uniting church in Australia, Synod of NSW & ACT

Reducing Our Emissions from Transport

Purpose

This sheet provides information on the carbon emissions that result from different types of transport. It shows that the transport methods we use can have a real impact on our total emissions, at an individual level and also nationally. It describes ways we can make different choices about how we move about, that can greatly reduce emissions.

Why do our transport choices matter for the planet?

Transport is one of the largest contributors to Australia's overall greenhouse gas pollution. It accounts for 18% of national emissions[1], which makes it the second highest source after electricity.

For individuals and private households, transport represents the greatest proportion of their greenhouse gas emissions.[2]

The mode of transport and carbon emissions

The table below shows average carbon dioxide emissions per kilometre, per person, for different types of transport. [3]

Type of transport	Carbon emissions gCO_2/km (grams of carbon dioxide per kilometre)
Train	3-21 gCO_2/km
Light rail	4-22 gCO_2/km
Bus	12-22 gCO_2/km
Electric car	6 gCO_2/km
New car	184 gCO_2/km
Average car	250 gCO_2/km

As this table illustrates, train, bus and light rail emit far less greenhouse gas pollution per person per kilometre than petrol driven cars. While electric cars have the lowest emissions, they represent only 0.08% of car sales in Australia. By comparison, electric car sales make up more than 1% of sales in China, the UK, France and Sweden, nearly 10% in the Netherlands and 23% in Norway. The percentage of electric car sales will rise steeply as their comparative price falls and governments introduce deadlines for the phasing out of petrol and diesel vehicles.[4]

Cars are responsible for nearly half (46%) of all transport greenhouse gas emissions in Australia. Transport emissions are growing steadily having increased by 22% since 2005.[2]

While road based transport is responsible for the bulk of greenhouse gas pollution from transport, flying represents a potent source of emissions, though it is regularly used by far fewer people. For example, a return trip from Australia to London will generate about 4 tonnes of CO_2 per passenger. By comparison the average Australian car, travelling 15,500 kilometres a year, will produce 3 tonnes of CO_2. [5]

How does Australia compare on transport emissions?

Australia's transport emissions ranked second worst among 23 of the largest energy using countries.[6] This is due to:

- Having cars with high emission rates (and a lack of emissions standards)
- High distances travelled by car per person, relative to other countries
- Low use of public transport (12% of all trip, compared to 70% in China)
- Low investment in public transport compared to roads

Some of the ways you can reduce emissions from transport

Some immediate/short term solutions

- Walk or use a bicycle for short trips (where possible)
- Use public transport (bus, train, tram) where you can. This could include going to work, for shopping and recreation
- When driving is necessary, try car-pooling, e.g. for getting to church.
- Use technology to meet rather than travelling to meetings. This can make car and train trips, or even plane flights unnecessary

Some medium-longer term solutions

- Choose a more fuel efficient car, a hybrid or an electric car as your next vehicle. https://www.greenvehicleguide.gov.au/pages/Information/VehicleEmissions
- Travel less by air or avoid flights altogether, except for family emergencies (until effective, sustainable aviation fuels are developed), or offset your flight emissions.[7]

As a voter

- Support investment in effective public transport systems such as rail and tram and increased cycle lanes in urban areas
- Consider planning proposals that help make people's access to work and recreation easier and reduce urban sprawl and reliance on cars
- Encourage government support infrastructure for electric vehicles, e.g. charging stations

References

[1] Bourne G et al (2018). Australia's rising greenhouse gas emissions. Climate Council of Australia

[2] Environmental Protection Authority Victoria. Households and GHG emissions. Available at: https://apps.epa.vic.gov.au/AGC/r_emissions.html#/!

[3] Climate Council of Australia (2018). Climate Action Toolkit November 2018

[4] International Council on Clean Transportation Briefing, (2020) The end of the road? An overview of combustion engine car phase- out announcements across Europe. Available at: https://theicct.org/sites/default/files/publications/Combustion-engine-phase-out-briefing-may11.2020.pdf

[5] Blakers A (2019). How to neutralise your greenhouse gas footprint. Available at: https://energy.anu.edu.au/news-events/how-neutralise-your-greengouse-gas-footprint

[6] Climate Council of Australia (2017). Factsheet: Transport Emission: Driving down car pollution in cities. Available at: https://www.climatecouncil.org.au/resources/transport-fact-sheet/

[7] Carbon Reduction Institute. Carbon offset calculator Available at: https://secure.noco2.com.au/default.aspx?AspxAutoDetectCookieSupport=1

This information sheet was developed by the Church and Individual Emissions Task Group, 2020, one of the task groups of the Synod Climate Action Strategy.