

## TRAVEL: Traffic and Congestion

### What is congestion?

Congestion occurs when there is excessive use in a particular area, and can refer to cars, rail networks, aeroplane runways and also pedestrian areas. This affects mobility and often results in slower speeds, extensive queuing, and longer travel times. Areas surrounding cities and towns often have a large amount of congestion, particularly at peak times, as there are many people living and working in those areas.

Types of congestion vary from country to country. For example, in China the roads may be congested with cars, electric bikes and pedestrians, whilst in India, congestion may be caused by a build up of cars, cycle rickshaws or even cows.

### How is this managed in the UK?

As the UK's population continues to grow, it is necessary to expand and extend our transport networks in order to accommodate traffic. Along with implementing alternatives to private travel, such as public transport, there are a number of initiatives in place to deal with congestion:

#### Road infrastructure:

How roads are going to be used in the long term needs to be considered in planning infrastructure such as building bridges, developing toll roads (that you have to pay to travel on, e.g. Severn Bridge, M6), and introducing local express lanes and limited access roads (e.g. for buses only).

#### Congestion charging zones:

This is a form of road pricing that charges drivers to travel through a particular area. The largest congestion zone in the UK is the London Congestion Zone, which aims to reduce traffic congestion by encouraging people to switch to public transport.

#### Travel alternatives:

Other methods that can decrease congestion include encouraging people to use other modes of transport, such as cycling and public transport. Other things such as internet shopping, telecommuting (working from home) and conference calls can also help to lower congestion by removing the need to travel.

#### Park and ride:

This involves parking just outside the centre of a city and then using a shuttle bus or other form of public transport to access the centre. This is often cheaper than parking centrally and eases congestion. This is particularly important in historical towns and cities, such as Oxford and Durham, as many streets are narrow and cannot be widened to accommodate more traffic.

#### Parking restrictions:

Increasing the price of parking, and decreasing the availability of parking spaces through permits, makes driving less attractive and forces drivers to use alternative transport methods.

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### What is done to ease congestion in other countries?

**Cap-and-trade:** A form of road pricing where there is a limited number of car licences issued and only licensed cars are allowed on the roads. This means that the number of cars on the roads is not more than the road capacity. Singapore has introduced its own cap-and-trade system through its Certificate of Entitlement scheme.

**Number plate restrictions:** Restricting car use on particular days according to a car's number plate. This encourages people within a local area to car share, and has been successfully introduced in Athens, Mexico City and São Paulo.

**Permits:** When only certain vehicles that have permits, such as residents' cars, are allowed to enter an area. This is being proposed in certain cities (e.g. Paris).

### What are the downsides to managing congestion?

- A congestion zone can create a backlog of cars, as drivers may use the areas surrounding the zone to avoid the charge, diverting the congestion elsewhere.
- Congestion charges can have a negative impact on businesses, as they may experience higher delivery charges and a reduction in sales due to reduced traffic.
- All forms of transport are interconnected and the switch from driving to public transport makes our trains and buses even busier. It is important that infrastructures for alternative transport networks are prepared for this.



### Did you know?

- The first congestion zone in the world was in Singapore.
- Since the introduction of the London Congestion Charge in 2003, there has been a reduction of road accidents, as well as a 15% reduction in the most harmful vehicle emissions within the congestion zone.

