



## TRANSPORT - issues paper

December 2010

Travelling takes time, costs money, involves risks and, if using motorised transport, generates greenhouse gas. Vehicle manufacture involves the consumption of non-renewable resources and energy. Transport accounts for over a third of household greenhouse gas emissions in SA. The SA government site [www.climatechange.sa.gov.au](http://www.climatechange.sa.gov.au) has much useful information including a Car Ecometer.

Private car use contributes to obesity and other lifestyle diseases, and its pollutants increase the burden of heart and respiratory diseases.

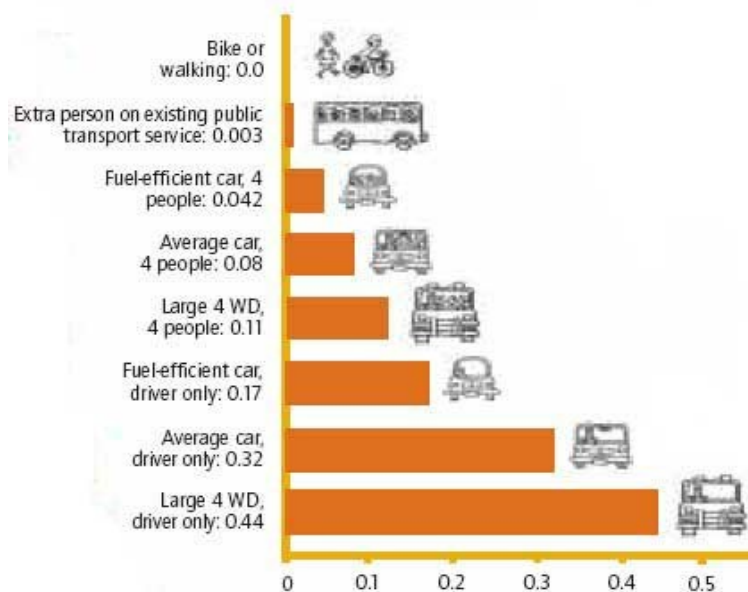
In 2005 passenger cars in Australia emitted 43.7 Megatonnes (Mt) of greenhouse gas emissions. These emissions had increased by 25% (8.6Mt) between 1990 and 2005 (ABS Australia's Environment and Trends 2007). Of this 43.7Mt, more than 14Mt is used travelling to and from work.

The cost of traffic congestion to the Australian economy is estimated to be \$9.4 billion per year (Bureau of Transport and Regional Economics 2007) while obesity costs Australia nearly \$21 billion annually (Access Economics 2006).

Most of us have a choice as to how we travel and hence a choice as to how much greenhouse gas we generate. For example, in the Norwood Payneham St Peters Council:

- 41% of households have 2 cars or more per household. The average for Australia is 54%
- 60% of trips to work are by car in NPSP. The average for Australia is 65%. See the ACF Consumption Atlas for statistics on your council area: [www.acfonline.org.au/consumptionatlas](http://www.acfonline.org.au/consumptionatlas)

The diagram below illustrates the impact of various forms of transport.



**Figure 1 Kilograms of greenhouse gas per person per kilometre**

Source: Commonwealth Government 2006

Air flights also generate considerable greenhouse gases. One person on a 2000 km flight on average generates a warming effect equivalent to 770 kg carbon dioxide (based on a jumbo jet at 80% capacity). One person in an average car travelling the same distance would generate 640 kg.

A train or bus is the most energy-efficient means of travel (expressed as passenger-km per unit of energy) followed by private car, while a plane is the least energy-efficient. (Brian Toohey, Weekend Australian Financial Review, December 23-28, 2009).

## **How to reduce the use of greenhouse emitting transport**

- Walk whenever you can, and gain the additional benefit of physical activity
- Ride a bicycle whenever you can. If the exertion or terrain is discouraging, think about an electric bicycle. For a review and buyers' guide of electric bicycles see the Alternative Technology Association magazine ReNew issue no. 111, April-June 2010
- Use public transport or a combination of transport such as ride, ride and bus, ride and train. For example, Park N Ride and bike locker locations are listed at [www.adelaidemetro.com.au/general/park-n-ride](http://www.adelaidemetro.com.au/general/park-n-ride). Bike lockers are available for a deposit of \$50 (refunded upon return of locker key)
- Minimize your travel. Consider work from home; reduce time at work; plan travel to do a number of activities by the most economical route; access goods and services locally
- Choose the most efficient motor vehicle for your purposes. The site [www.greenvehicleguide.gov.au](http://www.greenvehicleguide.gov.au) gives vehicle ratings. For costs of vehicle ownership see [www.raa.com.au](http://www.raa.com.au) Car Advice-Running Costs. Consider car sharing arrangements or doing without a car and using the GoGet system [www.goget.com.au](http://www.goget.com.au) or car rentals for occasional travel. A scooter or motor cycle may suit your needs

If driving a car, reduce your impact by:

- Driving smoothly and avoiding stop-start traffic - save up to 30% of greenhouse gas emissions and fuel cost
- Ensuring tyres are pumped up to maximum recommended pressure so they roll more easily: save up to 100 kilograms of greenhouse gas each year, extend tyre life and improve safety
- Remove unnecessary weight from your car - 50 kilograms less weight cuts greenhouse gas emissions by almost 2%
- Removing unused roof racks, external sun visors and other features that create more air drag
- Drive at moderate speed
- Regular maintenance
- Car pooling

Other things to try:

- Check your vehicle’s impact with one of the transport links below and reconsider the type of vehicle you drive. Keep in mind it may be better to keep your car longer as the embodied energy of a new car is equivalent to 15 years of fuel. If you do need to change, downsize to a smaller engine
- Shop locally and walk to the shops. Combine it with other activities such as walking the dog or walking the kids to school
- Take one less air flight per year
- Next time you go to get the car keys ask yourself ‘do I really need to make this journey or can I combine some activities into one trip?’ By combining activities you can reduce the total distance travelled. For example drop the kids at school and do the shopping in one trip
- Aim to reduce your impact by leaving the car at home at least 1 day a week
- Remember - if you travel sustainably to work instead of driving a car you can reduce greenhouse gas emissions by 1.4 tonnes per year (based on a 10km journey)

Select your vehicle’s approximate fuel consumption

Select the price of fuel from the top row

litres per 100km	\$1.50 per litre	\$2.00 per litre	\$2.50 per litre	kg CO <sub>2</sub> equivalent per 100km
1	\$1.50	\$2.00	\$2.50	2.6
2	\$3.00	\$4.00	\$5.00	5.2
3	\$4.50	\$6.00	\$7.50	7.8
5	\$7.50	\$10.00	\$12.50	13
6	\$9.00	\$12.00	\$15.00	15.6
7	\$10.50	\$14.00	\$17.50	18.2
8	\$12.00	\$16.00	\$20.00	20.8
9	\$13.50	\$18.00	\$22.50	23.4
10	\$15.00	\$20.00	\$25.00	26
12	\$18.00	\$24.00	\$30.00	31.2
14	\$21.00	\$28.00	\$35.00	36.4
16	\$24.00	\$32.00	\$40.00	41.6
18	\$27.00	\$36.00	\$45.00	46.8
20	\$30.00	\$40.00	\$50.00	52
24	\$36.00	\$48.00	\$60.00	62.4

Experts predict the price of fuel will continue to rise due to political instability and the ongoing decline of large, new petroleum discoveries. Biofuels cannot plug the gap so we have to plan for a future less dependent on fuel.

**As a rule of thumb, use the most efficient vehicle you can, and use it as little as possible. Preferably, use a bike, walk or take public transport.**

For more information:

[www.beyondoilsa.org](http://www.beyondoilsa.org)

[www.odac-info.org](http://www.odac-info.org)

[www.peakoil.net](http://www.peakoil.net)

[www.aspo-australia.org.au](http://www.aspo-australia.org.au)

These are non-profit organisations aimed at helping people cope with high fuel prices and associated sustainability issues.

## LINKS

Green Vehicle Guide - rates cars based on greenhouse gas emissions and air pollution  
[www.greenvehicleguide.gov.au](http://www.greenvehicleguide.gov.au)

Cars fuel guide - [www.livinggreener.gov.au/travel](http://www.livinggreener.gov.au/travel)

Choose Climate - Calculate greenhouse gases created through air travel  
[www.chooseclimate.org](http://www.chooseclimate.org) – Flying off to a warmer climate

Department of Climate Change & Energy Efficiency GPO Box 787, Canberra ACT 2601  
[www.climatechange.gov.au](http://www.climatechange.gov.au)

Cycling Resource Centre, tel. 02 9283 3389 [www.cyclingresourcecentre.org.au](http://www.cyclingresourcecentre.org.au)

Bicycle Institute of SA [www.bisa.asn.au](http://www.bisa.asn.au)

Bikedirect Cycling maps  
[www.sa.gov.au/subject/Transport,+travel+and+motoring/Cycling/Cycling+maps](http://www.sa.gov.au/subject/Transport,+travel+and+motoring/Cycling/Cycling+maps)

Adelaide Metro - Journey Planner for public transport in Adelaide, tel. 1300 311 108  
[www.adelaidemetro.com.au/routes/personal\\_jp.html](http://www.adelaidemetro.com.au/routes/personal_jp.html)

## Related links

The Mypower Team has cycled 17,805 km around Australia by December 2010, encouraging environmental action - see [www.mypower.org.au](http://www.mypower.org.au)

Travel Smart Australia [www.travelsmart.gov.au](http://www.travelsmart.gov.au) brings together the many community and government-based programs that are asking Australians to use alternatives to their private car