









# Australia

Australia's transport sector is characterised by high per capita emissions, with transport accounting for 17% of national GHG emissions in 2023. Despite a decline in transport energy consumption since 2015, emissions have risen due to continued reliance on oil products. Renewable energy, including biofuels and electricity, accounted for only 2.2% of Australia's transport energy consumption, whereas the carbon intensity of its electricity remains high, at 556.3 gCO<sub>2</sub>/kWh in 2023. Passenger travel demand has remained stable, with private cars dominating the modal share, while freight transport has grown, primarily driven by road and rail. Beyond climate impacts, transport accounted for 4.4% of national air pollutant emissions in 2019. Transport-induced air pollution, in

turn, caused 0.34 premature deaths per 100,000 people in Australia in 2019. Road traffic injuries, on the other hand, claimed 4.5 lives per 100,000 people and accounted for 1.80% of the country's GDP in 2021. In 2020, a significant share (84.44%) of Australia's population had convenient access to public transport. The country has introduced measures to promote electric vehicles, including purchase incentives, but lacks national emissions reduction targets for transport in its NDC. Subnational policies, such as fuel mandates and ICE phase-out targets, indicate progress towards decarbonisation, while support for improved sustainability of transport is mainly supported by a few subnational activities on walking and cycling.

|  |   |  |
|--|---|--|
|   | Income group: High-income                               |  |
|  | Human Development Index (2023): 0.96                    |  |
|  | Population size (2023): 24.13 million                   | +10.7% (2015 - 2023)   |
|  | Urban population share (2023): 86.50%                   | +11.6% (2015 - 2023)   |
|  | GDP per capita (2023): 62 081.21 USD                    | +9.2% (2015 - 2023)  |
|  | Share of transport and storage jobs in workforce (2023) | 8.3%   |
|  | Share of women employed in transport and storage (2023) | 24.7%  |

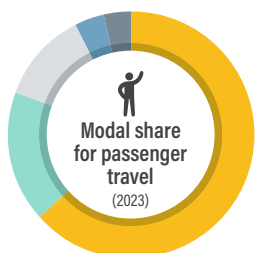
## Transport Demand Trends

### Passenger transport activity

434 600

million passenger-km in 2023

-0.1%  
(2015 to 2023)



|       |                |
|-------|----------------|
| 63.6% | Passenger cars |
| 4.0%  | Buses          |
| 3.5%  | Rail           |
| 17.1% | Air            |
| 11.9% | Other          |

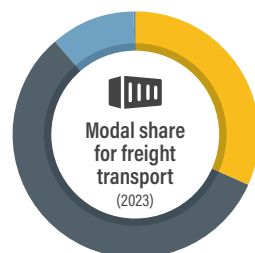
SDG 9.1

### Freight transport activity

785 400

million ton-km in 2023

+7.7%  
(2015 to 2023)



|       |                  |
|-------|------------------|
| 31.7% | Road             |
| 57.0% | Rail             |
| 11.2% | Coastal shipping |
| 0.03% | Air freight      |

SDG 9.1

### Transport energy consumption (2022)

1 270 521 TJ

-3.9%  
(2015 to 2023)

#### Oil products

96.4% of total transport energy consumption

### Per capita fossil fuel subsidies (2022)

879.3 USD per capita

SDG 12

### Fuel quality standards (2022)

<15 ppm

### Average light duty vehicle fuel consumption (2022)



### Road traffic fatalities (2021), WHO estimates

SDG 3.6

4.5 deaths per 100,000 people

4.9 Regional  
15.0 Global

### Road traffic fatality cost as percentage of GDP (2021)

1.80%

### Premature deaths linked to transport air pollution (2019)

SDG 11.6

0.3 deaths per 100,000 people

1.7 Regional  
2.3 Global

### Contribution of transport to air pollution (2019)

4.4%

## Transport Emission Trends

### Transport GHG emissions (2023)

97.5

million tonnes of CO<sub>2</sub> equivalent

+4.3%  
(2015 to 2023)

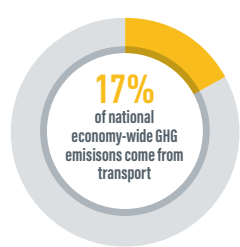
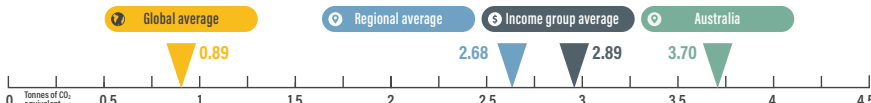
+7.2%  
(2022 to 2023)

### Per capita transport GHG emissions (2023)

3.7

tonnes of CO<sub>2</sub> equivalent per capita

#### PER CAPITA EMISSION COMPARISON



Transport is the **third-largest** GHG-emitting sector in the country in 2023.

## Transport Decarbonisation Pathways

Transport strategy identifies climate change



Long-term strategy submitted to UNFCCC



NDC submitted:

1st and Updated NDC

NDC highlights transport for GHG mitigation



Transport mitigation targets in NDC



Other non-emission related transport targets in NDC



VNR highlights transport



2018 VNR with transport linkages to SDG 3 and SDG 11

#### Transport actions in VNRs

- ▶ Road safety improvements
- ▶ Transport system modernisation

#### Transport actions in NDC

##### Mitigation

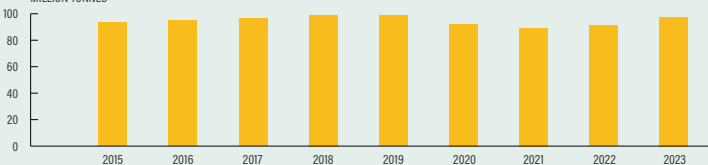
- ▶ EV purchase incentives
- ▶ General e-mobility
- ▶ Inspection and maintenance

##### Adaptation

### Transport GHG emissions from 2015 to 2023

#### HISTORIC EMISSIONS

MILLION TONNES



## Policy Areas: Indicators and Targets



### Integrated Transport Planning

|   |  |
|---|--|
| National urban mobility framework (2024)          | ✓  |
| Sustainable urban mobility plans (2024)           | ✓  |
| Number of sustainable urban mobility plans (2022) | 1 city                                       |
| Low emission zones (2022)                         | ✗ None, LEZs proposed for the City of Sydney |

### Adaptation and Resilience

|   |       |
|---|-------|
| ND-GAIN Index (2022)                          | 69.55 |
| Vulnerability score for infrastructure (2022) | 0.18  |

### Walking

|                                    |                           |
|------------------------------------|---------------------------|
| Walkability Score (2024)           | 0.55                      |
| National walking strategies (2024) | Only on subnational level |

#### Target

- Planning for walkable communities and places
- Building connected, comfortable and safe walking environments for all
- Encouraging more people to walk as part of their 'everyday'
- Working together to deliver for walking

### Cycling

|  |                           |
|--|---------------------------|
| Cycling infrastructure in capital (2022) | —                         |
| Percent near protected bikeways (2024)   | 34.3%                     |
| Bike sharing systems (2024)              | 14                        |
| National cycling strategies (2024)       | Only on subnational level |

#### Target

- Objectives on inclusive cycling, accessibility, integration with land use planning and cycle tourism

### Public Transport

|  |                                   |
|--|-----------------------------------|
| Bus rapid transit (2024)   | 90 km of total length in 3 cities |
| Bus rapid transit daily passenger volume (2024)                                | 413 300 passengers per day        |
| Urban rail (LRT, metro, tram) (2024)   | 1325 km in 8 cities               |
| Proportion of population that has convenient access to public transport (2020) | 84.44%                            |

### Intercity Rail

|  |                                |
|--|--------------------------------|
| Rail network   | —                              |
| Rail travel activity (2021)                                    | 9 327 631 million passenger-km |
| Rail freight activity (2021)                                   | 453 091 million ton-km         |
| High-speed rail  | —                              |
| High-speed rail travel activity (2002)                         | —                              |
| National plans for passenger and freight rail expansion (2024) | ✓                              |

#### Target

- Inland Rail Project to upgrade 1,100 km and build 600 km new tracks

### Road Transport

|  |                    |
|--|--------------------|
| Total road vehicles in use per 1,000 people (2020) | 7376               |
| Road vehicle fleet growth (from 2015 to 2020)      | 10.0%              |
| Rural Access Index (2019)                          | SDG 9.1 —          |
| Diesel prices (2022)                               | 1.15 USD per litre |
| Gasoline prices (2022)                             | 1.17 USD per litre |

### Aviation

|                                   |                       |
|-----------------------------------|-----------------------|
| Air passengers carried (2021)     | 24.6 million people   |
| Air freight activity (2021)       | 1244.8 million ton-km |
| Carbon-accredited airports (2023) | 16 airports           |
| of which carbon neutral:          | 3 airports            |

### Shipping

|   |                 |
|---|-----------------|
| Logistics Performance Index (2023)          | 3.7             |
| Liner shipping connectivity index (Q4 2024) | 35.7            |
| Container port traffic (2020)               | 8 656 995.0 TEU |

### Transport Energy Sources

|   |  |
|---|--|
| Biofuel blend overall mandate (2023)                                  | Subnational mandates ranging from 0.5 to 10% |
| Biofuel blend biodiesel mandate (2023)                                | —  |
| Biofuel blend ethanol mandate (2023)                                  | 10.0%  |
| Carbon intensity of electricity (2023)                                | 556.30 gCO <sub>2</sub> /kWh                 |
| Renewable energy (biofuels and electricity) share in transport (2022) | 2.2% of total transport energy consumption   |
| Biofuels (2022)   | 0.3% of total transport energy consumption   |
| Electricity (2022)  | 1.9% of total transport energy consumption   |
| Targeted renewable power share  | —  |

### Vehicle Technologies

|   |   |
|---|---|
| Emission standards for LDVs (2024)                              | Euro 4 and above  |
| CO <sub>2</sub> emissions performance for passenger cars (2024) | 154 g CO <sub>2</sub> /km in 2021   |
| Targeted CO <sub>2</sub> emissions performance (2024)           | 58 g CO <sub>2</sub> /km by 2029  |
| Regulatory environment ranking on used vehicles (2024)          | —   |
| Electric vehicles stock for passenger cars (2024)               | 250 000 vehicles  |
| Share of electric vehicles in car sales (2024)                  | 13 %  |
| ICE phase-out targets   | ✓ Sub-national (South Australia and Australian Capital Territory: 2035; Queensland: 2036) |
| Electric vehicles stock for vans (2024)                         | —   |
| Electric vehicles stock for trucks (2024)                       | —   |

This fact sheet is part of the SLOCAT Transport, Climate and Sustainability Global Status Report – 4<sup>th</sup> Edition. The country fact sheets have been made possible thanks to financial support from the ClimateWorks Foundation. Information presented in this fact sheet is based on desk research and may not be complete or reflect the most recent status. Data has been collected to the best of our knowledge and availability. Where no information could be retrieved, the indicators are shown in grey. The content does not represent the views of the SLOCAT Partnership on Sustainable, Low Carbon Transport or the ClimateWorks Foundation. For more information, please visit [gsr4.slocat.net](https://gsr4.slocat.net).

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#### List of acronyms

|     |                                      |
|-----|--------------------------------------|
| GDP | Gross-domestic product               |
| HDV | Heavy-duty vehicle                   |
| ICE | Internal combustion engine           |
| kWh | Kilowatt-hour                        |
| LDV | Light-duty vehicle                   |
| LRT | Light-rail transit                   |
| NDC | Nationally determined contribution   |
| PST | Primary, secondary or tertiary roads |

|        |  |
|--------|--|
| TEU    | Twenty-foot Equivalent Unit                                    |
| UNEP   | United Nations Environment Programme                           |
| UNFCCC | United Nations Framework Convention on Climate Change          |
| VNR    | Voluntary national review of the Sustainable Development Goals |
| WLTP   | Worldwide harmonised light vehicles test procedure             |

