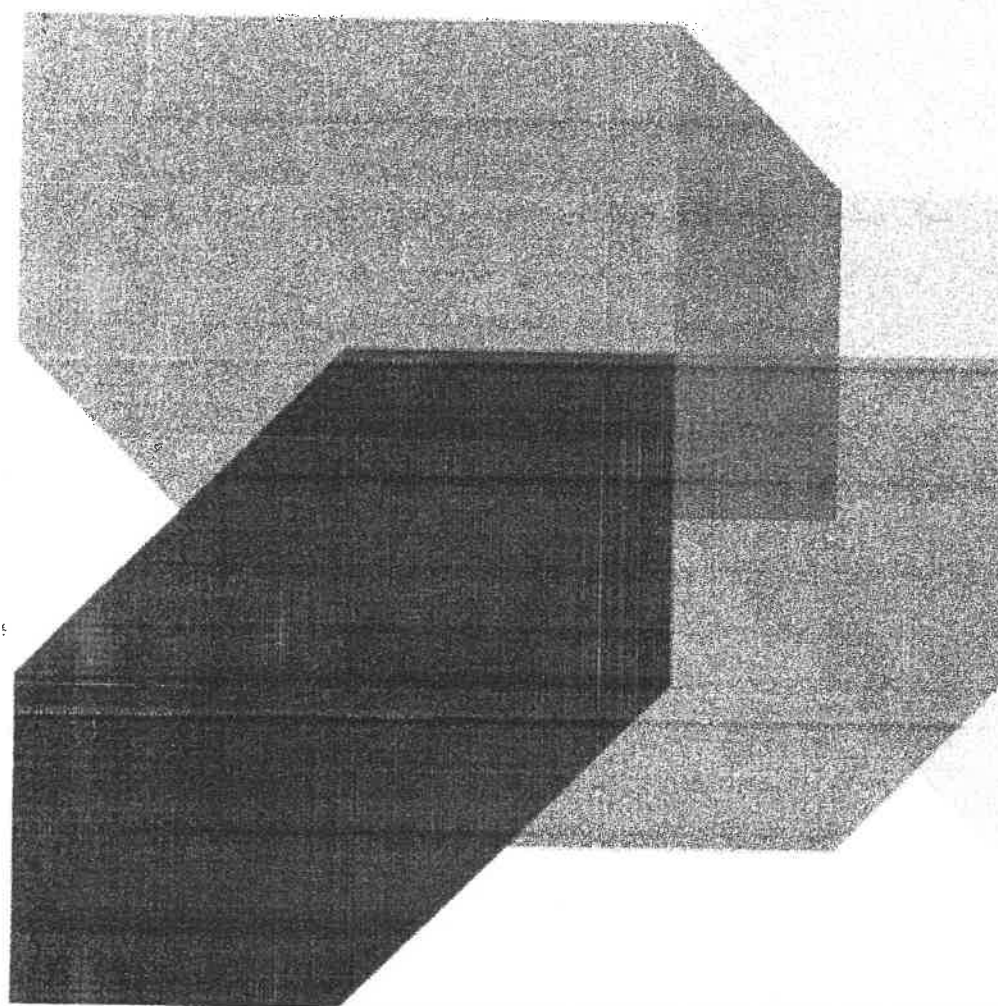




Department
for Transport

National Road Traffic Projections 2022



factors in travel demand. It also extended the projection window to 2060. For non-person travel, updates to both the Light Goods Vehicle (LGV) model and the Great Britain Freight Model (GBFM) have been undertaken. In addition, GBFM has been revalidated to 2018 from a base year of 2004.

- 1.6 We have also reviewed and updated the full range of modelling assumptions, including the costs of travel. This includes a series of assumptions on the price of fuel, the fuel efficiency of different types of vehicles and the value of time spent travelling. Together, travel costs, population, and economic growth account for around 90% of overall projected traffic growth between 2025 and 2060.
- 1.7 The CAS are used to explore the uncertainties around key drivers of travel demand. These scenarios were published at a high level in DfT's Uncertainty Toolkit in 2021 and have been refined over the past year following extensive engagement with stakeholders, including DfT's academic and practitioner panel, the Joint Analysis Development Panel (JADP).
- 1.8 The coronavirus (COVID-19) pandemic has had a significant impact on travel patterns. Road demand has been affected less than other modes of transport, however, car use, which accounted for around 78% of all traffic in 2019, is still below pre-pandemic levels. In contrast, both van and heavy goods vehicle (HGV) traffic are higher than pre-pandemic levels, with July 2022 levels 24% and 15% above February 2020 levels, respectively. The extent to which these patterns will be sustained long term is unclear, however, having reviewed the available survey evidence and traffic data, we have made a high-level assumption that, in the long term, car traffic will be 5% lower than it would have been without COVID-19.

What the projections show

- 1.9 There is significant uncertainty in long term travel demand and the full range of CAS should be considered to understand how sensitive the projections are to different drivers of travel demand. The analysis presented here is for national road traffic projections and focused on highway-based private motorised transport and freight movements. The NTM is a strategic highway model that is designed primarily for this purpose and is not used to make detailed projections for other individual surface transport modes.
- 1.10 The National Road Traffic Projections (NRTP 22) illustrate that a wide range of future traffic growth is possible, projecting traffic levels at 5-year intervals between 2025 and 2060. Road traffic is projected to increase in all the scenarios modelled though there is significant variation across the scenarios.
- 1.11 The Core Scenario includes 'firm and funded' government policy, for example, where ambitions are supported by published plans or funded policies. Relationships between the key drivers of demand and road traffic are broadly assumed to continue in line with historical trends and evidence, for example, how drivers respond to changes in fuel costs or how changes in income influence people's travel choices. The Core Scenario projects a 22% increase in traffic between 2025 and 2060. It uses the latest government projections of the main drivers of road traffic demand including

population, economic growth, employment, households, fuel prices and fuel efficiency.

- 1.12 The lowest levels of traffic are seen in the Behavioural Change Scenario which assumes increased flexible working, online shopping and reduced rates of driving licence holding among younger cohorts. In this scenario, traffic is projected to grow by 8% between 2025 and 2060. The highest growth is seen in the Technology Scenario which assumes high and fast uptake of connected and autonomous vehicles (AVs) and high and fast uptake of electric vehicles (EVs) which are assumed to maintain their current cost advantage over petrol and diesel vehicles. This is just one potential future with AVs which assumes increased trip making for the elderly and increased driving licence holding for all. In this scenario, traffic is projected to grow by 54% between 2025 and 2060.
- 1.13 Traffic growth varies not only by scenario, but also by road type. The projections consider traffic growth for motorways, A-roads, and minor roads. In the Core Scenario, traffic on minor roads and A-roads is expected to grow by 21% and 20% respectively, while motorway traffic is projected to increase by 27% between 2025 and 2060. Congestion (measured in delay per mile) is also projected to increase, with the average delay per mile projected to increase around 27% between 2025 and 2060. Motorways have the least delay, which rises from 4 seconds in 2025 to 10 seconds in 2060. The average delay on A-roads and minor roads is longer but rises by a smaller proportion (21 seconds to 29 seconds on A-roads, 30 seconds to 33 seconds on minor roads).
- 1.14 Carbon Dioxide equivalent (CO₂e) emissions are projected to fall significantly in all scenarios. This is largely driven by the anticipated uptake of EVs. The three ambitious EV uptake scenarios are the Technology, Mode-balanced Decarbonisation and Vehicle-led Decarbonisation scenarios. They all assume delivery of the ambition to phase out petrol and diesel cars and van sales by 2035, and the implementation of vehicle decarbonisation policies such as zero emission vehicle mandates. The Core, Low Economy, High Economy, Behavioural Change and Regional Scenarios are based on existing firm and funded policies only. The Core, Low Economy, High Economy, Behavioural Change and Regional Scenarios are based on firm and funded policies. The smallest reduction in CO₂e emissions is a reduction of 38% in the High Economy Scenario, which assumes high rates of growth in population, GDP and employment levels. The largest reduction is 98% in the Mode-balanced Decarbonisation Scenario, which assumes a high and fast uptake of EVs and an increased share of public transport relative to the Core Scenario.
- 1.15 Nitrogen Oxides (NO_x) and particulate (PM₁₀) emissions follow broadly similar trends with NO_x reducing by between 61% (in the High Economy Scenario) and 98% (in the Mode-balanced Decarbonisation Scenario) between 2025 and 2060. For PM₁₀, the range is a reduction of between 49% (in the High Economy Scenario) and 98% (in the Mode-balanced Decarbonisation Scenario) over the same period.

Next steps

- 1.16 The projections provide a strong analytical basis for understanding the potential evolution of traffic growth, congestion, and emissions under a wide range of plausible

future scenarios. We will, however, continue to monitor data and events and are undertaking further analysis and research to better understand changes in travel behaviour. This work will consider issues such as working from home, changing patterns of land use and the distribution of travel across time periods, days of the week and journey purposes.