

Garnaut Climate Change Review  
Level 2, 1 Treasury Place  
Melbourne VIC 3002

Dear Professor Garnaut,

Please find attached a submission on your inquiry into climate change titled 'Getting out of the car: Fundamental changes needed for more sustainable Australian cities and towns'. This submission focuses on the topic of Transport, Planning and the Built Environment. As you are aware, greenhouse gas emissions from transport are one of the fastest growing sources of greenhouse gas emissions in Australia. In this area the challenge is for governments to move away from traditional car-based transport and urban planning to an equitable integrated approach to creating sustainable Australian cities. *The policy challenges in the area of reducing car dependency are immense and will require enormous political will, commitment and tenacity.* However, as indicated in your Interim Report, Australia stands to benefit from addressing greenhouse gas emissions. In the case of the mitigation policies for transport and urban form, the potential co-benefits in terms of human health, quality of life, equity and economic development are enormous.

Attached to this submission, please find the following articles I have authored or co-authored:

- City of Sydney (2005) *Cycling in the City Project Summary Report*, published online at [www.cityofsydney.nsw.gov.au](http://www.cityofsydney.nsw.gov.au) (prepared by Kuiper, G with the assistance of Mason, C.)
- Kuiper, G. (2006) Snapshots of Integrated Transport and Land Use Planning in Canada, *Australian Planner*, v.43 no. 3, September
- Kuiper, G. (2006) *Vancouverism: Ideas for Australian cities?*, published online on 1 September at [www.newmatilda.com](http://www.newmatilda.com)
- Kuiper, G. (2006) *Sprawl natural and democratic?*, published online on 27 October at [www.newmatilda.com](http://www.newmatilda.com)
- Mason, C. & Kuiper, G. (2007) Engaging trip generators in the use of Transport Access Guides: a tool for promoting active transport, unpublished paper submitted to World Transport Policy and Practice

I would also recommend that consideration be given to the reference list (also attached), in particular:

- the WHO Europe Charter on Transport, Environment and Health (see Dora, C. and Phillips, M. (eds.) (2000) *Transport, environment and health for supporting information*) and
- the House of Representatives Standing Committee on Environment and Heritage *Sustainable Cities Report* (2005).

These references provide a number of suggestions and recommendations relevant to this inquiry.

I would welcome the opportunity to provide further input for the Garnaut Review to assist its work on helping prevent dangerous climate change and ending the linkage between economic growth and greenhouse gas emissions.

Kind regards,



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# Getting out of the car: Fundamental changes needed for more sustainable Australian cities and towns

## SUBMISSION TO THE GARNAUT CLIMATE CHANGE REVIEW

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Redfern, Sydney  
11 April 2008

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### Preliminary remarks

This submission makes suggestions as to ‘what should be done’ in order to reduce greenhouse gas emissions in Australia i.e. on the fourth term of reference of the Review:

- In the light of 1 to 3, recommend medium to long-term policy options for Australia, and the time path for their implementation which, taking the costs and benefits of domestic and international policies on climate change into account, will produce the best possible outcomes for Australia.*

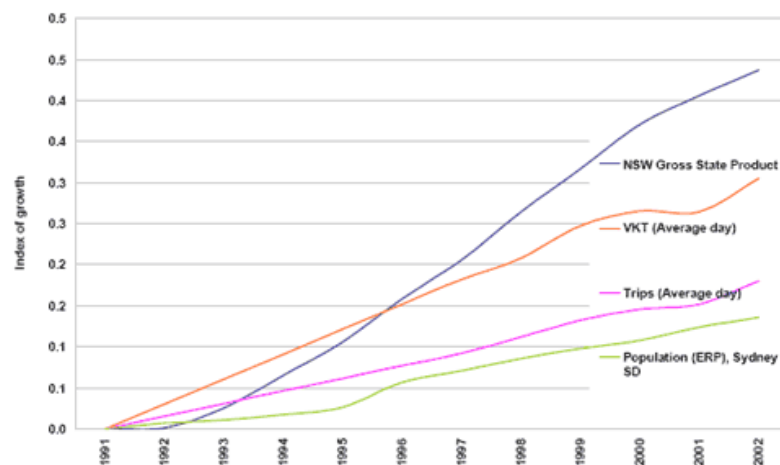
These preliminary remarks discuss the approach taken in the submission, its scope and the overall issues of barriers to and benefits arising from creating more sustainable settlements in Australia. The second part of the submission outlines policy proposals in seven areas and makes specific recommendations for each.

In this submission I approached the policy problems from a broad sustainability perspective, that is, encompassing social, economic and environmental considerations. This submission acknowledges the fundamental dependence of humans on the environment (as in the Brundtland Report (WCED, 1987)). It is unashamedly an approach which values ecosystem survival and the conservation of biodiversity, equity between and within generations, the precautionary principle and in the internalisation of external costs (including improved valuation, pricing and incentive mechanisms) – principles of Ecologically Sustainable Development enshrined in legislation: the Commonwealth Environment Protection and Biodiversity Conservation Act (1999) and the NSW Protection Of The Environment Administration Act (1991), for example. It is recommended that the Garnaut Review’s Draft Report refer to the source of international law for climate change and the ESD principles and use them in considering Australia’s response to climate change.

This submission focuses on Transport, Planning and the Built Environment. This policy domain is viewed more broadly than the transport and buildings sectors combined, as a place-based domain of transport and urban form, highly dependent on spatial planning policies.

The case of the world's first LEED Platinum building, the Chesapeake Bay Foundation's Philip Merrill Environmental Center provides a valuable illustration of why a broad, place-based approach is more consistent with policy for sustainability than analysing the buildings or transport sectors independently. While the Philip Merrill Environmental Center is a highly sustainable building which is both energy efficient and produces its own electricity, it is located 16 km from the Foundation's previous downtown office in an area with poor public transport. As a result the Foundations' approximately one hundred staff are required to drive to their 'green building'. As such, it could be argued that overall the move increased the greenhouse gas emissions of the organisation (and especially in comparison to retrofitting their former building). Wilson & Navaro (2007) argue that in the United States commuting by office workers by car accounts for 30% more energy than the operational energy used by office buildings and 137% more energy than efficient buildings.

**Growth in travel - Sydney Statistical Division 1991-2002 (Indexed at 1991)**



**Figure 1:** Source: Transport and Population Data Centre 2004, Household Travel Survey Summary Report: Sydney, Newcastle, Illawarra, Transport and Population Data Centre, Sydney [http://www.planning.nsw.gov.au/tpdc/pdfs/htsreport\\_2004.pdf](http://www.planning.nsw.gov.au/tpdc/pdfs/htsreport_2004.pdf).

In the transport and urban form policy area, the challenge is for governments to reduce motor vehicle use, especially as motor vehicle use is one of the fastest growing sources of greenhouse gas emissions due to growth in vehicle kilometers traveled (see Figure 1 for Sydney statistics). Motor vehicle use also causes a direct wide range of social ills including air, water and noise pollution, and death and injury from accidents. In addition, there are indirect impacts such as decreased levels of physical activity resulting in increases in chronic diseases such as heart disease, diabetes, anxiety and depression.

In order to reduce motor vehicle use, governments must shift from traditional car-based transport and urban planning to an equitable, integrated approach to creating sustainable Australian cities. In the author's view, the technological solutions in transport are comparatively simple. *The policy challenges in the area of reducing car dependency are immense and will require enormous political will, commitment and tenacity.* In particular, this is because our cities and transport systems are embedded in concrete and our institutions and vested interests have coalesced over the last half century to produce a

status quo whereby private interests (in, for example, road building, sprawling urban development and detached housing) have tend to outweigh public interest in Government funding for public transport (see The Warren Centre's Sustainable Transport in Sustainable Cities project reports of 2002), walking and cycling. In addition, governments have moved away from capital investments in public infrastructure. The reluctance to debt finance has contributed to rise of privately funded tollways as the dominant form of new transport infrastructure in Australian cities over the last two decades. This has created a new industry. In Sydney alone, toll revenue was in excess of \$450m/annum in 2005 (Glazebrook, 2007, based on Centre for International Economics 2005 figures).

There is some political recognition that this situation needs to change. On Friday 27 March 2008 the Local Government and Planning Ministers' Council (LGPMC) met in Brisbane and agreed to a set of principles on integrated transport and land use planning likely to include reducing car dependency, subject to approval by COAG. In a few places there have already been significant changes made; the West Australian Government's commitment to funding rail infrastructure and planning Transport Oriented Development (TOD) being the most notable example (see, for example, the Network Cities plan, <http://www.wapc.wa.gov.au/Publications/273.aspx>).

Because development in Australia has been primarily car-based for the last half century, it will take a series of difficult decisions, enormous change in government institutions and structures, fundamental changes in political and corporate understanding and will in order to move to more sustainable forms of planning and development. *Of all the changes required to mitigate greenhouse gas emissions and end the linkage with economic growth, moving to less car-dependent urban form will perhaps be the hardest.* There are few external drivers for change to transport and urban planning in Australia, in comparison with, for example, carbon trading for which there are existing financial arrangements and opportunities internationally. There are no powerful industry lobby groups or vested interest in more sustainable cities, in comparison with the interests in continued road building and associated systems and urban form.

An additional barrier in the transition to more sustainable transport and urban form is the low level of understanding of the changes required, and more importantly, of how to implement them, even among the transport and urban planning professions in Australia. *However, the dangers of continuing with the traditional approach to our urban areas are considerable,* not only in terms of obvious consequences such as increasing greenhouse gas emissions and further entrenching oil dependence (see Dodson and Sipe, 2006), but also in terms of the associated low and decreasing levels of physical activity among the Australian population and the wide range of negative health consequences, including obesity.

The remainder of this submission is a series of both broad and specific policy recommendations that will reduce greenhouse gas emissions. Many of the policies proposed would assist the Australian economy and thereby Australian incomes, in line with the Review's commitment to:

*consider policies that: mitigate climate change, reduce the costs of adjustment to climate change (including through the acceleration of technological change in supply and use of energy), and reduce any adverse effects of climate change and mitigating policy responses on Australian incomes.*

## Policy proposals

### 1. Use principles of ESD in decision-making; value the co-benefits

In keeping with my preliminary remarks, it is recommended that the Garnaut Review reference the principles of Ecologically Sustainable Development and use them in considering Australia's response to climate change. In particular, the Review should consider the internalisation of external costs and evaluate the co-benefits of policy changes. The internalisation of external costs is particularly important in the case of transport where externalities include not only greenhouse gas emissions, but also congestion, accidents, air pollution, space used for roads, noise, the environmental impacts of paved surfaces, such as stormwater pollution, and other impacts.

International transport expert Vucan Vuchic (1999) notes that 'urban transportation in many ways reflects the general problems of advanced societies, such as the dichotomy between individual and social interests, the external impacts of a system's operation, the relationship between market conditions and public service'. He wisely adds, 'Transport policies must not be based on market forces and financial considerations only'. In a similar manner, Working Group III of the IPCC (2007) has noted that in transport there are multiple mitigation options but 'many barriers, such as consumer preferences and lack of policy frameworks' and that market forces alone will not provide solutions. Therefore, planning for sustainable cities cannot be a matter of narrow cost-benefit analysis only. That the complex interplay between the social and environmental in cities affects the economic productivity of cities is well established (eg. Brotchie et al, 1995). Furthermore, as with the Stern Report, future generations need to be considered and valued. Not only should the Garnaut Review take a broad view in evaluating possible mitigating policy responses and value the co-benefits, but governments, of course, should also do so.

In particular, health needs to be taken into account in planning and economic analyses. Planning and public health have historically been integrated, but broad-scale health implications have seldom been considered in transport infrastructure decision-making in Australia over the last half-century. The linkages between transport, environment and health are multiple and now well understood and well documented, including in the WHO Europe Charter on transport, environment and health (1999). For example, recent research has shown that death and illness caused by urban air pollution is increasing. This was first observed in European cities and in 2004 the CSIRO reported that mortality due to air pollution in Australia is higher than the road toll. In fact, on average, approximately 2400 Australians deaths each year are linked to air quality and health issues, many more than the 1700 people who die on our roads. The numbers are even greater if the long-term effects of air toxics on cancer are included. As the IPCC (2007) has noted, 'health co-benefits from reduced air pollution can be substantial and may offset a substantial fraction of mitigation costs'.

More pervasively, there is growing evidence of a correlation between sprawl, a lack of physical activity and major health problems such as obesity, diabetes and depression. Frank's 2004 study 'Obesity Relationships with Community Design, Physical Activity, and Time Spent in Cars', found that every additional 30 minutes per day a person spends in a car translates into a 3 percent increased likelihood of becoming obese. In 2006 Diabetes Australia launched a report by Access Economics which predicts that by 2025, up to 7.2 million Australians (28.9% of the population) could be obese, up from 3.2 million currently. The cost of obesity alone is enormous, estimated to be \$3.8billion in 2005.

This ever-increasing body of evidence of the health impacts of car dependency suggests that policies which support a shift to walking, cycling and public transport from car use are likely to have significant public health benefits in both social and financial terms. These are alongside reduced deaths and injury and the co-benefits listed by the IPCC of improved air quality, decreased congestion and increased energy security (IPCC, 2007).

The House of Representatives Inquiry into Sustainable Cities made a number of sensible recommendations in this area. For example, Recommendation 6 was 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.

These recommendations should be reviewed by the Garnaut Review and those likely to assist in mitigating greenhouse gas emissions should be supported.

**ESD recommendations, that:**

- (1) The Garnaut Review reference the principles of Ecologically Sustainable Development and use them in considering Australia's response to climate change.
- (2) The Garnaut Review and Australian governments take a broad view in evaluating possible mitigation policies and value the many co-benefits of integrated transport and land use planning, especially health co-benefits.
- (3) The principles of Ecologically Sustainable Development should be applied by governments in making transport and urban planning policy. Decision-makers should consider social, economic and environmental factors in relation to transport infrastructure decisions, especially the impacts on public health.
- (4) Public health implications should be incorporated into economic analyses of urban development proposals, including transport infrastructure.
- (5) The recommendations of the House of Representatives Inquiry into Sustainable Cities should be reviewed and those with particular implications for mitigating greenhouse gas emissions should be supported by the Garnaut Review.

**2. Governance – as the crucial enabler of climate change mitigation**

Does our system of governance allow those governing to make good decisions for sustainability? To be able to reduce, greenhouse gas emissions through planning and implementing more sustainable transport and urban form, governance needs to be at the appropriate scale. Traditionally European cities and towns were economic and political units with city governance in order to protect their strategic interests. City government allows for planning at a whole of metropolis scale, across transport, urban and economic development, as well as, for example, health and education infrastructure. Some issues (such as water or biodiversity management) may need to be managed at a bioregion or catchment level, but in general, planning needs to be for as a city as a whole in order to get the best possible outcomes. Dividing a city up into multiple fragmented units leads to multiple problems. To give just a few examples, fragmented governance means that urban redevelopment is not often coordinated with transport infrastructure. Planning for cycling facilities usually stops at municipal boundaries. Standards for urban development often vary from suburb-to-suburb. There are no economies of scale for waste and recycling collection, including the potential to generate electricity from organic waste. As organisations, councils frequently and inevitably replicate functions and programs across boundaries and lack the size to build capacity of their own staff. Jane Jacobs first made this point about appropriate levels of city governance in 'The Death and Life of Great American Cities' in 1961.

It is not surprising that Brisbane City Council is Australia's leading local government on climate change and sustainability (see, for example, the Climate Change and Energy Taskforce report at [www.brisbane.qld.gov.au/BCC:BASE::pc=PC\\_2526](http://www.brisbane.qld.gov.au/BCC:BASE::pc=PC_2526)). The recent amalgamation of local councils in Queensland shows there is considerable community opposition to large local governments, but it is necessary for Australian cities and towns to be able to tackle the challenge of climate change.

Sustainability (among other things) is about ecology and place – we need a place-based system of governance in Australia. More specifically, as a highly urbanised nation, we need a system of city governments with complementary regional governments, as opposed to the historical accident of the states and (with the exception of Brisbane) tiny municipal councils. This is not a short term idea and careful transition arrangements would need to be made. However, a place-based system of governance is necessary for better place-based decision-making, such as integrated transport and land use planning, with co-benefits such as improved economies of scale.

**Governance recommendations, that:**

- (6) Australia moves to a place-based system of governance. This could be a system of city governments with complementary regional governments.
- (7) As a first step, the Commonwealth assist the States to consolidate all urban local governments which are either not currently financially viable or have a population of less than 100,000 residents.
- (8) In the medium term, the Commonwealth assist the States to consolidate local governments into large areas capable of managing regional transport services, planning large redevelopment and managing resources (such as water and waste).

**3. Shift to integrated sustainable transport and land use planning away from institutionalised car dependency: change funding and planning processes**

To quote a paper co-authored with Dr Chloe Mason regarding 'breaking through car culture in Australia' (Mason & Kuiper, 2007):

Australia is highly urbanised. Most people live in the State capital cities and their sprawling conurbations of dormitory suburbs. As in other countries, after the Second World War the availability of housing in low density suburbs was predicated on the use of cars to reach jobs. Since then Governments institutionalised car travel, in part to support the employment-generating activity of road building, car manufacturing, retailing and small parts manufacturing and distribution. Planning policies and guidelines fostered development for car-based land-uses. State Governments released land for residential development and major state institutions (e.g. education, health and corrective services) on the outskirts of capital cities on land with rudimentary public transport. Urban (and transport) planning was predicated on car ownership and use. By the 1970s, women were re-entering the labour market and the cost of running a second motor vehicle became affordable and necessary for many two-income households.

In the 1990s, in Australia, Peter Newman and Jeff Kenworthy's publications provoked professionals about the auto-dependency of urban form, pointing to the un-sustainability of past planning practices and (Newman & Kenworthy, 1999; see also Carmona et. al., 2003). In parallel, the national competition policy agenda highlighted the growing contribution of the transport sector to greenhouse gas emissions and declared the need for some better integration of land-use and transport planning, the domain of State policy (Department of the Environment & Heritage, 1998). However, the federal subsidies in Australia continue through income tax concessions in contrast to both the UK and USA. By 2000, these physical,

economic and social conditions in Australia were such that the adult population can largely be described “car dependent” i.e. a habitual state of relying on car travel even for very short trips. About a third of trips made by car in Australian cities are less than three kilometres.

Our point here is to situate “car dependency” as a social phenomenon. In a climate of individualism, “car dependency” can too readily be used as a form of ‘victim blaming’, an interpretation that conserves the status quo in obscuring the social determinants of mobility. Of course, even such an individual affliction is harmful to our society as well as to personal health: WHO (1999) nominated ‘transport’ as one of ten social determinants of health in developed countries.

The Commonwealth has played a significant role in entrenching car dependency by funding the construction of roads over and above sustainable transport. As the Issues Paper – Forum 5 noted, the majority of Auslink’s funding is devoted to road infrastructure. For example, in 2005-06 of a total \$3,020m funding, only \$29m or 1% was devoted to freight rail, the other 99% being spent on road projects. 72% of freight is currently carried by road in Australia and therefore there is great potential to mitigate greenhouse gas emissions through a modal shift to rail.

By contrast, and in general, Western national governments have moved over the last two decades to fund more sustainable transport infrastructure – in other words, to de-carbonise their transport systems. Following the completion of the national highways scheme, the Government of the United States of America passed a series of Acts which shifted Federal government funding towards sustainable transport: ISTEA (the Intermodal Surface Transportation Efficiency Act of 1991), TEA-21 (the Transportation Equity Act for the 21st Century of 1997) and SAFETEA in 2005 (Safe, Accountable, Flexible, Efficient Transportation Equity Act). These Acts contained sustainability aims such as to ‘protect and enhance the environment, promote energy conservation, improve the quality of life, and promote consistency between transportation improvements and State and local planned growth and economic development patterns’ in the SAFETEA Act. The Surface Transportation Program introduced by ISTEA made available Federal funds not only for rail and bus infrastructure and services, but also for walking and cycling and mobility management programs (see below). Through this process the share of Federal funding to public transport projects doubled from \$US3b in 1990 to \$US6b in 1999 (Dernbach, 2002).

In Spain, a very fast train (speeds of nearly 220mph) began operating in February 2008 between Barcelona and Madrid covering the 410 miles to Barcelona in two hours and 35 minutes. This Ave (short for Alta Velocidad Española, or high speed in Spanish) train is part of a government commitment to create 10,000km of high-speed track in Spain by 2020, meaning that 90% of the population will be no more than 30 miles from a station through which the train passes. The government has committed €108bn over 15-years to transform the rail network.

Clearly the Commonwealth should review transport funding and move to cease funding highways in the short term and invest significantly in both passenger and freight rail. The House of Representatives Inquiry into Sustainable Cities Recommendation 7 to provide funding specifically for sustainable public transport infrastructure for suburbs and developments on the outer fringes of our cities is also supported.

In terms of planning, in many cases transport infrastructure proposals are developed and assessed as particular modal links from a-to-b eg. the M7 Western Sydney Orbital or the Brisbane airport rail link. A recent example of poor practice in public transport planning was the Parramatta-Liverpool

Bus Transitway (T-way) in Sydney's western suburbs completed in 2003. In that case, no changes were made to any planning instruments to encourage or support changes in land uses (such as increased commercial development or higher density residential development) around the T-way stations, despite the fact that the T-way was designed as a relatively high-frequency public route. Among the multitude of other similar problems illustrating the lack of integrated transport and land use planning of the T-way, it was not even constructed with adequate walking routes to major trip generators along the route such as the Wetherill Park College of TAFE (Mason, C. et al., 2005). Unsurprisingly with such a narrow a-to-b route planning approach, patronage has been well below that which was originally predicted. In August 2004, monthly patronage was 136,357 passengers, equivalent to 4397 people/day. However, the expected patronage was up to 18,000 passengers every weekday (State Transit, 2005), implying that the T-way was operating at approx. one quarter (25%) of projected patronage (original research undertaken by the author, 2005, unpublished).

In the UK, by contrast, multi-modal transport appraisal considers the transport task in a region and assesses the possible options (including a no-build option) and in the US 'smart growth' (effectively urban consolidation) has been the planning mantra associated with the transportation Acts. Planning assessment needs to examine what kinds of development may be planned for in association with new transport infrastructure. In this way, for example, new Transit Oriented Development may be planned around new rail stations, as has in fact been done with the new Perth to Mandurah railway line. Both Commonwealth and state governments can learn from overseas examples of good integrated transport and land use planning practices.

The Better Cities program of the 1980-90s successfully implemented medium and high density development with good access to public transport in Ultimo/Pymont, East Perth, Subiaco, etc. The Commonwealth should revive its role to play in urban regeneration and provide funding and support for Transit Oriented Development (TOD). TOD can be defined as planning to achieve the following goals:

1. location efficiency
2. rich mix of choices
3. value capture
4. place making
5. resolution of the tension between node and place (Dittmar & Ohland, 2004).

Federal funding should be set aside for planning and sustainable infrastructure for TODs in key city precincts or regional centres. Commonwealth funding should be matched by state governments and the private sector and provision should be made for land value capture arrangements which allow government to recover some of their investment.

#### **Funding and planning recommendations, that:**

- (9) The Commonwealth and state governments should examine models including as the Transportation Acts in the United States and the multi-modal transport appraisal used in the United Kingdom as inspiration for changing transport funding and planning.
- (10) Federal transport funding should be reviewed such that the Commonwealth should move to cease funding highways in the short term and invest significantly in both passenger and freight rail. The Commonwealth should also invest in public transport in suburbs and developments on the outer fringes of our cities.
- (11) Commonwealth and state government funding and support should be provided for Transit Oriented Development (TOD) in key city precincts or regional centres to be developed in partnership with the private sector.

#### **4. Address price barriers: correct market distortions**

Changing transportation legislation and funding will be of limited use if perverse financial incentives continue to distort the market and encourage car use. Of these, there are a number of subsidies through the tax system which support car dependency including: the fuel tax credits scheme (\$4.9 billion in the 2006-07 financial year), the fringe benefits tax concession for personal use of company cars (\$1.2 billion and predicted to rise to at least \$2b/year by 2009-2010) and the tax break for aviation fuel (\$900 million) (Riedy, 2007 and Henry, 2008).

As highlighted by the Australian Conservation Foundation (Henry, 2008), company cars are responsible for about 18 per cent of the greenhouse gas emissions from passenger vehicles. The fringe benefits tax concession on the use of company cars encourages people to drive greater distances than they might otherwise do so.

In line with the House of Representatives Inquiry into Sustainable Cities Recommendation 8 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', all the perverse incentives for motor vehicle use and aviation should be removed and the savings used to fund walking, cycling and public transport. There is no need to consider fringe benefits tax concessions for other modes until all the perverse tax arrangements have been removed. To simply extend FBT concessions to other modes would be a short-term response that would seem to deal with immediate problems but would not address the need for fundamental policy change, as the Garnaut Interim Report recommends against.

In terms of internalising the external costs, Recommendation 9 of the House of Representatives Inquiry into Sustainable Cities to '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' is supported. The Commonwealth could further examine how to restrict the use of 4WDs in urban areas (noting, for example, that Mosman is the Sydney SLA with the highest level of 4WD ownership at 18%) (Glazebrook, 2007)). State and local governments should examine parking as an externality and review ways to both remove free parking and charge the real costs of parking to users (see Shoup, 2005).

#### **Market recommendations, that:**

(12) The Commonwealth Government phase out perverse incentives for greenhouse gas emissions in the tax system including the fuel tax credits scheme, the fringe benefits tax concession for personal use of company cars and the tax break for aviation fuel. The Commonwealth should first remove the subsidy for fuel use, and subsequently phase out the concession in urban areas. These processes should be undertaken in such a way as to not disadvantage those workers (including rural Australians) whose motor vehicles are an essential part of their business. That the saved revenue be hypothecated to funding for walking, cycling and public transport.

(13) The Commonwealth 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 (Recommendation 9 of the House of Representatives Inquiry into Sustainable Cities). The Commonwealth could further examine how to restrict the use of 4WDs in urban areas.

(14) State and local governments should review ways to both remove free parking and charge the real costs of parking to users.

## **5. Address information barriers: Adopt mobility management**

There are significant information deficits when it comes to Australians making transport choices. As in preventative health practice and WHO's (1986) a multi-dimensional action model for health promotion, the object needs to be to make 'healthy choices, easy choices'. In the case of transport, this needs to be a people- and place-based 'package of measures' for 'sustainable mobility' rather than an (individual) behaviour change model.

Mobility Management is a place-based, organisationally-engaged approach to enabling greater use of sustainable transport. Mobility management can be used by planners to increase capacity of institutions (trip generators) and improve the amenity of particular places. The practice of mobility management is prevalent in Europe and North America and would ideally develop in Australia as part of a more active response to climate change.

Mobility management works in particular places with local organisations to build capacity. It is an approach which responds to the local context, rather than using a generic 'cookie cutter' approach. While it may use some of the same or similar techniques to social marketing (for example, providing information in the form of brochures), it has a fundamentally different philosophical underpinning and, it can be argued, produces different results.

Mobility management builds from strength and responds to the context. It builds capacity at the workforce level and at the organisational level. Mobility management does not solely work in terms of communication activities or even changing culture, but also works to change policies and infrastructure. The result of this approach is that capacity is built in the organisations involved such that ongoing change continues to occur after the individual participants have completed the program. The attached paper on the Cycling in the City program illustrates how this worked in practice in one particular mobility management program.

Mobility management does not currently exist in Australia except for a small number of ad hoc local initiatives. Commonwealth Government funding is needed to develop mobility management practice in Australia and it would be most effective to begin with programs at large organisations such as hospitals and TAFEs.

### **Mobility management recommendations, that:**

(15) Commonwealth Government funding (say of the order of \$50m/year rising to \$100m/year within 3 years) be allocated to mobility management programs at large organisations such as hospitals and TAFEs. Funding should allow for the creation of mobility manager positions to run a range of initiatives, such as the provision of information, cycling-to-work programs, working to improve local bus services and local infrastructure upgrades (e.g. improving the quality of walking routes from railway stations to hospitals).

## **6. Remove infrastructure and capacity barriers to the use of active transport**

Active transport is a relatively new term to describe walking, cycling and the use of public transport as forms of transport that involve human physical activity with substantial benefits for health, safety and well-being. Greater use of active transport would result in a vast reduction in transport pollution and improved health outcomes. This is especially achievable in Australian cities such as Sydney where 55% of car trips are 5km or less (according to the Department of Transport in 1995). This is a distance that can be comfortably covered by bicycle in fifteen minutes, with shorter distances easily walkable.

Cycling is the most healthy, affordable and ecologically sustainable form of transport available. It has the potential to significantly improve the quality of our towns and cities and improve the health of the community and environment while also saving individuals and the community money. 'Australia Cycling', the National Cycling Strategy, estimates that each kilometer travelled by bicycle saves the community 60cents. At the moment, this potential remains largely unrealized in Australia with only approximately 2% of trips being made by bicycle.

Over the last decade the Commonwealth government has consistently refused to provide adequate funding for the National Cycling Strategy. This needs to be rectified. In addition, there is currently no national cycling proficiency training scheme (compared with for example the UK and Canadian schemes) which build the skills and knowledge of both adults and children who wish to ride a bicycle. At low cost, a scheme could be created that would allow thousands of people to learn to cycle safely. Similarly, the Commonwealth should consider (perhaps through the health portfolio) how they can effectively encourage more Australians to walk for transport.

**Active transport recommendations, that:**

(16) The Commonwealth should adequately fund the National Cycling Strategy and State governments should develop, implement and adequately fund complementary state cycling strategies.

(17) The Commonwealth together with the States should coordinate and fund a nation-wide program of comprehensive cycling education (cycling proficiency training) for children and adults in partnership with cycling non-government organisations.

(18) In the review of Federal transport funding (recommendation 10), the Commonwealth should consider how best to contribute funding for walking at the local level.

**7. Address knowledge and capacity barriers: Build professional and institutional capacity in integrated transport and land use planning and active transport**

At present there is not the professional and institutional capacity to implement the recommendations outlined above. Government organisations at all levels and across the transport, urban planning, health, tourism, education and environment sectors need to work together with industry, retailers, health professionals, educational institutions and other major travel trip generators to change our culture of car-dependency. For this to happen, a profession of 'para-transport' professionals needs to be developed. These professionals (walking and cycling coordinators, mobility managers, Cycling Proficiency Trainers, engineers specialising in active transport, etc) need not have a transport or engineering or planning background, but need to be developed to take a comprehensive technical and social approach to solving the current problems of our urban places in order to make them easier to move around by walking, cycling and public transport.

As the Garnaut Review Interim Report indicates, it is not solely the lack of a price signal that limits the ability to mitigate climate change. There are a variety of barriers and the lack of capacity in this area is a difficult one to address. It requires partnership with built environment professionals, the private sector and educational institutions.

**Capacity recommendations, that:**

(19) The Commonwealth and State governments work with professional and industry organisations how best to support the development of 'para-transport' professionals and educate built environment professionals about climate change through professional development, tertiary education and job creation.

## Summary of recommendations

On the basis of the author's research and professional experience, *it is recommended that:*

- 1) The Garnaut Review reference the **principles of Ecologically Sustainable Development** and use them in considering Australia's response to climate change.
- 2) The Garnaut Review and Australian governments take a broad view in evaluating possible mitigation policies responses and **value the many co-benefits** of integrated transport and land use planning, especially health co-benefits.
- 3) The **principles of Ecologically Sustainable Development should be applied by governments** in making in transport and urban planning policy. Decision-makers should consider social, economic and environmental factors in relation to transport infrastructure decisions, especially the impacts on public health.
- 4) **Public health implications** should be incorporated into any economic analyses of urban development proposals, including transport infrastructure.
- 5) The recommendations of the House of Representatives **Inquiry into Sustainable Cities** should be reviewed and those with particular implications for mitigating greenhouse gas emissions should be supported by the Garnaut Review.
- 6) Australia moves to a **place-based system of governance**. This could be a system of city governments with complementary regional governments.
- 7) As a first step, the Commonwealth assist the States to consolidate all urban local governments which are either not currently financially viable or have a population of less than 100,000 residents.
- 8) In the medium term, the Commonwealth assist the States to **consolidate local governments** into large areas capable of managing regional transport services, planning large redevelopment and managing resources (such as water and waste).
- 9) The Commonwealth and State Governments **should examine models** including as the Transportation Acts in the United States and the multi-modal transport appraisal used in the United Kingdom as inspiration for changing transport funding and planning.
- 10) **Federal transport funding should be reviewed** such that the Commonwealth should move to cease funding highways in the short term and invest significantly in both passenger and freight rail. The Commonwealth should also invest in public transport in suburbs and developments on the outer fringes of our cities.
- 11) Commonwealth and state government funding and support should be provided for **Transit Oriented Development (TOD)** in key city precincts or regional centres to be developed in partnership with the private sector.
- 12) The Commonwealth Government **phase out perverse incentives for greenhouse gas emissions in the tax system** including the fuel tax credits scheme, the fringe benefits tax concession for personal use of company cars and the tax break for aviation fuel. The Commonwealth should first remove the subsidy for fuel use, and subsequently phase out the concession in urban areas. These processes should be undertaken in such a way as to not disadvantage those workers (including rural Australians) whose motor vehicles are an

essential part of their business. That the saved revenue be hypothecated to funding for walking, cycling and public transport.

- 13) The Commonwealth 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 (Recommendation 9 of the House of Representatives Inquiry into Sustainable Cities). The Commonwealth could further examine how to restrict the use of 4WDs in urban areas.
- 14) State and local governments should review ways to both **remove free parking** and charge the real costs of parking to users.
- 15) Commonwealth Government funding (say of the order of \$50m/year rising to \$100m/year within 3 years) be allocated to **mobility management programs at large organisations** such as hospitals and TAFEs. Funding should allow for the creation of mobility manager positions to run a range of initiatives, such as the provision of information, cycling-to-work programs, working to improve local bus services and local infrastructure upgrades (e.g. improving the quality of walking routes from railway stations to hospitals).
- 16) The Commonwealth should **adequately fund the National Cycling Strategy** and State governments should develop, implement and adequately fund complementary state cycling strategies.
- 17) The Commonwealth together with the States should coordinate and fund a nation-wide program of **comprehensive cycling education** (cycling proficiency training) for children and adults in partnership with cycling non-government organisations.
- 18) In the review of Federal transport funding (recommendation 10), the Commonwealth should consider how best to contribute **funding for walking** at the local level..
- 19) The Commonwealth and State governments work with professional and industry organisations how best to **support the development of 'para-transport' professionals** and educate existing built environment professionals about climate change through professional development, tertiary education and job creation.

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European Platform on Mobility Management: [www.epomm.org](http://www.epomm.org)

Jan Gehl: [www.gehlarchitects.dk](http://www.gehlarchitects.dk)

Project for Public Spaces (PPS) is a nonprofit organisation dedicated to creating and sustaining public places that build communities: <http://www.pps.org/>

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The Worldwatch Institute: [www.worldwatch.org/](http://www.worldwatch.org/)

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