train fleet refurbishment (including air conditioning, improved seating, new information displays and better security) over the 10–15 year contract periods. The company has also indicated its intention to provide extra rail services and electronic signs at tram stops. However, upgrading of the deteriorating regional track has not been included as a condition of the contract. The Metrolink consortium which will operate Yarra Trams is to invest \$150m over its 12 year contract period.

"The challenge is to reconcile the advantages of motor vehicle use with its heavy environmental and social costs. Transporting Melbourne responds to that challenge by focusing on opportunities to enhance public transport and make it a mode of choice for many more users. The strategy envisages a commitment to public transport which could see patronage grow by up to 50% over the next 15 years."

*Department of Infrastructure (1996)
Transporting Melbourne*

While the new arrangements may open the way for new initiatives to increase public transport patronage, they reduce the opportunity for integration of the public transport system. One area of concern is ticketing. New tickets introduced by the private operators are not required to be transferable across modes. The coexistence of the existing transferable travelcard system and new non-transferable tickets issued by individual operators is likely to lead to considerable confusion. Victoria may in future be faced with the need to bring the private companies into a common operating environment managed by a single organisation, as has occurred in the UK, to ensure co-ordination of services.

The State Government has announced that the three private consortiums operating rail and tram services will be paid a total of around \$400m in the first year of operation, plus an unspecified amount for recoupment of concession fares. Payments will decline over time but it has been calculated that the total amounts paid out by the Government to the private operators will be greater than was received annually by the Public Transport Corporation in capital and operating grants (Mees, 1999).

Direct expenditure by the Victorian Government on public transport this financial year amounts to approximately \$78m. This includes a \$2.6m upgrade of the country rail platform at Flinders Street and \$76m on improving bus services. Proposed improvements to the bus system include upgrading of metropolitan and rural modal interchanges (\$20m), improvements to school bus safety (\$14.5m), a 'Smart Bus' pilot program trialling 25 cross-town routes linking railway lines (\$7m), and new and expanded bus services in outer Melbourne and country areas (\$19.4m).

In South Australia, a substantial differential exists in the 1999/2000 Budget allocations for road (\$263m) and public transport (\$21m) projects. Adelaide currently has a very limited rail and tram network with buses being the main form of mass transit. It is anticipated that Transport 2000, the State transport strategy

which has yet to be finalised, will pull South Australia into a more multi-modal view³. A ten year plan of forward needs for public transport is currently being prepared and opportunities for moving freight off road onto rail is being investigated.

In Western Australia, roads expenditure has been pushed to the forefront with the release of the State Government's priority transport program, *Transform*, in 1998. Although the program includes several projects to improve the bus system (for example, transitways, interchange upgrade, circle route), in the region of 75% of the \$1.3 billion program is being directed to road construction over the next 5-10 years. Expansion of road space in Perth will take up the bulk of the roads expenditure. This is at odds with the Government's stated aim of balanced transport and the targets for reducing driver only car trips and increasing the use of public transport and non-motorised modes set out in the *Metropolitan Transport Strategy*.

"Current trends in the development of land use and transport in Perth suggest many of the benefits of the current transport system might be lost without a committed integrated program to develop a more balanced transport system."

Department of Transport Western Australia (1995), Metropolitan Transport Strategy

Transform suggests a change in priorities for the Western Australian Government which over the past decade has provided funding for the purchase of new buses, rail electrification, extension of the rail network to the north, automated ticketing system, bus lanes and a city busport. The rail improvements have resulted in an increase in patronage over 7 years from 8 to 30 million passengers per year (Newman, 1999b). Projects proposed in the *Metropolitan Transport Strategy* for completion over the period to 2029 include extensions of rapid transit links (rail, busways, light rail, bus lanes) between Perth and strategic regional centres, and links between regional and district centres. The size of the roads allocation could jeopardise or delay some or all of these projects.

³ Personal communication with Transport SA

In Queensland, development of public transport infrastructure has been given high priority by both Brisbane City Council and the State government. In 1997, Brisbane City Council was spending in excess of \$40m annually on subsidised public transport. In its current Budget, the Queensland Government allocated \$731m for roads capital funding, \$795m for rail capital projects and \$212m for busways. Road expansion is discouraged with effort focused instead on using existing road infrastructure more wisely. Unlike Victoria which measures lane capacity by the number of *vehicles* it can carry, Brisbane City Council measures lane capacity by the number of *people* it can carry. The Council has many traffic lanes dedicated to public transport only (Victorian Road Safety Committee, 1999).

In South East Queensland, public transport infrastructure is receiving the lion's share of transport dollars with the recent commencement of the \$520m South East Transit project (a 17km dedicated roadway for buses and emergency vehicles); the inner city Brisbane Light Rail project to commence in the year 2000 with government and private sector funding; and the proposed Inner Northern and Northern Busways. A further project, the Brisbane Airport Rail link, is being funded by the private sector.

Choices will have to be made as to what sort of transport system the region has in future....South East Queensland does not have to accept the current trends towards widespread congestion. Nor should it rely solely on building roads in an effort to keep pace with travel growth. What is needed is a strategy which increases the viability of alternative, more efficient transport practices, restrains the growth of motor traffic, and reduces the need to travel."

*Queensland Government (1997)
Integrated Regional Transport Plan for South East Queensland*

In addition to infrastructure, the Queensland Government is investing in an integrated ticketing system using smart card technology; improving bus priority measures; and is

proposing to trial on-demand 'personal public transport' services using taxi-buses, midi and mini buses. The latter is particularly interesting as it offers a public transport alternative for low density and rural residential areas which are not viable for scheduled bus services but with cheaper fares than taxis (Queensland Government, 1997).

Most states have tried to some extent to make better use of the road network through improved traffic management (to improve traffic flow) and travel demand management measures (to restrain the growth of travel demand). NSW has invested heavily in the former developing a \$28m Transport Management Centre using state-of-the-art technology. While such systems can reduce congestion and travel time, these benefits could be short-lived in the absence of measures to curb future growth in private vehicle travel.

Travel Demand Management

Attempts to manage travel demand have been made in most states through the introduction of transit lanes to promote ride sharing, and bus priority measures. Only a small number of states have ventured beyond these to implement stringent parking controls making parking more difficult and costly than using public transport; transport pricing measures; car pooling incentives; and community education or active trip reduction measures at the workplace or in the household. No states as yet have sought to put controls on company and government vehicles through, for example, tax or salary payment changes.

Western Australia and South Australia are currently engaged in local action to reduce car use and promote travel alternatives. In both states, the Government has established a unit with responsibility for travel demand and is funding individualised marketing initiatives aimed at achieving travel behavioural change. Details of these and other programs aimed at changing people's travel choices are provided in Section 6.3.

While the travel demand focus in Western Australia has so far been on individualised marketing because of its greater political acceptability, transport pricing and parking are likely to receive more attention in future as means of achieving modal change. The

Western Australian Parliament recently approved legislation for the application of parking licence fees for tenant parking.

The NSW, Victorian and Queensland governments have not proceeded down the individualised marketing path as yet although establishment of a household trip reduction program is foreshadowed in the South East Queensland Integrated Regional Transport Plan (IRTP) and considerable interest is being shown in behavioural programs in that state⁴. Victoria has also recently allocated \$100,000 for a travel behaviour project which could be linked in with individualised marketing.

The NSW Government, in line with its transport strategy, established a Travel Demand Task Force in 1998 "to canvass ideas, listen to community views and develop options". However, the Government has virtually ruled out use of road pricing as a demand management option on the grounds that "transport resources cannot be driven solely by economic and financial considerations of resource allocation and full cost recovery" (NSW Government, 1998, p11).

The Victorian strategy, *Transporting Melbourne*, proposes the application of voluntary employer-based trip reduction programs (along the lines of Green Transport Plans), the development of employment-based car pooling schemes (which could include guaranteed return trip provision), telecommuting and flexible work hours, parking supply and pricing, and in the longer term congestion pricing, to moderate growth in car travel. With the exception of a car-pooling scheme at VicRoads and work recently commenced in the Department of Infrastructure on telecommuting, no action appears to have been taken on these proposals. As long as there is no incentive or obligation for employers to implement trip reduction strategies, it is unlikely that they will materialise.

Landuse and transport planning

Integration of land use and transport planning is viewed by all states as a priority. Common elements appearing in the strategies are:

⁴ Personal communication with Queensland Transport

- the focusing of new development in existing transport corridors;
- the location of major generators of travel demand in existing centres which have good transport links;
- the provision of transport alternatives (public transport, walking and cycling) as part of residential and urban development;
- better mixing of residential and compatible land uses;
- the co-ordination of major public transport investments with supporting urban development;
- the containment of metropolitan expansion.

To ensure compatibility between urban and transport planning objectives, the Victorian Government developed its land use strategy, *Living Suburbs*, in conjunction with *Transporting Melbourne*. However, the degree to which the transport system is, in reality, being managed and developed in conjunction with land use planning and urban design at both the state and local government level is less certain.

The Victorian Road Safety Committee has expressed concern at the apparent lack of established standards applied by local government at the planning approvals stage for ensuring the safety, amenity and mobility of residents; and the limited guidance, assistance and support for councils provided by the State government. The Committee's view is that while there is no compulsion or encouragement from the State government to achieve the best results in terms of urban design and road safety, councils will never feel obliged to achieve best practice and attempt to rectify poor planning and design (Victorian Road Safety Committee, 1999).

The Queensland Government has adopted a more proactive approach and has published guidelines on urban form and structure in a document entitled *Shaping Up*. The guidelines provide opportunities and ideas to assist local government and land developers to design new and redeveloped areas and communities which reduce vehicle trips, support public transport and increase the attractiveness of walking and

cycling. The South East Queensland IRTTP also supports the undertaking of a demonstration project for a public transport-oriented housing or mixed use development which makes use of the guidelines in achieving better urban design (Queensland Government, 1997).

Environmental impacts

Land use changes (to reduce the amount of travel) together with traffic management (to achieve a smoother traffic flow) and improvements to the public transport system, cycling and walking facilities (to encourage greater use of these modes) are the main instruments proposed by the states to control the environmental impact of transport.

In the area of greatest concern, air quality, Queensland and NSW are taking more direct action by way of vehicle emissions inspection and testing programs. Developed by the Road Traffic Authority and Environment Protection Authority, the NSW program is a three-stage plan to raise community awareness and to test smoky vehicles and all passenger and light commercial vehicles over 4 years old in the Sydney, Lower Hunter and Illawarra regions by 2004. Queensland's 'AirCare' program operates along similar lines incorporating on-road vehicle emissions random testing, a Smoky Vehicle Hotline, and a substantial public education campaign. The Queensland Government is also investigating incentives for people to purchase energy-efficient, low emission vehicles (for example, sales tax and registration reductions).

The Victorian Government has announced that it will boost on-road enforcement activity to increase compliance with emission regulations as well as carrying out education campaigns through motor vehicle and transport industry publications. A \$250,000 mobile testing laboratory is also being commissioned to monitor air quality on major traffic routes to enable targeting of enforcement campaigns.

Action taken to reduce the effects of transport on noise levels and waterway contamination include the construction of noise barriers along freeways and where new developments abut arterial roads, and the construction of water containment basins as part of road improvement works. Consideration may also be given to road realignment and construction of new wildlife

habitats when new road construction threatens areas of significant biodiversity.

Reducing car dependency is the key to improved environmental performance of the transport system. Strong, more immediate action to achieve this has been eschewed by the States because of the apparent reluctance of people to consider initiatives which restrict private vehicle use. However, unless a modal shift to public and non-motorised transport occurs, the potential adverse impact of transport on the environment will grow as the transport task grows.

Cycling and walking

Although there is universal agreement in state transport strategies that cycling and walking should be encouraged, these modes have generally remained the poor cousins of motorised forms of transport in terms of resources. The growing popularity and prominence of cycling in recent years has brought forth an increase in funding for bicycle infrastructure but not of a sufficient scale to cause a significant modal shift as yet. The view that cycling is predominantly a leisure activity and not appropriate on main roads still prevails in some state and local government transport circles.

The recent launch of the NSW *Bike Plan 2010* and the allocation of \$250m over 10 years for construction of a comprehensive bicycle network for Sydney marks a quantum leap in bicycle funding and a recognition of cycling as a viable and legitimate form of transport. It represents a sizable increase on the package of \$25m over four years announced by the Western Australian government in the mid 1990s and the South Australian package launched two years ago. Victoria currently allocates around \$2m per year for bicycle projects in addition to the funding for

off-road routes provided by Parks Victoria and the work undertaken by VicRoads as part of its regular roads program.

Key actions identified in the state transport strategies to encourage cycling are the development of a network of major bicycle routes (commuter, cross-town, and to public transport), improved accessibility on the public transport system, secure parking and end of trip facilities, and education programs targeted at all

road users. The Queensland and Western Australian strategies also emphasise the need to integrate cycling and walking into the early stages of land use planning and urban design.

Walking is the neglected form of transport even though it is a component of most trips and is often the primary means of transport for the most vulnerable groups in society. Transport policy with its emphasis on flow and speed of movement has marginalised walking. Agencies responsible for urban planning and urban design have been willing partners in this process presiding over residential developments with poor provision for walking and no transport options other than the car, and the replacement of corner stores by large retail complexes in distant locations.

The state transport strategies universally present the view that for walking to be an attractive and viable option, trips need to be safe, pleasant and feasible, and pedestrian facilities must be integrated with all transport modes. For this to occur, pedestrian needs have to be considered in the early stages of land use planning. As with cycling, urban form has a strong influence on the proportion of walking trips undertaken (Queensland Government, 1997).

Translation of these requirements for walking and cycling into on-the-ground facilities is variable. It depends not only on a willing State government and responsive State agencies but also on the enthusiasm and commitment of individual councils to allocate sufficient funds to permit the necessary consultations, assessments, planning and design work to be undertaken, and the appropriate infrastructure and traffic management measures to be put in place. Where municipalities are cash-strapped, no state financial or regulatory obligation exists, and transport planning at the state and local level is still focused on catering for motorists rather than all road users, the results are patchy.

"Most modern urban developments are designed for and around the car. ..Pedestrians are not considered legitimate road users by transport planners...(they) are, at best, an afterthought. At worst, a nuisance."

*Mr John Richardson, MP,
Chairman, Victorian Road Safety Committee
Inquiry into the Incidence and Prevention of
Pedestrian Accidents, 1999 (Foreword)*

The Victorian Road Safety Committee is critical of the low priority given to pedestrian safety and of the failure of governments to implement already existing measures to protect pedestrians and to create an equitable and safe environment for all road users. Significant amongst these are the lowering of the urban speed limit on local roads and reform of urban design processes (Victorian Road Safety Committee, 1999).

In the transport strategy context, action to improve safety on the roads generally revolves around better road design and maintenance. More diverse measures to reduce road trauma are dealt with in separate road safety strategies. The NSW transport strategy, *Action for Transport 2010*, however, incorporates a number of road safety initiatives which address some of the Victorian Road Safety Committee's concerns. These include a road safety audits program for existing and new roads; implementation of Pedestrian Access and Mobility Plans with local government; a 50 km/h speed limit in residential areas; introduction of 40 km/h school bus zones and, where possible, relocation of school bus stops off high speed roads; and continued support for Road Safety Officers in local government.

Freight

Finally, freight is identified as a priority in all the states both from an economic and environmental viewpoint. As in the case of road safety, freight transport is often the subject of a separate study or strategy where a more detailed consideration of issues, options and preferred solutions is provided.

The emphasis in the transport strategies is primarily on streamlining freight transfer between modes to improve freight flows and increase industry competitiveness. However, most states also recognise the impacts of road freight on the broader environment, residential amenity, and the safety of other road users. Actions proposed include upgrading and extending the urban road and rail freight network; identifying heavy vehicle routes in metropolitan areas to enable high capacity, safe and secure freight movement with minimum land use conflict; upgrading of freight terminals and intermodal facilities; and improving the environmental performance of road transport vehicles.

There is general acceptance of the dominance of road freight, particularly in urban areas where the scope for major changes in the modal split for current freight movements is limited because of the short distances and volumes involved and local delivery nature of the freight task. Growth in rail freight in the metropolitan area is also limited by the potential for conflict with improved passenger services. In the absence of segregated freight and passenger rail facilities, the longer, slower freight trains tend to be 'squeezed out' by the higher frequency and faster passenger trains.

The NSW Government has indicated its intention to significantly increase the proportion of freight going by rail over the next 10 years. To this end, the Government is proposing to undertake a series of infrastructure improvements including an increase in priority freight track in Sydney and the establishment of rail freight hubs or inland terminals (NSW Government, 1998).

The Queensland and South Australian Governments have also expressed an interest in increasing rail freight movements but are only at the investigatory stage as yet. The Victorian strategy focuses on structural reform to road and rail transport and the port to increase operational productivity, upgrading of rail and airport freight facilities, private development of advanced intermodal freight terminals in outer suburban areas, development of road links to major gateways, and improved urban freight management.

6.3 Programs aimed at altering travel choices

The traditional means of obtaining a shift in transport mode has been through the provision of transport infrastructure and services, pricing and, in the longer term, land use policies. In Australian cities where countering the current 'auto addiction' poses an enormous challenge, interest is being shown in additional measures which seek to reduce motor vehicle usage (particularly single occupant vehicle travel) and promote more active forms of transport.

An outline of some of the initiatives being taken in Australia is provided below. Although not all are being delivered by government, most have

some form of government support or participation. While the prime motivation may vary (increasing physical activity, reducing vehicle emissions, increasing car occupancy), all have the potential to reduce car use.

A behavioural approach to mode change utilising individualised marketing has been applied in Perth and Adelaide and is showing some promising results. Advocates of individualised marketing claim that it has a number of advantages over the traditional social marketing approach:

1. the information promoting the various modes is actually taken to the potential 'customer' ;
2. direct contact with the customer allows the message to be related to the specific situation of the person or the household (James, 1998).

It has the political advantage that reductions in vehicle travel that result from the technique are achieved voluntarily without the imposition of potentially unpopular restrictions on car use. On the other hand, critics of individualised marketing claim that it is an expensive method with relatively little return (ibid). It would appear that the technique is unlikely to result in a long term modal shift in the absence of a good public transport system and walking/cycling facilities.

Smogbusters is a national community education program promoting better transport practices to reduce urban air pollution. Developed by the Conservation Councils in the mid 1990s and jointly managed by Environment Australia and the Conservation Councils in five states, Smogbusters uses health as part of its message and includes projects which seek to reduce vehicle use by influencing travel choices in the workplace and at schools.

Smogbusters Way to Work involves working with workplaces to develop a Green Transport Plan aimed at reducing vehicle trips in a way that benefits the individual, business and community. The program draws on methodology for Green Transport Plans used in Britain and Canada and addresses employee commuter trips, business and personal workday trips.

Workplaces were recruited in Brisbane, Sydney, Melbourne, Adelaide and Perth. Those participating in the program are:

- the Brisbane and Sydney offices of architectural firm, Bligh Voller Nield (55 and 65 employees respectively);
- the law firm, Minter Ellison, in Melbourne (36 employees);
- Ameritech Library Services in Adelaide (60 employees);
- the Water Corporation in Perth (600 employees).

A survey of these workplaces was undertaken in late 1998 to assess current travel practices, the level of interest in travel alternatives and how they could be encouraged. This and other information is being used to develop the Green Transport Plans. An evaluation survey will be undertaken later in 1999 to measure change in travel patterns.

The **Smogbusters Way to School** program offers short term awareness raising and participatory activity which can be integrated into other school work. The project culminates in a Smogbusters Way to School day when children are encouraged to turn their environmental awareness into action by reducing car use for their journey to school. This is supported by a resource package that includes materials for use in the classroom.

The project was trialled in 1997-98 in nine primary schools in Adelaide with approximately 2,500 students participating. The trial resulted in a reduction of 1,047 km of car travel and received positive feedback. A national project has since been developed using the same approach and will be undertaken in primary schools in Brisbane, Sydney, Melbourne, Adelaide and Perth in 1999.

Smogbusters Way to the Game is an initiative of Environment Victoria under the Smogbusters banner and involves working with the Western Bulldogs to promote reduced car use.

TravelSmart is a Western Australian community based program consisting of a series of initiatives that encourage people to change

some of their personal travel choices. Developed by the Western Australian Department of Transport, TravelSmart involves working with individuals and communities to promote use of alternatives to private car travel.

Promotional material for the program highlights the potential of TravelSmart to achieve environmental, personal and societal health benefits. The program operates in schools, community groups, workplaces, local government and major travel destinations (shopping centres, universities, hospitals, entertainment and sports venues). An allocation of \$2 million has been made by the Western Australian Government to implement TravelSmart this financial year.

South Perth TravelSmart was initiated by the Department of Transport in conjunction with the City of South Perth to trial individualised marketing as a means of changing travel choices. South Perth was selected because it is an inner city municipality with fairly good transport options and an interest in the impacts of increasing vehicle use.

The individualised marketing technique used in the South Perth project was developed by Socialdata (Werner Brog) and applied to public transport and cycling in a number of European cities. The South Perth project refines the Socialdata approach by applying it to public transport, cycling and walking combined. It employs a three-stage behaviour change process:

1. a travel survey to assess current behaviour and motivation to change;
2. individualised marketing;
3. an evaluation survey to measure the extent of behaviour change.

The approach was piloted in 400 households in South Perth in 1997. The initial travel survey indicated potential for conversion of car trips to walking and cycling due to the short distances travelled. Information on travel alternatives (for example, public transport timetables, cycling and local access maps) was provided to all participants and a free transit pass for one month supplied to a percentage of car users.

The evaluation survey revealed the following behaviour change:

- 91% increase in cycling, 22% increase in walking, 21% increase in public transport usage, and 4% in trips by car passengers;
- 14% reduction in vehicle kilometres travelled;
- 5% reduction in the number of cars used, fewer car trips, and 5 minutes per day less use of the car;
- average increase of 4 minutes exercise per person per day through more walking;
- increased use of local shops and services.

The results suggested that if the approach was applied to the whole municipality, it could achieve a 14% reduction in vehicle emissions, a 10% reduction in traffic by local residents, and savings of just under \$6,600 per day in car running costs for residents.

Following the pilot, the Department of Transport undertook a community involvement process to advise residents of the travel survey results and involve them in development of a Local TravelSmart Plan. The Plan which comprises a package of fifty actions to be implemented by local and state government was adopted by South Perth City Council in February 1999.

The Department of Transport is now proposing to apply individualised marketing to the whole South Perth municipality which consists of 35,000 people or 15,000 households. This will take place in the year 2000 with funding of \$1.2m from the State Government.

TravelSmart to School uses curriculum based programs and activities to educate students and the school community to look at making alternative choices to using the car for recreation and school trips. Developed jointly by the Western Australian Department of Transport and the City of Melville, the program was trialled at Kardinya Primary School in Perth in 1998 and resulted in a reduction of car trips to and from school of 22%, and an increase in walking of 18% during the focus week. An integrated resource pack has been developed which will be tested in six primary schools in 1999.

TravelSmart Workplace was trialled in 1997 in seven agencies located in the Central Perth area. Workplaces were surveyed and information provided on the personal and community benefits of using travel alternatives to driving alone to work. An additional two agencies which were used as a control group, were surveyed but did not receive the TravelSmart information or participate in the activities. The trial resulted in an 11% reduction of motor vehicle trips across the workplaces. A larger program over three years is now being run by the Department of Environment Protection with the help of the Department of Transport.

Cycling 100 is an initiative of the Western Australian Department of Environment Protection with support from BikeWest and the Department of Transport. The program is based on the successful Aarhus "Bikebusters" scheme in Denmark in which the city authority provided 500 CBD workers with bicycles in an effort to reduce air pollution, traffic congestion and parking problems. Cycling 100 is a smaller scale program which seeks to change commuting patterns at the workplace by encouraging employees to cycle to work at least two days each week.

The program was launched in January 1999 in six workplaces in Perth using Departmental and sponsorship funds to provide bicycle equipment to 63 riders, all of whom had previously been regular car driving commuters. Sponsorship costs amount to \$500 per person which covers purchase of a bicycle, helmet, lights, cycling computer, clothing and other necessary equipment. Participating workplaces include the University of Western Australia, Price Waterhouse Coopers, Department of Transport, Jardines Insurance, West Australian Petroleum, and Transperth.

After operating for four months, the Cycling 100 program had resulted in:

- the loss of six riders (two because of pregnancy, three due to change in workplace, and one because of bike theft);
- 25% more kilometres being cycled per month than the target set;

- riders cycling three (rather than two) days per week;
- an increase in sense of well being on the part of riders. (fitness levels are to be officially assessed by the University of Western Australia in September).

An additional twenty-one people are to join the program increasing the number of workplaces involved to eleven.

The program will be evaluated using health related measures (for example, fat loss, muscle mass, cardiovascular fitness, blood pressure etc.) and a range of work-related measures (for example, job satisfaction, work absentee rates etc). Health screening and fitness tests are being carried out by the Department of Human Movement at the University of Western Australia. An additional outcome is the development of a 'workplace cycling kit' for employers to assist in promoting a healthier workforce. The current program will run until December 1999.

Western Australian Department of Transport is also working with local government to develop **Travel Action Plans** along the lines of the South Perth Local TravelSmart Plan. The plans identify gaps in the transport system and projects which need to be undertaken. An integral part of the process is the conduct of a travel survey in the municipality which is funded jointly by the State and Council. Information from the survey is presented in a booklet in a user friendly form and is input to the Travel Action Plan.

TravelSmart Adelaide uses the technique of 'travel blending' which was initially developed as part of Clean Air 2000 (a campaign to clean Sydney's air before the Olympics). Travel blending is an individual action approach to the reduction of the impact of the car. It involves household members:

- (a) thinking about activities and travel in advance (in what order activities can be done, who should do them, where they should be done etc);
- (b) blending modes (using different modes at different times for different trips);

- (c) blending activities (doing as many things as possible in the same place or on the same journey;
- (d) blending over time (making small sustainable changes over time on a weekly or fortnightly basis).

A reduction in car use is achieved by a blend of whatever means suits a particular household and its individual members, for example, ride sharing, trip chaining, public transport, walking, cycling and telecommuting. The choice can vary from day to day and for different trip purposes.

The travel blending method gives participants knowledge of their current travel behaviour, personalised tips on ways to change their travel behaviour, and the means to see the consequences of changed travel behaviour. A key component of the method is a series of diaries which are completed by each household member.

The approach was piloted with 94 households in Adelaide over two months in 1996 and resulted in reductions in car kilometres of 11% for participants and 21% for participating and non-participating households. After five months, indications were that a further 5% reduction in car kilometres had occurred.

On the basis of these results and those of two subsequent projects in 1997-98, Transport SA commissioned a larger scale project in Dulwich and Rose Park in Adelaide with funding assistance from Environment Australia. This **Living Neighbourhoods** project commenced in 1999 and involves everyone who lives, works and goes to school in these communities. Initiatives included in the project include 'green prescriptions', upgrading of bus stops, and distribution of services information to real estate agents.

The project has resulted in an 11-15% reduction in car travel, a 13% increase in public transport usage and an increase in walking. The travel blending approach is labour intensive and costs approximately \$100 per household to implement. However, Transport SA has calculated the benefit-cost ratio to be in the order of 40:1, or 2:1 in the worst case scenario (minimum take-up).

Discussions are currently underway with three Councils in South Australia to implement the **Living Neighbourhoods** program. Transport SA has allocated \$500,000 for the project with an additional \$200,000 - \$300,000 available from the portfolio as a whole.

Smogbusters Rideshare operates at Woodcroft in the City of Onkaparinga in South Australia. A joint initiative between Noarlunga Health Services and Smogbusters, the program aims to provide an alternative to driver-only car trips and to reduce the number of cars on the road through the development of a database ridesharing system. Increasing the mobility and social networks of families in the Woodcroft area are key objectives. The project is funded for 12 months by the South Australian Department of Human Services, Transport SA and the City of Onkaparinga with additional support from Woodcroft-Morphett Vale Neighbourhood Centre and Harris Scarfe.

To date, the program has concentrated on households with one car in the Woodcroft area and the potential of ridesharing to relieve the social isolation of household members left at home without a vehicle. There are currently 25 people on the database which is some way short of the target of 100 registrations. Matching people has been difficult because of different trip requirements (day of the week, time of day, destination, length of time at destination, ride partner preferences etc). People have also expressed concerns about getting into a car with a stranger.

Supportive Environments for Physical Activity (SEPA) is a project of the National Heart Foundation that aims to increase environmental support and opportunities for people to be physically active in their daily life. Funded by the Commonwealth Department of Health and Aged Care, SEPA is a long term project which is being implemented over several years in three phases: research (Stage 1); working with the City of Marion (Stage 2); and working with local government across SA and beyond (Stage 3).

Stage 1 was undertaken in the City of Marion in 1996. The research identified three issues influencing the ability of people being more physically active in daily life – sharing the road

system; destinations; and the need for feeling part of the community. Stage 2 involved implementing strategies based on the research findings with the City of Marion. A pilot project was also carried out to integrate the research findings into a new residential development at Oaklands.

Stage 3 has involved production of a generic set of guidelines for planning based on the Marion guidelines. These guidelines have been promoted through a series of workshops with individual Councils across South Australia and effort is now being put into a mapping exercise which will identify barriers and enablers to physical activity and recommend how these can be addressed.

The Heart Foundation is undertaking the same work in Victoria. Presentations have been made to two Councils (Maribyrnong and Whittlesea), both of which have agreed to participate. A rural Council will also be invited to participate in the project. Workshops and a mapping exercise will be conducted at these Councils during the latter half of 1999.

The **Onkaparinga Physical Activity** project in the City of Onkaparinga expands on SEPA and comprises three main elements: incorporating the SEPA guidelines and their implementation through Council policy to create environments that will encourage walking; working with general practitioners to promote "green prescription" for physical activity; and the implementation of the Irish Heart Foundation's signposting program SLi Na SLaINTE (the Path to Health) which enables people to gauge their health improvement.

The project which commenced in November 1998 is operating at Seaford, a new community 50 kilometres south of Adelaide. It is a collaboration between the National Heart Foundation, Noarlunga Health Service, City of Onkaparinga, Southern Division of Medical Practice and the South Australian Land Management Corporation, and has funding from the Commonwealth Department of Health and Aged Care until approximately mid 2000.

Launched by Queensland Transport in March 1999, **Car Pool Connection** is the first large scale car pooling scheme in Queensland. The project aims to increase the vehicle occupancy

rate between Brisbane and the Gold Coast and is part of the Government's effort to reduce the number of vehicles on the road in the South East region by 300,000 per day by 2011.

Under the project, people register their journeys with Queensland Transport, providing details of origins and destinations of the journeys they wish to share, preferred travel times, and ride partner preferences (gender, smoker/non-smoker etc). These details are then electronically matched with suitable car pooling partners and a list of first names and telephone numbers of all suitable partners supplied to the registrant. Funded as a 12 month pilot, Car Pool Connection will be expanded to other parts within South East Queensland if successful.

Most states have a **Safe Routes to School program** which has been developed to encourage safer walking and cycling. The program aims to reduce school related pedestrian and cyclist crashes by using a combination of advocacy, education, behavioural change and engineering measures. Programs generally involve schools, local government and other relevant organisations working together to investigate, map and/or mark safe routes for travel to school. In Victoria, VicRoads employs a pedestrian advocate who is responsible for conduct of the program. While these programs help to remove barriers to walking and cycling, there is little evidence that, on their own, they provide the motivation required to change travel behaviour.

The **University of NSW Transport Program** is concerned with providing transport information and improving the public transport options available for members of the University. Program staff are currently looking at ways of improving the health of staff and students on campus by encouraging them to use more physically active forms of transport. Given that 40% of staff and students live within five kilometres of the University (and there are 35,000 people at the University), there is considerable scope to promote walking and cycling as alternative modes of travel to motorised transport. In addition to the health advantages, this would have an environmental benefit in terms of air quality.

The proposed project involves working in co-operation with the University gym to assess

different walking and cycling routes to the University and giving each route a cardiovascular rating. As medical sciences at the University are very strong and there is a close connection with the Prince of Wales Hospital, Program staff are also looking at the possibility of initiating a “green prescription” trial in which medical staff would prescribe exercise as a form of treatment.

The **City of Moreland** in Melbourne has been a strong advocate of public and non-motorised forms of transport, particularly cycling, in the municipality. In addition to developing cycle infrastructure in the municipality, Moreland has implemented a scheme to help employees to purchase a bicycle. As cyclists cannot claim tax rebates for business use (unlike car users), the City of Moreland provides \$800 as an up front incentive for people to purchase a bicycle to use as their means of transport.

The **Moreland Traffic Reduction Pilot Study** is being conducted by David Engwicht who is working with residents in two streets in Brunswick and Coburg to change their travel patterns. The first part of the study involves residents identifying that they have a traffic problem and recognising that they are part of it; signing a treaty to reduce their car speed and car use; and then working together to car pool, take children to school, change modes of transport, combine trips etc. The second part of the project involves changing the physical environment of the street.

The study commenced in the first half of 1999. As the process being used has only been trialled a couple of times, the Moreland study will be used to evaluate and refine the traffic reduction kit supplied to residents. The kit will then be provided to other people who also identify that they have a traffic problem.

In an effort to improve public transport information and usage in the municipality, Moreland City Council has signed a treaty with Adsell (the supplier of bus shelters to the Public Transport Corporation) to provide information in each shelter about the particular bus stop where the information is located, what other transport is available and where, timetables of services etc.

The City of Port Phillip in Melbourne has also focused on improving the environment for non-

motorised forms of transport. Within easy cycling distance of the CBD, Port Phillip is developing a network of on-road bicycle lanes and other facilities to encourage cycling and improve cyclist safety.

To reduce the number of cars on the roads, the Council is undertaking a feasibility study for a **Car Share Scheme**. Under the scheme, people pay a nominal amount to become a member of a car-sharing organisation (refundable on leaving the scheme) and a monthly fee which gives them the right to book a car when needed. Use of the car is billed on an hourly basis.

Evidence suggests that car ownership is directly correlated with the number of kilometres driven - people who own a car engage in habitual travel while those who do not, plan their trips. Experience overseas suggests that members of car-sharing organisations reduce the number of vehicle trips made.

Bicycle Victoria's annual **Ride to Work Day** was introduced some years ago to promote cycle commuting. Run annually, Ride to Work Day has become a large event both in the CBD and at workplaces throughout metropolitan and regional Victoria. Fifteen per cent of people who cycle to work on the day for the first time go on to become regular commuter cyclists. It has been found that people who ride to work will also ride to other locations.

At Maitland, outside Newcastle in NSW, Blue Ribbon Coaches and Travel run an **'On Call' Bus Service**. The service does not run to a set route or timetable; therefore, any passenger wishing to travel within the set boundaries can do so. For most routes, the 'On Call' Service is available from 5.30pm – 9pm on Monday – Thursday; 5.30pm – 11pm on Friday; 7.40am – 11pm on Saturday; and 8am - 8pm on Sunday and public holidays. People can also make pre-bookings for the service during office hours.

6.4 Policy in transition

“We need to develop imaginative and well-financed transport policies that will put the car firmly in its place as one of many options rather than the only one. Otherwise we will miss a vital opportunity to create a more equitable, humane and healthy society”.

Godlee, 1992

Transport policy in Australia is in transition. It is perhaps, therefore, not surprising to find contradictions in the policy-making area as established attitudes and theories vie with newer concepts and views. The environmental imperative posed by the implications of the Greenhouse effect is causing a questioning of Australia's longstanding acceptance of the inevitability of growth of motor vehicle use and the adequacy of our vehicle emission and fuel standards. Australia's policy response to Greenhouse, the NGS, is proving to be an important mechanism for shifting the transport agencies' understanding of transport and sustainable development.

The finalisation and release of the belated ***national transport strategy*** should shed some light on the extent of the change in transport thinking that is occurring at the Commonwealth level. While responses to such key issues as the co-ordination of different transport modes (particularly road and rail), travel demand management, and integration with land use planning will be revealing, a significant marker of the comprehensiveness of the national strategy will be the Commonwealth's preparedness to address the relationship between transport, health and the environment; the differential funding treatment of roads and public transport; and the contradictions in policy relating to transport that are emanating from other departments. Of particular importance amongst the latter are the incentives to car travel being provided through the tax system. If the national transport strategy fails to take account of these issues, then not only will it fall far short of best practice standards in Europe and North America but it will also make the advocacy task of health-based agencies considerably more onerous.

At first sight, the States appear to be further down the sustainability path. The development of integrated transport strategies is in line with transport theory and overseas practice. But it remains to be seen if Australia's major cities will achieve the more balanced transport systems which their transport strategies claim as an important objective. Major elements of a car-orientated transport policy are still being pursued. Most State Governments seem reluctant to make what could be politically unpopular decisions in the short term to reduce car use and to take strategic action on a wide

range of fronts on sufficient a scale to generate the necessary modal shift. It seems as though the route between strategy and practice for many states is a very bumpy road.

Experience elsewhere has shown that even when alternative facilities to the private car are provided, it is difficult to change people's travel habits. If Australia is to move to a more environmentally friendly and healthy transport system, and there would seem to be little alternative if cities are to remain livable, the pace of change must be speeded up dramatically. Otherwise, we will find ourselves living and working in increasingly dirty, heavily trafficked and unhealthy environments.