

Article

# Climate change insights, business and transport, UK: February 2023

Quarterly publication bringing together the latest climate change-related statistics and analysis from a range of sources.

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# 1 . Main points

- UK greenhouse gas (GHG) emissions, on a residence basis, increased by 6% between 2020 and 2021, but were still 8% lower than in 2019 and more than a third lower (39%) than in 1990.
- The proportion of businesses that reported taking no action to reduce their carbon emissions fell from just under a half (46%) in April 2021, to less than a third (30%) in December 2022.
- 4 in 10 adults (41%) reported lack of reliable, regular or convenient public transport as a barrier to using greener forms of transport.
- The number of newly licensed battery electric vehicles increased by 80% between 2020 and 2021, while the number of newly licensed petrol and diesel vehicles fell 8%.
- In 2020, over half (52%) of all domestic transport emissions came from cars, when using a Department for Transport (DfT) measure..

This is the fourth edition of Climate change insights, bringing together UK official statistics. This edition focuses on business and transport.

We publish this alongside an update to our [Quality of life in the UK bulletin](#) and quarterly gross domestic product (GDP) estimates, as part of our continued commitment to [measuring progress across the UK beyond GDP](#).

This article uses greenhouse gas emissions and sectors from different sources including the Office for National Statistics, the Department for Business, Energy and Industrial Strategy (now Department for Energy Security and Net Zero) and the Department for Transport. These sources are calculated and reported in different ways, therefore we advise caution when interpreting the estimates. For more information, see Section 7: Data sources and quality.

## 2 . Moving towards net zero: attitudes and behaviours

## Business actions on climate change

According to a recent [Business Insights and Conditions Survey](#) (BICS), from 28 November to 11 December 2022, 39% of UK businesses across a range of sectors of the economy reported being very, or somewhat, concerned about the impact climate change may have on their business. The manufacturing industry had the highest proportion of business reporting concern, at 52%.

Businesses with 250 or more employees were less likely to report taking no action to help protect the environment at 18%, compared with nearly two-thirds (62%) of all businesses. The most reported actions for these larger businesses, compared with all businesses, were having a climate change strategy in place (26%, compared with 4%), publishing an annual sustainability report, (23% - figure for all businesses is suppressed) and having a target of net zero of greenhouse gas (GHG) emissions in place, 22%, compared with 3%.

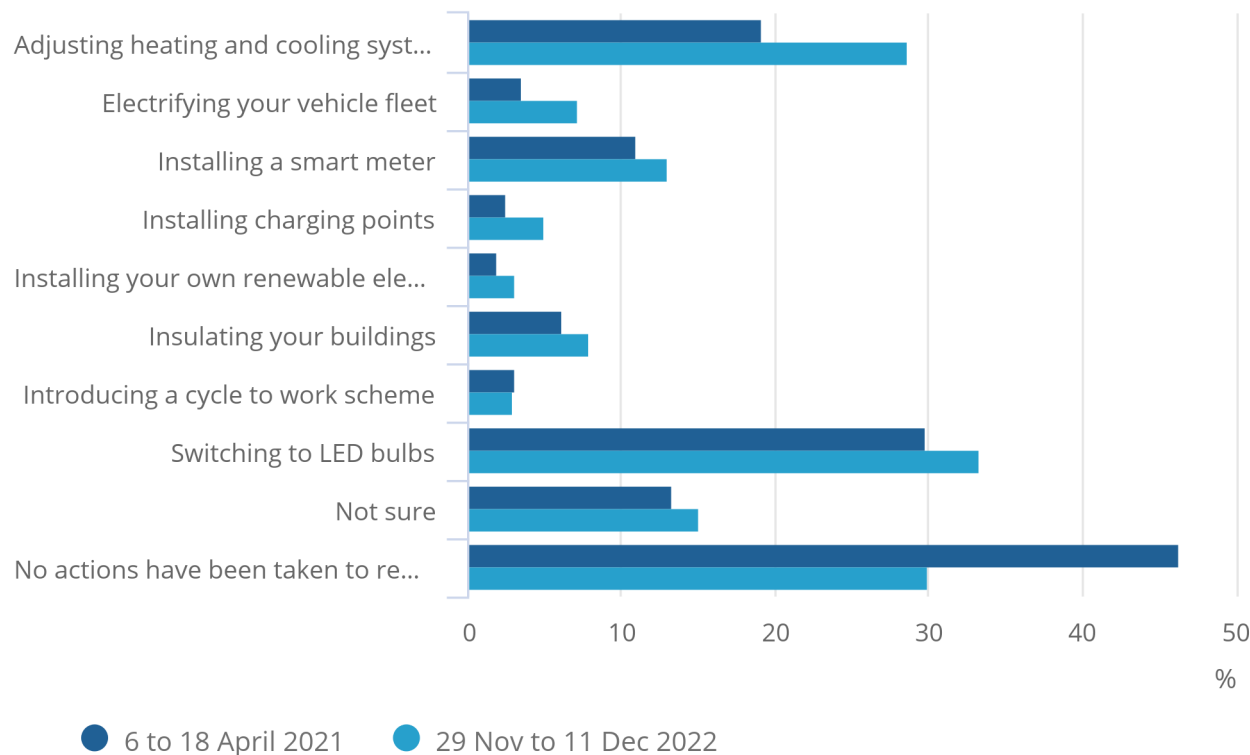
Since the earliest comparable survey period (6 to 18 April 2021, [wave 28](#)), the proportion of businesses that reported taking no action to reduce their carbon emissions fell (Figure 1), from just under a half (46%) to less than a third (30%) in the more recent [BICS survey period \(28 November to 11 December 2021\)](#). The most common action remains switching to LED bulbs.

**Figure 1. Fewer businesses reported taking no actions to reduce carbon emissions in November to December 2022, compared with April 2021**

UK, 6 to 18 April 2021 and 29 November to 11 December 2022.

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UK, 6 to 18 April 2021 and 29 November to 11 December 2022.



Source: Office for National Statistics – Business Insights and Conditions Survey

Notes:

1. Question – Which of the following actions, if any, have you taken to reduce your business’s carbon emissions?
2. Businesses were asked for their experiences for the survey live period.
3. The following industries are excluded from the survey: agriculture; oil and gas extraction; energy generation and supply; public administration and defence; public provision of education and health; finance and insurance.
4. Options will not sum to 100% as businesses could select multiple options.

## Transport use

DfT bus statistics show that there were 3.1 billion bus passenger journeys in GB in 2020 to 2021, an increase of 81% from the previous year. However, this is still almost a third less (31%) than the 4.5 billion bus passenger journeys made pre-coronavirus pandemic (2019 to 2020).

Road traffic in GB fell by an unprecedented 27% between 2019 to 2020 and 2020 to 2021, but have since increased. Provisional quarterly traffic statistics show that in the year ending Quarter 3 (July to Sept) 2022, traffic was only 5% below its highest recorded peak, for the year ending Quarter 3 2019. Cars continue to account for the majority of road mileage, at three-quarters (75%) in the year ending Quarter 3 2022.

Public transport use in Great Britain and road traffic in general saw big reductions during the period of coronavirus restrictions, but have both gone on to recover to some extent.

[Passenger rail usage figures](#) from the Office of Rail and Road (ORR) show that almost 1 billion journeys were made by rail in 2021 to 2022, up from 0.4 billion the previous year, but down 43% from the pre-coronavirus period 2019 to 2020.

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Latest [vehicle licensing statistics](#) for 2021 show a movement away from petrol and diesel vehicles to the adoption of plug-in and plug-in hybrid vehicles. Compared with 2020, the number of new vehicle registrations by fuel type (Figure 2) were:

- petrol and diesel both fell by 8%
- hybrid electric increased by 57%
- plug-in hybrid electric increased by 70%
- battery electric increased by 80%

However, in 2021, new registrations of vehicles by fuel type were:

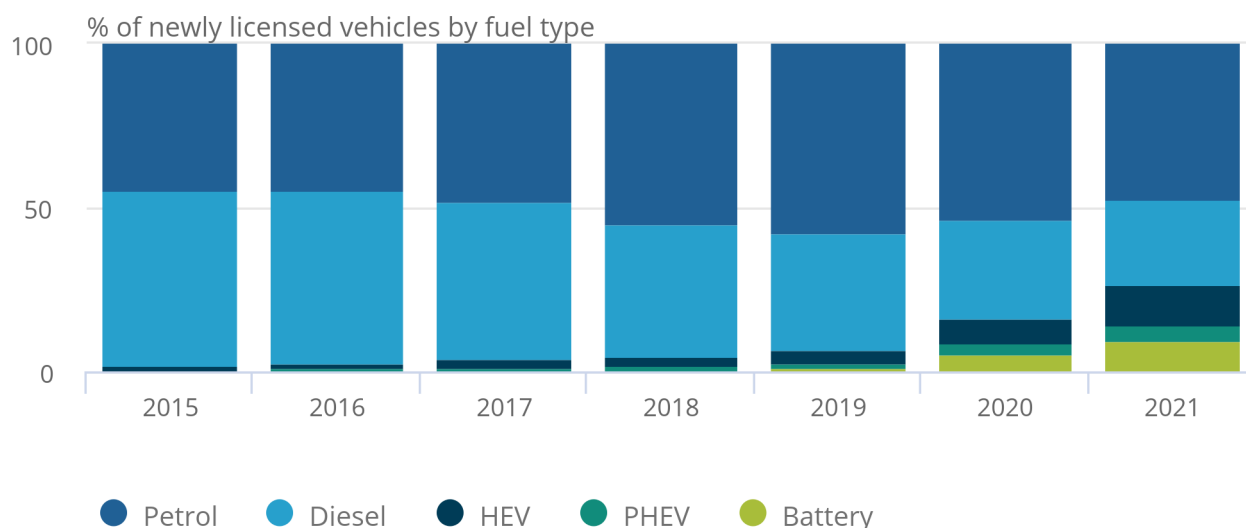
- petrol: 47%
- diesel: 26%
- hybrid electric: 12%
- battery electric: 9%
- plug-in hybrid electric: 5%

**Figure 2. The number of newly licensed battery electric vehicles increased by 80% between 2020 and 2021, while the number of newly licensed petrol and diesel vehicles fell 8%**

2015 to 2021, UK

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2015 to 2021, UK



**Source: Department for Transport – Vehicle licensing statistics**

There is variation in walking and cycling across the UK, with changes in travel evident during the period of coronavirus restrictions. Please note, data from across the UK are not directly comparable because of differences in collection and reporting methodologies and timeframes.

Comparing pre- and post-coronavirus, Wales has seen a fall in walking at least once a week, from 60% to 50%, but a rise in cycling at least once a week, from 4% to 6% ([active travel statistics](#), April 2021 to March 2022, compared with April 2019 to March 2020).

In England, there were similar levels of walking between 2021 and 2020 (a fall of less than 1% in the number of walking trips), but a fall of 27% in cycling ([walking and cycling statistics](#)).

Methodological and survey changes in 2020 mean that [Travel Survey figures from Northern Ireland](#) and [Transport and Travel in Scotland 2020](#) are not directly comparable to previous years. However, both saw big increases in walking during a period of coronavirus restrictions, accounting for 27% of all journeys taken in Northern Ireland and 37% in Scotland. While cycling increased in Northern Ireland, accounting for 2% of all journeys in 2020, it remained similar in Scotland, at 1.5% of all journeys in 2020.



## Public attitudes on transport

According to our latest [Opinions and Lifestyle Survey](#) (25 January to 5 February 2023) the most popular modes of transport in the last two weeks were motor vehicle (79%) and walking (60%). Around two thirds (67%) of adults reported that convenience was the key deciding factor when choosing transport modes, followed by the length or distance of the journey (52%).

Only 8% of respondents based their choice of transport on environmental concerns. However, when asked whether switching to greener forms of transport is important for tackling climate change, over three-quarters of adults (76%) considered this very, or somewhat, important.

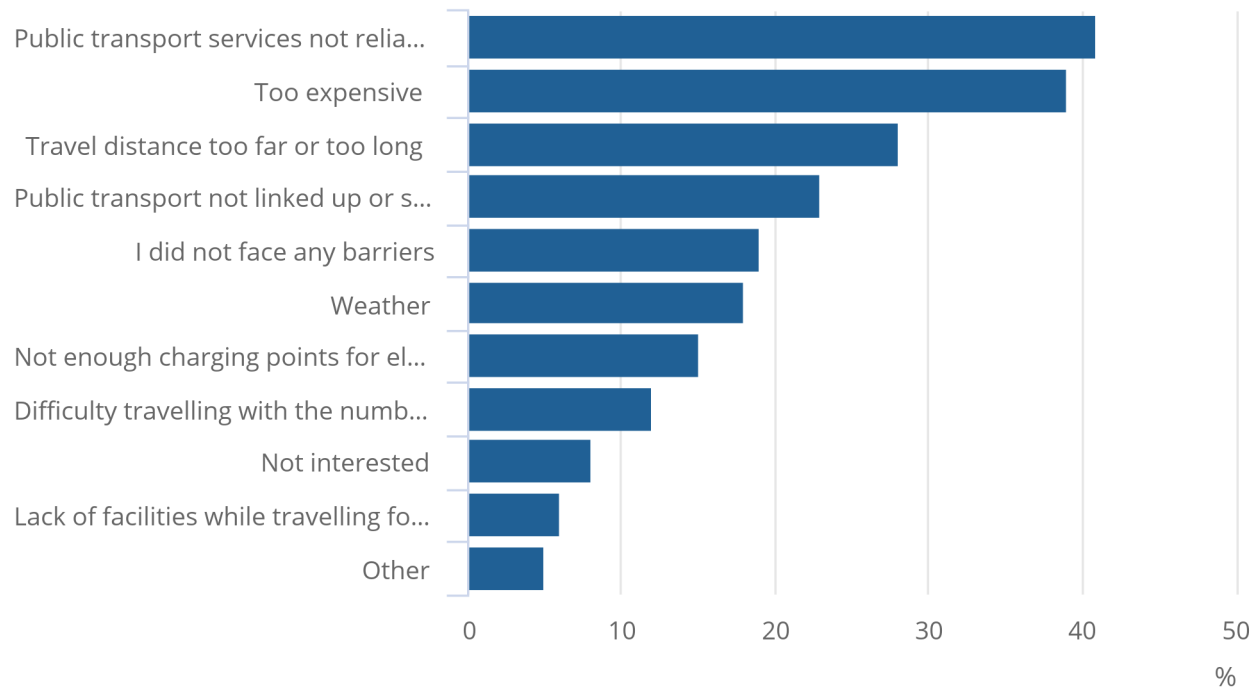
The most common barriers to using greener forms of transport for all adults were that public transport services are not reliable, regular enough, or at convenient times, and that they are too expensive. Travel distance was also a common barrier (Figure 3).

**Figure 3: 4 in 10 adults reported lack of reliable, regular or convenient public transport as a barrier to using greener forms of transport**

25 January to 5 February 2023

Figure 3: 4 in 10 adults reported lack of reliable, regular or convenient public transport as a barrier to using greener forms of transport

25 January to 5 February 2023



Source: Office for National Statistics – Opinions and Lifestyle Survey

Notes:

- 1. Question – In the past year, which of these, if any, were barriers to you using greener forms of transport?
- 2. Greener forms of transport include public transport, cycling, walking or switching to a low emission vehicle.
- 3. Respondents were allowed to select more than one option so percentages will not sum to 100%.
- 4. Confidence intervals for the estimates shown in this chart are available within the dataset published with this release.

3 . Emissions and drivers: business and transport

## Greenhouse gas (GHG) emissions (residence-based)

The Office for National Statistics' (ONS's) [Environmental Accounts](#) show that total UK GHG emissions, on a residence basis, increased by 6% between 2020 and 2021. Even so, total emissions were still 8% lower than in 2019 and more than a third lower (39%) than 1990 levels.

Our [UK Environmental Accounts](#) also enable comparisons of emissions intensity across economic sectors, measuring GHG emissions (residence basis) for each unit of gross value added (GVA). Average emissions intensity for the UK fell more than two-thirds (68%) between 1990 and 2021, as emissions fell but the size of the economy (GVA) increased more than two and a half times (258% increase). This measure suggests a "decoupling" of emissions from UK economic activity. This does not consider the UK's wider international footprint, captured in the Department for Environment Food and Rural Affairs' (DEFRA's) carbon footprint emissions statistics.

Considering emissions by standard industrial sector, provisional estimates show households were the biggest emitter of GHGs in 2021 (27% of total emissions), followed by electricity supply (17%), manufacturing (17%) and transport and storage (11%).

Emissions from six sectors fell by more than 50% between 1990 and 2021, while emissions from five sectors increased (Figure 4); these five sectors combined accounted for only 7% of total emissions in 2021.

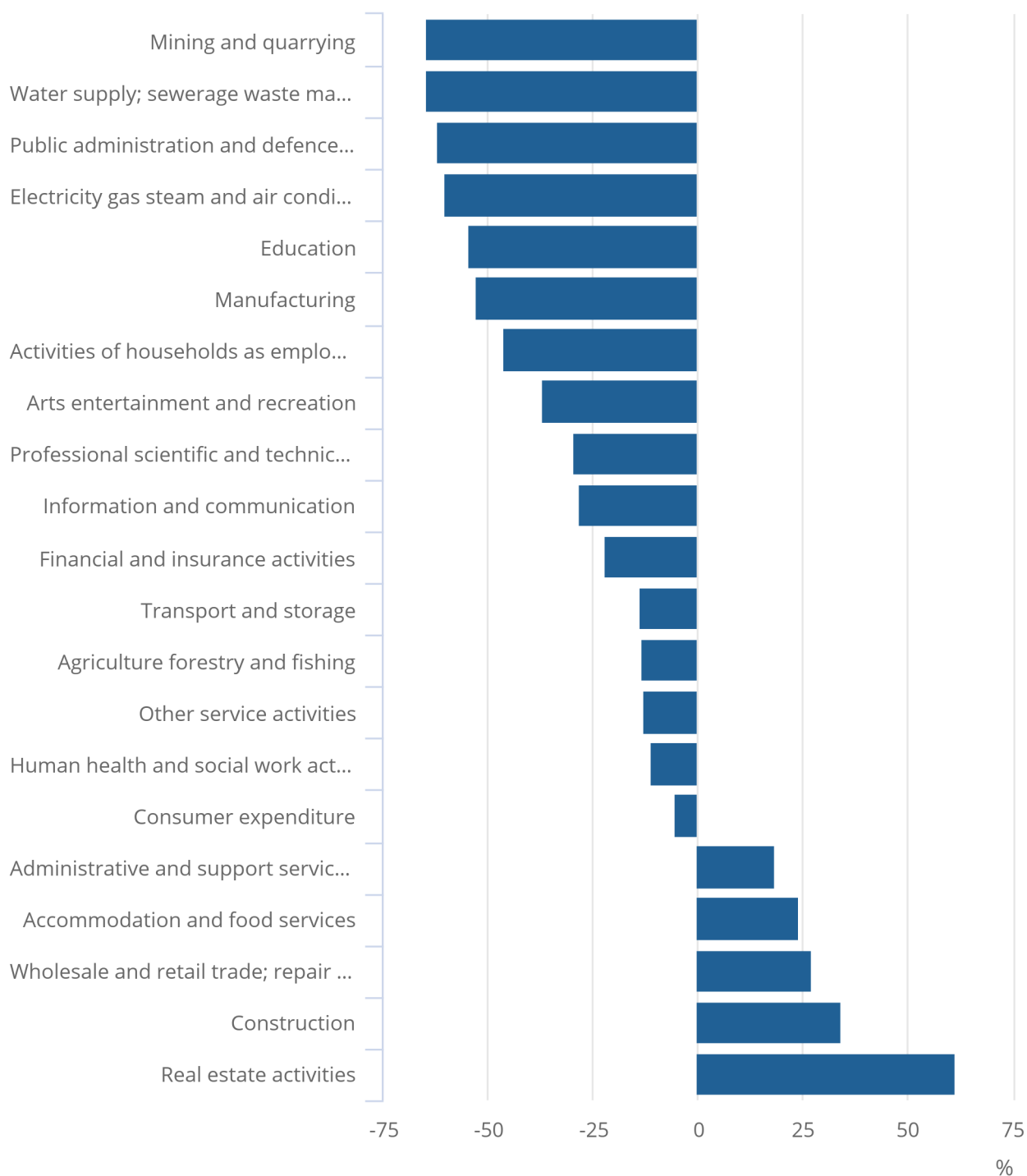
Provisional 2021 statistics suggest that the sectors with the highest emissions intensity were agriculture, forestry and fishing at 3.70 thousand tonnes of CO<sub>2</sub> equivalent per £ million of GVA, electricity supply at 2.88 and mining and quarrying at 1.12.

**Figure 4. Reductions in UK residency-based greenhouse gas (GHG) emissions from all but five sectors**

Percentage change in GHG emissions, by sector. UK, 1990 to 2021.

# Figure 4. Reductions in UK residency-based greenhouse gas (GHG) emissions from all but five sectors

Percentage change in GHG emissions, by sector. UK, 1990 to 2021.



Notes:

1. Greenhouse gases under the Kyoto Protocol.
2. Consumer expenditure refers to the consumption of fuels and other products by individuals in the UK, as opposed to the production of these by industry. 'Consumer expenditure - travel' consists almost entirely of road transport emissions.
3. The Air Emission Accounts include only direct emissions, defined as 'scope 1' under the GHG protocol guidance.

## Sub-national greenhouse gas (GHG) emissions (territorial-based)

The Department for Business, Energy and Industrial Strategy (now Department for Energy, Security and Net Zero, DESNZ) produces UK local authority and regional greenhouse gas statistics. These are calculated on a territorial basis and capture only those emissions produced within the UK's borders. The ONS residence-based emissions statistics are only available at the UK-wide level.

These regional statistics provide breakdowns for eight sectors based on end-user consumption. These are high-level sectors known as National Communication sectors and are made up of more detailed sectors, which follow the definitions set out by the [Intergovernmental Panel on Climate Change \(IPCC\)](#). These are not comparable to the industrial-based classifications used in the Environmental Accounts.

Latest statistics for 2020 were published in June 2022 and show that, on this measure, across UK local authorities, transport was the largest emitter, accounting for 28% of all UK emissions. "Industry" accounted for 19% of all UK territorial emissions in 2020, and "commercial" accounted for 6%. There is considerable variation across the UK (Figure 5).

### Figure 5: Greenhouse gas (GHG) emissions by UK country and region for Industry, Commercial and Transport sectors

2020, UK

Notes:

1. Data show "territorial" emissions, meaning emissions that occur within the UK's borders. The data show emissions allocated on an "end-user" basis where emissions related to energy use are distributed according to the point of energy consumption. Emissions that are not energy related are distributed based on the point of emission, other than emissions from waste management which are distributed based on where the waste was produced.
2. The greenhouse gases covered by these statistics are carbon dioxide, methane and nitrous oxide.
3. The UK territorial emission statistics also cover emissions from hydrofluorocarbons, perfluorocarbons, sulphur hexafluoride and nitrogen trifluoride (collectively referred to as fluorinated gases or F gases), but we are not able to estimate emissions of these gases at a local authority level at this time. Carbon dioxide, methane and nitrous oxide collectively accounted for an estimated 97% of greenhouse gas emissions in the UK in 2020, with F gases making up the remaining 3%.

Download the data

[.xlsx](#)

### Figure 6: Greenhouse gas (GHG) emissions by UK local authority for Industry, Commercial and Transport sectors

2020, UK

**Notes:**

1. Data show "territorial" emissions, meaning emissions that occur within the UK's borders. The data show emissions allocated on an "end-user" basis where emissions related to energy use are distributed according to the point of energy consumption. Emissions that are not energy related are distributed based on the point of emission, other than emissions from waste management which are distributed based on where the waste was produced.
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**Download the data**

[.xlsx](#)

## Domestic and international greenhouse gas (GHG) emissions from transport

The latest DfT Transport and Environment statistics provide a further, different measure of greenhouse gas emissions: from all modes of UK transport, both domestic and international, which are not captured in BEIS (DESNZ) territorial emissions.

These show that overall emissions (domestic and international) from transport rose by 10% between 1990 and 2019, but fell by 21% between 2019 and 2020. This period coincides with coronavirus restrictions, which will have seriously affected transport usage.

Domestic sources (including road, rail, domestic aviation, and domestic shipping) accounted for 83% of all transport emissions in 2020, with international aviation and shipping accounting for the remaining 17%. Over half (52%) of all domestic transport emissions came from cars (Figure 7).

Road travel accounted for 91% of domestic emissions in 2020. Despite higher emissions between the late 1990s and early 2000s, total emissions from road traffic remained the same in 2019 as they were in 1990. They remained at 111 million tonnes of carbon dioxide equivalent (MtCO<sub>2</sub>e), despite the latest [road traffic statistics](#) showing an increase in road traffic (measured in vehicle miles) of 33% over the same period.

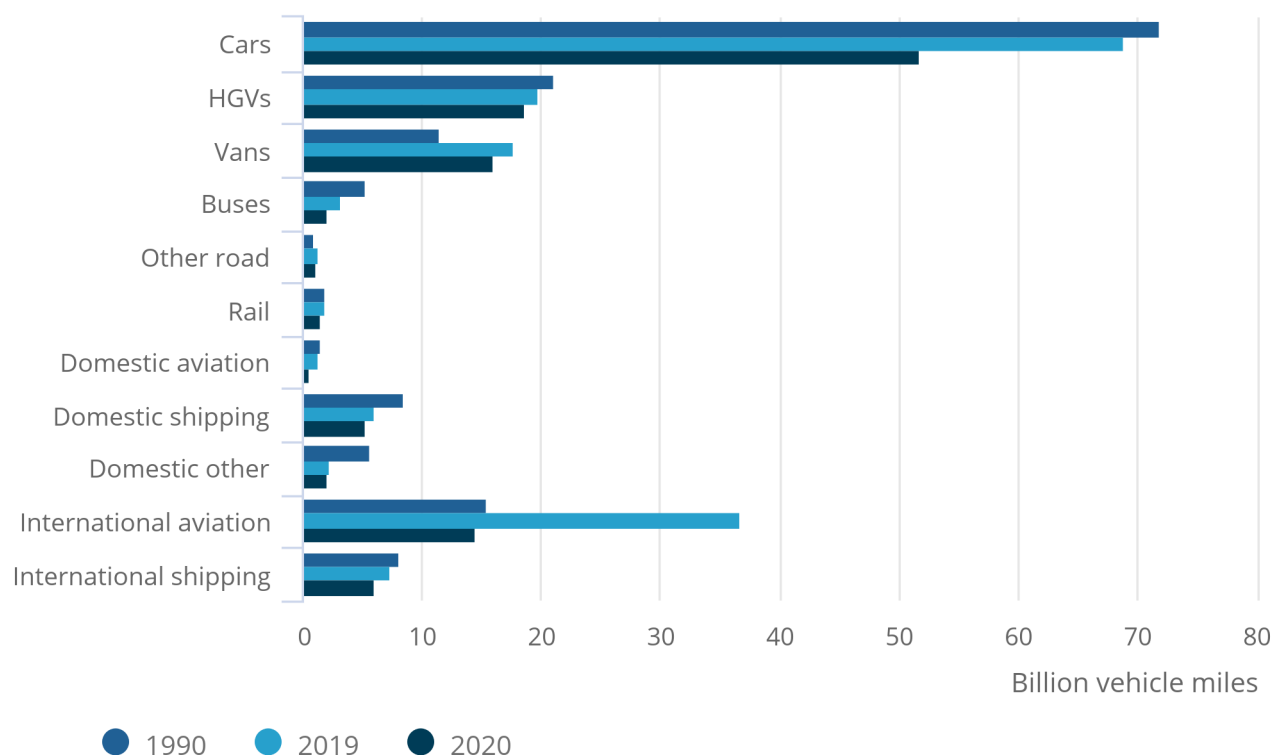
Between 1990 and 2019, emissions from international aviation more than doubled (increase of 137%) but fell the most, at 61%, between 2019 and 2020.

**Figure 7: Since 1990, UK emissions have fallen for all modes of transport other than light vans**

1990, 2019 and 2020

Figure 7: Since 1990, UK emissions have fallen for all modes of transport other than light vans

1990, 2019 and 2020



Source: Department for Transport –Transport and Environment statistics

## 4 . Impacts and signs of adaptation

### Heat

The Climate Change Committee's (CCC's) [Risks to health, wellbeing and productivity from overheating in buildings report](#) report Risks to health, wellbeing and productivity from overheating in buildings suggests that heat can affect employee productivity, resulting in increased breaks and reduced work intensity as well as more direct health implications.

There is limited recent UK-specific data on the productivity impacts of heatwaves, however a 2016 London School of Economics study, [Climate change, heat stress and labour productivity: a cost methodology for city economies](#), estimated that in a warm year in the far future (2081 to 2100), the total losses to the urban economy could be around 0.4% of GVA for London in the absence of adaptation.

## Flooding

The latest available estimates for the number of non-residential properties at risk from flooding across the UK are:

- 341,901 in England, 12% of all non-residential properties ([Environment Agency's 2022 risk of flooding data](#))
- around 35,150 in Wales, but includes some double and triple counting ([National Strategy for Flood and Coastal Erosion Risk Management in Wales](#))
- 55,000 in Scotland ([National Flood Risk Assessment 2018](#))
- 10,786 in Northern Ireland ([Northern Ireland Flood Risk Assessment 2018](#))

There is currently limited evidence demonstrating how businesses based in the UK are planning specifically for climate change adaptation, or to mitigate the economic impacts to their business from extreme weather events.

One example is the Bank of England's 2021 [Climate Biennial Exploratory Scenario](#), which highlights the need for businesses to improve their management of climate risks. It also acknowledges that projections of climate losses are uncertain and that notable data gaps exist. Latest responses to the [Business Insights and Conditions Survey](#) (BICS) ([29 November to 12 December 2021](#)) show that only 6% of businesses reported monitoring climate risks. The Bank of England's 2021 Climate Biennial Exploratory Scenario, highlights the need for businesses to improve their management of climate risks, that projections of climate losses are uncertain and that notable data gaps exist.

## Transport infrastructure

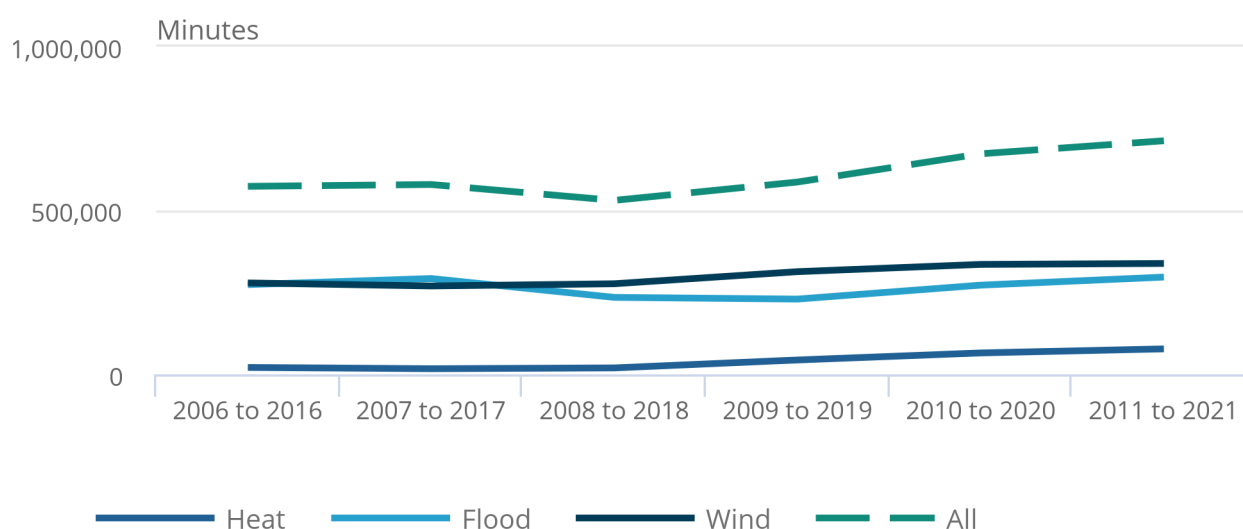
Extreme weather events because of climate change is an increasing risk to transport infrastructure. For rail, Network Rail report in the CCC's [Progress in adapting to climate change report](#), that in financial year 2020 to 2021, national rail services in England were delayed by 128,018 minutes due to heat-related weather events, 289,922 minutes because of floods, and 96,016 minutes because of wind (Figure 8).

**Figure 8: Heat-related delays to rail services in England have been significantly higher since 2018 and 2019 because of summer heatwaves.**

2006 and 2007 to 2020 and 2021

Figure 8: Heat-related delays to rail services in England have been significantly higher since 2018 and 2019 because of summer heatwaves.

2006 and 2007 to 2020 and 2021



Source: Network Rail via Climate Change Committee – Progress to Adapting to Climate Change 2021 Report

### Notes:

1. Data does not include long-term closures as a result of severe weather. While this is recorded, Network Rail report that the data collection is not consistent enough to give reliable data on longer term closures.

Weather-related incidents have cost Network Rail over £1 billion in [compensation to train operators](#) because of unplanned service disruptions since 2006 to 2007, and £170 million in payments for planned disruptions since 2013 to 2014, according to [Network Rail's Third Adaptation Report](#) 2021. This looks at nine specific weather events, showing those involving wind and flooding had the biggest financial impact, £275 million and £223 million respectively, financial years 2006 to 2007 and 2020 to 2021.

According to the latest [Network Rail public performance measure](#), weather related incidents caused 6% of all passenger delays (of more than three minutes) experienced in Great Britain during the last month, 11 December 2022 to 7 January 2023.

According to the [UK Climate Risk Independent Assessment \(CCRA3\) Technical Report](#), rail infrastructure currently exposed to significant risk of surface water or river flooding includes:

- 2,135 km of railway track and 494 rail stations in England
- 1,154 km and 109 stations in Wales
- 1,129 km and 71 stations in Scotland
- 270 km and 3 stations in Northern Ireland.

National Highways identified risks on road networks from increasing precipitation and temperature in its [Preparing for climate change on the strategic road network - third adaptation report](#). However, there are currently no data available on the extent of the road network that is covered by these measures, or the impact this might have.

## 5 . State of the climate in the UK

The [Met Office's Climate Summary](#) found that 2022 was the UK's warmest year since records began in 1659, despite a prolonged cold spell during the first half of December. The provisional yearly average temperature of 10 degrees celsius (°C) was 0.9°C above the 1991 to 2020 average.

It was also a dry year. Rainfall was 10% lower than the same 30-year average. The period January to August 2022 was, for England, the driest such period since the severe drought of 1976. The autumn was wetter than average, but this did not fully offset the rainfall deficit accumulated earlier in the year.

## Heating degree days

The average number of heating degree days is falling. The warm temperatures experienced across the UK during 2022 saw 13% fewer heating degree days compared with the 1991 to 2020 average, according to the latest Department for Energy Security and Net Zero (DESNZ) [UK Energy Statistics: weather data](#) (Figure 9).

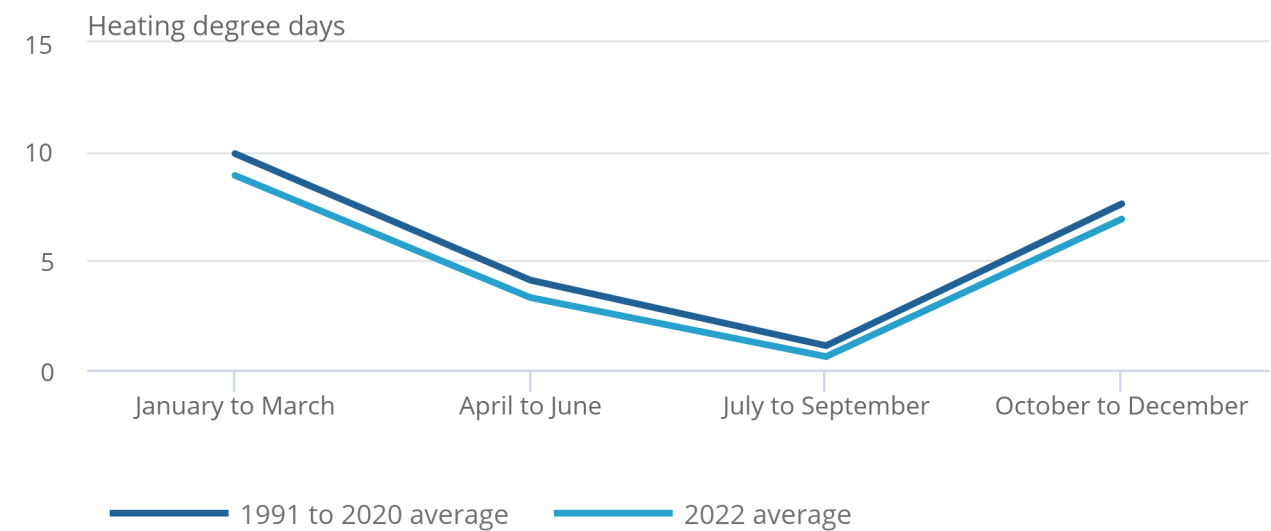
There were 2% fewer heating degree days per year on average in the most recent decade (2012 to 2021) compared with 1991 to 2020, and 11% fewer compared with 1961 to 1990.

**Figure 9: A fall in the number of heating degree days**

1991 to 2020, 2022, UK

Figure 9: A fall in the number of heating degree days

1991 to 2020, 2022, UK



Source: Department for Business, Energy and Industrial Strategy – UK Energy statistics: Weather

Notes:

1. Based on data provided by the Meteorological Office, base temperature for heating degree days is 15.5 degrees Celsius.

## Wind speeds

There has been a long-term fall in annual average wind speed across the UK. Latest data from the Met Office [State of the Climate UK 2021 report](#) shows the 1991 to 2020 average of 9.3 knots is 4% lower than the 1971 to 2000 average, while the annual mean for 2021 was the second lowest since records began in 1969 (Figure 10).

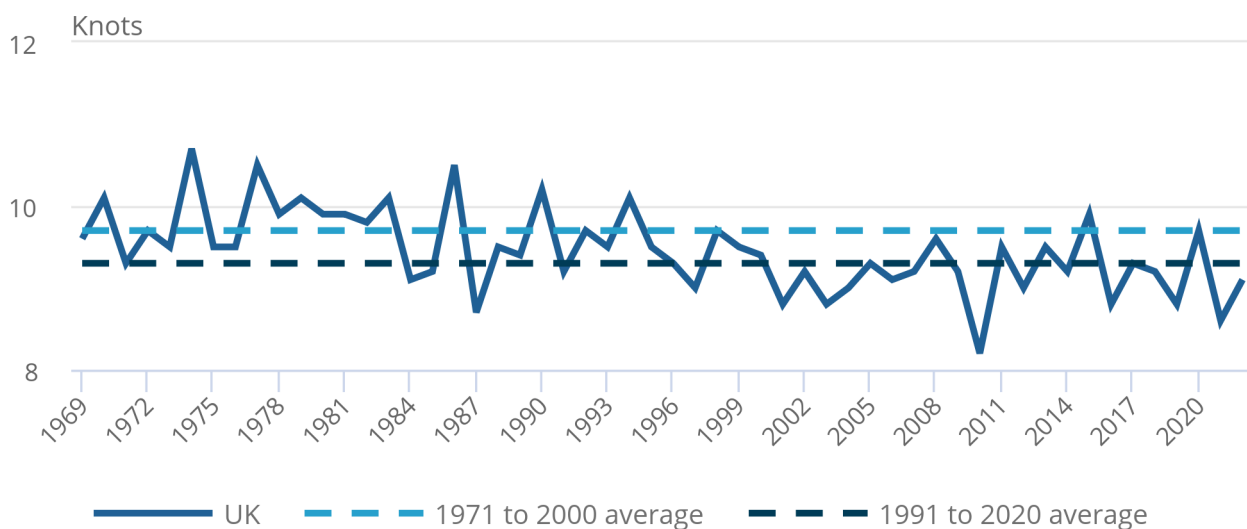
The Office for National Statistics' (ONS's) [UK natural capital accounts](#) provide insight into the link between reduced wind speed and renewable energy generation.

**Figure 10: Annual wind speed has fallen across the UK**

1969 to 2022, UK

Figure 10: Annual wind speed has fallen across the UK

1969 to 2022, UK



Source: Met Office – Annual Mean Wind Speed

### Notes:

1. This series must be interpreted with some caution as it has not been rigorously assessed for long-term homogeneity and observations of annual mean wind speed may be significantly affected by changes in the observing network and changes to the exposure of sites over time. However, the broad-scale trend shares some consistency with global wind speed records.

## 6 . New climate change insights data

[Public opinions and social trends, Great Britain: climate change and transport, 25 January to 5 February 2023](#)

Dataset | Released 10 February 2023

Opinions and Lifestyle Survey (OPN) about people's transport choices and opinions on using greener forms of transport to help tackle climate change, Great Britain.

## 7 . Glossary

### Adaptation

Adaptation is actions to adjust to climate change, and the extreme weather that it makes increasingly likely. This includes making homes more resilient to extreme heat and cold weather and adapting our landscapes to better cope with flooding or drought events, for example.

### Greenhouse gases

The seven greenhouse gases (GHG) included in the atmospheric emissions accounts are those covered by the Kyoto Protocol:

- carbon dioxide (CO<sub>2</sub>)
- methane (CH<sub>4</sub>)
- nitrous oxide (N<sub>2</sub>O)
- hydro-fluorocarbons (HFCs)
- perfluorocarbons (PFCs)
- sulphur hexafluoride (SF<sub>6</sub>)
- nitrogen trifluoride (NF<sub>3</sub>)

These gases contribute to global warming and climate change. The potential of each gas to cause global warming is assessed in relation to a given weight of CO<sub>2</sub>, so greenhouse gas emissions are measured as carbon dioxide equivalent (CO<sub>2</sub>e).

### Kyoto Protocol

The Kyoto Protocol was adopted on 11 December 1997. Because of a complex ratification process, it entered into force on 16 February 2005. Currently, there are 192 parties to the Kyoto Protocol. In short, the Kyoto Protocol operationalised the [United Nations Framework Convention on Climate Change](#) by committing industrialised countries and economies in transition to limit and reduce greenhouse gases emissions in accordance with agreed individual targets. The Convention itself only asks those countries to adopt policies and measures on mitigation and to report periodically.

### Mitigation

Mitigation is the reduction of emissions of greenhouse gases which lead to global warming. This includes reducing energy consumption and changing to low emission energy sources.

### Net zero

Net zero is the UK government's target for at least a 100% reduction of net greenhouse gas emissions (compared with 1990 levels) in the UK by 2050. This can be achieved by a combination of emission reduction and emission removal.

### Residence-based emissions

Emissions estimates compiled on a residence basis, covering emissions by UK residents and UK-registered businesses, whether they happen in the UK or overseas.

## **Territorial emissions**

Emission estimates compiled on a territory basis, produced within the UK's geographical borders only; by tourists, businesses and foreign transport operations but exclude emissions of UK residents aboard.

## **Heating degree days**

Heating degree days help indicate the energy that would be required to heat a building to the base temperature. They are calculated by the Met Office as a measure of the number of degrees the air temperature is below a base temperature of 15.5 degrees celsius each day.

## **8 . Data sources and quality**

More quality and methodology information on the strengths, limitations, appropriate uses, and how the data were created can be found on the original source publication sites:

- [Atmospheric emissions: greenhouse gases by industry and gas dataset](#) - Office for National Statistics
- [UK Environmental Accounts](#) - Office for National Statistics
- [Business Insights and Impact on the UK economy: 15 December 2022 bulletin](#) - Office for National Statistics
- [Opinions and Lifestyle Survey \(OPN\) QMI](#) - Office for National Statistics
- [Transport and Environment statistics](#) - Department for Transport
- [Quarterly traffic estimates](#) - Department for Transport
- [Vehicle licensing statistics](#) - Department for Transport
- [Bus statistics data tables](#) - Department for Transport
- [Walking and cycling statistics](#) - Department for Transport
- [Local authority and regional greenhouse gas emissions](#) - Department for Energy Security and Net Zero
- [Active Travel \(walking and cycling\)](#) - Welsh Government
- [Scottish Transport statistics 2021](#) - Scottish Government
- [Travel Survey for Northern Ireland](#) - Northern Ireland Department for Infrastructure
- [Passenger rail usage](#) - Office for Road and Rail
- [Risk of flooding from rivers and sea - properties in areas at risk](#) - Environment Agency
- [National Strategy for Flood and Coastal Erosion Risk Management in Wales \(PDF, 1.951KB\)](#) - Welsh Government
- [National Flood Risk Assessment 2018](#) - Scottish Government

The Office for National Statistics (ONS) emissions statistics are on a residence basis and cover emissions by UK residents and UK-registered businesses, whether they happen in the UK or overseas. Sectors are based on UK Standard Industrial Classification (SIC) of Economic Activities 2007. Transport emissions under this measure are allocated to the SIC responsible for them.

The Department for Energy Security and Net Zero (DESNZ) emissions statistics are on a territorial basis and cover emissions produced within the UK's geographical borders, excluding international aviation and shipping. Local authority and regional calculations exclude aviation and shipping, but do include indirect emissions from energy supply (for example, electricity and oil production or processing). The scope and sector definitions used for local authority (LA) and regional greenhouse gas (GHG) emissions statistics are not directly comparable with UK level GHG emissions statistics.

The Department for Transport (DfT) emissions statistics are based on DESNZ statistics and cover direct emissions, based on source. This measure includes all transport, domestic and international, including aviation and shipping departing from the UK.

A summary of the differences in residence emissions compared to territorial, and footprint calculations is outlined in the [Measuring UK greenhouse gas emissions article](#) on the [UK Climate Change Statistics Portal](#).

## 9 . Future developments

We have published climate change insights alongside quarterly estimates of gross domestic product (GDP) since May 2022.

Every edition has a section on the UK weather and climate, and a theme. The previous edition focused on natural and rural environments. The theme being considered for the next edition is health and the health sector.

These articles complement the [UK Climate Change Statistics Portal](#), which brings together statistics and data from across government and related bodies.

## 10 . Related links

### [UK Climate Change Statistics Portal](#)

Portal | Updated as and when data become available  
For data, statistics and insights on climate change.

### [Green jobs update, current and upcoming work: September 2022](#)

Article | Released 20 September 2022

An update to our work on "green jobs", including our user engagement exercise, and new research articles. An update to the Office for National Statistics' (ONS') [Low Carbon and Renewable Energy Economy](#) survey is due out on 16 February 2023 and will provide the latest figures on UK (and constituent countries') economic performance within 17 predefined low carbon and renewable energy sectors.

### [UK natural capital accounts: 2022](#)

Bulletin | Released 10 November 2022

Estimates of the financial and societal value of natural resources to people in the UK.

### [UK Environmental Accounts: 2022](#)

Bulletin | Release 9 June 2022

Measuring the contribution of the environment to the economy, impact of economic activity on the environment, and response to environmental issues.

## 11 . Cite this article

Office for National Statistics (ONS), released 10 February 2023, ONS website, article, [Climate change insights, business and transport, UK: February 2023](#).