

# Pre-Budget Submission 2008-09

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# 1. Key challenges for the new government

## 1.1. Introduction

Australia in 2008 faces a number of very serious challenges, but also a number of opportunities.

The science on climate change is becoming more certain, more alarming and more demonstrative of the need for urgent and decisive action to reduce carbon emissions. Crude oil prices have recently broken the US\$100 per barrel level and many analysts now believe that oil supplies can only become even more hotly contested in future. Housing affordability is causing significant concern across the community and the price of many basic foodstuffs has risen sharply.

On the other hand, the Rudd Government was elected in November 2007 on a wave of deep public concern about climate change. The ALP promised a more ambitious program of action to reduce carbon emissions than the previous government and was rewarded at the ballot box for doing so. There is now a strong mandate for serious action on climate change, and many such actions can also reduce vulnerability to high oil prices as well as improve access to more affordable housing and minimise traffic congestion.

This submission is issued and endorsed by community groups from around Australia and charts a course for a more sustainable, more inclusive and healthier nation.

## 1.2. Summary of recommendations

**Recommendation 1:** Implement a *Cutting Through Congestion Program* to invest in expansion of passenger rail networks in our major cities and implementation of priority measures for road-based public transport.

**Recommendation 2:** Undertake a national rail gauge standardisation program to provide a truly national rail network that will improve rail freight productivity, efficiency and competitiveness, and that will better connect rural and regional communities.

**Recommendation 3:** Upgrade intercapital and key regional rail corridors to high speed (up to at least 200km/h) standards to help reverse the rapid growth in domestic aviation emissions.

**Recommendation 4:** Invest in the electrification of urban rail lines and research the feasibility of using Green Power for public transport operations.

**Recommendation 5:** Invest in safe cycle networks that have good connectivity with the public transport network, and the provision of secure bicycle parking at railway stations and other major public transport interchanges.

**Recommendation 6:** Establish a taskforce to identify measures to be undertaken at all levels of government to reduce oil vulnerability in a manner that contributes to reduced carbon emissions.

**Recommendation 7:** Make federal transport funding contingent upon community-based integrated transport and land use planning at state and local government levels that prioritises walking, cycling and public transport over car use, and that requires reductions in transport emissions.

**Recommendation 8:** Ensure any roads benefiting from federal funding cater fully for the needs of pedestrians, cyclists and road-based public transport.

**Recommendation 9:** Reintroduce automatic indexation of fuel excise and invest revenue in improving transport alternatives such as public transport and cycling facilities.

**Recommendation 10:** Make fuel tax credits, energy grants and excise concessions conditional upon those fuels meeting the requirements specified in Article 7a and Article 7ba of the proposed amendments to EU Directive 98/70/EC, including the Annexes referred to therein. Fuels not meeting these requirements should be subject to the standard rate of duty with that rate indexed in line with CPI.

**Recommendation 11:** Reform FBT provisions to encourage minimisation of motor vehicle use, adoption of more efficient vehicles and greater use of more sustainable modes such as public transport.

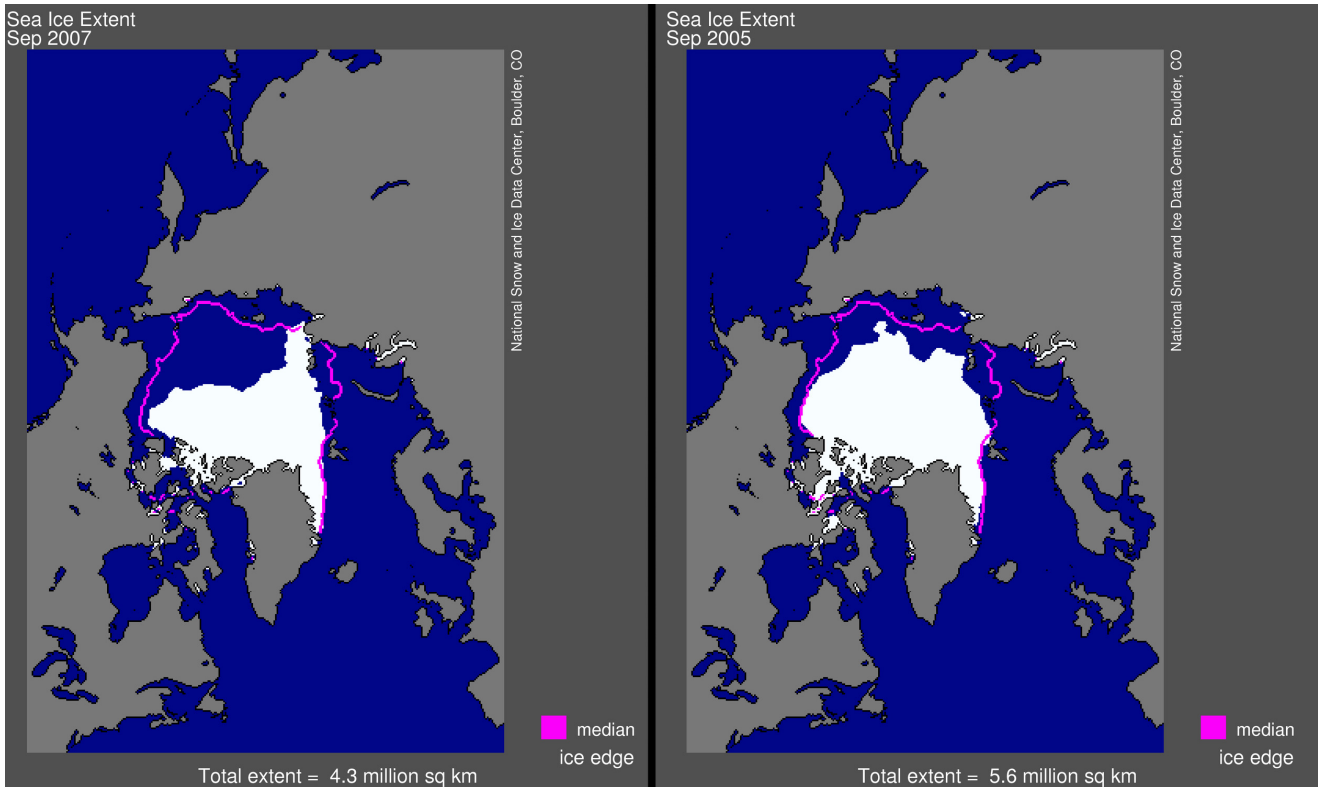
“We have found the WMDs,  
**it is climate change.”**

*Sir John Houghton,  
former head of the British Meteorological Bureau  
and a senior lead author for the Intergovernmental Panel on Climate Change*



© Greenpeace/ Swansborough

## 1.3. Climate change



Arctic sea ice extent in September 2007 (left) and September 2005 (right). The magenta line shows the average sea ice extent for the years 1979 to 2000. Sea ice extent in September 2007 was the lowest on record and the rate of decline has even exceeded the IPCC's most pessimistic projections. Image source: National Snow and Ice Data Centre, University of Colorado.

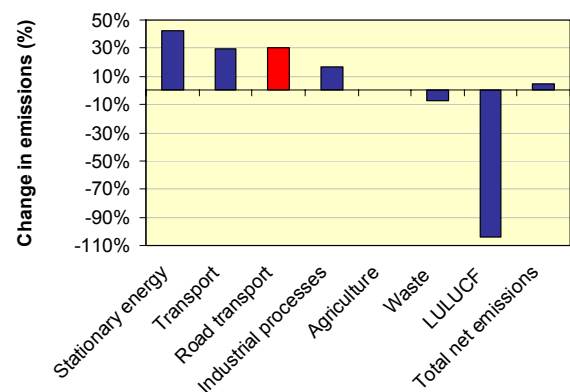
Recent science has demonstrated that greenhouse gas (GHG) emissions must be drastically cut in order to prevent dangerous, runaway climate change. Without serious action to reduce GHG emissions, Australia's rural industries will face more intense and more frequent extreme weather events such as droughts and floods, Australia's coastal communities will face higher sea levels and coastal erosion, and urban water supplies will come under more and more pressure.

Australia has acquired great wealth through the exploitation of its fossil fuel reserves, is one of the top 20 producers of GHG emissions in the world and is among the largest GHG producers in the world on a per capita basis. Individually each of these facts dictates that Australia should be making ambitious emissions cuts. Together they absolutely demand that Australia should lead the world in making deep emissions reductions (i.e. at least 80-90% on 1990 levels) across all sectors and on a very aggressive timeline.

### 1.3.1. Transport emissions

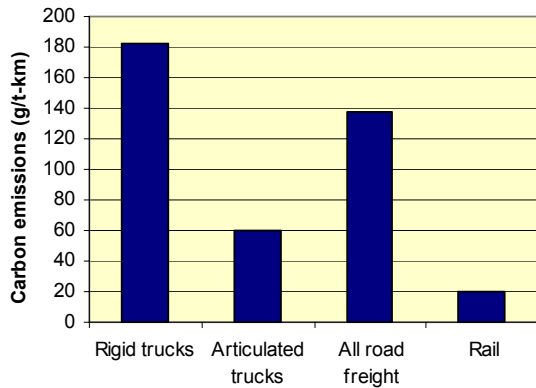
Exacerbated by prior government policy that starved public transport of federal funding, transport emissions surged by 30% from 1990 to 2005. As one of the largest and fastest growing sources in Australia, road transport emissions are growing so quickly that the ALP's commitment to a 60% reduction in total emissions will be impossible to achieve without deep cuts in transport emissions.

Figure 1.1: GHG emissions growth 1990 to 2005



Although cars produce the majority of transport emissions, there is also rapid growth in emissions from trucks and domestic aviation. Furthermore, the lifecycle carbon intensity of transport fuels could increase significantly due to growing interest in heavy oils and syn-fuels such as coal-to-liquids.

**Figure 1.2: GHG emissions from freight transport**

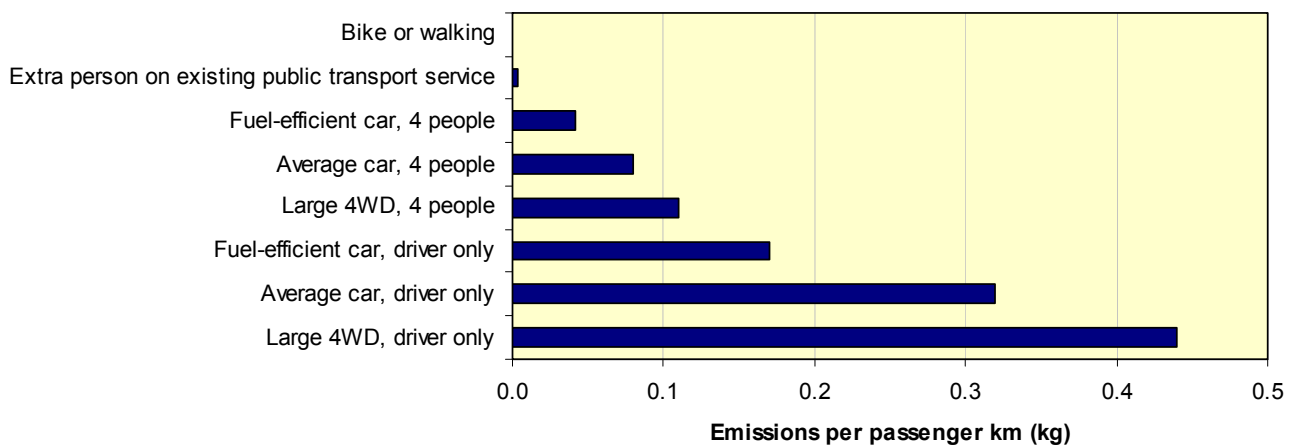


*Note: rail freight is substantially less carbon-intensive than road freight. Source: Australian Greenhouse Office.*

Recent research has also shown that the impact of motor vehicles on climate goes beyond the simple volume of GHG emissions. Smog from vehicle pollution reduces the ability of plants to absorb carbon dioxide by 14-23%, which could result in an additional 0.5-1.25 degrees of warming above that caused by emissions volume alone (Hopkin 2007).

Fortunately, the transport sector can be part of the solution rather than “one of the strongest sources of emissions growth in Australia” (*National Greenhouse Gas Inventory 2005*, p.7). Active transport (i.e. walking and cycling) is effectively carbon-free and is frequently an integral part of journeys involving public transport. Public transport itself also offers major emissions reductions.

**Figure 1.4: Greenhouse gas emissions from different forms of transport**

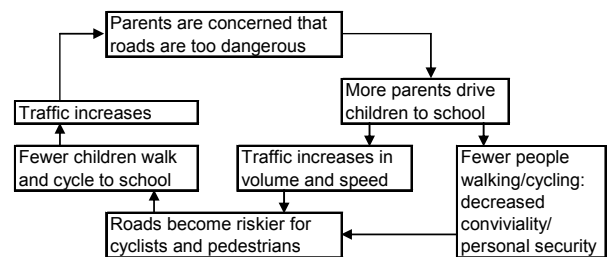


*Source: Australian Greenhouse Office*

Typically over a third of journeys in Australia's capital cities are less than 2 kilometres in length and well over half are within 5 kilometres. Many of these journeys are ideally suited to walking and cycling, however the priority traditionally given to increasing the ease and convenience of motor vehicle use detracts from the attractiveness of active transport and has resulted in:

- safety concerns related to high traffic levels and speeds;
- inadequate connectivity of cycling networks; and
- barriers formed by roads and car parks.

**Figure 1.3: Impact of increased traffic**



*Source: Mason 2000*

A healthy increase in walking and cycling requires a break in the self-perpetuating pattern of traffic growth encouraged by road-dominated transport policy.

While a shift from car to foot and bicycle is clearly desirable, active transport is not suited to all journeys. Up to half of journeys are over 5 kilometres, and health or other physical restrictions limit the ability of some people to walk or ride (ABS 2006). Public transport can offer a low-carbon alternative in such cases as well as provide mobility for people who are unable to drive.

### 1.3.2. Biofuels

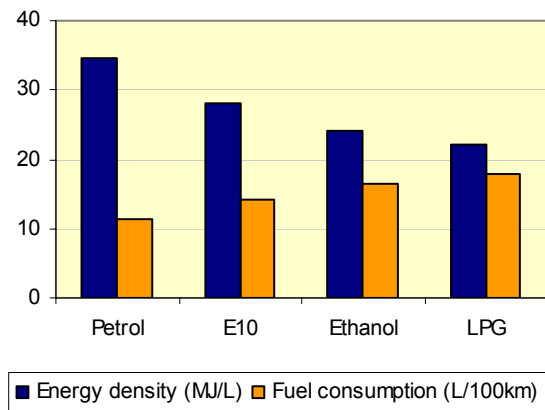
Concerns over rapidly rising transport emissions and escalating petrol prices have led many to seek solutions in biofuels. Contrary to the assumption that biofuels are inherently beneficial, evidence suggests that the benefits of biofuels may be quite limited or that they may do more harm than good (Crutzen et al 2007; Scharlemann & Laurance 2008). Biofuel production has been linked to deforestation in Latin America and Asia while the GHG emissions inherent in biofuel production (cultivation, harvesting, transport, processing, etc) often go close to or exceed the emission reductions from displaced end-use of fossil fuels. Increased competition for agricultural land and food crops from ethanol producers is also blamed for rising food prices, and many species suggested as second generation biofuel feedstocks pose significant risks as invasive weeds (Low & Booth 2007).

The combustion of ethanol leads to increased emissions of acetaldehyde and formaldehyde, which is a highly toxic organic solvent. Recent research also indicates that biofuel use could lead to an increase in ozone and respiratory-related deaths and hospitalisations (Shwartz 2007).

A report for the OECD (Doornbosch & Steenblik 2007) has revealed that the large scale of industry assistance for ethanol production means that each

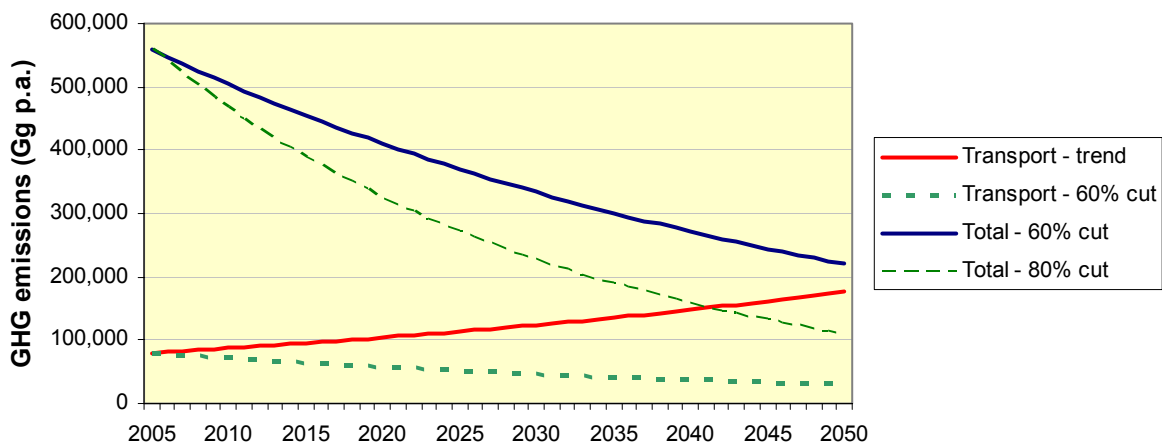
tonne of CO<sub>2</sub> saved through biofuel use costs several hundred dollars - many times the cost of replacing coal with renewable energy. In effect, it would be cheaper, easier and more effective to switch trains and trams to Green Power than switch cars to ethanol.

Figure 1.5: Energy density & fuel consumption



Note: Most alternative fuels have lower energy density than petrol, meaning that significantly more fuel must be consumed to travel the same distance.

Figure 1.6: Trends and targets in Australia's GHG emissions



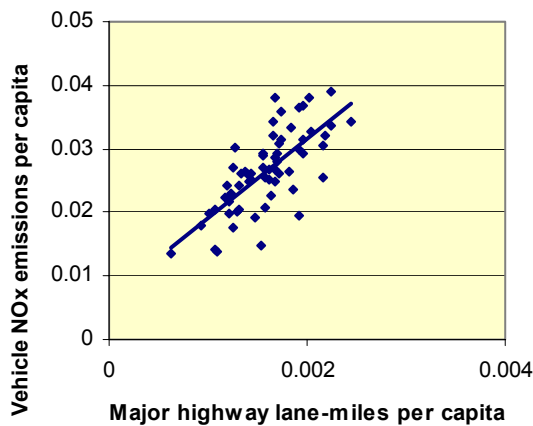
Note: Transport emissions grew 30% from 1990 to 2005 – faster than all other sectors other than stationary energy. At this rate of growth, transport emissions will be close to the **total level permitted for all sectors combined** under the scenario of a 60% reduction on 2000 levels, and well over the total level permitted under the scenario of an 80% reduction.

# 1.4. Productivity & Participation

## 1.4.1. Congestion

Traffic congestion has become a fact of life in Australia's larger cities. A constant stream of major road and freeway projects has been rolled out with the promise that they would solve congestion once and for all. Instead each one has filled to capacity while also increasing downstream congestion on existing roads used to access the new roads. As each 'road to end all congestion' reaches gridlock, yet another 'missing link' is identified with the promise that frustration-free motoring is just one more massively expensive road project away. Rather than reducing congestion and emissions with free flowing traffic, the additional capacity has brought more and more vehicles onto the roads - each adding its own emissions to the total - which in turn has brought back congestion and higher vehicle emissions (Figure 1.7).

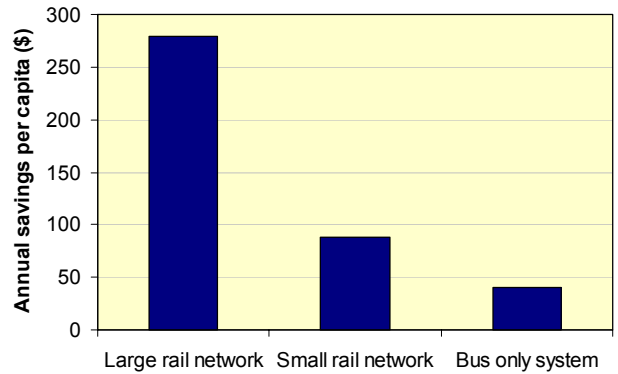
Figure 1.7: Road provision and vehicle emissions



Source: Environment California

This phenomenon of 'induced traffic' and its tendency to defeat attempts to 'build a way out of congestion' is widely understood and accepted by most transport experts, however it is frequently glossed over by the proponents of large road projects. In contrast, greater success in managing congestion on a more permanent basis appears to be achieved when high quality transport alternatives are provided that enable people to leave the car at home.

Figure 1.8: Congestion cost savings



Source: Victoria Transport Policy Institute

Detailed studies of multimodal corridors demonstrate that rail services are a particularly powerful tool in managing congestion (Lewis & Williams 1999). While road traffic tends to slow as more vehicles use the road, the speed of travel by rail is relatively independent of the number of users. Road traffic speeds will tend to converge with travel speeds available by rail and reach equilibrium when door-to-door travel times are about the same. Since additional road users would further slow down traffic flow, the rail service attracts users off the road system and allows it to maintain equilibrium. In effect the rail system acts as a pressure relief valve for the road system.

As shown in Table 1.1 below, this effect is also apparent in Australia's largest cities with average road network speeds across the metropolitan area mirroring rail network speeds.

Table 1.1: Average transport network speeds (km/h)

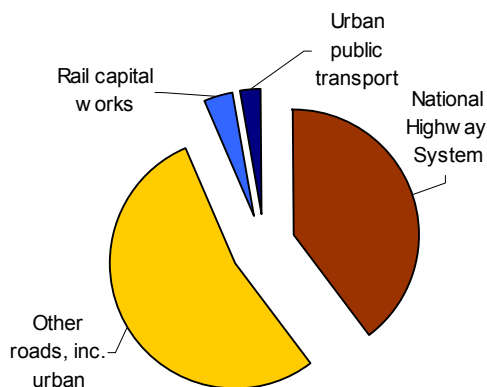
Mode	Sydney	Melbourne	Brisbane	Perth
Road	36	43	50	46
Public transport	21	21	27	25
Segregated rail services	47	40	48	50

Source: Scheurer, Kenworthy & Newman 2005

Public transport in Australia has clearly failed to keep up with urban growth and provide the high quality transport alternative needed to effectively combat congestion. Some important corridors lack railway lines completely, while many existing railway lines have been left behind by expanding urban boundaries. As a result large parts of our major

cities are seeing increased congestion and deteriorating road network speeds. This is largely due to a gross imbalance in federal transport funding over the last three decades, with roads and highways swallowing over 90% of federal transport funding and virtually nothing going to urban public transport infrastructure in the last decade.

**Figure 1.9: Federal Transport Funding - 1974-2004**



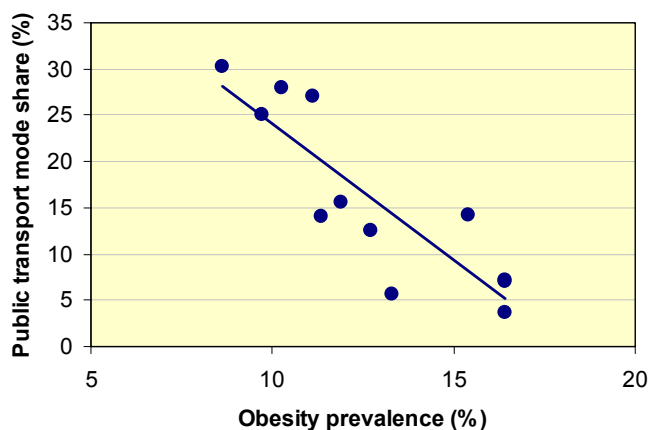
Until recently Australia was one of only two developed nations not to have ratified the Kyoto Protocol. Australia is now the only developed country in which the national government does not support urban public transport. Australia is unlikely to succeed in managing traffic congestion or reducing transport emissions until the Australian federal government also makes substantial investments in public transport infrastructure.

## 1.4.2. A healthy workforce

In the context of an aging population, significant attention is being paid to boosting workforce participation and enhancing productivity. A core part of this is reducing the incidence of chronic diseases that can limit people's contribution to the workplace and add to the burden on the health system.

Lack of physical activity is a key risk factor for most of the most pressing health challenges facing Australia. Sedentary lifestyles contribute to significantly higher risk of heart disease, diabetes, a range of cancers, and depression (PTUA 2007, pp.9-12). Lack of physical activity and sedentary lifestyles appear to be closely associated with car dependence and urban forms that are hostile to pedestrians and cyclists. On the other hand, higher rates of walking, cycling and public transport use tend to go hand in hand with lower incidence of obesity.

**Figure 1.10: Public transport & obesity in world cities**



*Note: In major cities around the world, higher levels of public transport use appear to be related to lower levels of obesity.*

Pollution from motor vehicles also causes more deaths each year than road traffic crashes and vehicle emissions have been implicated in reduced foetus size among pregnant women living near busy roads.

As an ideal complement to walking and cycling, public transport offers the opportunity to entrench physical activity into daily routine without the expense of gym membership or a personal trainer. Electrified public transport also produces no local emissions and contributes to improved urban air quality. Getting more people onto bikes and public transport can also be self-reinforcing by reducing traffic volumes and increasing the attractiveness and safety of walking and cycling (Figure 1.3).

**Table 1.2: Mode of transport to school - Adelaide**

Mode	1981	1997
Car	24%	60%
Walk	42%	20.5%
Cycle	14%	4.5%

**Table 1.3: Obesity & overweight prevalence among Australian children aged 12-15 years**

Gender	1985	1995
Boys	10.7%	26.1%
Girls	11.4%	18.9%

## 1.5. Affordability

The cost of many household basics has risen sharply in recent times. A range of indicators suggest that housing affordability is at its lowest level in many years, petrol prices are around double their level of a decade ago, and food prices have been pushed upwards by a combination of drought and biofuel-driven demand for agricultural commodities.

As discussed above, public transport has an important role to play in mitigating climate change and the associated extreme weather patterns that harm agricultural production. Improved access to public transport can also help to address housing affordability challenges and reduce vulnerability to rising fuel prices.

### 1.5.1. Housing

While median house prices in most Australian cities have shown strong growth in recent years, metropolitan medians disguise significant variations within cities. Median price growth rates have often been driven by rapid appreciation of highly-desirable properties in central locations with good access to employment, services and public transport. The relative scarcity of such properties (and the resulting high value placed thereon) contrasts with the more modest prices on homes that currently lack good access to employment, services and public transport.

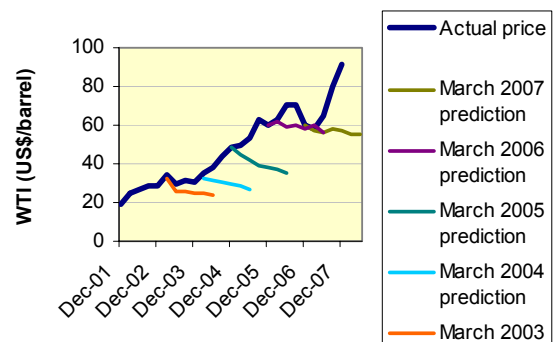
Priced out of areas with good public transport access, many low and middle income families are forced to own two or more cars and to use them extensively in order to access employment, education, recreation and other services. This 'forced car ownership' and excessive car dependence contributes to rising transport emissions and congestion, and puts major strain on household finances on top of the cost of housing itself. With housing and transport costs bound together in this way, research has demonstrated that the combined burden of housing and transportation costs tend to be higher in cities without good public transport access (Lipman 2006; Dodson & Sipe 2006).

There is now a clear need to increase the supply (i.e. reduce the scarcity) of housing with good access to public transport and to ease the financial burden of car dependence by expanding the coverage of high quality public transport.

### 1.5.2. Rising oil prices

A little as one year ago, many people scoffed at suggestions that crude oil prices would reach US\$100 per barrel. In the face of a consistent upwards trend in oil prices, the Australian Bureau of Agricultural and Resource Economics (ABARE) has consistently forecast falling oil prices (Figure 1.11). Supposedly the most reliable predictor of future oil prices, NYMEX oil futures contracts have also consistently failed to predict the rate of increase in the price of oil. Some economists are now warning that oil is headed towards US\$150 per barrel and that "the oil price is going to trigger inflation and then cause other central banks to be tightening again, or it's going to smother the global economy" (Murphy & Burrow 2008).

Figure 1.11: ABARE forecasts & actual oil prices

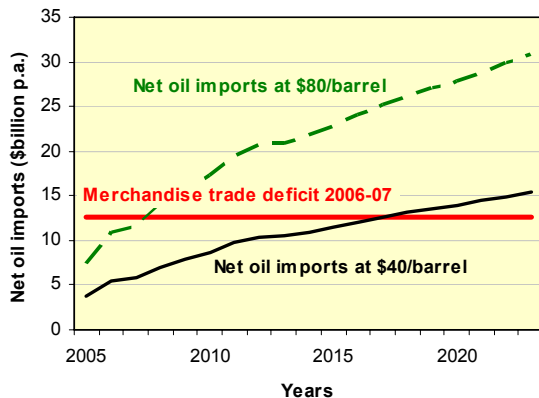


Australia has been shielded from high oil prices to some extent by a strong Australian dollar (which has moderated the cost of fuel to Australian consumers) and relatively high self-sufficiency in oil and gas production which has reduced the need for costly oil imports.

While the strength of the dollar will depend substantially upon the extent to which Australia's terms of trade continue to be held aloft by the

resources boom, the trend for Australia's self-sufficiency in oil production is most clearly downwards (Geoscience Australia 2006, p.71). There is a real risk that Australian motorists and the Australian economy more broadly will be caught in a pincer movement of declining domestic oil production and rising oil prices in terms of the local currency. Even without a weakening currency, Australia's current oil dependence is likely to cause further deterioration in our balance of trade.

**Figure 1.12: Australia's ballooning oil import bill**



Note: Based upon domestic oil production and consumption forecasts from GeoScience Australia and an exchange rate of AU\$1 = US\$0.90, Australian oil imports are on track to surpass the entire merchandise trade deficit of 2006-07.

Added to this is the prospect that global conventional oil production will peak and then begin an irreversible geologically-imposed decline within the next decade, if it has not peaked already (Hirsch 2007). Although OPEC's official statements claim that they are able to cater for continuing growth in oil demand, in practice they have found reason after reason to avoid or limit production increases. Fears of a US recession and its impact on oil demand, rather than confidence over future supplies, remain the main downward pressures on oil prices.

Since about 90% of Australia's oil consumption relates to transport, there is an urgent need to shift to less oil-intensive forms of transport, including energy-efficient public transport (especially electrified rail), rail freight and active transport.

The impact of high oil prices and potential shortages is also likely to be felt unevenly across the community. These impacts should be identified by undertaking oil vulnerability mapping and identifying measures to reduce oil vulnerability and car dependence in a climate-friendly manner.

**Table 1.4: Important forecasts of peak oil production**

<b>Analyst</b>	<b>Predicted peak</b>
T. Boone Pickens <i>Oil &amp; gas investor</i>	2005
Kenneth Deffeyes <i>Retired Princeton professor and Shell geologist</i>	2005
Eileen T. Westervelt et al <i>US Army Corps of Engineers</i>	At hand
Ali Samsam Bakhtiari <i>Iranian National Oil Company</i>	Now
Roger Herrera <i>Retired BP geologist</i>	Close or past
Henry Groppe <i>Oil/gas expert &amp; businessman</i>	Very soon
Stephan Wrobel <i>Investment fund manager</i>	By 2010
Roger Bentley <i>University energy analyst</i>	Around 2010
Colin Campbell <i>Retired oil company geologist: Texaco &amp; Amoco</i>	2010
Chris Skrebowski <i>Editor of Petroleum Review</i>	2010 +/- a year
Leif Magne Meling <i>Statoil oil company geologist</i>	A challenge around 2011
Xiong Pang et al <i>China University of Petroleum</i>	Around 2012
Rembrandt Koppelaar <i>Dutch oil analyst</i>	Around 2012
Volvo trucks <i>Automotive company</i>	Within a decade
Christophe de Margerie <i>Oil company executive</i>	Within a decade
Sadad al Hussein <i>Retired Exec VP of Saudi Aramco</i>	2015
Merrill Lynch <i>Brokerage/financial</i>	Around 2015
J. Robinson West <i>PFC Energy Consultants</i>	2015-2020
Charles Maxwell, Weeden & Co <i>Brokerage/financial</i>	Around 2020 or earlier
Wood Mackenzie <i>Energy consulting</i>	Tight balance by 2020
Total <i>French oil company</i>	Around 2020

Source: Hirsch 2007

## 2. Achieving a more sustainable transport system

### 2.1. Transport funding

After decades of imbalance in federal transport funding (Figure 1.9), state, territory and local governments have come to view Commonwealth transport funding almost exclusively in terms of roads. Successfully addressing the challenges facing the new federal government – rising transport emissions, high global oil prices, and the negative impacts of traffic – will require a major change of approach at all levels of government. The federal government can be an agent for positive change by focussing federal transport funding on investment in public transport and rail freight, and by placing similar expectations on state governments.

#### 2.1.1. Cutting congestion

A number of corridors in Australia's major cities lack high quality public transport, with negative consequences for mobility, congestion and emissions (see Section 1.4.1). Extension of rail networks into these corridors would provide more affordable mobility while also contributing to sustainable congestion reduction. The bipartisan parliamentary Inquiry into Sustainable Cities recognised the importance of such networks and recommended that the "Australian Government significantly boost its funding commitment for public transport systems, particularly light and heavy rail, in the major cities".

Rising traffic volumes also cause major delays to road-based trams and buses which severely limits their ability to attract passengers out of low-occupancy cars and contribute to congestion management. Traffic light priority is a common feature of cities with successful road-based public transport systems and could significantly increase the effective capacity of Australia's trams and buses by enabling more services with a given number of vehicles.

**Recommendation 1:** Implement a *Cutting Through Congestion Program* to invest in expansion of passenger rail networks in our major cities and implementation of priority measures for road-based public transport.

#### 2.1.2. 21<sup>st</sup> Century Railways

From time to time, new technologies are referred to as "the railways of the 21st Century". Without seeking to downplay the importance of Information and Communications Technology and other innovations, we believe in many ways that railways themselves are "the railways of the 21st Century". For most of the post-war period transport planning assumed cheap, plentiful fuel and remained blissfully ignorant of climate change. The new realities for people in the 21st Century are oil production reaching its peak, the urgent need to reduce GHG emissions, and growing urban populations. The railways of the 21st Century need to be energy efficient, easily 'decarbonised', and capable of moving large numbers of people in speed and comfort - in other words railways.

Unfortunately decades of neglect have left much of Australia's rail network in poor condition with a Balkanised assortment of rail gauges. At the commencement of the 21st Century, Australia's rail network is characterised by steam-age alignments, deteriorating track condition, antiquated signalling, breaks of gauge and lack of passing loops and fully duplicated tracks. As a consequence, the rail network has lost freight market share to a highway network that has benefited from massive federal and state investment over many years. Similarly, long-haul passenger rail services appear pre-historic in comparison to the high speed train services that are common in Europe and parts of Asia. Faced with 21st Century challenges, a genuine nation building project for the Rudd Government would be bringing the nation's rail network up to world-class standards.

**Recommendation 2:** Undertake a national rail gauge standardisation program to provide a truly national rail network that will improve rail freight productivity, efficiency and competitiveness, and that will better connect rural and regional communities.

**Recommendation 3:** Upgrade intercapital and key regional rail corridors to high speed (up to at least 200km/h) standards to help reverse the rapid growth in domestic aviation emissions.

### 2.1.3. Clean, healthy choice

Given the rate of growth in transport emissions, the incidence of overweight and obesity, and growing urban populations, there is an urgent need to encourage cleaner, healthier forms of transport. This can be achieved by shifting journeys to active transport and public transport in general and to cycling and electrified rail in particular. However some urban rail corridors are still awaiting electrification, and cycle networks in many areas are underdeveloped. Furthermore, railway stations often lack adequate secure bicycle parking.

**Recommendation 4:** Invest in the electrification of urban rail lines and research the feasibility of using Green Power for public transport operations.

**Recommendation 5:** Invest in safe cycle networks that have good connectivity with the public transport network, and the provision of secure bicycle parking at railway stations and other major public transport interchanges.

### 2.1.4. Better planning

Effective integration between transport and land use planning is crucial to ensure good access and mobility with minimum negative impacts such as car dependence and congestion. As the tier of government with least direct involvement in land use planning, the federal government is reliant upon effective planning at a state level that adequately reflects community wishes and future challenges such as climate change and peak oil.

**Recommendation 6:** Establish a taskforce to identify measures to be undertaken at all levels of government to reduce oil vulnerability in a manner that contributes to reduced carbon emissions.

**Recommendation 7:** Make federal transport funding contingent upon community-based integrated transport and land use planning at state and local government levels that prioritises walking, cycling and public transport over car use, and that requires reductions in transport emissions.

**Recommendation 8:** Ensure any roads benefiting from federal funding cater fully for the needs of pedestrians, cyclists and road-based public transport.

### Box 2.1: Investment Snapshot

Without intending to be an exhaustive list of the public transport infrastructure backlog, the following projects illustrate the types of investments the federal government could initiate.

#### 1. *Cutting Through Congestion*

Priorities for new and extended urban rail lines include:

- Mernda, Doncaster & Rowville (Melbourne);
- Kippa Ring and Ipswich (Brisbane);
- Mungarie Park and Leppington (Sydney);
- Extend Tonsley, Gawler & Noarlunga lines (Adelaide).

#### 2. *Rail gauge standardisation*

Taking the opportunity to undertake resleepering, duplicate lines or provide ample passing loops where applicable, priorities include:

- Victorian regional network, focussing initially on connectivity to ports and interstate lines;
- TransAdelaide network and Roseworthy and Barossa lines in South Australia.

#### 3. *High speed rail*

Taking the opportunity to duplicate lines and provide more direct alignments, priorities include:

- Brisbane to Sydney to Canberra to Melbourne to Adelaide to Perth;
- Melbourne to Mildura;
- Brisbane to Cairns.

#### 4. *Electrification*

Taking the opportunity to standardise and duplicate where appropriate:

- Melton, Sunbury & Baxter (Melbourne);
- TransAdelaide network (Adelaide).

#### 5. *Integrating bikes and public transport*

Under the framework of the cycling sector's commendable *Healthy and Active Transport* (HEAT) proposal, ensure a safe network of cycle routes feed into public transport interchanges such as railway stations.

## 2.2. Tax reform for efficiency and sustainability

A range of economists have warned of the inflationary impacts of income tax cuts announced during the last election campaign (e.g. Gordon 2008). In light of this, cuts to other taxes would be economically imprudent at this time. A more responsible alternative would be to address any deficiencies in the design of existing taxes. Taxes and charges on road users fall significantly short of the fiscal and external costs they impose upon the rest of society. This ‘road deficit’ is economically inefficient and results in excessive traffic, congestion and emissions.

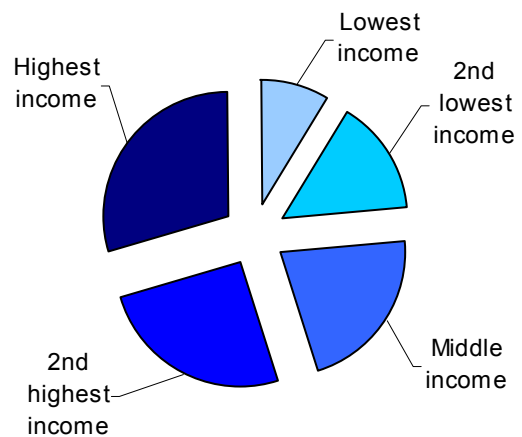
### 2.2.1. Fuel excise

Fuel excise has been falling in real terms since indexation was abolished in 2001 and is now close to the lowest in the OECD. The incidence of fuel excise is skewed towards high income earners due to their higher petrol usage. The majority of driving also takes place in cities where fuel consumption is typically higher per kilometre than rural driving and where alternatives such as public transport are generally more developed. In effect, fuel excise can be a demand management tool to shift fuel-intensive urban travel from car to more sustainable modes, thus reducing congestion, fuel consumption, oil imports and vehicle emissions.

Just as it would be inappropriate to use revenue from tobacco excise to promote smoking, there is no need to direct revenue from fossil fuel excise to road expenditure.

Efforts to improve affordable mobility for low income households should focus on reducing car dependence and ‘forced car ownership’ by expanding transport alternatives that reduce the total burden of car expenses beyond fuel taxation, and that facilitate greater social inclusion among people who are unable to drive or afford a car.

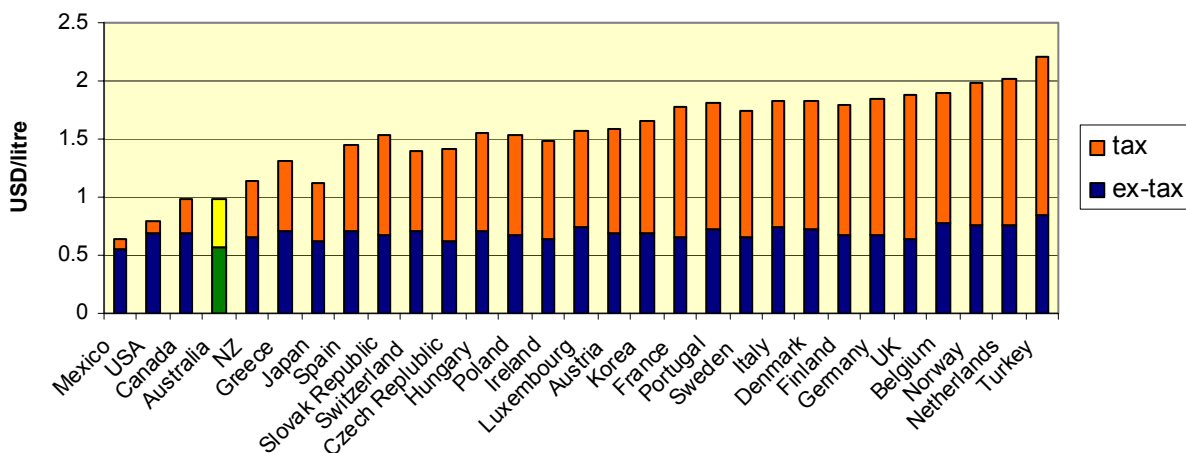
Figure 2.1: Who pays each dollar of fuel tax?



Note: the incidence of fuel taxation overwhelmingly falls on upper and middle income households. Source: Australian Bureau of Statistics

**Recommendation 9:** Reintroduce automatic indexation of fuel excise and invest revenue in improving transport alternatives such as public transport and cycling facilities.

Figure 2.2: Unleaded petrol prices & taxes



Source: OECD

Over \$4 billion of fuel excise is handed back each year in the form of fuel tax credits (not counting GST input credits) and energy grants, bringing net excise revenue down to about \$10 billion and reducing the effective rate of excise for many road users below the statutory rate of 38 cents per litre.

These tax credits are generally not subject to any environmental requirements and encourage greater road use and vehicle emissions.

With the fiscal cost of these tax credits and grants growing significantly, their eligibility requirements should be tightened to mitigate their negative impacts. Following California's Low Carbon Fuel Standard announced early last year, the EU looks set to amend its directive on transport fuel quality in order to achieve a 10% reduction in lifecycle GHG emissions per unit of energy by 2020. The amendments also specify social and environmental sustainability criteria for biofuel production. This approach provides an incentive to blend biofuels where they do offer genuine emissions reductions, while also attempting to address the risks outlined in Section 1.3.2 above. Any attempts to promote cleaner or renewable fuels in Australia should adopt a similar approach.

**Recommendation 10:** Make fuel tax credits, energy grants and excise concessions conditional upon those fuels meeting the requirements specified in Article 7a and Article 7ba of the proposed amendments to EU Directive 98/70/EC, including the Annexes referred to therein. Fuels not meeting these requirements should be subject to the standard rate of duty with that rate indexed in line with CPI.

## 2.2.2. Fringe Benefits Tax

The statutory formula which can be used to calculate the value of motor vehicle fringe benefits becomes more generous as the distance driven each year increases. In practice this travel can be completely of a private or domestic nature and yet still contribute to a significant reduction in FBT liability. As the formula provides a strong incentive to maximise vehicle use, it contributes to excessive traffic, congestion and emissions, while also costing over \$1 billion p.a. in revenue foregone (Durkin 2008).

**Table 2.1: Statutory fractions & vehicle emissions**

GHG emissions p.a.	Statutory fraction
Up to 3.8 tonnes	26%
3.8 to 6.4 tonnes	20%
6.4 to 10.2 tonnes	11%
Over 10.2 tonnes	7%

*Note: emissions for each threshold based upon average passenger vehicle emissions of 255 g CO<sub>2</sub>-e/km.*

The perversity of the statutory formula was recognised by the bi-partisan Senate Rural and Regional Affairs and Transport Committee who recommended "that the government review the statutory formula in relation to fringe benefits taxation of employer-provided cars to address perverse incentives for more car use", on top of measures to "to favour more fuel efficient cars" (*Inquiry into Australia's future oil supply and alternative transport fuels*).

**Recommendation 11:** Reform FBT provisions to encourage minimisation of motor vehicle use, adoption of more efficient vehicles and greater use of more sustainable modes such as public transport.

**Table 2.2: The Road Deficit - road-related revenues and costs**

Annual costs imposed by Australian motorists	
Item	Expense (\$ million)
Road construction & maintenance	8,800
Land use cost	6,000
Road trauma	17,300
Noise	700
Urban air pollution	4,300
Climate change	2,900
Tax concessions	5,200
State fuel subsidies	600
<b>Total (1)</b>	<b>\$45,800</b>

Source: <http://www.ptua.org.au/myths/petroltax.shtml>

Annual revenue collected from Australian motorists	
Item	Revenue (\$ million)
Excise (net of rebates)	9,800
GST on fuel	1,700
Vehicle registration fees	3,250
Insurance premiums	9,700
Tolls	750
Other revenue	2,300
<b>Total (2)</b>	<b>\$27,500</b>
<b>Road deficit (1-2)</b>	<b>\$18,300</b>

### 3. References

ABS, 2006, *Environmental Issues: People's Views and Practices*, 4602.0

P. J. Crutzen, A. R. Mosier, K. A. Smith, and W. Winiwarter, 2007, 'N<sub>2</sub>O release from agro-biofuel production negates global warming reduction by replacing fossil fuels', *Atmospheric Chemistry and Physics Discussions*, Vol 7, No 4, pp. 11191-11205, <http://www.atmos-chem-phys-discuss.net/7/11191/2007/>

Dodson, J. & Sipe, N. 2006, *Shocking the Suburbs: Urban Location, Housing Debt and Oil Vulnerability in the Australian City*, Griffith University, <[http://www.griffith.edu.au/centre/urp/urp\\_publications/research\\_papers/URP\\_RP8\\_MortgageVulnerability\\_Final.pdf](http://www.griffith.edu.au/centre/urp/urp_publications/research_papers/URP_RP8_MortgageVulnerability_Final.pdf)>

Doornbosch, R. & Steenblik, R., 2007, *Biofuels: Is the cure worse than the disease?*, Organisation for Economic Cooperation and Development, Paris

Durkin, P. 2008, 'Push to burn FBT, not more carbon', *Australian Financial Review*, 9 January, p.7

Geoscience Australia, 2006, *Oil and Gas Resources of Australia 2004*, Geoscience Australia, Canberra, [http://www.ga.gov.au/image\\_cache/GA8550.pdf](http://www.ga.gov.au/image_cache/GA8550.pdf)

Gordon, J., 2008, 'No shortage of challenges lie ahead for the new Treasurer', *The Age*, 5 January, <http://business.theage.com.au/no-shortage-of-challenges-lie-ahead-for-the-new-treasurer/20080104-1k8g.html>

Hirsch, R., 2007, *Peaking of World Oil Production: Recent Forecasts*, National Energy Technology Laboratory, US Department of Energy, available at: <http://www.odac-info.org/assessments/documents/Hirsch-Recent%20Forecasts.pdf>

Hopkin, M. 2007, 'Carbon sinks threatened by increasing ozone', *Nature*, 26 July, available at: <http://www.nature.com/nature/journal/v448/n7152/full/448396b.html>

Mason, C. 2000, 'Healthy People, Places and Transport', *Health Promotion Journal of Australia*, 10(3), <[http://www.isf.uts.edu.au/publications/CM\\_2000c.pdf](http://www.isf.uts.edu.au/publications/CM_2000c.pdf)>, pp.191-192

Murphy, M. & Burrow, V. 2008, 'Record oil price sparks call for petrol rationing', *The Age*, 9 January, <http://business.theage.com.au/record-oil-price-sparks-call-for-petrol-rationing/20080108-1kv2.html>

Lewis, D. & Williams, F.L., 1999, *Policy and Planning as Public Choice: Mass Transit in the United States*, Aldershot, Ashgate

Lipman, B. 2006, *A Heavy Load: The Combined Housing and Transportation Burdens of Working Families*, Centre for Housing Policy, Washington

Low, T. & Booth, C., 2007, *The Weedy Truth About Biofuels*, Invasive Species Council, [http://www.invasives.org.au/downloads/isc\\_weedybiofuels\\_oct07.pdf](http://www.invasives.org.au/downloads/isc_weedybiofuels_oct07.pdf)

PTUA, 2007, *Moving Australians Sustainably*, Public Transport Users Association, Melbourne, [http://www.ptua.org.au/federal/moving\\_australians-web.pdf](http://www.ptua.org.au/federal/moving_australians-web.pdf)

Scharlemann, J.P.W. & Laurance, W.F., 2008, 'How Green Are Biofuels?', *Science*, 4 January, Vol 319, Issue 5859, pp.43-44, <http://www.sciencemag.org/cgi/content/full/319/5859/43>

Scheurer, J., Kenworthy, J. & Newman, P., 2005, *Most Liveable and Best Connected?*, Metropolitan Transport Forum, Melbourne

Shwartz, M. 2007, 'Ethanol vehicles pose significant risk to health, new study finds', *Stanford Report*, 18 April, Stanford University, <<http://news-service.stanford.edu/news/2007/april18/ethanol-041807.html>>