

Health and Transport

Preamble

Transport is an important part of a developed nation such as Australia, providing goods and services vital to health and the economy. The way in which transport is conducted in Australia is important to the health and well-being of all Australians. In this position paper Doctors for the Environment Australia will address two key issues in the transport sector; climate change and air quality. Issues around road safety and accidents are not dealt with here.

A 2°C warming world

Australia is a signatory to the Paris Climate Agreement 2015. While not binding, the Agreement is to limit emissions between 2015 and 2050 to an extent compatible with no more than 2° Celsius of global warming.

Globally greenhouse gas emissions from transport are predicted to increase at a faster rate than those from other energy uses. The Fifth Report of the IPCC projects transport emissions could double by 2050.¹ Emissions in Australia in 2017 reached a record level, the highest since 1992, when the United Nations Framework Convention on Climate Change was first held. While emissions from the electricity sector have remained steady, transport emissions are rising and diesel consumption accounts for 55% of these.² Thus, transport is a key driver of climate change, the impacts of which are already manifesting in extreme weather events, food and water crises, displaced populations, conflicts, vector-borne diseases, and the direct effects of extreme heat on humans and the biosphere.^{3,4}

Road transport is the dominant source of transport emissions (85% in 2012) and light vehicles (less than 3.5 tonnes) produce the greatest proportion of these (Fig 1).

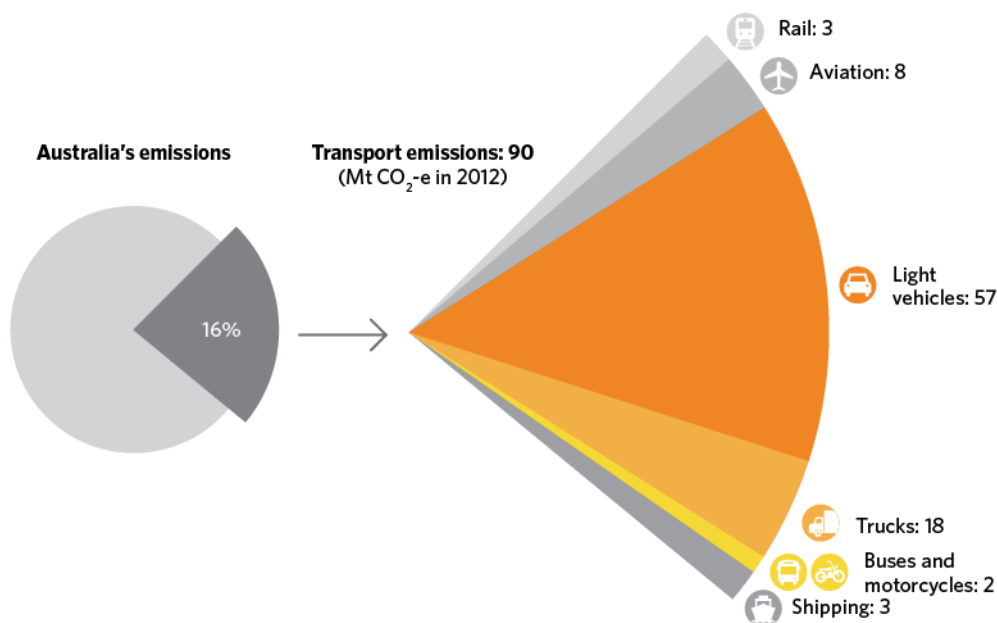


Figure 1: Climate Change Authority /source DoE 2014a: Treasury and DIICSRTE 2013

Ambient Air Quality

Poor air quality contributes to the leading causes of death in Australia, including heart disease, dementia, stroke, chronic lung disease and lung cancer.^{5,6} Higher incidences of premature births, asthma, and reduced lung development are impacts early in life linked to air pollution.⁷ The Discussion Paper from the Department of Environment and Energy, Better Fuel for Cleaner Air, describes the problem: "Noxious emissions from motor vehicles are particularly harmful to human health, as the general population is exposed to more motor vehicle exhaust emissions than most other sources"⁸. Poor ambient air quality is responsible for over 3.5 million deaths each year globally (WHO).⁹ The Australian Institute of Health and Welfare estimates that 3,000 premature deaths occur in Australia each year due to poor air quality.¹⁰ The cost to the economy from these deaths is estimated at \$7.8 billion.¹¹

Policy Opportunities

Opportunities for reducing transport emissions include:¹²

1. Increasing efficiency of motorised vehicles by the introduction of mandatory emission standards as is the case in 80% of the global car market.¹³
2. Reducing emissions intensity of fuels. Australia has the lowest fuel standards in the OECD.¹⁴ Cleaner fuels allow more efficient engines to operate and reduce the level of toxic compounds in exhaust. Biofuels offer a limited chance of reducing greenhouse emissions but do not eliminate toxic exhaust. Fully electric vehicles are less emissions intensive than the average light car even when charged from the current Australian grid. However, to achieve significant reductions in emissions a higher proportion of the electricity grid will need to come from renewable energy.¹⁵ Electric vehicles are cheaper to run, service and operate but there is a present lack of infrastructure and policy support.
3. Reducing demand through financial incentives. Stamp duty on cars should reflect their energy intensity and pollution potential, with low emissions vehicles receiving concessions. Modal shift from private cars to public transport has a large potential to reduce emissions. Policies should favour public transport and active transport over private car use. Walking and cycling have important co-benefits in reducing obesity, hypertension and type 2 diabetes. The health cost of overweight and obesity was estimated by Access Economics to be of the order of \$58.2 billion in 2008.¹⁶ The health benefit from breathing cleaner air must also be considered. The excise duty on diesel fuels should take into account the toxic and carcinogenic properties of diesel exhaust.

Recommendations

1. Adoption of Euro6 and EuroVI standards or equivalent for light and heavy vehicles respectively, and real world driving emissions tests for all new vehicle models.
2. Strict emission standards for off road diesel equipment such as US Tier 4.
3. Improved fuel standards to bring Australia into line with comparable OECD countries. Progressive reduction of CO2 emissions from new light vehicles to 105gm/km by 2025 as recommended by the Climate Change Authority.¹⁷ A further reduction in sulphur content is urgently required.
4. Increased excise on diesel fuel and higher duty on new diesel vehicles to reflect the health costs imposed by diesel exhaust.
5. Plan for and promote the uptake of electric vehicles by providing incentives for charging infrastructure, and anticipate the impacts of EVs on the electricity grid. Research the possible opportunities in manufacturing EVs in Australia.
6. Prioritise public transport over expensive road infrastructure and active transport over motor car use. Pedestrian paths and cycle lanes to be included in town and city planning. Housing, transport and health policies to be considered in conjunction.
7. Raise public awareness of air pollution risks, making air quality data readily available. Introduce anti-idling laws around schools.
8. Improve monitoring of air quality for populations at risk, including schools, hospitals and aged-care centres.
9. Shipping pollution: Under Annex VI of the MARPOL Convention on marine pollution, mandate the use of low sulphur fuel within 200km of any Australian city.

References

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