

# South Africa



TRANSPORT, CLIMATE  
AND SUSTAINABILITY  
GLOBAL STATUS REPORT



**South Africa** has the second highest GDP in the region, and transport is the third-largest CO<sub>2</sub> producing sector although it registered a 7.8% decline in carbon emissions between 2015 and 2021. The per capita transport CO<sub>2</sub> emissions of South Africa are significantly higher than the regional average and even slightly higher than the global average.

The country has implemented few transport decarbonisation measures, most of which focus on vehicle efficiency improvements and electrification. The rail strategy outlines some measures to shift freight from roads to railways. South Africa's Green Transport Strategy remains since 2018 to be the main guiding document and it features the target to reduce transport GHG emissions by 5% by 2050 which is highly insufficient compared to the required decarbonisation pathways.

Income group:	Middle-income
Human Development Index (2021):	0.713
Population size (2022):	59 646 800 +8% (2015 - 2022)
Urban population share (2022):	68.7% +14.4% (2015 - 2022)
GDP per capita (2021):	5 954.50 -5.16% (2015 - 2021)

## Transport Demand Trends

### Passenger travel activity

**3 502**

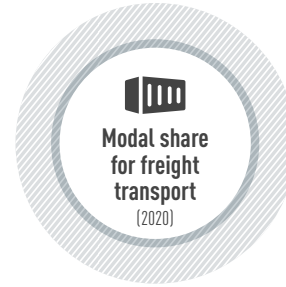
million passenger-km for rail in 2020 in 2020

**-74.5%**  
(2015 to 2020)



### Freight transport activity

Not available



### Energy consumption (2020)

**15.14**

million tonnes of oil equivalent

**-17.1%**  
(2015 to 2020)

**98.7%**

Oil Products

**1.3%**

Electricity

Average light duty fuel economy consumption Lge/100 km (WLTP)

**7.4**  
(2019)

## Transport Emission Trends

### Transport CO<sub>2</sub> emissions (2021)

**49.7** million tonnes

**-7.8%**  
(2015 to 2021)

### Per capita transport CO<sub>2</sub> emissions (2021)

**0.84** tonnes

Transport is the **third-largest** CO<sub>2</sub> producing sector in the country

**11%**  
of national economy-wide emissions come from transport

### Per capita transport CO<sub>2</sub> emissions



## 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	✓ 2019 VNR with transport linkages to SDG 7, SDG 8, SDG 9, SDG 11 and SDG 13

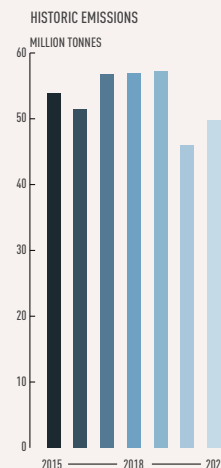
### Transport actions in VNRs

- ▶ E-mobility
- ▶ Cleaner fuels
- ▶ Energy efficiency
- ▶ Active mobility
- ▶ BRT and public transport improvements
- ▶ CNG

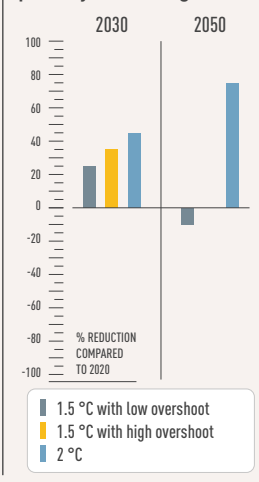
### Transport actions in NDC

- ▶ General e-mobility
- ▶ General public transport improvement
- ▶ Adaptation and resilience of transport systems
- ▶ Design Standards and updates
- ▶ Transport Planning

### Required regional transport decarbonisation pathways



### IPCC transport decarbonisation pathways for this region



## Policy Areas: Indicators and Targets

Integrated Transport Planning	
National urban mobility framework (2022)	✘
Sustainable urban mobility plans (2022)	Not available
Number of sustainable urban mobility plans (2022)	✘
Low emission zones (2022)	✘

Walking	
National walking strategies (2022)	Yes
<b>Targets</b> <ul style="list-style-type: none"> <li>▶ To provide information and guidelines on a variety of aspects related to pedestrian and bicycle facilities</li> <li>▶ To integrate walking and cycling into the transport system.</li> <li>▶ To improve the quality of life of marginalised people.</li> <li>▶ To adhere to the principle of environmental protection, and energy conservation</li> <li>▶ To integrate and connect the first and second economies, and the rural and urban areas.</li> <li>▶ To promote economic revitalisation of the rural areas.</li> <li>▶ To promote safety as a critical facet of public and freight transport.</li> <li>▶ To increase accessibility and mobility.</li> </ul>	

Cycling	
National walking strategies (2022)	Yes
<b>Targets</b> <ul style="list-style-type: none"> <li>▶ Same as walking above</li> </ul>	
Cycling infrastructure in capital (2022)	415 km

Shared Mobility, Public Transport and Informal Transport	
Bus rapid transit (2022)	88 km in 1 city
Bus rapid transit daily passenger volume (2022)	111 578
Urban rail (LRT, metro, tram) (2022)	824 km in 4 cities
Rapid Transit to Resident Ratio (2021)	31

Intercity Rail	
Rail network (2021)	20953 km
Rail travel activity (2020)	3501.96 million-passenger-km
Rail freight activity (2008)	113342 million ton-km
High-speed rail (2021)	Not available
High-speed rail travel activity (2021)	Not available
National plans for passenger and freight rail expansion (2022)	✔
<b>Target</b> <ul style="list-style-type: none"> <li>▶ Development of the Transnet Road-to-Rail Strategy</li> <li>▶ To rebalance the road freight-rail freight split in an attempt to create a more appropriate market share</li> <li>▶ To reduce the number of heavy trucks on the roads and decrease overloading on the road network</li> </ul>	

Road Transport	
Total road vehicles in use per 1,000 people (2020)	175.8
Average annual growth rate (from 2015 to 2020)	1.50%

Aviation	
Air passengers carried (2020)	8.3 million people
Air freight activity (2020):	102.4 million ton-km
Carbon-accredited airports (2022)	6 airports
of which carbon neutral:	✘

Shipping	
Liner shipping connectivity index (2021):	391
Container port traffic (2020):	4 029 000 TEU

Transport Energy Sources	
Biofuel blend mandate (2022)	5% Biodiesel, 2% Ethanol
Renewable energy (biofuels and electricity) share in transport (2020)	1.32%
Targeted % of renewable energy	Not available

Vehicle Technologies	
Emission standards for LDVs (2020)	Euro 2
CO <sub>2</sub> emissions performance for passenger cars (2020)	Not available
Targeted CO <sub>2</sub> emissions performance	Not available
Regulatory environment ranking on used vehicles by UNEP (2021)	Banned
Electric vehicles (2022)	Not available
Share of electric vehicles in car sales (2022)	Not available
ICE phase-out targets:	Convert 5% of the public and national fleet to cleaner alternative fuel and efficient technology vehicles by 2025, with annual increase of 2% thereafter

COVID-19	
Strongest impact of COVID-19 on...	(compared to pre-COVID-19 baseline)
... trips to public transport	-80% Week of 12 April 2020
... navigation request for walking	-82.5% Week of 5 April 2020
... navigation request for driving	-84.9% Week of 5 April 2020
... driven kilometres	-89.4% Week of 5 April 2020
Traditional transport infrastructure investment:	USD 0.036 billion
Clean transport infrastructure investment:	Not available
<b>Examples</b> <ul style="list-style-type: none"> <li>▶ Rural roads maintenance and upgrading programme</li> </ul>	

This fact sheet is part of the SLOCAT Transport, Climate and Sustainability Global Status Report 3<sup>rd</sup> Edition. Information shown in this country fact sheet is based on desk research and might not be complete or not show the most recent status. The data has been collected to the best knowledge and availability. If no information was able to be retrieved, then 'Not available' is being indicated. The content does not represent the opinion of the SLOCAT Partnership on Sustainable, Low Carbon Transport. For more information, please visit [tcc-gsr.com](http://tcc-gsr.com)

Data in this fact sheet is based on the Energy and Transport Starter Data Kits by the Climate Compatible Growth (CCG) programme. SLOCAT is contributing transport data to the Energy and Transport Starter Data Kits: synthesising available data on passenger and freight activity, energy intensity, load factors and vehicle fleets for Africa, Asia and Latin America. For more information, please visit [climatecompatiblegrowth.com/starter-kits/](http://climatecompatiblegrowth.com/starter-kits/)

#### List of acronyms

GDP	Gross-domestic product	TEU	Twenty-foot Equivalent Unit
HDV	Heavy-duty vehicle	UNEP	United Nations Environment Programme
ICE	Internal combustion engine	UNFCCC	United Nations Framework Convention on Climate Change
LDV	Light-duty vehicle	VNR	Voluntary national review of the Sustainable Development Goals
LRT	Light-rail transit	WLTP	Worldwide harmonised light vehicles test procedure
NDC	Nationally determined contribution		