



## GROWING VICTORIA TOGETHER WITH SUSTAINABLE TRANSPORT

*Sustainable transport is a generic term incorporating public transport (trains, trams, buses) and active modes such as walking and cycling. Sustainable transport has a vital role to play in ensuring a state that has a thriving economy, good access to employment, education and public services, a healthy environment, and caring and inclusive communities. Sustainable transport doesn't just happen – it requires deliberate policy direction from government and investment in infrastructure and services to make it a convenient, reliable and attractive option for everyone who might use it.*

*Strengthened investment in sustainable transport can help to achieve each of the ten goals articulated in the Government's Vision for Victoria to 2010 and Beyond.*

### More quality jobs and thriving innovative industries across Victoria

Research shows that sustainable transport options **increase employee productivity** and reduce absenteeism by reducing stress compared to peak hour driving and through increasing physical activity and hence general well-being.

Accessible public transport options can also enhance **participation** by providing greater access to employment and skill-enhancing education, especially for those who are unable to drive, older workers, young people, disabled people and high-risk drivers.

A focus on sustainable transport can also enhance a city's liveability making it more **attractive to tourists, skilled migrants and foreign investors**.

### Growing and linking all of Victoria

An additional one million residents has the potential to dramatically increase Melbourne's traffic congestion, harming business productivity and ruining the city's liveability. Numerous studies around the world have demonstrated that expanded road networks do little, if anything, to reduce

congestion in the long-term. Public transport, in contrast, has been shown to **increase mobility whilst reducing the level of congestion** that would otherwise exist. If public transport is to fulfil this role, it must be made attractive enough to attract at least twice its current 9 per cent share of trips and achieve the Government's goal of **20 per cent of motorised journeys by 2020**.

Achievement of the Government's 20 per cent target will require a public transport network with the capacity to absorb double its current share of journeys made by an expanded population. This capacity can only be gained through increased investment in spreading the coverage of the heavy rail network, removing capacity constraints on the high patronage lines, and increasing the frequency and hours of service of trains, trams and buses.

The provision of regular and reliable regional services will also require a reversal of decades of underinvestment in regional rail lines in order to absorb **a greater proportion of freight transported to and from ports by rail** and regional passenger rail services reaching out to more of the State. An age of rising oil prices requires energy-efficient supply chains to maintain competitiveness and combat inflation.

## High quality accessible health and community services

Lifestyle-related illnesses are becoming increasingly prominent in health spending as Victorians live more sedentary lives and become more overweight. Australian and international research points to a strong link between increasing levels of car dependency and these burgeoning lifestyle illnesses. Health experts are now pointing to an important role for sustainable transport in leading more active and healthy lives and reducing the burden of lifestyle-related illnesses.



Photo: Dept for Planning and Infrastructure, Western Australia

Public transport options can also enhance the **accessibility of health and education services** for people who are unable to drive or have limited access to a car. Accessible public transport options can also reduce the inconvenience of chauffeuring extended family members to community services, enabling more productive use of time.

## High quality education and training for lifelong learning

Public transport is an important means of mobility for young people and those on low incomes. Adequate public transport services can **increase the accessibility of educational services** for people such as these, enhancing their opportunities and skills.

## Protecting the environment for future generations

Urban air pollution is estimated to claim more lives annually than car accidents. Sustainable transport is widely recognised as a more environmentally responsible

solution to the need for mobility. Public transport produces **lower levels of air and noise pollution** than private motor vehicles, which are the main source of urban air pollution. Run-off from roads including oil, petrol and brake pad residues is also a significant contributor to **pollution in our waterways**. Walking and cycling, on the other hand, are effectively pollution-free.

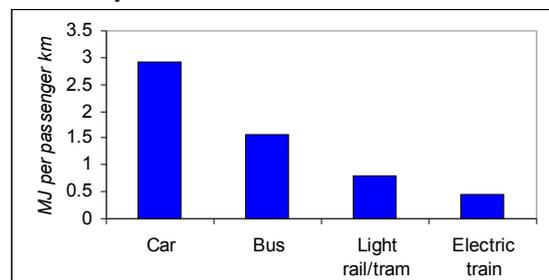
Sustainable transport, especially walking and cycling, requires significantly less land than private motor vehicles to transport a given number of commuters. For example, accommodating 50,000 people per hour per direction would require a 175 metre wide road, but only a 9 metre wide rail corridor. Favouring more space-efficient modes of transport can **ease the pressure on our green wedges and urban fringes**, protecting remnant vegetation and recreational areas.

## Efficient use of natural resources

Transport is a major and growing source of **greenhouse gas emissions**. Public transport produces substantially lower greenhouse emissions than private motor vehicles per passenger kilometre travelled whilst walking and cycling are effectively carbon-free.

Public transport is also much more **energy efficient** than private motor vehicles, reducing our dependence on dwindling oil reserves and vulnerability to volatile petroleum prices.

### Chart: Land transport energy consumption



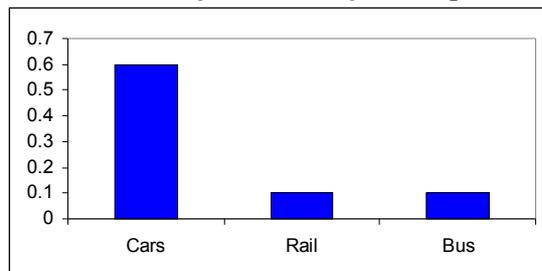
Source: Newman, 2000.

## Building friendly confident and safe communities

Whilst hundreds of Victorians die and thousands are injured on the state's roads each year, public transport is among the

safest modes of transport available. Car occupants are six times more likely to be killed than public transport users. Shifting journeys from private motor vehicles to public transport could have a major impact of the extent of road trauma suffered by people in this state. Adequate public transport services also provide an alternative means of mobility for high risk drivers (e.g. repeat offenders, elderly).

**Chart: Deaths per million passenger km**



Source: Australian Transport Safety Bureau

The dangers of car-dependant transport patterns also contribute to declining levels of social capital and community participation. Various studies have demonstrated a link between social isolation and car dependent transport patterns, especially in areas where provision for cars, such as high capacity roads, dominates the urban environment. By contrast, urban planning that favours pedestrians, cyclists and public transport facilitates greater engagement at the local level, strengthening social capital and providing a level of natural surveillance that deters crime.

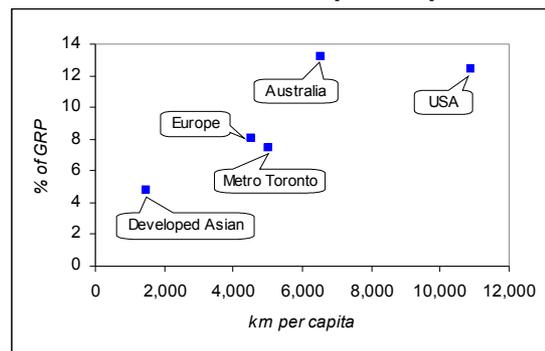
### A fairer society that reduces disadvantage and respects diversity

Despite relatively low fuel prices compared to other countries, the OECD's most car dependent members like Australia and the USA tend to spend the greatest proportion of household income on transport. The Total Cost of Ownership of private cars can be a major financial drain for low-income households, and credit obtained for motor vehicles is a common source of debt-related financial distress. Despite these pressures, poor public transport services in many outer suburban areas leaves households with little option but to own and use multiple cars.

An extensive and accessible public transport network can provide an affordable alternative to car ownership and enable **access to health and education services and employment opportunities** for people

on low incomes.

**Chart: Car travel & transport expenditure**



Source: Newman, 2000.

Note: As car dependency rises, as shown by the amount of travel undertaken by car, so too does the proportion of income (or a city's Gross Regional Product) that is consumed by transport. Despite higher fuel taxation, European households need only spend two thirds as much as Australian households on transport thanks to superior public transport.

### Greater public participation and more accountable government

Most Victorians, even if not regular users themselves, show strong support for quality public transport services. Enhanced public transport was a recurrent theme during the consultation process for *Melbourne 2030*, and a poll of Victorian's concerns conducted by the Herald Sun indicated a relatively united position in favour of public transport investment compared to the extent of opposition to toll roads.

### Sound financial management

Investment in sustainable transport is an economically prudent course to follow. Studies of transport policies around the world show strong net benefits from investment in public transport, especially when analysed using comprehensive methodologies that consider reductions in pollution, congestion and road trauma, and enhanced access and equity in mobility for disadvantaged groups.

Public transport infrastructure is frequently a lower cost option than road-based infrastructure, especially when the analysis incorporates the negative side effects of car-dependent transport patterns. Estimates of the "road deficit" (the extent to which society subsidises private motor vehicles) range up to tens of billions of dollars per annum including the costs of pollution and greenhouse emissions, road trauma, tax

concessions and the commitment of large areas of valuable land to roads and car parks.

**Table: Road-related revenue and costs**

<b>The Road Deficit</b>	<b>\$ million</b>
<b>Road-related revenue</b>	
Petrol and diesel excise	9,800
Vehicle registration fees	3,300
Insurance premiums	10,000
Tolls	1,000
Other revenue	2,150
<b>Sub-total</b>	<b>26,250</b>
<b>Road-related costs</b>	
Road construction and maintenance	8,500
Land use cost	6,000
Road trauma	15,000
Noise	700
Urban air pollution	4,300
Climate change	2,200
Tax concessions for car use	4,200
Queensland fuel subsidy	500
<b>Sub-total</b>	<b>41,400</b>
<b>Road deficit</b>	<b>-15,150</b>

Note: Conservative estimates of the overall cost to society of car-dependency significantly exceed the total revenue from motorists (PTUA 2004).

New road projects also attract passengers away from existing public transport alternatives, thus nullifying the congestion reduction objectives of the road project. This diversion of paying passengers (particularly full-fare "choice" customers) reduces the financial viability of public transport services and increases the fiscal burden of government subsidies required to operate them. On the other hand, a high quality integrated public transport network can attract choice passengers and enhance cost recovery.

Reducing the road deficit by increasing the role of sustainable transport could **reduce the fiscal burden on government** in areas as diverse as health, transport, policing and aged care.

## The way forward

Sustainable transport should be a key feature of the Government's Vision for Victoria to 2010 and Beyond. If sustainable transport is to live up to its potential, investment in public transport infrastructure must be stepped up to at least rival, if not surpass the level of expenditure on roads.

The government should prioritise these key initiatives for a revitalised statewide public transport network:

- Bus reform
- Rowville train line
- East Doncaster train line
- South Morang train extension
- Other train extensions
- Tram gap-filling programme
- Level crossing elimination
- Re-staffing the system
- More frequent services
- Revitalised country rail
- Inter-regional bus network
- Geelong train improvements
- Geelong bus network

Note: see *It's Time to Move* for details - available from the PTUA.

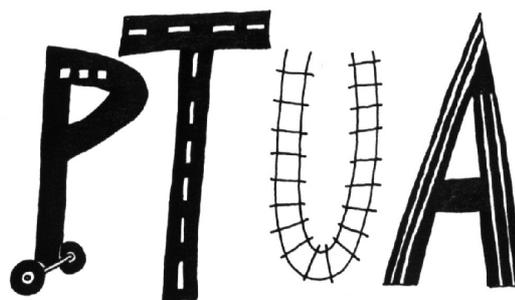
## Further reading:

*It's Time to Move*, by the Public Transport Users Association (2002)  
*Submission to the Productivity Commission Inquiry into the Economic and Environmental Potential of Energy Efficiency*, by the Public Transport Users Association (2004)  
*The Place to be on PT – A Vision for Greater Melbourne's Transport*, by Coalition for People's Transport (2004)  
*Sustainable Transportation and Global Cities*, by P. Newman (2000)  
*Transport as a Determinant of Health: What Role for the Health Sector?* by Robert Catford (2003)  
*Evaluating Public Transit Benefits and Costs*, at <http://www.vtpi.org/documents/tranben.pdf>  
*Transportation Cost and Benefit Analysis*, at <http://www.vtpi.org/documents/transportation.php>

© Public Transport Users Association Inc.  
 Ross House, 247 Flinders Lane, Melbourne 3000  
 Reproduction for non-commercial use permitted with proper acknowledgement.

First published May 2005.

Visit us online at [www.ptua.org.au](http://www.ptua.org.au)



**PUBLIC TRANSPORT USERS ASSOCIATION**