

United Kingdom

The **United Kingdom (UK)** has made progress towards sustainable, zero-emission transport, but challenges remain. Passenger travel activity has stagnated since 2015, while freight transport has increased. Cars dominate passenger transport, with buses and rail losing modal share. Transport remains the country's largest GHG-emitting sector, accounting for 28.93% of total emissions, despite a decline of 8.71% since 2015. Renewable energy, including biofuels and electricity, accounted for 7.6% of the UK's transport energy consumption, whereas the carbon intensity of its electricity is moderate, at 228.3 gCO₂/kWh in 2023. Beyond climate impacts, transport accounted for 10.6% of national

air pollutant emissions in 2019. Transport-induced air pollution, in turn, caused 2.48 premature deaths per 100,000 people in the UK in 2019. Road traffic crashes claimed 2.4 lives per 100,000 people and accounted for 1.10% of the country's GDP in 2021. In 2020, an impressive 95.55% of the UK population had convenient access to public transport. Policies support zero-emission vehicles, urban mobility, and rail electrification, with an ICE phase-out target set for 2035. However, reliance on oil remains high, and fossil fuel subsidies persist. Investments in public transport, walking, and cycling aim to shift travel behaviour, though uptake varies.

Income group: High-income

Human Development Index (2023): 0.95



Population size (2023): 65.64 million **+5.10%** (2015 - 2023)

Urban population share (2023): 84.60% **+715%** (2015 - 2023)

GDP per capita (2023): 46 941.33 USD **+4.41%** (2015 - 2023)

Share of transport and storage jobs in workforce (2023) **9.1%**

Share of women employed in transport and storage (2023) **23.4%**

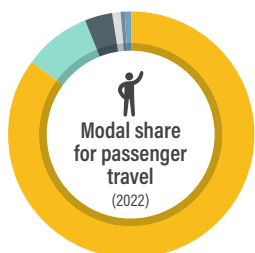
Transport Demand Trends

Passenger transport activity

799 460

million passenger-km in 2022

+0.2%
(2015 to 2022)



85.0% Cars, vans and taxis
3.6% Buses and coaches
0.6% Motorcycles
0.7% Pedal cycles
9.0% Rail
1.0% Air

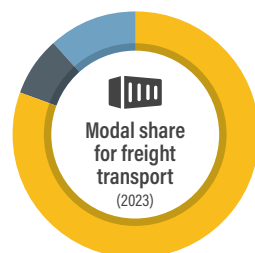
SDG 9.1

Freight transport activity

207 000

million ton-km in 2023

+7.8%
(2015 to 2022)



80.7% Road
7.7% Rail
11.6% Water

SDG 9.1

Transport energy consumption (2022)

1 600 625 TJ

-5.6%
(2015 to 2022)

Oil products

92.2% of total transport energy consumption

Per capita fossil fuel subsidies (2022)

544.9 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

2.4 deaths per 100,000 people

5.8 Regional
15.0 Global

Road traffic fatality cost as percentage of GDP (2021)

1.1%

Premature deaths linked to transport air pollution (2019)

SDG 11.6

2.5 deaths per 100,000 people

4.1 Regional
2.3 Global

Contribution of transport to air pollution (2019)

10.6%

Transport Emission Trends

Transport GHG emissions (2023)

109.8

million tonnes of CO₂ equivalent

-8.7%
(2015 to 2023)

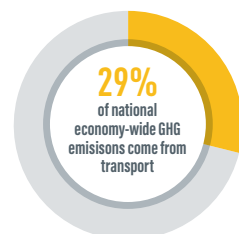
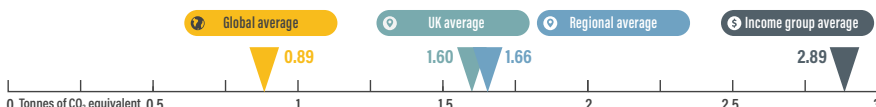
+1.4%
(2022 to 2023)

Per capita transport GHG emissions (2023)

1.6

tonnes of CO₂ equivalent per capita

PER CAPITA EMISSION COMPARISON



Transport is the **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, 2nd and 3rd NDC

NDC highlights transport for GHG mitigation ☒

Transport mitigation targets in NDC ☒

Other non-emission related transport targets in NDC ☒ zero-emission vehicles to reflect 80% of car and 70% of van sales by 2030, 100% by 2035

VNR highlights transport ☒ 2019 VNR with transport linkages to SDG 3, SDG 7, SDG 8, SDG 9 and SDG 13

Transport actions in VNRs

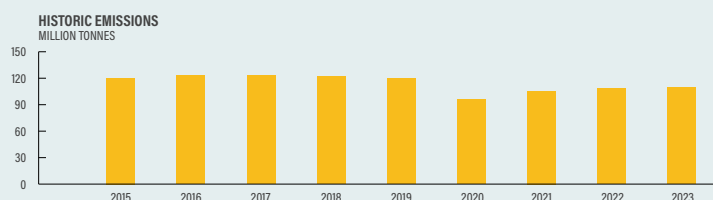
- ▶ Zero-emission vehicle
- ▶ Renewable energy for transport
- ▶ Upgrading transport infrastructure
- ▶ EV charging

Transport actions in NDC

Mitigation

- ▶ Transport demand management measures
- ▶ Emissions trading and carbon pricing
- ▶ Vehicle restrictions (import, age, access, sale, taxation)
- ▶ Public transport integration and expansion
- ▶ Fossil fuel subsidy elimination
- ▶ General e-mobility measures
- ▶ ICE (gasoline and diesel) bans
- ▶ Aviation and shipping improvements

Transport GHG emissions from 2015 to 2023



Policy Areas: Indicators and Targets



Integrated Transport Planning

National urban mobility framework (2024)	✓
Sustainable urban mobility plans (2024)	✓
Number of sustainable urban mobility plans (2024)	—
Low emission zones (2024)	17 cities

Adaptation and Resilience

ND-GAIN Index (2022)	70.30
Vulnerability score for infrastructure (2022)	0.22

Walking

Walkability Score (2024)	0.81
National walking strategies (2024)	✓

Target

- Increase the percentage of short journeys in towns and cities that are walked or cycled from 41% in 2019 to 46% in 2025
- Increase walking activity, where walking activity is measured as the total number of walking stages per person per year, to 365 stages per person per year in 2025
- Increase the percentage of children aged 5 to 10 who usually walk to school from 49% in 2014 to 55% in 2025

Cycling

Cycling infrastructure in capital (2022)	400 km
Percent near protected bikeways (2024)	28%
Bike sharing systems (2024)	49
National cycling strategies (2024)	✓

Target

- Double cycling from 0.8 billion stages in 2013 to 1.6 billion stages in 2025

Public Transport

Bus rapid transit (2024)	135 km of total length in 7 cities
Bus rapid transit daily passenger volume (2024)	101 559 passengers per day
Urban rail (LRT, metro, tram) (2024)	818 km in 10 cities
Proportion of population that has convenient access to public transport (2020)	95.55% SDG 11.2

Intercity Rail

Rail network (2021)	16 178.56 km
Rail travel activity (2020)	24 188.47 million passenger-km
Rail freight activity (2020)	15 212.12 million ton-km
High-speed rail (2022)	113 km
High-speed rail travel activity (2022)	3 435.8 million passenger-km
National plans for passenger and freight rail expansion (2024)	✓

Target

- To invest GBP 96 billion for rail construction and upgrades
- To electrify 75% of all rail lines, allowing to remove diesel-only trains from the network by 2040

Road Transport

Total road vehicles in use per 1,000 people (2020)	630.2
Road vehicle fleet growth (from 2015 to 2020)	10.95%
Rural Access Index (2019)	— SDG 9.1
Diesel prices (2022)	1.67 USD per litre
Gasoline prices (2022)	1.88 USD per litre

Aviation

Air passengers carried (2021)	26.6 million people
Air freight activity (2021)	4 097.1 million ton-km
Carbon-accredited airports (2023)	24 airports
of which carbon neutral:	8 airports

Shipping

Logistics Performance Index (2023)	3.7
Liner shipping connectivity index (Q4 2024)	90.0
Container port traffic (2020)	8 692 260.0 TEU

Transport Energy Sources

Biofuel blend overall mandate (2023)	10.1%
Biofuel blend biodiesel mandate (2023)	70%
Biofuel blend ethanol mandate (2023)	10.0%
Carbon intensity of electricity (2023)	228.25 gCO ₂ /kWh
Renewable energy (biofuels and electricity) share in transport (2022)	76% of total transport energy consumption SDG 7.2.1
Biofuels (2022)	5.7% of total transport energy consumption
Electricity (2022)	1.9% of total transport energy consumption
Targeted renewable power share	100%

Vehicle Technologies

Emission standards for LDVs (2024)	Euro 4 and above
CO ₂ emissions performance for passenger cars (2024)	90 g CO ₂ /km in 2023
Targeted CO ₂ emissions performance (2024)	22 g CO ₂ /km by 2030
Regulatory environment ranking on used vehicles (2024)	—
Electric vehicles stock for passenger cars (2024)	1 400 000 vehicles
Share of electric vehicles in car sales (2024)	28%
ICE phase-out targets	✓ (2035)
Electric vehicles stock for vans (2024)	89 000 vehicles
Electric vehicles stock for trucks (2024)	4 300 vehicles

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Supported by: Drive Electric CAMPAIGN

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

