LOCAL ACTION FOR A LOW TRAFFIC FUTURE

A guide for councillors and campaigners

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Why we need a Low Traffic Future

A low traffic future is one in which children can play in the streets, where neighbours can socialise, and young and old alike can get out and about easily, without needing to drive everywhere.

It is a world with cleaner air, safer streets, excellent public transport networks, great walking and cycling provision. It would be good for our health and that of our streets and communities, our economy and our environment.

Compare this with what we currently have in the UK:

- *Congestion:* This is estimated to cost the UK economy £30 billion a year.
- *Air pollution:* Pollution is estimated to hasten between 28,000 and 36,000 deaths annually in the UK, at an economic cost of £20bn or more. The UK Government has lost three court cases over its failure to keep pollution within legal limits.
- *Road danger:* The cost of road deaths and injuries in 2018 was estimated to be £35bn.
- *Physical inactivity:* Inactivity-related ill health costs the UK around £7.4bn annually.
- *Greenhouse gas emissions.* Transport is now the largest emitting sector of the UK economy, with pre-pandemic emissions levels in 2019 being only 5% below those in 1990. Most of this consists of CO2 emissions from road transport. Increases in road traffic (and particularly van traffic), and increases in vehicle size, have offset the benefits of more fuel-efficient engines.

Solutions: an overview

There is no single 'silver bullet' for achieving a low traffic future. In outline though, it will involve investing in high-quality provision for walking, cycling and safe streets - including measures such as 20mph schemes, school streets and low traffic neighbourhoods - as well as by improving publicshared transport (i.e. not only trains or buses and coaches, but also car-pooling, ride-sharing, public cycle hire schemes etc).

The funding for these measures can come partly from rebalancing transport spending away from new road schemes that won't be needed in a low traffic future, and partly from some form of road user charging. Charging schemes should aim not only to reduce road traffic demand directly, but also indirectly by funding improvements to walking, cycling and public transport, thereby reducing our dependence on cars, vans and lorries. Public support for the principle of road user charging has grown markedly in the last 15 years, though it remains important to ensure that charging schemes are fair and seen to be fair.

As for freight transport, the primary goal should be to move as much heavier long-distance freight as possible onto freight trains. Meanwhile, a range of solutions is needed to improve urban logistics (i.e. delivering goods to and within town and city centres), including trans-shipment facilities and increased use of cargo-bikes.

ACTIVE TRAVEL AND SAFE STREETS

A key measure for creating a low traffic future is to redesign our roads, streets and junctions to be people-friendly places, where children can play, neighbours can socialise, people of all ages and abilities can get around safely and easily by walking and cycling, and where high-streets and street-life can thrive without being choked by exhaust fumes.

This section considers what needs doing to create a safe and attractive environment for walking and wheeling *[N.B. "Wheeling" includes the use of any mobility aid which can be used without requiring a driving licence]*, then for cycling, then what both groups need to benefit from safe streets and lanes, and concludes with behaviour change measures to boost walking and cycling, particularly among the groups who could most benefit from the physical activity but who are least likely to take up cycling and walking without encouragement and support. *[N.B. This para may not be needed depending on whether there is another navigation route to the subheadings]*

Walking and wheeling

Walking networks in towns need to connect people safely and conveniently from their homes to nearby schools, shops and other key facilities – for more, see local cycling and walking network plans.

Pavements need to be well-maintained and clear of clutter. Features such as waymarking, seats, street trees and planters are essential for enabling people to navigate, for older people to rest, to reduce pollution and create safe and attractive places where people want to spend time. However they need to be placed where they will not obstruct wheelchair users or create hazards for visually impaired people. Tactile paving is vital for visually impaired people to know where they can walk safely.

Road crossings need to be located to maximise the convenience of using them. Crossing-points across more minor side-roads should be on raised tables, to indicate to drivers that pedestrians going straight ahead have priority over vehicles turning into and out of those side roads. Signalised pedestrian crossings need to provide plenty of crossing time for pedestrians, allowing older and disabled people also to use them without danger or stress. For the fastest and/or busiest roads, bridges or tunnels are needed. These should be step-free and with gradients minimised, to make it as easy as possible for disabled people to use them. Where tunnels are provided, they should be wide and straight to provide natural light and good visibility right through the tunnel wherever possible.

Cycling

Cycling networks, like walking networks, need to be safe, direct, coherent, comfortable and attractive – see local cycling and walking network plans.

Cycle facilities along fast or busy main roads should be physically segregated from the motor traffic: the faster and busier the traffic, the greater the level of segregation that is needed (but see also the section on safe streets and lanes for solutions where segregation is not needed). Cycles should also

be kept separate from pedestrians, unless there is plenty of space and/or usage is light (e.g. on a path next to an inter-urban road), allowing both groups to mix safely and without stress.

Safe and secure cycle parking should be provided in new residential developments and at key destinations such as schools, shops, workplaces, public transport stations and interchanges, and other public facilities. In addition to cycle parking, public transport services should make provision for cycling to and from stations and interchanges, with space on trains, trams and longer-distance bus or coach services, and cycle reservation systems on any train services where seats can also be reserved. See also cycle hire schemes.

National and local government should support the use of non-standard pedal cycles, such as child trailers and cargo-bikes (whether for households or businesses), trikes and hand-cycles (these can be crucial mobility aids for the many people who find walking difficult but who can cycle), and electrically assisted pedal cycles (or 'e-bikes'). Dutch evidence shows that the average journey on an e-bike is about 60% longer than on a conventional bicycle. E-bikes can therefore substantially increase cycling's contribution to tackling climate change, enabling people to replace car-use for longer or hillier journeys in rural areas, as well as enabling older, less healthy or disabled people to take up cycling who might otherwise find it difficult or impossible.

Cyclists also need good signing and waymarking.

Safe urban streets and rural lanes

The majority of roads and streets in built-up areas should be subject to 20mph speed limits, with similar reductions (e.g. to no more than 40mph for quieter rural lanes). Exceptions can be made for faster and busier main roads, though these should be provided with separate cycle facilities. There is a mistaken view that 20mph limits should be concentrated around school gates. However this simply reinforces the idea that children will normally be driven to school and that they only need to get safely from their parents' car to the school gate. Instead, we need 20mph schemes to keep children safe near their homes and throughout their walking and cycling journeys, whether to school or to visit friends or anywhere else. For more information, see the 20sPlentyForUs website.

The Welsh Government and Senedd (i.e. the Welsh parliament) have approved plans to make 20mph the 'default' speed limit for built-up streets in Wales by 2023 – allowing exceptions as above - acting on feedback from a Public Health Wales evidence review, a Task Force Report and extensive consultation. Transport Action Network urges the governments for England and Scotland to follow suit.

Another solution for reducing car use for school journeys is to create school streets, where driving is prohibited at school arrival and drop-off times. This helps normalise walking and cycling to school, so that parents no longer feel they have to drive their children to school because of the dangers created by other parents' cars. Monitoring has shown that these schemes reduce traffic and are popular.

Another approach is to introduce traffic-filters which cut off rat-runs through residential streets but allow cycling, giving it an advantage for local trips. This type of scheme has recently come to be known as a Low Traffic Neighbourhood (LTN), though it is not a new technique. Overall, LTNs have been shown to improve road safety, increase walking and cycling and reduce car use for local journeys. They have generally attracted high public support, both in principle and in practice after they have been introduced, despite the efforts of vocal minorities to derail their introduction in

recent years. However they need careful design and good consultation to ensure local community support, though their introduction should not be derailed by the vocal minorities which have sprung up to oppose them in recent years. They generally attract high public support, both in principle and in practice after they have been introduced. LTNs can improve road safety, increase walking and cycling and reduce car use for local journeys – though wider measures may also be needed to ensure they reduce traffic overall.

Traffic calming features (such as road humps and speed cushions) and/or zonal speed camera systems can reduce speeds and improve safety (see review of evidence), and may be useful where the layout of a street (or a street network) does not naturally keep most drivers' speeds down to around 20mph. Still, it is generally preferable to design streets to feel like safe, people-friendly places, with attractive surfacing and street furniture (e.g. seating and planters) which enable and welcome people of all ages and abilities to walk, cycle and wheel safely and easily.

Surrey County Council plans a pilot programme of lowering the speed limits on a network of rural lanes from 60mph to 30 or in some cases 20mph. This approach could be combined with the design features employed by the Quiet Lanes schemes in Norfolk and Kent and/or with the use of average speed cameras.

Local cycling and walking network plans

The UK Government has encouraged local authorities in England (outside London) to draw up Local Cycling and Walking Infrastructure Plans (LCWIPs), while Welsh authorities are legally required to adopt Active Travel Network Maps (ATNMs), in accordance with the Welsh Government's Active Travel Act design guidance. However the principles, and the steps needed to create a LCWIP or an ATNM, are similar:

- Define the geographical area to be covered (including any cross-boundary issues).
- Identify the most important start and end-points of journeys (e.g. residential areas, schools and colleges, employment locations, shopping areas, healthcare, public transport and other facilities) that need to be connected by safe, convenient and direct walking and cycling routes.
- Prioritise the corridors with the greatest potential to unlock increased cycling and walking if provision is improved – the Propensity to Cycle Tool (http://pct.bike) can assist with this.
- Identify the actual route alignments where walking and/or cycling conditions can be improved most cost-effectively to maximise the increases in walking and/or cycling.
- Consult and seek support for the route proposals (including from neighbouring authorities etc where cross-boundary issues arise, as well as from the wider public), adapting them as required in the light of feedback received.

However national governments and councils alike need to do more to integrate the planning and funding of LCWIPs (or ATNMs in Wales) and Rights of Way Improvement Plans (RoWIPs). LCWIPs and ATNMs are widely seen as being mainly for day-to-day walking and cycling in urban areas, while rights of way are often seen as being for recreational walking (and, to a more limited extent, cycling and horse-riding) in rural areas. Yet this distinction is not, and should not be, hard and fast. On the contrary, joining up the planning and funding of these networks would make it easier, for instance, for children to walk or cycle from outlying villages to schools in nearby towns, or for families in those towns to get out for recreational walks or bike rides without feeling the need to jump in the car to get there.

‘E-scooters and other ‘micro-mobility vehicles’

Electrically-assisted scooters (or ‘e-scooters’) have become popular in recent years. However at present, the only e-scooters that may be ridden on UK roads are publicly hired e-scooters, as part of a UK Government trial to assess whether to legalise them and, if so, how. Privately-owned scooters may only legally be ridden on private land with the landowner’s permission.

The UK Government plans to create a new category of ‘micro-mobility vehicles’, that would include e-scooters and other light motor-vehicles, whose power and weight limits will be low enough to permit them to be ridden under similar laws to those applying to pedal cycles. The alliance urges that these vehicles should be regulated in a way that seeks to maximise their potential benefits for reducing car traffic, while minimising the safety risks to their riders and other people - and especially to more vulnerable pedestrians - and to the health benefits of walking and cycling.

Road and path maintenance

Poorly-maintained roads are the bane of drivers’ lives. But pedestrians, cyclists and people with disabilities are far more seriously affected by poor maintenance than drivers. Potholes, obstructions and trip-hazards can cause serious and even fatal injuries, while poor winter maintenance can trap older and disabled people indoors, unable to get to the shops for fear of a dangerous fall.

Yet road maintenance budgets are increasingly skewed towards maintaining motorways, trunk roads and other A-roads. That is despite evidence that funding cuts to minor road maintenance have significantly higher economic costs than those affecting trunk road maintenance. This is probably because walking and cycling account for a greater proportion of the traffic on minor roads, while pedestrians and cyclists’ maintenance claims are much more likely to involve serious injuries, not just property damage. The average maintenance-related legal claim made by cyclists is 13 times higher than those made by drivers.

Councils therefore need to give greater priority to inspecting and maintaining minor-roads and off-road paths, including winter maintenance and vegetation clearance of off-road paths and tracks. From a cycling perspective, they also need to focus more on the area of the road nearest the kerb, on potholes which run parallel to (rather than across) the line of cyclists’ travel, on hills (where they will be travelling at higher speeds) and on junctions (where cyclists will be turning and watching out for other vehicles’ movements rather than the road surface).

Behaviour change programmes to boost walking and cycling

Besides creating a safe and attractive environment for walking, wheeling and cycling, councils should also provide opportunities to try out walking and cycling. They need to focus particularly on groups such as women, older people, people from minority ethnic backgrounds, health patients, . People from these groups are particularly prone to thinking that “cycling and walking aren’t for people like me”, yet they are exactly the people whose health, wealth and well-being has most to gain from discovering the joys of walking and cycling!

The old Cycling Proficiency scheme has been replaced by the Bikeability cycle training programme. It is designed for adults and teenagers as well as younger children, taking people from learning basic balance and control skills (level 1) through to being able to handle busy roads and junctions (level 3).

Cycle training should be provided not just in primary schools but also in secondary schools and colleges, cycle-friendly workplaces and in a range of community settings. Women, health patients, people with disabilities, and people from ethnic minority groups (especially women and teenage girls) are much more likely to take up cycling if they do so among peers. This has been well demonstrated by Cycling UK's Big Bike Revival, Cycling for Health and other community outreach programmes, which have all attracted significant participation from these under-represented groups. Living Streets's programmes for diverse communities and older people, and the Ramblers' Wellbeing Walks programmes have similarly impressive results in terms of boosting walking among less active groups.

PUBLIC, SHARED AND COMMUNITY TRANSPORT

Improving the service provided by Britain's public transport networks needs to be central to any plan for a Low Traffic Future. So too is the promotion of various forms of shared and community transport, including car-clubs, ride-sharing schemes, community transport services and public cycle hire schemes.

Yet at present public transport in Britain is expensive, unreliable and poorly co-ordinated, mainly due to a combination of underfunding and organisational failures. The viability of public transport has also been seriously undermined by the covid pandemic.

Volunteer-run community transport services often fill vital gaps in the conventional public transport network, and can be vital particularly for older and/or disabled people to maintain their independence, access services and participate in their communities. However they are often neglected in planning local transport services.

The idea of public cycle-hire is mostly still limited to a few larger cities (and often to just the central areas of these cities), while car-clubs and ride-sharing are still seen as niche activities rather than as normal options.

Yet if we want a Low Traffic Future with all its benefits for tackling congestion, pollution and the climate emergency, we need to support the revival of public, shared and community transport services as easy, convenient, inexpensive and normal ways to get around.

The solutions involve:

- Expanding and increasing the capacity of the rail and 'metro' networks (n.b the term 'metro' encompasses underground, light rail and tram networks), building new or upgraded stations, and investing in critical power and signalling systems, so that cheaper, more frequent, better-connected, more reliable and greener rail services can serve more parts of the country.
- Similarly, supporting more frequent and reliable bus and coach services, e.g. by improving bus priority in urban areas and by boosting the coverage and frequency of rural services. Rural buses are a lifeline for rural communities: without them, people who are unable to drive (including young and older people, people with some disabilities and those who simply cannot afford to run a car) face social and economic isolation, unable to reach schools, colleges or work-places other than by relying on lifts and taxis.
- Improving public transport within National Parks and other protected landscapes, as well as for travelling to them. People will feel much more inclined to leave the car at home when going on weekend breaks or holidays if they feel they can get around without a car when they get there.
- Supporting community transport services - many of them volunteer-run - such as school or hospital transport schemes, dial-a-ride schemes and similar services, including those aimed primarily at older and/or disabled people.
- Positively promoting shared transport, e.g. car clubs in residential areas or ride-sharing for people travelling the same workplaces or business parks.
- Supporting the growth of public cycle hire schemes, as well as targeted opportunities for people to try cargo-bikes and non-standard pedal cycles, including those with electric assistance
- Promoting better integration of all of the above, including coordinated timetabling and ticketing, online 'mobility as a service' (MaaS) platforms and 'mobility hubs'.

Rail and ‘metro’ services

Our rail networks suffer from:

- High fares, together with a lack of transparency about what discounted fares are available, and inflexible season ticket rules that do not reflect that, for many people, the regular commute is now a thing of the past.
- Overcrowding, particularly at peak times – meaning that the passengers paying the highest fares often get the worst service.
- Old, uncomfortable and dirty trains on non-electric lines.
- Cancellations and delays – often due to failures of the rail infrastructure itself (e.g. maintenance, signalling or power failures).
- Poor customer service, including a lack of staff at stations and poor information when things go wrong.
- A lack of provision for disabled people – although wheelchair spaces on trains are now standard, many stations lack step-free access and tactile paving, and it can be hard to access mobility support, especially if problems arise (e.g. if a connecting train is delayed).

Many of these problems (e.g. high fares, overcrowding and, in the case of underground networks, poor disabled access) also affect our metro networks.

It is to be hoped that the Government’s Rail White Paper (also known as the Shapps-Williams reforms) will address at least some of these problems when it is enacted as part of the Transport Bill, expected in 2023. However there is also a serious need to invest in:

- Reopening disused rail lines and making improvements to stations (e.g. longer platforms and lifts to promote accessibility) and other infrastructure (e.g. improved signalling) on existing lines;
- Lower fares, more transparent fare structures and more flexible season tickets, as well as integration with other public and shared transport modes;
- More comfortable and reliable trains (preferably electric);
- Rail infrastructure, including electrification as well as signalling systems etc;
- Stations, including accessibility improvements;

Urban ‘metro’ systems can carry significant numbers of passengers at peak times, on routes which are fixed and therefore easy to visualise and remember. Light rail systems can make use of suburban rail lines, increasing the frequency of services but connecting them to routes which run on-street through the hearts of the cities they serve. The permanence of the investment in a tram system can lend prestige to a city, while the arrangement of tracks and platforms is very space-efficient and offers excellent disabled access. For more, see this report from the Urban Transport Group.

However, trams and light rail systems have high installation costs, can be disruptive when they fail, their routes cannot be varied or extended easily and, if not designed carefully, the tram-rails themselves can create safety hazards for cycle users. There are debates about whether their service quality can be achieved more cost-effectively, safely and flexibly by opting for some form of guided bus system, including those where the bus is guided by white lines or magnetic wiring rather than by a separate kerb.

Buses and coaches

Buses are an essential lifeline for many rural communities especially for people who cannot or do not drive, whether because they are too young, have a disability or simply cannot afford to run a car. Yet many people have lost bus services which they depended on to reach schools or colleges, employment or training, and other key facilities. Many villages have a bus service that runs less than once a day (i.e. on certain days of the week only), or no bus service at all. CPRE, the countryside charity, has published research on 'transport deserts', finding that 56% of small rural towns now fit their definition of a 'transport desert' or are at risk of doing so.

Buses, like train services, have been badly hit by the pandemic. The Government published its National Bus Strategy, Bus Back Better, in 2021. It promised £3bn to support lower fares, more frequent services, improved bus priority and support for zero-emissions buses. However, local authority bids to the fund totalled £10bn, and it turned out that only £1.6bn would be available: £0.5bn for mayoral combined authorities (as part of their City Regional Sustainable Transport Settlements (CRSTS) funding, and £1.08bn for Bus Service Improvement Plans (BSIPs) submitted by just 31 other authorities. It meant that 3 out of every 5 councils who applied for BSIP funding had received nothing, while even those who did receive funding only received an average of 24% of what they had bid for. For more, see the Campaign for Better Transport's report Funding local bus services in England.

CPRE has called for England to follow the Swiss model of providing a minimum of an hourly bus service from 6am till midnight, for every village above a certain population size (e.g. 300 inhabitants in the Zurich and Bern regions). CPRE estimates that this would cost £2.7bn annually but would provide huge benefits in terms of boosting education, training and employment opportunities, saving parents time from fulfilling escort duties or the costs of hiring taxis, while also reducing the congestion, pollution and greenhouse gas emissions associated with car travel.

There is also significant potential to improve the quality of coach services, by creating coachway interchanges at edge-of-town sites (typically next to the motorway network), where intercity coaches can connect with rapid public transport (preferably rail-based) connections into city centres.

Car clubs and ride sharing

Car clubs and ride sharing schemes are both ways in which people can have use of a car when required, without needing to own one.

Traditional car sharing schemes are similar to straightforward car rental, though the cars are usually available from parking bays in residential areas rather than from a car rental depot. Still, the car normally needs to be returned 'back to base', i.e. to the place where it was picked up.

Variants of this model are emerging, with larger car club operators now able to offer one-way journeys, though so far this is more common in Germany than the UK. Another option is peer-to-peer lending, where individuals offer to rent out their cars to other individuals, rather like an AirBnB for cars.

Ride-sharing is another form of peer-to-peer collaboration, but involves individuals giving lifts to other individuals. It differs from ride-hailing apps like Uber, in that the drivers are not seeking to make a living from providing this service, they are simply offering a lift while making a journey for which they would be driving anyway. Ride-sharing can be brokered by websites such as BlaBlaCar or

Liftshare. Liftshare also sets up ride-sharing schemes based on workplaces or business parks, e.g. at engineering firm Arup's business campus in the West Midlands.

Cycle hire schemes

Cycle hire can take the following distinct forms:

- Cycle hire based on designated hire and drop-off locations, in which cycles can be unlocked by registering payment) either at docking stations or from marked areas (where users can park their bike without additional charge or penalty at the end of a ride).
- Free-floating (or 'dockless') cycle hire, where the cycle hire operator allows cycles to be picked up and dropped off at any location within their operating zone.
- Hub-based cycle hire, where bikes are hired and returned to staffed locations, e.g. at train stations or at recreational destinations (e.g. in or near national parks). Cycles usually have to be returned to the location where they were collected, though some operators have networks of hire locations, enabling cycles to be hired at one location and dropped off at another (similar to larger car-hire schemes).
- Workplace-based pool bikes.
- Cycle loan schemes, often run by social enterprises and/or based at community locations, where, cycles can be loaned out on a 'try before you buy' basis.

For all of these options, the pedal cycles themselves can either be conventional or electrically-assisted cycles, and may include non-standard cycles that can be used as mobility aids (e.g. tricycles, regular tandems, side-by-side tandems or hand-cycles).

In 2018, a wave of dockless cycle hire operators swept through UK towns and cities, many of them being Chinese companies and/or backed by venture capital. However it quickly became apparent that this was not an economically viable model and that, in any case, operators tended to avoid more disadvantaged areas. This has prompted recognition among councils that viable public cycle hire schemes need at least some initial capital funding support to get established, with additional revenue funding support to maintain the operations, particularly in more deprived areas. Still, the most successful schemes (e.g. Paris's Velib scheme and the Santander scheme in London) have been very effective in helping to 'normalise' cycling, and can attract 6 or more rides per bike per day.

Integration: coordinated timetabling, through ticketing and 'Mobility as a Service'.

Rail operators and transport authorities (e.g. combined metropolitan authorities, county and most city councils) need to work more closely together to improve the coordination of rail and bus timetables, though transport authorities also need greater powers to achieve this where voluntary agreements cannot be reached. It is hoped that the Government's plans to restructure Britain's railways could open up opportunities for improvements.

Similarly, there is a need to simplify and integrate ticketing and payment schemes for public and shared transport. The Urban Transport Group (UTG) and EU have produced evidence showing that integrated ticketing can substantially increase public transport patronage, as well as increasing revenues, improving passenger satisfaction, speeding up boarding times, reducing fraud and

operational costs and, crucially, reducing car use. The West of England Combined Authority is actively seeking to improve integrated ticketing in and around Bristol, Bath and the surrounding region.

One opportunity to integrate payment is the development of Mobility as a Service (MaaS) platforms. MaaS is effectively a digital platform which enables users to see the full range of options for the journey they wish to make, and then make a single on-demand payment for whatever option they choose. This can include public or shared transport (including cycle hire) as well as taxis and ride-hailing options. It can help users find sustainable transport options in real time. Trials (e.g. in the West Midlands and Greater Manchester) have shown that MaaS is popular but that better coordination and (probably) regulation is needed to maximise its effectiveness.

REDUCING TRAVEL DEMAND THROUGH PRICING

There is a complementary 'chicken-and-egg' relationship between improving public transport and active travel, while deterring the use of private cars through some form of pricing. Pricing can relate to the use of road-space (either in general or at particularly busy times and places), or parking space, or motor vehicles, or fuel.

These types of pricing mechanisms can provide much of the funding needed to improve public transport and active travel. However they are also needed to deter unnecessary driving, so as to make space available for those walking, cycling and public transport improvements.

Using the funding from these pricing schemes to improve the alternatives is vital if the pricing schemes themselves are to be seen to be fair, with people seeing the money being used to make it easier for them to get around without depending on private cars.

Polling by Ipsos found that public support for pricing for urban road-space has gone up from 33% in 2007 to 62% in 2020. It is higher among captains of industry, and rises higher still if the revenues are used to improve public transport, to tackle air pollution or greenhouse gas emissions, and if the taxes are higher on more polluting vehicles. Conversely, support falls if the revenues are returned to drivers in the form of reduced road taxes. Research by Campaign for Better Transport found a clear majority supported road pricing more generally (49% in favour compared with 19% against), echoing earlier findings from the Social Marketing Foundation. Both reports reinforce the point that road pricing schemes need to be fair.

Pricing mechanisms can either aim to reduce the greenhouse gas emissions from road transport, or the more localised (predominantly urban) impacts of congestion and pollution, or both. There is a good case for adopting a mix of both approaches, in which:

- National government operates a distance-based pricing scheme, which reflects the climate impacts of road travel, while yielding funding to improve longer-distance travel (notably the rail and inter-urban bus networks);
- Local authorities (particularly in the city regions) operate congestion and pollution-based pricing schemes, yielding funding for local transport improvements (e.g. walking and cycling provision, as well as improving local bus and metro services).

This approach has the benefit of ensuring that national and local government share the political costs of introducing pricing schemes, but also share the revenues and the responsibilities for improving local and national transport respectively. This briefing from Friends of the Earth says more about funding sustainable transport through various ways in which pricing can be used to reduce travel demand.

RURAL TRANSPORT

Our 'solutions' information pages (e.g. on walking, cycling, public and shared transport) all apply to both urban and rural areas. However there is a common perception that it is only possible to achieve a Low Traffic Future in urban areas, not in rural ones.

There is, of course, some truth to this. In more rural areas, people's journeys are typically longer (making it less likely that they can be walked or cycled), while the lower levels of travel demand make it harder to operate regular public transport services.

This makes it hard for people living in rural areas, in ways that particularly disadvantage children and young people, those on low incomes and those (especially older people) who are prevented from driving by health conditions or disabilities.

However it is far from true that rural car-dependence is inevitable, as was demonstrated in a series of roundtable discussions held by the University of Hertfordshire's Smart Mobility Unit in 2020. It is also particularly important to reduce car use for longer journeys. Around 30% of greenhouse emissions from cars arises from just 3% of car trips.

The report of these roundtables identified a number of solutions, and examples of good practice, for tackling car-dependence in the 'peri-urban' areas around smaller towns, as well as more remote rural areas, not least those which are popular as recreational and holiday destinations:

- Integration of public transport: the 'One Public Transport System for Cornwall', run by Cornwall Council, was cited as an example of good practice, as was the Intalink partnership in Hertfordshire;
- 'Total transport': ensuring better coordination of transport services commissioned by different public bodies (e.g. public transport, school transport, patient transport and community transport schemes);
- Demand-responsive transport (DRT): where public transport services can operate on flexible routes, allowing users to summon a bus by altering its route (within reason) to pick them up or drop them off at a convenient location. An example is the ArrivaClick service operating in Liverpool, Leicester, Watford and Ebbsfleet.

There is a particularly strong case for improving public transport provision in National Parks and other protected landscapes. If visitors to these areas feel they can get around within these areas without needing a car, they are also likely to use public transport for the (probably much longer) journey to get there in the first place. In doing so, they are helping to reduce the congestion, pollution and visual intrusion that reduces the quality of the environment they are there to enjoy. For instance, the prohibition of car parking on the Llanberis Pass in Snowdonia, and the provision of a park and ride bus to get there, has created a much better experience for those wishing to climb Snowden from the pass.

FREIGHT

A concern often raised about plans to reduce traffic in towns and cities is the question “what about goods deliveries”?

Freight transport is obviously vital for delivering goods to shops, homes and businesses. Yet our over-reliance on heavy goods vehicles (HGVs) for freight transport is seriously harmful:

- Safety: HGVs account for only 3.6% of motor-vehicle mileage on Britain’s road network (excluding motorways), yet they are involved in 14% of pedestrian fatalities and 17.5% of cyclist fatalities. People hit by lorries are much more likely to be killed than those hit by (other) cars.
- Road maintenance: the damage caused by a vehicle increases exponentially with its weight, meaning that a 44-tonne lorry does 136,000 times more damage to a road than a typical small car. Lorries are also much more likely to over-run kerbs and pavements, and to damage verges on rural roads and lanes.
- Emissions: lorries are responsible for 17% of greenhouse gas emissions from road transport and 21% of nitrogen dioxide emissions, even though they account for just 5% of road traffic mileage (including motorways).

In recent years, a decline in the GB population’s annual average car mileage has been offset by an increase in van mileage, with the result that road traffic overall continues to grow. This is to a large extent driven by the growth in home deliveries, which in turn has increased during the pandemic.

So how can we reduce these problems while still delivering the goods?.

Inter-urban freight

Part of the answer is to get more of our goods delivered by rail. Rail is obviously well suited to carrying heavy or bulky goods and could take a lot of lorries off our motorways: 50% of trips made by articulated lorries are over 200kms in length, with 25% being over 300km. More well-placed rail-freight terminals are needed to increase the opportunities for rail freight.

Improved collaboration and data-sharing within the logistics industry could also help to reduce the c29% of GB HGV mileage where the lorry runs empty.

The use of self-driving lorries on motorways may soon contribute to reductions in the costs and the environmental and safety impacts of road freight for journeys that cannot be made by rail.

Trans-shipment depots and urban logistics, including cargo bikes

However this in turn will depend on the more widespread use of trans-shipment depots, where large lorries can transfer their loads onto smaller urban delivery vehicles, including cargo bikes, for delivery to shops and other destinations within urban areas. This would reduce the safety risks of large lorries

in urban areas, not to mention the road maintenance damage and indeed their requirements for wide-cornered junctions, which impede efforts to slow motor vehicles and enable pedestrians to cross at junctions.

The EU-funded Cycle Logistics project found that 51% of urban freight journeys could be undertaken by cargo bike. More recent research by the Active Travel Academy, commissioned by the charity Possible, found that cargo bikes made urban deliveries around 60% faster than vans (delivering 10 parcels per hour, compared with 6 per hour for vans), as well as reducing congestion, road danger, air pollution and greenhouse gas emissions.