

ALL ABOARD

A PLAN FOR FAIRLY
DECARBONISING
HOW PEOPLE TRAVEL



**Stephen Frost,
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The IPPR Environmental Justice Commission (EJC) is a landmark initiative building on IPPR's award winning work on environmental breakdown and its Commission for Economic Justice. The commission is co-chaired by Hilary Benn, Caroline Lucas and Laura Sandys, and they are joined by commissioners drawn from business, activism, academia, civil society, and trade unionism.

The central aim of the commission is to present an ambitious, positive vision shaped around people's experiences and needs, and develop a plan of action that integrates policy both to address the climate and environmental emergencies and to deliver economic and social justice.

The commission's final report will be published in 2021.
Find out more at: <https://www.ippr.org/environment-and-justice>

NOTE

This briefing is presented as a submission to the IPPR Environmental Justice Commission in order to stimulate vital public debate. The arguments and the proposals made are those of the authors only. Commissioners serve in an individual capacity, and no report of or for the Commission should be taken as representing the views of the organisations with which they are affiliated.

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ABOUT TRANSITION TO ZERO POLLUTION, IMPERIAL COLLEGE LONDON

Transition to Zero Pollution is one of the first initiatives of Imperial College London's new Academic Strategy. The initiative will foster systems-thinking, discovery science, transformational cross-disciplinary research, technology and innovation to create and translate holistic socio-technical solutions to pollution in all its forms, including carbon dioxide. Imperial College London are building on work being done to tackle greenhouse gas emissions and deliver net zero carbon, and going beyond that to build a sustainable zero pollution future.

Imperial College
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**TRANSITION
TO ZERO
POLLUTION**

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SUMMARY

“Climate change is the most pressing environmental challenge of our time. Transport has a huge role to play in the economy reaching net zero. The scale of the challenge demands a step change in both the breadth and scale of ambition and we have a duty to act quickly and decisively to reduce emissions. The associated benefits of bold and ambitious action to tackle transport emissions are also significant. We can improve people’s health, create better places to live and travel in, and drive clean economic growth.”

Grant Shapps MP, transport secretary, in *Decarbonising Transport: Setting the Challenge* (DfT 2020a)

The urgency of the climate crisis cannot be overstated. Yet the transport sector is currently the number one contributor to the UK’s greenhouse gas emissions and little progress has been made over the past three decades in reducing emissions.

The action we take now will need to make up for the lack of progress made in reducing emissions in previous decades. This imperative for urgent action creates a once in a generation opportunity to put in place a new approach to how we all travel. Within this report we outline **a vision for a transport system that is fair to all, works to improve people’s health and wellbeing and provides a better environment for nature.**

Policymakers’ current preferred strategy for decarbonising transport places an overwhelming focus on the shift to electric vehicles. While superficially attractive because of its offer of continuity, such an approach will not deliver the improvements in quality of life of an alternative strategy which prioritises the needs and wellbeing of all people. Creating more liveable streets and neighbourhoods, alongside the shift to electric vehicles, is essential to realising the economic, environmental and social benefits of a transformed transport system. These benefits include reclaiming space for nature, improved health through improvements in air quality, and the economic benefits of lower congestion.

Moreover, the communities we have spoken to, one in rural South Wales and the other sitting within the London commuter belt, support such an approach and point towards what ambitious, bold and fair action to reduce emission from transport could look like. In the deliberations and conclusions of these two citizens’ juries for the Environmental Justice Commission, we heard that an alternative vision is needed if we are going to address the challenge ahead in a way that is fair to them and to the most vulnerable in society.



We outline a vision for a transport system that is fair to all, works to improve people’s health and wellbeing and provides a better environment for nature

FINDINGS

- IPPR analysis of the sixth carbon budget shows that the Climate Change Committee's preferred approach to decarbonisation could lead to:
 - an 11 per cent rise in traffic between 2021 and 2050
 - a 28 per cent increase in car ownership, rising from 34 million cars owned today to 43.6 million in 2050.
- This approach to decarbonisation will not deliver a fairer transport system or achieve significant wellbeing benefits for the public and there are questions over the resources required for the forecast 43.6 million cars in the UK by 2050.
- The wealthiest in society are far more likely to own cars with more than 90 per cent of the highest income households owning at least one car (and over 20 per cent owning at least three) with less than 35 per cent of households in the bottom 10 per cent by income owning a car.
- Citizens' juries carried out on behalf of the Environmental Justice Commission by IPPR demonstrate the public demand for an alternative vision for transport decarbonisation and the principles that should underpin changes to the transport system.

Recommendations

Transport decarbonisation plans must focus on providing everyone with the opportunity and the resources to make good transport choices – access to an electric car if and when you need it, public transport that is affordable and comprehensive, and walking and cycling routes that are safe and attractive, particularly for children on the school run.

There should be a focus on making it possible for people to access what they need locally – with services which communities have a stake in, provided across reimagined high streets and town centres. **The needs of people and nature must be prioritised over cars** – changing the emphasis of investment and creating welcoming, green spaces for people and wildlife.

Central to achieving a cleaner, healthier and fairer transport system will be the UK government's transport decarbonisation plan. Within this plan, the government should make four overarching commitments.

- 1. Committing to provide a transport system that leaves no one behind, responds to the climate crisis and helps nature to thrive.**
 - A new definition of 'socially necessary' connectivity that sets a national guarantee for levels of transport and digital accessibility with the stated aim of making it possible to live a good life, wherever you live, without needing to own a car. This would include:
 - the rapid delivery of high-speed internet to every household alongside support to access the appropriate devices to make use of it
 - the UK and devolved governments' approaches to transport decarbonisation should support the principle that everyday needs should be accessible within a 20-minute walk, cycle or public transport trip
 - the UK government should review the £27 billion budget allocated to Roads Investment Strategy 2, with schemes not aligned with environmental commitments cancelled immediately
 - the governments of the UK must deliver decarbonisation plans that see levels of car ownership peaking before 2030 and set targets for the desirable size of the UK's car fleet by 2050.
 - Local authority planners should be given the power and backing of national governments to refuse planning applications that generate extra traffic and do not contribute to reducing car dependence.

2. Invest in a fair plan to deliver a clean, fair and healthy transport system that is embraced by the public.

- There should be significantly higher investment in providing good transport options that deliver good alternatives to private car ownership, including:
 - walking and cycling investment by the UK government needs to reach at least £6 billion over the term of this parliament, £4 billion more than is currently committed
 - the UK government should announce a 'help to move' incentive scheme to provide grants and loans to support people to buy cycles, electric scooters or ebikes and support a move away from owning a private car
 - the governments across the UK should guarantee seven days a week public transport connectivity for all rural areas
 - the governments of the UK should commit to a national road user charging scheme to replace fuel duty designed through meaningful deliberation with the public.

3. Ensure a fair transition to electric vehicles for those who need them.

- Governments, at all levels, should develop strategic plans for the provision of charging points alongside the aim to increase walking, cycling and the use of public transport.
- The UK should announce that public funds will no longer be used to purchase carbon emitting cars from 2022. This should be matched by faster action from businesses to decarbonise their fleets and the ban on the purchase of combustion-engine vehicles for large commercial fleets should be brought forward to 2025.

4. Create places fit for future generations and for nature.

- All UK cities and towns should set targets to reallocate road space to cycling, walking and green space every year. In order to support an ongoing increase in tree canopy, a target of at least 30 per cent tree cover should be set by urban local authorities for new development land.

1. OUR VISION AND FRAMEWORK

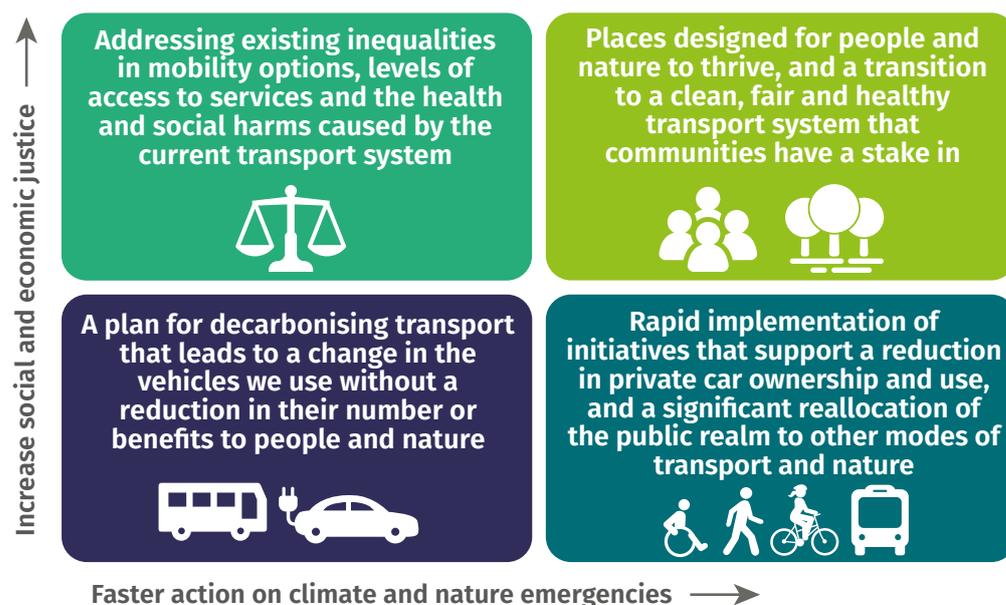
The Environmental Justice Commission’s vision is a society that places fairness at the heart of its response to the climate and nature emergencies. Our mission is to present an ambitious, positive and achievable plan that is shaped around the diverse needs of the UK’s communities.

The response taken to these joint environmental crises will touch every corner of our lives over the coming decade. One of the most fundamental changes will be the design of our public spaces and the changing ways we move through them.

Ensuring this action enhances social justice, supports prosperous local economies and creates the space for wildlife to flourish means putting these aims at the heart of our decision making. The policies put forward within this report have been designed around these priorities and we have developed these proposals based on whether, as a whole, they achieve a fair transition to a net zero transport system.

The diagram below outlines how the commission’s vision can combine rapid action for the environment with addressing the underlying inequalities of our current transport system.

FIGURE 1.1: FRAMEWORK FOR FAIRLY DECARBONISING TRANSPORT



Source: Authors’ analysis

2. THE NEED FOR A NEW APPROACH

The last year has seen unprecedented restrictions on how, and where, people can travel. Covid-19 has had devastating impacts and the lockdowns required to protect the most vulnerable in society restricted access to the fundamentals in life – family, friends, work and education. Through this experience, we have been shown the importance of the social functions of our streets and public spaces. It has also exposed us to the extent to which motorised vehicles, that so many are dependent on, impact our environment and the nature we share it with.

THE NEED TO DECARBONISE HOW WE MOVE AND REDUCE HOW MUCH WE TRAVEL

Since the 1970s the sustainability of our transport system has been a major issue, with the oil crisis bringing mainstream many of the environmental concerns we are still familiar with today (Gunn 2018). Transport is now the largest contributor to the UK's greenhouse gas emissions and these levels of emissions have remained largely consistent over the last three decades (Marsden et al 2020). In 2019 surface transport made up 22 per cent of the UK's greenhouse gas emissions, with car use accounting for 60 per cent of these emissions (Climate Change Committee 2020).

FIGURE 2.1: 60 PER CENT OF ALL SURFACE TRANSPORT SECTOR EMISSIONS ARE FROM CARS
Breakdown of surface transport sector emissions in 2019 by vehicle type



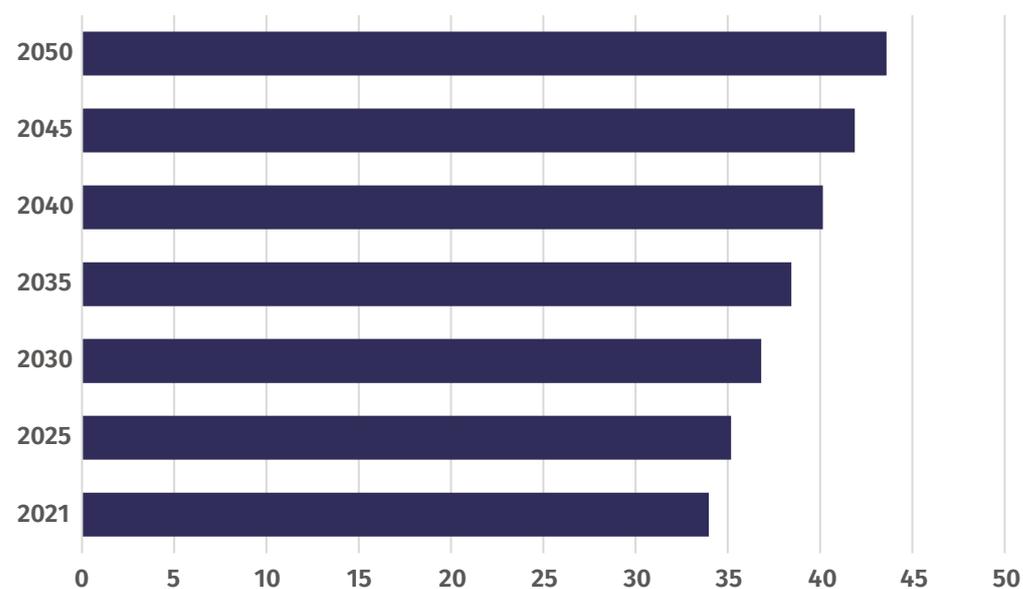
Source: IPPR analysis of CCC 2020

The UK government forecasts up to a 51 per cent increase in traffic in England and Wales by 2050, by which time there is expected to be up to 10 million more cars on the road – taking the total to over 40 million (DfT 2018). Congestion will rise as a result of increased car use – with the potential for up to 16 per cent of traffic to be in congested conditions by 2050 compared to seven per cent in 2015 (ibid). This is a significant concern when estimates of the wider social costs of motoring show congestion is “by far the largest component of the external cost of additional driving” (Adam and Stroud 2019). Time wasted sitting in traffic is “time that people could spend producing valuable goods and services, or enjoying precious time at home and leisure pursuits” (ibid).

Forecasts of growing car ownership, linked to a growth in population and GDP, are included within the assumptions that underpin the sixth carbon budget, in order to provide a conservative estimate of the cost of changing these vehicles to electric (CCC 2020, see figure 2.2). The Climate Change Committee’s analysis demonstrates that the economic case for investment in decarbonising transport is overwhelming, with initial investment costs surpassed by annual operating cost savings of around £20 billion by 2035 (ibid). Realising these savings is key to ensuring the overall costs of decarbonising our economy are kept at a reasonable level.

FIGURE 2.2: THERE COULD BE OVER 43 MILLION PRIVATE CARS IN THE UK BY 2050

Forecast growth in levels of car ownership in the UK from 2021 to 2050 (millions)

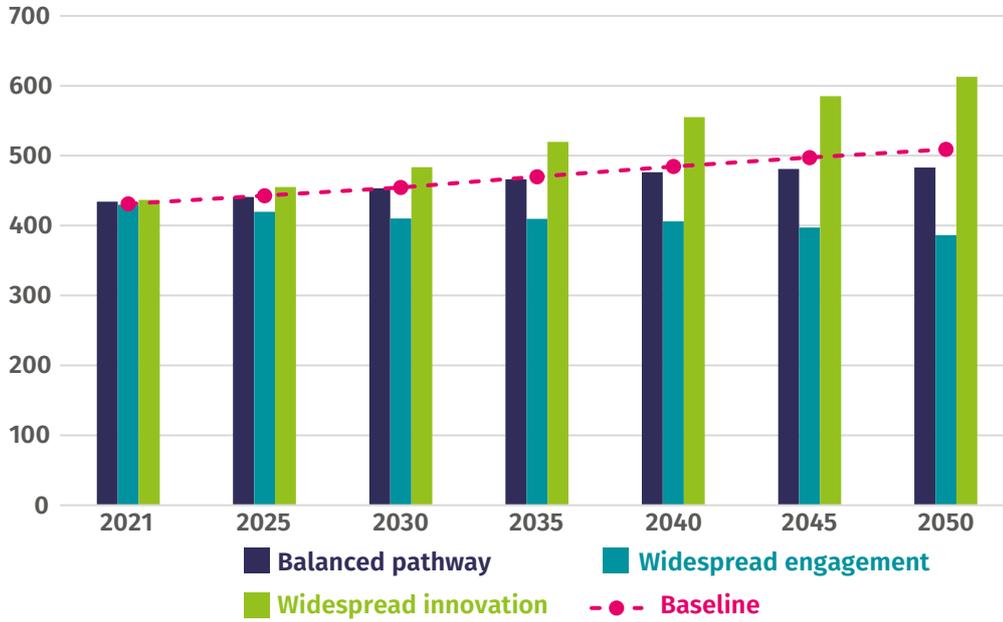


Source: IPPR analysis of CCC 2021

The Climate Change Committee’s balanced pathway, an illustration of a ‘broadly sensible’ approach to how net zero can be achieved by 2050 (CCC 2020), anticipates some reduction in carbon through a shift to public transport and active travel, but with the majority of emission reductions coming from the adoption of zero emission vehicles. It is predicted that the reduced operating costs of electric vehicles will lead to increases in car travel (CCC 2020, see figure 2.3). Even in scenarios where people reduce their car usage the same growth in car ownership is assumed, with implications for the efficiency of vehicles in each scenario (CCC 2020, see figure 2.4).

FIGURE 2.3: TRAFFIC IS PREDICTED TO RISE BY 11 PER CENT BETWEEN 2021 AND 2050 IN THE BALANCED PATHWAY

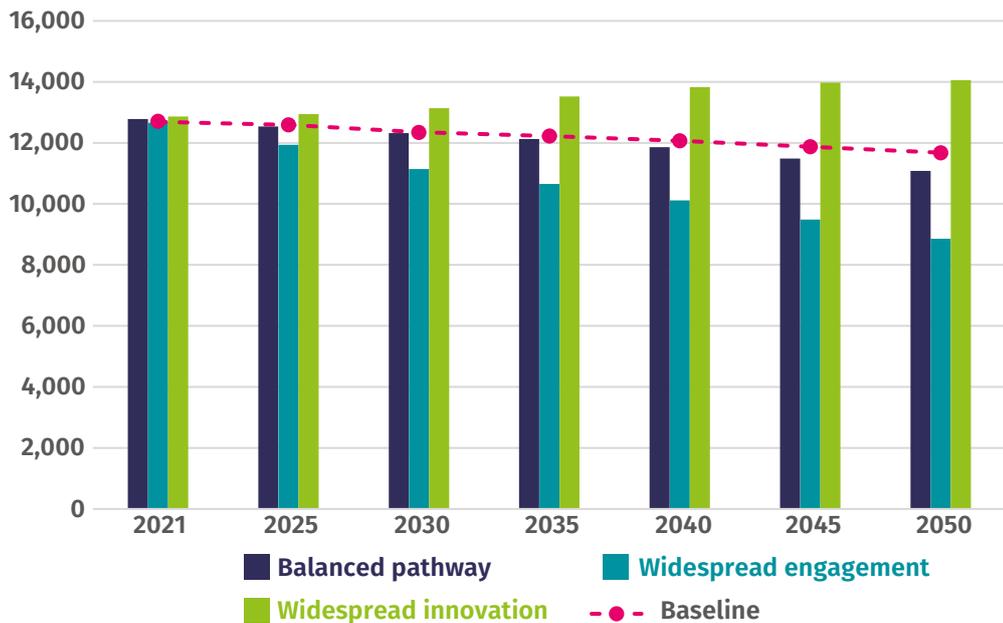
Traffic levels in the sixth carbon budget compared to Department for Transport baseline



Source: IPPR analysis of CCC 2021

FIGURE 2.4: THE AVERAGE DISTANCE TRAVELLED PER CAR EACH YEAR DIFFERS BY OVER 5,000 KILOMETRES DEPENDING ON SCENARIO IN THE SIXTH CARBON BUDGET

Breakdown of the distance travelled per car each year in different scenarios within the sixth carbon budget



Source: IPPR analysis of CCC 2021

THE IMPLICATIONS OF AN ELECTRIC VEHICLE-LED APPROACH

The affordability of electric vehicles is one of many key fairness issues in the approach taken to decarbonisation. There is a risk that “low income households will be left behind in this transition, stuck using vehicles that are polluting and expensive to run” (Kumar 2019). Without electric vehicles being widely available in the second-hand car market, upon which low-income households rely (ibid), those that need a car will continue to pay more to run and repair their old cars for many years to come. The durability of electric vehicles makes maintenance costs easier to plan for and this contributes to the third owner of an electric vehicle having their total cost of motoring being cut “by over 30 per cent compared to a petrol car” (ibid). Low-income households are priced out of savings because of the upfront costs of an electric vehicle.

Alongside current affordability, there are concerns about the wider implications of an electric vehicle fleet as vast as the one currently anticipated and planned for. Electric vehicles are an essential part of the global response to decarbonisation of transport, but we must remember that “there is no such thing as a zero emissions vehicle” (Anable et al 2020). Because of this, “there are strong arguments for pursuing both demand and supply side solutions to make the path to deep decarbonisation more sustainable and potentially more certain” (Brand et al 2019). In rethinking our transport system, to one where car ownership is not necessary, we can progress decarbonisation whilst also improving people’s health and creating more liveable cities and towns.

As recent research supported by Imperial College London has shown, there is huge potential for walking and cycling to contribute to climate change mitigation in urban areas. Analysis of longitudinal data from seven European cities found that cyclists had 84 per cent lower life cycle CO₂ emissions than non-cyclists (Brand et al 2021). The average person who moved from car to bike decreased life cycle CO₂ emissions by 3.2 kg CO₂ per day (ibid). They conclude that “locking in, investing in and promoting active travel should be a cornerstone of sustainability strategies, policies and planning” (ibid).

Future visions of mobility in the UK often focus on supporting the status quo through the adoption of electric vehicles; less is said about the shift from “privately-owned, car-centred mobility” (Bergman et al 2017). This means our discussions about technical innovation are largely dominated by reducing the emissions from cars and vans. However, research and development is also critical to creating new models of shared access within more liveable, smart cities (Ferraro, King and Shorten 2018) and may even be used to adapt e-bikes to reduce pollution inhalation by cyclists (Sweeney et al 2019).

Electric vehicles will be a crucial part of the net zero mobility system, but ultimately an emphasis on policies focused on meeting the needs of an ever-increasing number of privately owned cars will fail to address the inequalities within our transport system, as the next section shows.

INEQUALITIES IN OUR TRANSPORT SYSTEM

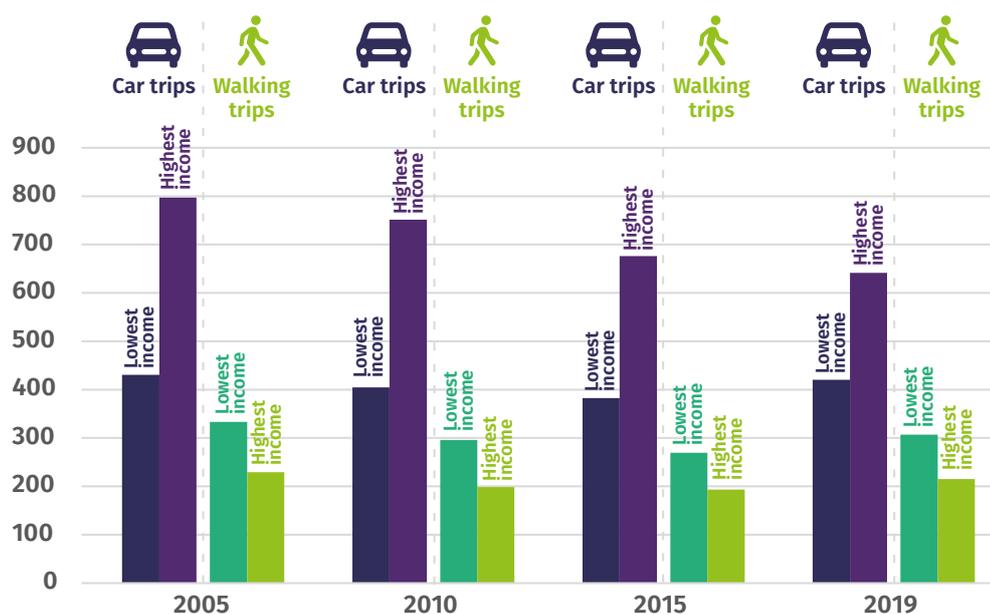
In 2019 there were over 31 million cars licensed in the UK, with just over 27 million of these owned by the public (DfT 2020c). They are an essential part of many people’s lives, including those with mobility-related disabilities and those living in rural areas, and their convenience as a mode of transport provides independence and flexibility in where and when people work, shop and play, as well as being a lifeline in emergencies to allow connections with loved ones in need.

However, these individual benefits are not accrued equally. The wealthiest in society are far more likely to own cars, with more than 90 per cent of the highest

income households owning at least one car (and over 20 per cent owning at least three) and less than 35 per cent of households in the bottom ten percent by income owning a car (ONS 2019). This translates to significant differences in the distance travelled in cars and vans (both as a passenger or driver) compared to the number of trips undertaken by walking by those in the highest and lowest income quintiles in England, as shown in figure 2.5.

FIGURE 2.5: PEOPLE IN THE LOWEST INCOME HOUSEHOLDS ARE HALF AS LIKELY TO USE CARS, AND ARE MORE LIKELY TO WALK, THAN THOSE WITH A HIGHER INCOME

Number of trips per person per year as driver of passenger in a car or van, and number of walking trips per person, split by income levels



Source: IPPR analysis of DfT 2020d

Despite their lower levels of car ownership and usage, it is those who earn the least who experience the most negative effects of car usage. Low-income families are exposed to higher levels of traffic, poorer air quality and their children are more likely to be involved in road traffic accidents (Bourn 2012). Although more likely to experience these consequences of car use, these low-income households also receive the least transport subsidy for the alternatives. Public subsidy is provided to rail and bus operators, as well as Network Rail, in the form of grants. Based on their usage of these services, it has been found that, per household, the richest 10 per cent receive nearly double the transport subsidy in their use of public transport than the poorest 10 per cent (Stacey and Shaddock 2015).

Overall, almost 20 per cent of all households in England have no access to a car. As with income, ethnicity is a factor in car ownership and use. White people are far more likely to have access to a car than all other ethnicities, with those who identify as black over twice as likely to have no access to car (DfT 2020e). Despite this, black and minority ethnic groups are more likely to live in neighbourhoods with poor air quality (Fecht et al 2015).

The design of our public realm rarely considers women’s needs and the ways they tend to travel, which is perhaps unsurprising given the low number of women holding senior positions within transport bodies – just 6.25 per cent of heads of transport were women according to one study in Scotland (Motherwell 2018).

This gender blindness in transport decision making is further accentuated by the emphasis given to those commuting long distances to work within typical transport analysis guidance (Francis and Pearce 2020), locking in biases against those undertaking shorter, and more complex, trips for education, care or shopping.

The barriers for people with disabilities, particularly those reliant on mobility aids, to access streets and highways are long acknowledged and ubiquitous (Matthews et al 2015). Disability is a key factor in shaping people's travel behaviour's (DfT 2014) and people with disabilities tend to travel less far and less frequently – adults with a disability make just under three quarters of the number of trips per person per year made by adults without a disability (ibid). Those with a disability are much more likely to be without access to a car, or to be non-drivers, than those with no disability and are more likely to be a passenger in a car or make use of local buses (ibid).

THE IMPACT ON OUR ENVIRONMENT AND REDUCING SPACE FOR NATURE

During Covid-19 lockdowns many people spent more time in their garden or sought out nearby green spaces to rest and exercise. This experience was not equal:

“If you are a person of black, Asian or minority ethnic origin you are more than twice as likely as a white person to live in areas in England that are most deprived of green space”

Friends of the Earth 2020

Fair access to green space is an issue of both quantity and quality. The 10 per cent most deprived wards in England have five times fewer parks or general public green spaces than the most affluent 20 per cent (CABE 2010). This green space is “systemically worse” in deprived areas compared to more affluent areas (ibid). Meanwhile, people who live in the greenest neighbourhoods experience the lowest levels of health inequality, including lower all-cause mortality and lower mortality from circulatory environments (Mitchell and Popham 2008).

The average car in the UK is parked for 96 per cent of the time (Bates and Leibling 2012). Providing space for so many vehicles contributes to making the habitats for wildlife in our cities and towns scarce. The average tree canopy cover in the cities and towns of England is just 16 per cent and around 2.3 million people live in urban areas where tree cover is lower than 10 per cent (Urban Forestry and Woodland Advisory Committee Network 2016). These trees are vital for nature and will be an important part of adapting our urban areas to the extremes of weather caused by climate change and to improving our own health.

THE HEALTH COSTS OF THE STATUS QUO AND POTENTIAL TO IMPROVE PEOPLE'S QUALITY OF LIFE

In 2010 the seminal report by Sir Michael Marmot on health inequalities in England concluded that transport:

“...significantly contributes to some of today's greatest challenges to public health in England: the burden of road traffic injuries, physical inactivity, the adverse effect of traffic on social cohesiveness and the impact of outdoor air and noise pollution.”

Marmot et al 2010

Progress on addressing these issues were revisited by Marmot 10 years on, and the verdict was clear: “The government's prioritisation of road and train travel over buses has widened inequalities in access to essential services, employment and social interactions” (Marmot et al 2020).

The removal of harmful exhaust emissions from the environment is an important motivation for a rapid transition away from existing petrol and diesel cars, as poor air quality is regularly estimated to contribute to over 28,000 UK deaths a year (Public Health England 2018). However, the pollutants from vehicle tyres are still a significant risk to health and “replacing one type of vehicle fleet with another type of vehicle fleet may not result in cities with safe levels of air quality” (Katsikouli et al 2020).

If the right policies and investment are put in place, walking and cycling can have an important role to play in improving population health and in making our communities more social. People taking up cycling, or increasing existing levels of cycling, is associated with a lower BMI than car use (Dons et al 2018). Beyond this tangible benefit, cycling has also been associated with good self-perceived health, mental health, vitality and fewer feelings of loneliness (Avila-Palencia et al 2018). Walking also supports good self-perceived health and more frequent contact with friends and family (ibid).

The governments of the UK recognise that action is needed to decarbonise transport and see the benefits of walking and cycling, but none go far enough in acting to truly establish a new vision for transport.

THE PRIORITIES OF NATIONAL GOVERNMENTS POINT IN THE RIGHT DIRECTION, BUT PROGRESS IS SLOW

Across the UK all national governments acknowledge that significant change is needed in how we travel and that enabling this shift will require coordination between different government departments. At a high level their policies for transport, planning and decarbonisation paint a compelling vision of the future of mobility and would contribute to tackling the inequalities within the current system (see table 2.1).

Despite this, progress has been slow in moving people to more active and sustainable modes and there are few indications that the priorities for investment, particularly by the UK government, will be shifted from maintaining the status quo to realise these ambitions. The ongoing commitment to a £27.4 billion road building programme (Highways England 2020) sits in stark contrast to a £2 billion investment in active travel (DfT 2020b) and a £3 billion investment in a “bus revolution” (DfT 2021a). Consideration of whether its roads investment programme is compatible with binding carbon reduction targets is now being forced upon the UK government through legal action (BBC 2021).

The choices being made now by governments, at all levels, will have profound impacts on the environment and people’s quality of life. Citizens’ views heard by the Environmental Justice Commission show a desire for the public to see a focus on policies that improve wellbeing and treat the nature and climate crises with the urgency they deserve.

TABLE 2.1: OVERVIEW OF THE CORE GOVERNMENT AMBITIONS FOR TRANSPORT, PLANNING AND DECARBONISATION WITH THEIR STATED AMBITION IN LINE WITH ACHIEVING A CLEANER, FAIRER, HEALTHIER TRANSPORT SYSTEM

Government	Key strategy documents	Stated ambition
UK	<i>Decarbonising Transport: Setting the challenge</i> (DfT 2020a)	<i>“Public transport and active travel will be the natural first choice for our daily activities. We will use our cars less and be able to rely on a convenient, cost-effective and coherent public transport network.”</i>
	<i>National Planning Policy Framework</i> (MHCLG 2019)	<i>“The purpose of the planning system is to contribute to the achievement of sustainable development..., meeting the needs of the present without compromising the ability of future generations to meet their own needs”</i>
	<i>Ten point plan for a green industrial revolution</i> (UK Government 2020)	<i>“...accelerate the transition to more active and sustainable transport by investing in rail and bus services, and in measures to help pedestrians and cyclists”</i>
Scotland	<i>National Transport Strategy (NTS2)</i> (Transport Scotland 2020)	<i>“a sustainable, inclusive, safe and accessible transport system, helping deliver a healthier, fairer and more prosperous Scotland for communities, businesses and visitors”</i>
	<i>Fourth National Planning Framework: position statement</i> (Scottish Government 2020a)	<i>“We will have to rebalance the planning system so that climate change is a guiding principle for all plans and decisions. We will need to focus our efforts on actively encouraging all developments that help to reduce emissions.”</i>
	<i>Securing a green recovery on the path to net zero: climate change plan 2018-32 update</i> (Scottish Government 2020b)	<i>“By 2032 our roads will contain no new petrol and diesel cars and vans; we will have almost completely decarbonised our passenger railways; and we will have begun to work to decarbonise challenging transport modes, such as HGVs, ferries and aviation. Car kilometres will have reduced by 20 per cent, and sustainable transport will be the instinctive first choice for people.”</i>
Wales	<i>Llwybr Newydd: The Wales Transport Strategy 2021</i> (Welsh Government 2021a)	<i>“We will plan ahead for better physical and digital connectivity, more local services, more home and remote working and more active travel, to reduce the need for people to use their cars on a daily basis.”</i>
	<i>Planning Policy Wales: Edition 11, Feb 2021</i> (Welsh Government 2021b)	<i>“The planning system should create sustainable places which are attractive, sociable, accessible, active, secure, welcoming, healthy and friendly.”</i>
	<i>Our Economic Resilience and Reconstruction Mission</i> (Welsh Government 2021c)	<i>“Creating greener spaces with improved urban air quality within ‘walkable neighbourhoods’ will help the Foundational Economy thrive and ensure community needs are met locally.”</i>
Northern Ireland	<i>Regional Development Strategy 2035</i> (DRDNI 2010)	<i>“...promote transport which balances the needs of our environment, society and economy”</i>
	<i>Strategic Planning Policy Statement for Northern Ireland</i> (SPPS) (DOENI 2015)	<i>“...promoting development where it reduces the need for private motorised travel... working towards the restoration of and halting the loss of biodiversity”</i>
	<i>Rebuilding a stronger economy – the medium term recovery</i> (DFENI 2020)	<i>“We want to have an economy where there are vibrant towns and cities across Northern Ireland, and where neither family life nor the environment suffers the impact of long commutes”</i>

Source: Authors’ analysis

3.

FINDINGS FROM THE CITIZENS' JURIES

IPPR's Environmental Justice Commission convened citizens' juries in Aberdeenshire, Tees Valley and County Durham, Thurrock and the South Wales Valleys. These 'Climate and Fairness Panels' each met virtually for more than 20 hours during late 2020 and early 2021. The juries were made up of groups of around 20 local residents selected through sortition and representative of their area. All the juries were asked to consider the same question:

“What practical steps should we take together in your area to address the climate crisis and restore nature in a way that is fair for everyone?”

The juries were asked to produce their responses to this question in a similar way. Each agreed an overarching statement on a 'fair response', a wellbeing framework that represented a better life for all, and specific recommendations on topics such as industry and how we use the land.

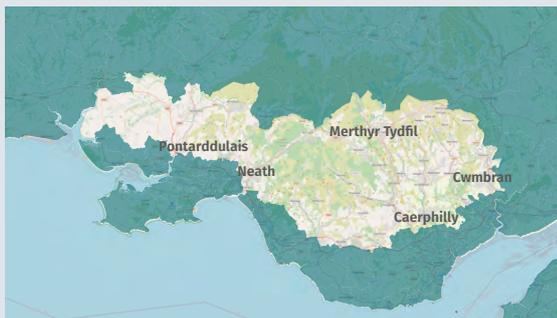
In this section are the conclusions of the two juries whose deliberations included transport: the South Wales Valleys and Thurrock.

ABOUT THE SOUTH WALES VALLEYS

The South Wales Valleys are home to almost a third of Wales's population and cover a vast landscape of forests, bogs, waterways and mountains.

Despite the potential these natural assets provide the Valleys, the economy and communities of the region have never recovered from the decline of the coal mining industries.

Jobs are scarce and this affects travel behaviour, with many people travelling in and out of the valleys for work, locking in car dependency due to the limitations of the current public transport system.



ABOUT THURROCK

Thurrock lies on the Thames estuary and sits twenty miles east of central London, part of Essex's commuter belt.

It is known as the industrial gateway to the South East and is a focus for national growth and development plans.

The government has set a target of 32,000 new homes in the area over the next 20 years. One of the most ambitious road projects in the country, the Lower Thames Crossing, is planned to run through the centre of the borough.

Existing strategic roads see high numbers of heavy goods vehicles and high traffic flows, impacting on local air and road safety.



These two areas represent very different parts of the UK, but their stories both show the impact of national government policy on local communities. The South Wales Valleys is a rural community needing investment, of both funding and political energy, to revive its economy and reverse the harm done by the industrial transitions of the past that failed to consider their impact on local people. Thurrock, despite its valued green spaces, is known more for suburban development and its areas of heavy industry. Its future may be decided by the current government's approach to addressing the economic, housing and transport challenges of the present.

The jurors within these two areas had different contexts to consider and a wide variety of life experiences, but they came to remarkably similar conclusions. Their recommendations, and the deliberations that informed them, told the same story – a need to focus on the things that matter most in life that support everyone to live happy and healthy lives, and a desire to give nature the space it needs to thrive.

PUTTING WELLBEING AT THE HEART OF DECISION MAKING

Supported by Dr Katy Roelich of the University of Leeds, each jury developed its unique take on what wellbeing in their area looks like. This framework emerges from discussions between the jurors about the things they value most.

Below, the two frameworks are brought together into a single list. The juries wanted considerations of wellbeing to be central to decision making. Fairness is writ large within these frameworks and they were clear that “new policies should ensure that everybody has the same opportunity to achieve a better life.”

The development of this framework allowed the juries to focus on an approach to decarbonising transport that would support continued access to the things they valued most in a way that is fair to everybody.

FIGURE 3.1: THE COMBINED WELLBEING FRAMEWORKS OF THE THURROCK AND SOUTH WALES VALLEYS CITIZENS' JURIES

We believe in a better life for all. This means a future where everyone ...



Source: Authors' analysis of IPPR 2021a and 2021b

THE FOUNDATIONS FOR A FAIR APPROACH TO CHANGING HOW WE TRAVEL

The juries' conclusions provide insights into the principles that should inform how we approach the decarbonisation of travel. The details of all their recommendations can be found in their respective briefings. Here their conclusions are brought together into a single set of principles to inform the transition to a cleaner, fairer, healthier transport system.

Principle 1: Support people to make good choices based on their needs

“People need to see that action on these emergencies is not going to stop them from making choices about their own lives and having a good life. Recognise the existing needs of people and the ways they live their lives. We can't put too much demand on those who don't have the resources to act.”

Thurrock citizens' jury

Principle 2: Put addressing inequality at the centre of transport decision making

“The people who are most affected by a decision should be at the core of the decision making process. This helps mitigate unfair, unintended, consequences.”

South Wales Valleys citizens' jury

Principle 3: Stop doing the things that make the environment worse

“We cannot offset the impact of infrastructure that does harm to one community with more positive action elsewhere. Every community has the right to clean air and action has to be taken to improve the poor air quality in Thurrock.”

Thurrock citizens' jury

Principle 4: Recognise there is not one answer to providing a clean transport system

“We should think about rural and urban areas differently when it comes to transport.”

South Wales Valleys citizens' jury

Principle 5: Make changes affordable and share the costs fairly

“Affordability has to really mean affordable for all. The things people need to live a good life, including housing and transport, must be genuinely affordable to the people who live here.”

Thurrock citizens' jury

Principle 6: Empower people and communities to shape their own areas

“People need to feel that they are part of the change. We need to bring people with us and for it not to feel like we are having things done to us. We need to empower individuals and communities to take the action needed.”

South Wales Valleys citizens' jury

Principle 7: Stop thinking in silos

“Decisions need to be joined up with different organisations working together to make the most of the resources and time we have. We shouldn't be acting in silos.”

South Wales Valleys citizens' jury

Principle 8: Recognise the urgency of the nature and climate crises

“We need to take urgent action to address the climate emergency. A fair response to this crisis has to address inequality and also provide the space for nature to thrive.”

Thurrock citizens' jury

Principle 9: Those with the resources need to act first

“We shouldn’t put all the emphasis on consumers to change their behaviour in the first instance but to change behaviour by forcing large corporations to comply with stricter measures to meet climate change and nature targets. They should be made accountable for achieving these targets. Then educate the consumer on smarter changes making suggested changes cost effective for all.”

Thurrock citizens’ jury

Principle 10: Focus on the wider benefits of cleaner transport and value these properly in decision making

“Future benefits should shape decisions about the climate and nature crises. These benefits should be visible and promoted.”

South Wales Valleys citizens’ jury

ACTIONS TO CHANGE HOW WE TRAVEL

The two juries put forward 18 specific recommendations on the action needed to decarbonise transport and improve it for nature. These build on and apply the principles outlined above, and also reflect their understanding of what would support the goals contained within their wellbeing framework. Each jury expressed these recommendations differently, with a different emphasis that reflected the immediate challenges and opportunities of their own area. However, clear themes emerge from their conclusions and these are summarised below.

TABLE 3.1: SUMMARY OF RECOMMENDATIONS ON ‘TRAVEL AND PLACE’ FROM BOTH JURIES

<p>Provide people with good transport options</p>	<p>Ensure public transport is an option for more people</p> <p>Improve walking and cycling infrastructure</p> <p>Support electric vehicles including e-bikes, scooters and, where people need them, cars</p>
<p>Make it possible for people to access what they need locally</p>	<p>Invest in high street regeneration and create opportunities to work locally</p> <p>Make better and more joined up planning and development decisions</p> <p>Treat good internet access as a right</p>
<p>Shift priorities away from cars to nature and people</p>	<p>Move to car-free city centres and implement low-emission or congestion zones</p> <p>Provide more space for nature</p> <p>Stop road building where it isn’t compatible with the climate and nature emergencies</p>

Source: Authors’ analysis of IPPR 2021a and 2021b

The follow section explores each of these themes in more detail.

PROVIDE PEOPLE WITH GOOD TRANSPORT OPTIONS¹

For many jurors, particularly in rural areas, the fundamental challenge was that no other form of transport can currently rival the car for its accessibility and flexibility: **“unless and until something better is available, I can’t imagine life without the independence [a car] gives me”**; **“no other option but to use a car because of poor public transport.”** This means that action to change travel behaviours needs to provide options, and for some the car will always be necessary: **“People need good alternatives to the car and those who really need a car should be able to use one.”**

This did not bring them to a conclusion in favour of an all-out shift to electric vehicles; they provide a more nuanced vision: **“Electric is only part of the answer; we also need fewer car trips overall, so a move to electric vehicles must only happen in combination with public transport improvements and a reduction in journeys.”**

“

Unless and until something better is available, I can't imagine life without the independence [a car] gives me

Action to improve public transport was the highest priority for both juries: **“It’s about the availability and affordability of public transport. Plain and simple.”** Within rural Wales it was clear that the existing bus network simply wasn’t fit for purpose: **“You know they finish at stupid o’clock in the evening, in some areas they don’t get the buses.”** For the Thurrock jurors the proximity to London pointed towards the service they believe should be available to all: **“Copy the TfL [Transport for London] model for running buses so that bus companies get paid centrally rather than relying on making their own profit. This can help make bus fares cheaper for everyone and mean buses serve more areas.”** This issue of the cost of buses and public transport was even more salient given the impact of Covid-19: **“The bus is right outside my house but the cost is quite high and since Covid they have upped the cost which doesn’t make sense as people are struggling more now with the pandemic.”**

The interactions between walking, cycling and public transport were clear to the jurors, in one case because the cost gave them no other option but to walk: **“I haven’t got a car, I’ve gotta walk everywhere. I won’t touch the bus cos it is costing me too much money, so I just walk.”** There was support for investment in walking and cycling, both generally and to support people with accessing public transport: **“Living in a commuter area... I used to drive to the station...from a time perspective, from affordability and safety, driving to the station was my easier option, and I would have quite happily used other alternatives if there was a better bus service, more reliable... and also cycling, if I felt I could cycle safely and park my bike in the station I would have happily done that.”**

As well as the provision of more routes, they emphasised the need to better maintain and make use of the infrastructure that is there: **“... public footpaths that start with a signpost but go nowhere, a seawall path unusable for months already awaiting some flood repair.”** Jurors were clear on the need for cycling routes to be designed with **“disability adjusted cycling (for example, space for tricycles and mobility scooters)”** in mind. The high levels of traffic in Thurrock made the school run a particular concern, with action to get people out of cars, improve safety and reduce congestion recommended by jurors.

Across both juries it was clear that action from governments is needed to drive behaviour change: **“invest in infrastructure ahead of need to accelerate adoption of low carbon technology or behaviours.”** The South Wales Valleys jurors also recognised the need for local skills development to realise the opportunity for

¹ Quotes in **green** are taken from the South Wales Valleys citizens’ jury (IPPR 2021a), quotes in **blue** are taken from the Thurrock citizens’ jury (IPPR 2021b).

new jobs linked to electric vehicles. Beyond cars, there was strong support for investment in making public transport cleaner through electrification, hydrogen or both. The jurors wanted to see support for those who need them to buy or access cleaner vehicles: **“There should be more affordable bikes and cycle hire schemes for people on low incomes”; “discounts for electric vehicles and bikes for disabled people.”** Where possible, and where it could be done fairly, they thought **“disability benefits for helping people to travel around should be spent on low-carbon options.”** Businesses would need to be included in these plans and should include a mix of incentives and sanctions: **“tax large businesses if they don’t go green; give them benefits if they do.”**

SUPPORT PEOPLE TO ACCESS WHAT THEY NEED LOCALLY

The idea of making access easier by putting things nearer to home was particularly supported in the South Wales Valleys, where the challenges of the status quo are keenly felt: **“In our area there are few jobs and most skilled people travel outside to work, unemployment and those on benefits is huge... One of the walls I face as a woman with a young family is being able to get my children to school on time and then travel to one of the bigger cities (Swansea, Cardiff) to work and get there on time, making public transport an impossible option.”**

They strongly believed that action was required to **“reduce the need to travel as far.”** There was recognition of the central role that high-speed internet access could have in reducing the need to travel, which had been a particular concern during Covid-19: **“treat digital infrastructure as a basic human right to enable remote-working and make sure that children have access to laptops and tablets to facilitate remote-learning.”**

The links between transport, access and the economy were an ongoing focus of discussions in Wales with a desire to bring back **“town life [that] has been taken away and into retail parks.”** Enabling people to work in local areas through remote working in hubs within the community was seen as a way to **“bring town life back.”** They saw high streets as a potential focal point for change, as **“[high streets] are the heart of the community and mean that people can stay local, reducing the need for trips.”** Reducing the length of supply chains and better spending through public sector procurement were seen as important parts of both reducing carbon emission and ensuring the sustainability of local businesses: **“Making it locally, sourcing it locally, spending it locally, developing, you know, opportunities locally, all of that investment will be beneficial for people and reduce carbon so yeah, you can get both.”**

They wanted planning to change to support the goal of local access and to better address the climate and nature crises. Both juries understood the need for housing but also felt **“it should be mandatory to build communities, not just cheap homes. Planning permission should be dependent on plans for living space, work space and transport being joined up.”** Within Thurrock, facing large scale developments that are largely driven by national strategies, they were clear that **“when development is necessary, it should meet the needs of local people and not damage nature or the climate, and even seek to have a positive impact.”** The strongest possible protections for green space were considered necessary and ultimately **“the value of nature and wellbeing should be built into decision-making frameworks used by the council when considering development.”**

“

[High streets] are the heart of the community and mean that people can stay local, reducing the need for trips



The value of nature and wellbeing should be built into decision-making frameworks used by the council when considering development

SHIFT PRIORITIES FROM CARS TO PEOPLE AND NATURE

Shifting priorities away from cars was viewed as an opportunity to create more space for nature: **“Streets should be greener and more nature friendly - we should plan for benefits to nature as well as people.”** Securing access to green spaces for local people was a key issue in Thurrock, as long as providing access wasn't an excuse for further development: **“There should be access to green space for everyone, but this means genuine access for local people, not an excuse for developments such as ‘green villages’.”**

Cities and towns provide opportunity for quick action through the reallocation of space to people, not vehicles. Despite the current necessity of car travel into the cities to the south, the jurors in Wales concluded: **“city centres should be car-free except when essential, for example for disability.”** Thurrock jurors supported low emissions zones and sanctions to reduce the high level of HGV traffic generated by local ports: **“implement surcharges for all large vehicles and HGVs that don't meet green criteria, both international (for example, lorries coming from ports) and domestic.”** Schemes such as this would need to be designed with **“exemptions for those that need to use large cars (for example, people with disabilities)”** and the funding should be allocated to **“fund free transport for people on low incomes”** and **“road maintenance and walking and cycling infrastructure.”**

There were questions from both juries on the scale of road building planned for the UK and concerns of whether it was compatible with action to decarbonise. The South Wales Valleys jurors recommend that we: **“Stop building new roads unless there is a clear public benefit justification. The Well-being of Future Generations Act provides a good test.”**

CONCLUSIONS FROM OTHER CITIZENS' JURIES AND ASSEMBLIES ACROSS THE UK

Since 2019, there have been an estimated 16 citizens' juries and assemblies in the UK with conclusions relevant to transport whose recommendations have been published (Involve 2021), not including the juries delivered by the Environmental Justice Commission. The highest priority or key conclusions with relevance to transport from all 16 are summarised in appendix A.

These juries and assemblies have all presented a common theme on transport – that fairness in asking people to change their travel behaviours means getting the timing right. Central to achieving this is to focus on providing better options than a private car: **“we must make it easier for people to not use cars”** (Lancaster 2020). Public transport will have a fundamental role in supporting this: **“implement an integrated, accessible and affordable public transport system, and improved local infrastructure, throughout Scotland that reduces the need for private cars and supports active travel”** (Scotland Climate Assembly 2021).

Members of Climate Assembly UK, the first UK-wide citizens' assembly on climate change, wanted to minimise the restrictions that might be placed on people's lifestyles and instead place an **“emphasis on shifting to electric vehicles and improving public transport”** (Climate Assembly UK 2020). However, they still called for a **“reduction in the amount we use cars by an average of 2–5 per cent per decade”** (ibid).

4. DELIVERING A CLEAN, FAIR AND HEALTHY TRANSPORT SYSTEM

The way we choose to address the climate and nature crises matters. There is a risk that poorly designed decarbonisation plans will contribute to the nature emergency and fail to deliver benefits to people’s quality of life. By bringing together a holistic view of which options for changing how we travel will achieve rapid decarbonisation, increase wellbeing and support nature, we can avoid taking the wrong path to net zero.

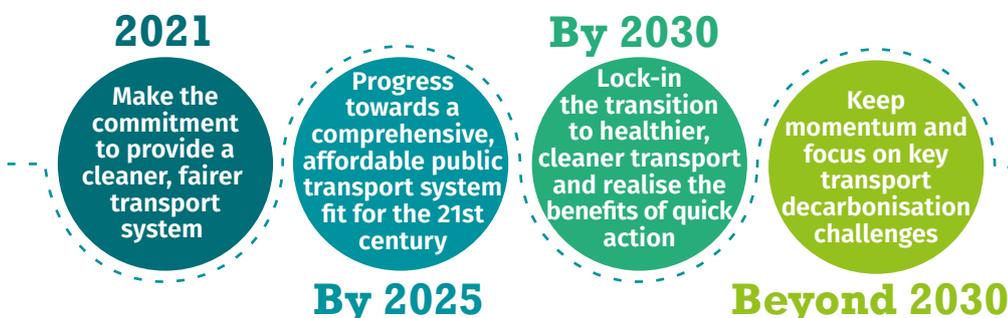
The conclusions of the South Wales Valleys and Thurrock citizens’ juries show that the public are willing and able to engage with the complexities of these issues and expect governments to do the same. Within their recommendations, they emphasise that transport does not sit in isolation from other policy areas and that a fair transition has implications for the way we plan our communities, how public services are delivered, where we work and beyond. These changes will touch every corner of our lives, but in doing so also offer the potential for communities to be healthier, greener, more social and able to support a vibrant local economy.

These citizen’s juries, and similar deliberative processes held around the country over the last two years, are clear that we need to be fair in how we engage people in these conversations and in implementing policies that affect them.

The public are willing and able to engage with the complexities of these issues and expect governments to do the same

THE TIMELINE FOR CHANGING HOW WE TRAVEL

FIGURE 4.1: TIMELINE FOR CHANGING HOW WE TRAVEL



Source: Authors’ analysis

The starting point must be to treat the climate and nature crises with the urgency they require. Every week, month and year that passes without meaningful action runs the risk of needing to implement tougher measures later, or worse, not achieving decarbonisation of our transport system at all.

Decision making frameworks need to lock in this urgency, leaving no place for delivery of new infrastructure that is incompatible with current priorities. The full resources and focus of policy and investment should be on providing everyone with good transport options, and in doing so addressing the inequality and the harms caused by our existing transport system.

The first half of this decade should see progress made on the delivery of the highest quality and affordable public transport network possible. This will sit alongside investment and action to making walking and cycling a viable option for more people, which is fundamental to achieving the benefits of a clean transport system. Rollout of public charging infrastructure must not lead to incentives for the wealthiest in society to continue to own a car, but support the shift to electric vehicles for people and organisations only where they are necessary.

Beyond 2025 and in the run-up to 2030, with five years still remaining on the purchase of petrol and diesel engine cars, new national funding and charging models for transport must be put in place. These should be designed with the aim of encouraging people to make the shift to owning fewer or no cars.

Challenges will remain beyond 2030, particularly within aviation, freight, shipping and longer distance travel, but bold action early in this decade provides more time to address these issues.

THE POLICY PROGRAMME FOR THE DELIVERY OF A CLEAN, FAIR AND HEALTHY TRANSPORT SYSTEM

Committing to provide a transport system that leaves no one behind, responds to the climate crisis and helps nature to thrive

- The UK government recognises that the existing definition of ‘socially necessary’ public transport does not go far enough (DfT 2021a). The lack of a clear definition combined with increasing pressures on local authority finances have made it difficult to fund services that aren’t commercially viable (Transport Committee 2019). There is a risk that new guidance on the meaning and role of ‘socially necessary’ services creates an additional statutory requirement for local authorities without the national commitment to deliver the revenue funding needed to deliver more services (Richardson 2021) and is defined in isolation from other actions to decarbonise transport and address inequality. The government should take this opportunity to propose a more ambitious, fairer approach to connectivity, one that is fit for the 21st century and can be instrumental in both decarbonising transport and improving health and life chances across the UK. **The government should establish a new definition of ‘socially necessary’ connectivity that sets a national guarantee for levels of transport and digital accessibility with the stated aim of making it possible to live a good life, wherever you live, without needing to own a car.** This central vision and national standard will underpin the plan to achieve a clear, fair and healthy transport system. It should include the following.
 - **The rapid delivery of high-speed internet to every household alongside support to access the appropriate devices to make use of it.** On its own this is unlikely to reduce the overall level of demand for car travel but will reduce the need for people to travel at peak times for work (Budnitz, Tranos and Chapman 2020). Physical infrastructure alone won’t be enough; nine million people struggle to use the internet independently in the UK (Good Things Foundation 2020) and investment in digital inclusion and skills is both good for the economy, with a £15 for every £1 spent return (ibid), and crucial in providing fair access to higher paid work, lifelong learning and lower household bills (ibid).

- **The UK and devolved governments' approaches to transport decarbonisation should support the principle that everyday needs should be accessible within a 20-minute walk, cycle or public transport trip.** Popularised by Melbourne and Paris as '20-minute neighbourhoods' and 'the 15-minute city' this principle is already a key part of Scottish government policy (Scottish Government 2020c) and the principle it represents sits as a top priority in Wales' transport strategy: "bring services to people in order to reduce the need to travel" (Welsh Government 2021a).

The name and the exact distances are not what is important here; it is about increasing the local access and connectivity by sustainable modes: "the benefits that this way of configuring places bring are multiple and include healthier communities, cleaner air, stronger local economies, and better resilience against climate change" (Emery and Thrift 2021). This is not just a principle that applies in cities; it can also be key to the development of 'anchor towns' that "deliver fair, sustainable and inclusive economies" (Cunningham 2019) within more rural areas.

Local and combined authorities should be supported to develop the knowledge and capacity to design to this principle and provided with sufficient power to shape the services required to deliver them. This principle of local accessibility should be used to transform public service delivery and included within plans to deliver a net zero NHS.

- **Planners need the power and backing of national governments to refuse planning applications that generate extra traffic and do not contribute to reducing car dependence.** The developments that are approved and encouraged by national and local plans should be compatible with a new vision for transport that provides people with good alternatives to private car ownership and use. However, the current approach to planning is often working against these aims and supporting developments built on the assumption of "car-based living", including within proposed garden villages and towns (Transport for New Homes 2018 and 2020).
- There should be no new road schemes in the UK that are not focussed on improving safety for vulnerable road users, delivering gains for nature or aimed at reducing the use of private cars. **The UK government should review the £27 billion budget allocated to Roads Investment Strategy 2, with schemes not aligned with environmental commitments cancelled immediately,** and without protracted and unnecessary legal battles.

- Predictions of continued growth in car usage have led successive transport planners to seek to predict and provide all of the roads and car parking space that these vehicles could need (Goulden et al 2014). Given what we know about the external costs of existing levels of car ownership, the overall fleet size should be smaller than today's (Marsden et al 2019). **The governments of the UK must deliver decarbonisation plans that see levels of car ownership peaking before 2030 and set targets for the desirable size of the UK's car fleet by 2050, alongside a clear estimate of the resource cost of providing this and a plan to ensure an ethical supply chain.**

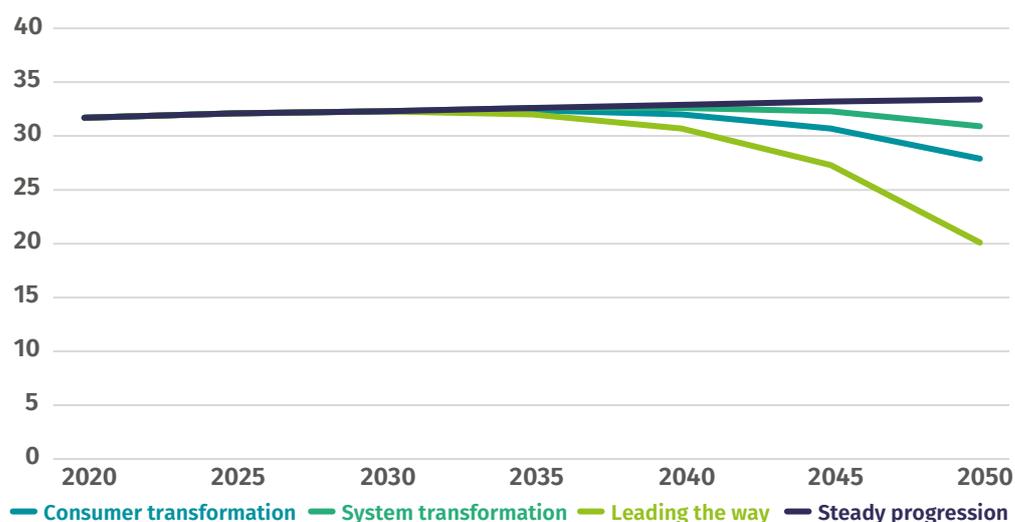
This should not be seen as a radical step but a vital part of a commitment to a new vision for a better transport system. Forecasts by National Grid ESO already provide for a scenario where there are 10 million less cars in Great Britain by 2050 (see figure 4.2, National Grid ESO 2020). This scenario would see "shared mobility solutions" and increased public transport leading to a reduction in the overall number of cars "as many homes opt to have no car at all" (ibid).

All transport strategies, at all levels of government, should have a stated aim of achieving no overall growth in levels of car ownership as part of a

fair transition to electric vehicles. As an immediate step, the Climate Change Committee should be provided with the resource and remit to complete a more holistic assessment of the pathways for surface transport to achieve net zero. This should include an assessment of the negative impacts of the increased car ownership and traffic within the balanced pathway, as well as developing a clear understanding of the benefits of alternative approaches to decarbonising transport – including who in society stands to be most impacted by the different scenarios presented.

FIGURE 4.2: NATIONAL GRID ESO IDENTIFY A SCENARIO WHERE THERE IS 10 MILLION LESS CARS IN GREAT BRITAIN BY 2050

Forecast number of cars in Great Britain up to 2050 split by National Grid ESO scenario



Source: IPPR analysis of National Grid ESO 2020

- It is clear that “more intensive use of fewer vehicles already offers a cost-effective, socially progressive and implementable set of options to cut carbon” (Marsden et al 2019). Mobility hubs, such as the one being trialled by Imperial College London (Imperial College London 2021), provide space to co-locate public transport with shared mobility modes such as electric car share facilities, e-bikes and bicycles. Hubs provide opportunities for people to both reduce their need to use a car, by giving access to alternative modes of travel, and also provide a unique opportunity for people to try more sustainable vehicles as part of the process of deciding to commit to buying one themselves. Shared, and where possible community owned, electric bikes, scooters and zero emission cars and vans should be accessible across the country and designed to meet the needs of a wide range of users. These schemes should be located where people need them most and provide seamless links with public transport (CoMoUK 2019). **Rail and transport authorities across the UK should undertake feasibility studies to identify the best approach to turn all urban bus and train stations into shared mobility hubs before 2030.** Mobility hubs have already been identified as a priority for Scotland due to their ability to increase the “attractiveness of public transport by increasing connectivity” and provide “seamless travel opportunities, particularly for those without access” (Jacobs UK 2021).

Invest in a plan to deliver a clean, fair and healthy transport system that is embraced by the public

- Transport decision making has failed to address environmental and social challenges for decades; something fundamental has to change. **Transport investment appraisal needs to be rethought along the lines of a ‘decide and provide’ model with an explicit emphasis on increasing equity, improving health and wellbeing, addressing the climate emergency, and supporting a nature recovery.** This approach recognises the uncertainty that underpins decisions on transport and planning and puts an emphasis on implementing policies that shape the most desirable future, rather than simply responding to predictions of the future (Lyons and Davidson 2016). It is particularly relevant in the context of car travel where there are “a range of future demand scenarios from significant increase to significant decrease in vehicle kilometres travelled” (ibid).
- **The governments of the UK should work together with local and regional transport authorities to agree a transformative, longer-term settlement for transport funding.** Local authorities require multi-year settlements and the fiscal levers or borrowing powers to fund long term projects. A new funding settlement must allow investment to be accessed by all authorities “not just those with the spare time, expertise, and local funding to respond to calls effectively” (LGA 2021). Authorities have lost staff over the last decade and many do not have the time or expertise to deliver their ambitions (ibid). Amongst the options available, a payroll levy, based on the French scheme, is estimated to be able to raise over £7 billion in the UK (Sloman and Hopkinson 2020). This proposal could both help address the long term funding needs for improved public transport and would move the costs of the transition from individual users to those best placed to afford it.
- Providing the opportunity for good work that is accessible and local is key to bringing life back to local economies. This means providing communities with the resources to revitalise their high streets and realise the benefits of more people living and working closer to home. **The UK government should create a single new, independent and permanent Thriving Places Fund that is endowed by the government, and the National Lottery, with at least £1.5 billion over the next three years.**

The Thriving Places Fund would provide support, grants and loans that encourage ambitious responses to the climate and nature crises, create local jobs in the zero carbon economy and make it possible for more people to live locally to the things they need. The fund should seek to increase the investment available by attracting support of private investors as well as providing opportunities for members of the public to invest in bonds linked to climate action. The approach to addressing the inequalities within and between different communities should learn from, and expand on, the impact of endowments such as Big Local, Power to Change and Nesta.

- **There should be significantly higher investment in providing good transport options that deliver alternatives to private car ownership, including the following:**
 - **An additional £4 billion of walking and cycling investment should be allocated by the UK government over the term of this parliament** to come close to achieving stated 2025 targets for increases in these modes in England (Gallagher 2020). Walking and cycling infrastructure can be delivered quickly and every £1 million invested each year is estimated to create more than 30 jobs within construction and supply chains (Minio-Paluello and Markova 2020).
 - To ensure those with the lowest incomes have options in how they move, there will need to be subsidies available to support them to travel in ways that will be better for themselves and the environment. **The UK**

government should announce a ‘Help to Move’ incentive scheme to provide grants and loans to support people to buy cycles, electric scooters or ebikes and support a move away from owning a private car.

The ‘Help to Move’ scheme would be modelled on an existing Scotland scheme (Energy Saving Trust 2021) and supported by the learning from a pilot programme in Coventry (Coventry City Council 2021). As well as support for buying and repairing regular cycles, this would include the provision of interest free loans of up to £6,000 per household to make ebikes a viable investment for all, with additional grant funding put in place for those living in low-income households to reduce the costs of ebikes by a third. A scrappage scheme initially targeted in the areas with the poorest air quality should allow for polluting older vehicles to be traded in for up to £3,000 per household in mobility credits - helping to pay for shared mobility schemes or public transport that has been designed to meet their needs.

- Before we ask those within rural communities to make changes to how they travel, we need to treat public transport access as a basic right and provide viable alternatives to the car.

The lack of rural transport options leaves rural communities car dependent and “strikes at the heart of rural disadvantage, impacting people’s access to employment, education and training, health, shops, and a host of other activities. It is a key driver of rural isolation and loneliness” (Rural Services Network 2021). In response to the development of the new standard for connectivity to allow everyone to live a good life without a car, **governments across the UK should guarantee seven days a week public transport connectivity for all rural areas.**

Sustained additional annual investment of under £3 billion in England would provide a modern and integrated bus network that is fit for villages and rural communities, and increasing this to £4 billion could make those buses free (Hinchcliff and Taylor 2021). Free at the point of use or low cost flat rates for local public transport should be an aspiration for all governments and transport authorities, and this will be explored further in the final report of the Environmental Justice Commission.

In-line with recommendations made previously by IPPR, action to improve and join-up public transport must go hand-in-hand with increasing local democratic control of services (Raikes, Straw and Linton 2015). Within rural areas there is a need for ‘Total Transport Authorities’ to pool expertise and resources and integrate modes, ticketing and data sharing (ibid). Community transport should be seen as an integral part of how responsive rural connectivity is achieved, with opportunities explored to link up on demand bus routes with the needs of the NHS, schools and significant local employers.

- There is currently significant interest in the future of fuel duty and the potential for road user charging to plug the £30 billion gap in revenue that a rise in electric vehicle use will lead to (Shale-Hester 2020). Road user charging has recently received the backing of Baroness Brown, chair of the Climate Change Committee’s Adaptation Committee, who believes the technology and public acceptability for the monitoring involved is now in place:

“... We were very keen to propose replacing taxes associated with driving with a time, distance, place, emissions, occupancy [charge] – whatever you like now because we can so easily monitor these things. It could be an enormously fair way to treat people.”

Baroness Brown (Brown 2021)

There is widespread support for certain kinds of green taxes, with almost six in 10 people supporting the use of taxes to make environmentally damaging behaviours more expensive (Green Alliance 2021). Although people are more likely to support than oppose road pricing, careful consideration in design and implementation will be necessary. **The governments of the UK should commit to implementing a national road user charging scheme to replace fuel duty after meaningful deliberation with the public to ensure it is implemented in a way that is fair and leads to the desired environmental and social impact.**

A national road user charging must reflect the challenges of different communities across the UK, including those who live in rural areas, are currently dependent on cars to access services or have needs that make cars the only viable option for most trips. This national scheme will need to be designed to complement the locally run zero emission and congestion charging zones that must become commonplace across our towns and cities to improve air quality. The public must trust that no one is being unfairly treated through these schemes and that the funding raised is being used to support people to make the transition to a net zero mobility system.

Ensure a fair transition to electric vehicles for those who need them

- The installation of electric charging infrastructure will be key to the transition to cleaner vehicles with at least 260,000 public chargers required by 2040 (CCC 2020). Action to provide suitable charging points has to be carefully considered as it would be easy to rush to an approach that subsidises the wealthiest (Anable et al 2020), allocates more street space to supporting private car ownership and locks in a technology-focused transition that does little to deliver wider benefits for people or nature. Rural communities rely heavily on car travel, as do rural tourist destinations and workplaces, and provision of charging networks in rural areas will be critical to decarbonisation of local transport (ibid). **Governments, at all levels, should develop their strategies for electrification with a focus on the wider benefits of enabling mode shift – developing a strategic plan for the provision of charging points alongside the aim to increase walking, cycling and the use of public transport.**
- The government can and should be bolder than its 2030 ban on petrol and diesel engine cars. **The UK should announce that public funds will no longer be used to purchase carbon emitting cars from 2022.** This should be matched by faster action from businesses to decarbonise their fleets and **the ban on the purchase of combustion-engine vehicles for large commercial fleets should be brought forward to 2025**, in-line with Norway’s aim of achieving this for all passenger cars and light vans (Wapplehorst 2020). This is a crucial interim step towards all fleets being electric by 2030, an aim that increasing numbers of companies are taking to reduce their own carbon emissions (Climate Group 2021). By taking this action now it will support the development of the affordable second-hand electric vehicle market. Organisations should see this as an opportunity to consider a reduction in their fleet sizes and, where possible, move to shared mobility scheme which provide access to the public.
- The role of investment in low carbon public transport infrastructure is recognised in the UK government’s plans for a ‘green industrial revolution’ (UK Government 2020). However, a clean and fair mobility system cannot be achieved unless we respond to the harm caused by the raw materials and production processes associated with vehicle production – without planning for this, the move to electric could lead to us “reaping problems from mining the critical materials used in batteries, most of which doesn’t take place in this country. That’s not taking a global approach to pollution: it’s simply offshoring our problems” (Prof Mary Ryan, Imperial College London, cited by Czyzewski 2021). Meanwhile, end of life vehicles are “the single largest hazardous waste category from households” (Karagoz et al 2020) and the UK currently

fails to meet the existing 95 per cent recovery rate target for end of life vehicles (White 2020). To help address these concerns:

- **the principles of the circular economy should be embedded within the transport decarbonisation and investment plans of every government of the UK.** This new ‘circular mobility system’ can in itself be an investment in new jobs as it “could increase skilled labour requirements by up to 120 per cent” (Ellen MacArthur Foundation 2020)
- **authorities should use investment in transport, through its approach to commissioning and procurement, to ensure this creates decent jobs within the UK.** The public sector should make full use of the Social Value Act and give this substantial weighting within decision making to ensure work is well paid and create jobs in the UK (Johns, Raikes and Hunter 2019). Where authorities have direct control over the delivery of services they should embed decent work practices including paying the real living wage and use of local labour agreements (ibid).

Create places fit for future generations and for nature

- Access to wild and green spaces supports us all to live happier and healthier lives. Transferring road space to different usage provides opportunities to use this space in ways that are more efficient, healthier and better for the environment. Cities and towns can be redesigned to support us to live more harmoniously with nature as set out in the Universal Charter for National Park Cities (National Park City Foundation 2021). As part of realising this ambition **all UK cities and towns should set targets to reallocate road space to cycling, walking and green space every year.** In order to support an ongoing increase in tree canopy, a target of at least 30 per cent tree cover should be set by urban local authorities for new development land (Woodland Trust 2021).
- **All governments should work to deliver a rapid rollout of School Street schemes across the UK.** These initiatives are designed to restrict the unnecessary use of cars on the streets around schools at set times of day and should act as the focus point for wider networks of neighbourhoods designed to make walking and cycling a safe, attractive option (Linton et al 2021). Active Travel England should work with local authorities to develop best practice and ensure the approach taken to restricting traffic is locally acceptable, including using video enforcement focused on reducing through traffic in residential areas as a first step towards wider changes.

These actions should support a significant cut in car use in city and town centres by 2025, on the way to car-free city and town centres by 2030, and at least a 50 per cent cut in car use in towns and cities overall. Action to achieve these kinds of reductions are already underway in parts of the UK. Birmingham has set out the compelling case for transforming its city centre by 2030 in terms of both efficiency, with prioritisation of public transport over private car travel aiming to “reduce the negative impact that congestion and travel disruption has on productivity”, and the wider benefits to people: “a new city centre environment which will allow people to meet, relax and take time to enjoy the sights as well as navigate their way on foot without difficult road crossings” (Birmingham City Council 2020).

REFERENCES

- Adam S and Stroud R (2019) *A road map for motoring taxation*, Institute for Fiscal Studies. <https://www.ifs.org.uk/uploads/GB2019-Chapter-9-A-road-map-for-motoring-taxation-update2.pdf>
- Adur & Worthing Councils (2020) *Recommendations Report*. <https://www.adur-worthing.gov.uk/media/Media,159369,smxx.pdf>
- Anable J, Lokesh K, Marsden G, Walker R, McCulloch S, and Jenkinson K (2020) *Decarbonising transport: Accelerating the uptake of electric vehicles*, Local Government Association. <https://www.creds.ac.uk/publications/decarbonising-transport-accelerating-the-uptake-of-electric-vehicles/>
- Avila-Palencia I, Panis L, Dons E, Gaupp-Berghausen M, Raser E, Götschi T, Gerike R, Brand C, de Nazelle A, Orjuela J, Anaya-Boig E, Stigell E, Kahlmeier S, Iacorossi F and Nieuwenhuijsen M (2018) 'The effects of transport mode use on self-perceived health, mental health, and social contact measures: A cross-sectional and longitudinal study', *Environment International*, Volume 120, 2018, Pages 199-206. <https://www.sciencedirect.com/science/article/pii/S016041201831314X>
- BBC (2021) 'Climate Change: Government may review road-building policy', news story, accessed 23/04/21. <https://www.bbc.co.uk/news/uk-56042430>
- Birmingham City Council (2020) *Draft Birmingham Transport Plan*. https://www.birmingham.gov.uk/download/downloads/id/14861/draft_birmingham_transport_plan.pdf
- Bourn R (2012) *Transport and Poverty: A Literature Review*, Campaign for Better Transport. <https://bettertransport.org.uk/sites/default/files/research-files/transport-and-poverty-literature-review.pdf>
- Brand C, Anable J and Morton, C (2019) 'Lifestyle, efficiency and limits: modelling transport energy and emissions using a socio-technical approach', *Energy Efficiency*, 12, 187-207. <https://doi.org/10.1007/s12053-018-9678-9>
- Brand C, Dons E, Anaya-Boig E, Avila-Palencia I, Clark A, Nazelle A, Gascon M, Gaupp-Berghausen M, Gerike R, Götschi T, Iacorossi F, Kahlmeier S, Laeremans M, Nieuwenhuijsen M, Orjuela J, Racioppi F, Raser E, Rojas-Rueda D, Standaert A, Stigell E, Sulikova S, Wegener S and Panis L (2021) 'The climate change mitigation effects of daily active travel in cities', *Transportation Research Part D: Transport and Environment*, Volume 93, 2021, 102764, ISSN 1361-9209. <https://doi.org/10.1016/j.trd.2021.102764>
- Bristol City Council (2021) *Bristol Citizen's Assembly: Interim report*. https://bristol.citizenspace.com/ycof-1/recommendations-citizens-assembly/user_uploads/bristol-ca---interim-report-1.pdf
- Brown D (2021) 'Road user charging the 'fair' way forward, Baroness Brown says', Transport Network, news story, accessed 03/05/21. <http://www.transport-network.co.uk/Road-user-charging-the-fair-way-forward-Baroness-Brown-says/17257>
- Budnitz H, Tranos E and Chapman L (2020) 'A transition to working from home won't slash emissions unless we make car-free lifestyles viable', The Conversation, news story, accessed 28/04/21. <https://theconversation.com/a-transition-to-working-from-home-wont-slash-emissions-unless-we-make-car-free-lifestyles-viable-147123>
- Commission for Architecture and the Built Environment [CABE] (2010) *Community green: using local spaces to tackle inequality and improve health*. <https://www.designcouncil.org.uk/sites/default/files/asset/document/community-green-full-report.pdf>
- Clery E, Kiss Z, Taylor E and Gill V (2017) *Disabled people's travel behaviour and attitudes to travel*, Department for Transport. https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/647703/disabled-peoples-travel-behaviour-and-attitudes-to-travel.pdf

- Climate Assembly UK (2020) *The path to net zero: Climate Assembly UK full report*, accessed 30/04/21. <https://www.climateassembly.uk/report/read/executive-summary.html#executive-summary-how-we-travel-on-land>
- Climate Change Committee [CCC] (2020) *The Sixth Carbon Budget: Surface Transport*. <https://www.theccc.org.uk/wp-content/uploads/2020/12/Sector-summary-Surface-transport.pdf>
- Climate Change Committee [CCC] (2021) Demand summary for surface transport, unpublished data from the Sixth Carbon Budget
- Climate Group (2021) 'EV100 members', webpage, accessed 18/04/21. <https://www.theclimategroup.org/ev100-members>
- CoMoUK (2019) *UK Mobility Hubs Guidance 2019/20*. <https://como.org.uk/wp-content/uploads/2019/10/Mobility-Hub-Guide-241019-final.pdf>
- Coventry City Council (2021) 'Mobility Credits', webpage, accessed 18/04/21. <https://www.coventry.gov.uk/mobilitycredits>
- Czyzewski A (2021) 'Transition to zero pollution: Can we ever eliminate pollution in all its forms?', Imperial College London, accessed 26/04/21. <https://www.imperial.ac.uk/stories/zero-pollution/>
- Cunningham H (2019) *Anchor Towns*, the Bevan Foundation. <https://www.bevanfoundation.org/wp-content/uploads/2019/11/Anchor-Towns-Final.pdf>
- Department for the Economy, Northern Ireland [DFENI] (2020) *Rebuilding a stronger economy – the medium term recovery*. <https://www.economy-ni.gov.uk/publications/rebuilding-stronger-economy-medium-term-recovery>
- Department of the Environment, Northern Ireland [DOENI] (2020) *Strategic Planning Policy Statement for Northern Ireland (SPPS)*. <https://www.infrastructure-ni.gov.uk/sites/default/files/publications/infrastructure/SPPS.pdf>
- Department for Regional Development, Northern Ireland [DRDNI] (2010) *Regional Development Strategy*. <https://www.infrastructure-ni.gov.uk/sites/default/files/publications/infrastructure/regional-development-strategy-2035.pdf>
- Department for Transport [DfT] (2014) *Disability and travel: 2007 – 2014*. https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/533345/disability-and-travel-factsheet.pdf
- Department for Transport [DfT] (2018) *Road Traffic Forecasts 2018: Moving Britain Ahead*. https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/873929/road-traffic-forecasts-2018-document.pdf
- Department for Transport [DfT] (2019) *National Travel Survey Factsheets 2019*. https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/906847/nts-2019-factsheets.pdf
- Department for Transport [DfT] (2020a) *Decarbonising Transport: Setting the challenge*. https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/932122/decarbonising-transport-setting-the-challenge.pdf
- Department for Transport [DfT] (2020b) '£2 billion package to create new era for cycling and walking', news story, accessed 23/04/21. <https://www.gov.uk/government/news/2-billion-package-to-create-new-era-for-cycling-and-walking>
- Department for Transport [DfT] (2020c) 'VEH0202: Licensed cars by keepership (private and company): Great Britain and United Kingdom', dataset, accessed 18/04/21. <https://www.gov.uk/government/statistical-data-sets/veh02-licensed-cars>
- Department for Transport [DfT] (2020d) 'Table NTS0705 Travel by household income quintile and main mode / stage mode: England, from 2002', dataset, accessed 19/04/21. <https://www.gov.uk/government/statistical-data-sets/nts07-car-ownership-and-access>
- Department for Transport [DfT] (2020e) 'Ethnicity facts and figures: Car or van ownership', webpage, accessed 18/04/21. <https://www.ethnicity-facts-figures.service.gov.uk/culture-and-community/transport/car-or-van-ownership/latest>
- Department for Transport [DfT] (2021a) *Bus Back Better: National Bus Strategy for England*. https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/980227/DfT-Bus-Back-Better-national-bus-strategy-for-England.pdf

- Department for Transport [DfT] (2021b) 'Prime Minister launches £3 billion bus revolution', news story, accessed 23/04/21. <https://www.gov.uk/government/news/prime-minister-launches-3-billion-bus-revolution>
- Department for Transport [DfT] (2021c) 'Statistical dataset: Costs, fares and revenues (BUS04)'. <https://www.gov.uk/government/statistical-data-sets/bus04-costs-fares-and-revenue>
- Dudley Metropolitan Borough Council (2019) *Dudley People's Panel*. <https://www.dudley.gov.uk/council-community/peoples-panel/>
- Ellen MacArthur Foundation (2020) *The circular economy: a transformative Covid-19 recovery strategy: How policymakers can pave the way to a low carbon, prosperous future*. <https://www.ellenmacarthurfoundation.org/assets/downloads/The-circular-economy-a-transformative-Covid19-recovery-strategy.pdf>
- Emery T and Thrift J (2021) *20-Minute Neighbourhoods – Creating Healthier, Active, Prosperous Communities: An Introduction for Council Planners in England, Town and Country Planning Association*. <https://www.tcpa.org.uk/Handlers/Download.ashx?IDMF=f214c4b8-ba4d-4196-9870-e9d240f86645>
- Energy Saving Trust (2021) 'eBike Loan', webpage, accessed 18/04/21. <https://energysavingtrust.org.uk/grants-and-loans/ebike-loan/>
- Fecht D, Fischer P, Fortunato L, Hoek G, de Hoogh K, Marra M, Kruize H, Vienneau D, Beelen R and Hansell A (2015) 'Associations between air pollution and socioeconomic characteristics, ethnicity and age profile of neighbourhoods in England and the Netherlands', *Environmental Pollution*, Volume 198, 2015, pages 201-210. <https://www.sciencedirect.com/science/article/pii/S0269749114005144>
- Ferraro P, King C and Shorten R (2018) 'Distributed Ledger Technology for Smart Cities, the Sharing Economy, and Social Compliance', *IEEE Access*, volume 6, pages 62728-62746. <https://ieeexplore.ieee.org/stamp/stamp.jsp?arnumber=8496756>
- Francis S and Pearce K (2020) *Reimagining movement and the transport appraisal process through a Gender lens: a case study in the United Kingdom utilising a lifecycle approach*, Jacobs UK. [https://tps.org.uk/public/downloads/JfLFn/Reimagining movement and the transport appraisal through a gender lens_Francis_Pearce.pdf](https://tps.org.uk/public/downloads/JfLFn/Reimagining%20movement%20and%20the%20transport%20appraisal%20through%20a%20gender%20lens_Francis_Pearce.pdf)
- Friends of the Earth (2020) *England's green space gap*. <https://policy.friendsoftheearth.uk/print/pdf/node/190>
- Gallagher K (2020) 'Spending review sees guaranteed cycling and walking budget slashed by 15%', Cycling UK, blog, accessed 18/04/21. <https://www.cyclinguk.org/blog/spending-review-sees-guaranteed-cycling-and-walking-budget-slashed-15>
- Gill R (2018) *Public Transport and Gender Briefing from the UK Women's Budget Group on public transport and gender*, Women's Budget Group. <https://wbg.org.uk/wp-content/uploads/2018/10/Transport-October-2018-w-cover.pdf>
- Good Things Foundation (2020) *Blueprint for a 100% Digitally Included UK*. <http://www.goodthingsfoundation.org/wp-content/uploads/2021/01/blueprint-for-a-100-digitally-included-uk-0.pdf>
- Goulden M, Ryley T and Dingwall, R (2014) 'Beyond 'predict and provide': UK transport, the growth paradigm and climate change', *Transport Policy*, volume 32, 2014, pages 139-147. <https://www.sciencedirect.com/science/article/pii/S0967070X14000213/>
- Greater Cambridge Partnership (2019) *Greater Cambridge Citizens' Assembly on Congestion, Air Quality and Public Transport*. <https://www.greatercambridge.org.uk/asset-library/imported-assets/GCCA%20on%20Congestion%20Air%20Quality%20and%20Public%20Transport%20-%20PEP%20final%20version.pdf>
- Green Alliance (2021) *The green light for change: What people think about environmental tax reforms*. https://green-alliance.org.uk/resources/green_light_for_change.pdf
- Gunn S (2018) *The history of transport systems in the UK*, Foresight, Government Office for Science https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/761929/Historyoftransport.pdf
- Highways England (2020) '£27 billion roads investment to support 64,000 jobs', news story, accessed 23/04/21. <https://www.gov.uk/government/news/27billion-roads-investment-to-support-64000-jobs>

- Hinchliff C and Taylor I (2021) *Every village, every hour: a comprehensive bus network for rural England*, report for CPRE based on research and modelling by Transport for Quality of Life. https://www.cpre.org.uk/wp-content/uploads/2021/03/CPRE_Every-village-every-hour_report.pdf
- Imperial College London (2021) 'Transition to zero pollution: Mobility Hub', webpage, accessed 26/04/21. <https://www.imperial.ac.uk/zero-pollution/mobility-hub/>
- Involve (2021) 'Citizens' assembly tracker', webpage, accessed 26/04/21. <https://www.involve.org.uk/citizens-assembly-tracker>
- IPPR (2021a) South Wales Valleys Climate and Fairness Panel: Briefing and juror recommendations, IPPR. www.ippr.org/research/publications/citizens-jury-south-wales-valleys
- IPPR (2021b) Thurrock climate and fairness panel: Briefing and juror recommendations, IPPR. www.ippr.org/research/publications/citizens-jury-thurrock
- Ipsos Mori (2019) *Oxford Citizens' Assembly on Climate Change*. https://www.oxford.gov.uk/info/20011/environment/1343/oxford_citizens_assembly_on_climate_change/6
- Jacobs UK (2021) *Strategic Transport Projects Review 2: Update and Phase 1 Recommendations*. <https://www.transport.gov.scot/media/49051/stpr2-update-and-phase-1-3-feb-2021.pdf>
- Johns M, Raikes L and Hunter J (2019) *Decent Work: Harnessing the power of local government*. <https://www.ippr.org/research/publications/decent-work>
- Karagoz S, Aydin N and Simic V (2020) 'End-of-life vehicle management: a comprehensive review', *Journal of Material Cycles and Waste Management*, 22, 416–442. <https://doi.org/10.1007/s10163-019-00945-y>
- Katsikouli P, Ferraro P, Richardson H, Cheng H, Anderson S, Mallya D, Timoney D, Masen M and Shorten R (2020) 'Distributed Ledger Enabled Control of Tyre Induced Particulate Matter in Smart Cities', *Frontiers in Sustainable Cities*, volume 2, 2020, page 48, ISSN 2624-9634. <https://www.frontiersin.org/article/10.3389/frsc.2020.575482>
- Kendal Town Council (2020) *Kendal Climate Change Citizen's Jury recommendations*. <https://www.kendalclimatejury.org/wp-content/uploads/2021/01/KendalClimateChangeJuryRecommendations.pdf>
- Kumar C (2019) *Going electric: How everyone can benefit sooner*, Green Alliance. https://green-alliance.org.uk/resources/going_electric_how_everyone_can_benefit_sooner.pdf
- Lancaster City Council (2020) 'Lancaster district Climate Change People's Jury recommendations', webpage. <http://www.lancaster.gov.uk/sites/climate-emergency/lancaster-district-people-s-jury>
- Leeds Climate Commission (2019) *Leeds Climate Change Citizens' Jury recommendations*. https://www.leedsclimate.org.uk/sites/default/files/CJ%20recommendations%20FINAL%20_0.pdf
- Linton T, O'Reilly D, Humbert D and Burwell C (2021) *School Streets: Timed traffic restrictions, Toolkit for Professions 2021 Edition*, Hackney Council. <https://drive.google.com/file/d/1UVVmMxxgFBlKSgE-h9sZn3s4sP7wKWmC/view>
- Local Government Association [LGA] (2021) *The future of public transport and the role of local government*, report based on research by Systra, accessed 30/04/21. <https://www.local.gov.uk/systra-lga-bus-report>
- London Borough of Camden (2019) *Camden Citizens' Assembly on the Climate Crisis*. <https://www.camden.gov.uk/documents/20142/0/Camden+Citizens%27+Assembly+on+the+Climate+Crisis+-+Report.pdf/947eb4e5-5623-17a1-9964-46f351446548>
- Lyons G and Davidson C (2016) 'Guidance for transport planning and policymaking in the face of an uncertain future', *Transportation Research Part A: Policy and Practice*, volume 88, 2016, pages 104-116, ISSN 0965-8564. <https://doi.org/10.1016/j.tra.2016.03.012>
- Marmot M, Allen J, Goldblatt P, Boyce T, McNeish D, Grady M and Geddes I (2010) *Fair Society, Healthy Lives: The Marmot Review*, Institute of Health Equity. <http://www.instituteofhealthequity.org/resources-reports/fair-society-healthy-lives-the-marmot-review/fair-society-healthy-lives-full-report-pdf.pdf>

- Marmot M, Allen J, Boyce T, Goldblatt P and Morrison J (2020) *Health Equity in England: The Marmot Review 10 Years On Executive Summary*, Institute of Health Equity. https://www.health.org.uk/sites/default/files/2020-03/Health%20Equity%20in%20England_The%20Marmot%20Review%2010%20Years%20On_executive%20summary_web.pdf
- Marsden G, Anable J, Lokesh K, Walker R, McCulloch S and Jenkinson K (2020) *Decarbonising transport: getting carbon ambition right*, Local Government Association. <https://www.creds.ac.uk/publications/decarbonising-transport-getting-carbon-ambition-right/>
- Matthews B, Hibberd D and Speakman K (2015) 'The impact of street accessibility on travel and independence for disabled people', 14th International Conference on Mobility and Transport for Elderly and Disabled Persons, 28-31 Jul 2015, Lisbon, Portugal, unpublished. <https://eprints.whiterose.ac.uk/101881/1/matthews%20hibberd%20and%20speakman%20final.pdf>
- Marsden G, Anable J, Bray J, Seagriff E and Spurling N (2019) *Shared mobility: where now? where next? The second report of the Commission on Travel Demand*, Centre for Research into Energy Demand Solutions. <https://www.creds.ac.uk/wp-content/uploads/CREDS-Shared-mobility-comm-report-WEB.pdf>
- Minio-Paluello M and Markova A (2020) *Can an infrastructure stimulus replace UK jobs wiped out by COVID19 crisis?*, report by Transition Economics, commissioned by the TUC. https://www.tuc.org.uk/sites/default/files/TUC%20Jobs%20Recovery%20Plan_2020-06-17_proofed.pdf
- Ministry of Housing, Communities & Local Government [MHCLG] (2019) *National Planning Policy Framework*. <https://www.gov.uk/government/publications/national-planning-policy-framework--2>
- Mitchell R and Popham F (2008) 'Effect of exposure to natural environment on health inequalities: an observational population study', *The Lancet*: 372, issue 9650, P1655-1660. [https://doi.org/10.1016/S0140-6736\(08\)61689-X](https://doi.org/10.1016/S0140-6736(08)61689-X)
- Motherwell S (2018) "Are we nearly there yet?" *Exploring gender and active travel*, Sustrans. <https://www.sustrans.org.uk/media/2879/2879.pdf>
- National Grid ESO (2020) *Future Energy Scenarios 2020 Data Workbook*, accessed 03/05/21. <https://www.nationalgrideso.com/future-energy/future-energy-scenarios/fes-2020-documents>
- National Park City Foundation (2021) 'Universal Charter for National Park Cities', webpage, accessed 26/04/21. <https://npc-universal-charter.netlify.app/>
- Newham Council (2020) *Newham Citizens' Assembly on Climate Change: Report*. <https://www.newham.gov.uk/downloads/file/1885/newham-citizens-assembly-on-climate-change-final-report-2020>
- Office for National Statistics [ONS] (2019) 'Percentage of households with cars by income group, tenure and household composition: Table A47', dataset, accessed 18/04/21. <https://www.ons.gov.uk/peoplepopulationandcommunity/personalandhouseholdfinances/expenditure/datasets/percentageofhouseholdswithcarsbyincomegrouptenureandhouseholdcompositionuktablea47>
- Office for National Statistics [ONS] (2020) 'One in eight British households has no garden', news story, accessed 23/04/21. <https://www.ons.gov.uk/economy/environmentalaccounts/articles/oneineightbritishhouseholdshasnogarden/2020-05-14>
- O'Gorman S and Dillon-Robinson R (2021) *20 Minute Neighbourhoods in a Scottish Context*, Ramboll on behalf of ClimateXchange. <https://www.climateexchange.org.uk/media/4661/cxc-20-minute-neighbourhoods-in-a-scottish-context-march-2021.pdf>
- Public Health England (2018) 'Health matters: air pollution', webpage, accessed 18/04/21. <https://www.gov.uk/government/publications/health-matters-air-pollution/health-matters-air-pollution>
- Raikes L, Straw W and Linton C (2015) *Total Transport Authorities: A new deal for town and rural bus services*, IPPR <https://www.ippr.org/publications/total-transport-authorities-a-new-deal-for-town-and-rural-bus-services>
- Richardson N (2021) 'Does the bus strategy 'Bus Back Better'?', Passenger Transport, blog, accessed 30/04/21. <http://www.passengertransport.co.uk/2021/04/does-the-strategy-bus-back-better/>

- Royal Borough of Kingston Upon Thames (2020) *Kingston Citizens' Assembly on Air Quality*. https://modern.gov.kingston.gov.uk/documents/s87453/10aa_FINAL%20FULL%20REPORT%20-%20RBK%20Citizens%20Assembly%20on%20Air%20Quality%20-%20Full%20Report%20Annex%201.pdf
- Rural Services Network (2021) *Revitalising Rural: Realising the Vision, Rural transport and access to services*. <https://rsnonline.org.uk/images/revitalising-rural/rural-transport.pdf>
- Scotland's Climate Assembly (2021) *Interim report*. <https://www.climateassembly.scot/sites/default/files/2021-03/SCA%20APS%20Interim%20Report.pdf>
- Scottish Government (2020a) *Scotland's Fourth National Planning Framework Position Statement*. <https://www.gov.scot/publications/scotlands-fourth-national-planning-framework-position-statement/>
- Scottish Government (2020b) *Securing a green recovery on a path to net zero: climate change plan 2018–2032 – update*. <https://www.gov.scot/publications/securing-green-recovery-path-net-zero-update-climate-change-plan-20182032/pages/9/>
- Scottish Government (2020c) *Protecting Scotland, Renewing Scotland: The Government's Programme for Scotland 2020–2021*, accessed 26/04/21. <https://www.gov.scot/publications/protecting-scotland-renewing-scotland-governments-programme-scotland-2020-2021/>
- Shale-Hester T (2020) 'Treasury eyes up road pricing to plug £30 billion fuel-duty gap', AutoExpress, news story, accessed 26/04/21. <https://www.autoexpress.co.uk/news/108123/treasury-eyes-road-pricing-plug-ps30bn-fuel-duty-gap>
- Slovan L and Hopkinson L (2019) *Briefing: Transforming transport funding to meet our climate targets*, Friends of the Earth and Transport for Quality of Life. <https://www.transportforqualityoflife.com/u/files/7%20Transforming%20transport%20funding%20to%20meet%20our%20climate%20targets.pdf>
- Stacey T and Shaddock L (2015) *Taken for a ride: How UK public transport subsidies entrench inequality*, The Equality Trust. <https://www.equalitytrust.org.uk/sites/default/files/resource/attachments/Taken%20for%20a%20Ride.pdf>
- Sweeney S, Ordóñez-Hurtado R, Pilla F, Russo G, Timoney D, and Shorten R (2019) 'A Context-aware E-bike system to reduce pollution inhalation while cycling', *IEEE Transactions on Intelligent Transportation Systems*, volume 20, no 2, pp 704–715, February 2019. <http://dx.doi.org/10.1109/TITS.2018.2825436>
- Test Valley Borough Council (2019) *Romsey Citizens' Assembly*. <https://democracy.testvalley.gov.uk/documents/s10727/Outcomes%20of%20the%20Romsey%20Citizens%20Assembly%20-%20Annex.pdf>
- Transport Committee (2019) *Bus services in England outline London: Ninth Report of Session 2017–19*. <https://publications.parliament.uk/pa/cm201719/cmselect/cmtrans/1425/1425.pdf>
- Transport Scotland (2020) *National Transport Strategy*. <https://www.transport.gov.scot/media/47052/national-transport-strategy.pdf>
- Traverse (2020) *Brent Climate Assembly: Recommendations from Assembly members to Brent Council, as reported by Traverse*. https://www.brent.gov.uk/media/16416373/climate_assembly_report2020.pdf
- UK Government (2020) *The Ten Point Plan for a Green Industrial Revolution*. https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/936567/10_POINT_PLAN_BOOKLET.pdf
- Urban Forestry and Woodland Advisory Committee Network (2016) *England's Urban Forests: Using tree canopy cover data to secure the benefits of the urban forest*. https://www.forestresearch.gov.uk/documents/2109/FR_FC_TreeCanopyData_leaflet.pdf
- Wappelhorst S (2020) *The end of the road? An overview of combustion engine car phase-out announcements across Europe*, International Council on Clean Transportation. <https://theicct.org/sites/default/files/publications/Combustion-engine-phase-out-briefing-may11.2020.pdf>
- Welsh Government (2021a) *Llwybr Newydd: The Wales Transport Strategy 2021*. https://gov.wales/sites/default/files/publications/2021-03/llwybr-newydd-wales-transport-strategy-2021-full-strategy_0.pdf

- Welsh Government (2021b) *Planning Policy Wales: Edition 11 | February 2021*.
https://gov.wales/sites/default/files/publications/2021-02/planning-policy-wales-edition-11_0.pdf
- Welsh Government (2021c) *Our Economic Resilience & Reconstruction Mission*.
https://gov.wales/sites/default/files/publications/2021-02/economic-resilience-reconstruction-mission_0.pdf
- White R (2020) 'UK misses ELV target for third consecutive year', LetsRecycle, news story, accessed 26/04/21. <https://www.letsrecycle.com/news/latest-news/uk-misses-elv%E2%80%AFtarget-for%E2%80%AFthird-consecutive-year%E2%80%AF/>
- Woodland Trust (2021) *State of the UK's Woods and Trees 2021*.
<https://www.woodlandtrust.org.uk/media/49523/state-of-the-uks-woods-and-trees-2021-the-woodland-trust.pdf>

APPENDIX: KEY FINDINGS OF CITIZENS' JURIES AND ASSEMBLIES IN THE UK ON TRANSPORT

TRANSPORT RECOMMENDATIONS FROM CITIZENS' JURIES AND ASSEMBLIES IN THE UK

2021	
<p>Bristol Citizens' Assembly (Bristol City Council 2021)</p>	<p>Question: "How do we recover from Covid-19 and create a better future for all in Bristol?"</p> <p>Top three transport recommendations:</p> <ul style="list-style-type: none"> urgently reduce air pollution levels caused by vehicle use to safe and legal levels (95 per cent support) create an inclusive, transparent and accountable process where the council engages together with citizens, businesses and stakeholders to better communicate our climate commitments through a sustainable transport system (93 per cent support) fundamentally reimagine the places we live so that they are people centred (ie create liveable neighbourhoods) (90 per cent support).
<p>Scotland's Climate Assembly (Scotland's Climate Assembly 2021)</p>	<p>Question: "How should Scotland change to tackle the climate emergency in an effective and fair way?"</p> <p>Key transport recommendations:</p> <ul style="list-style-type: none"> implement an integrated, accessible and affordable public transport system, and improved local infrastructure, throughout Scotland that reduces the need for private cars and supports active travel (93 per cent support) realise the principles of a '20 minute community' in flexible ways across Scotland by reducing the need to travel for work, shopping, services and recreation in ways that support localised living (88 per cent support).
2020	
<p>Adur & Worthing Climate Assembly (Adur & Worthing Councils 2021)</p>	<p>Question: "How can we in Adur and Worthing collectively tackle climate change and support our places to thrive? What does this mean for the way we live and for our local environment?"</p> <p>Key transport recommendations:</p> <ul style="list-style-type: none"> Adur and Worthing needs better connected, affordable, accessible, greener public transport and more local, connected communities (both with businesses and local people) that encourages less commuting (98 per cent support) support national drive for electric vehicle uptake by ensuring affordable public charging points and parking spaces are accessible and compatible to all vehicles (91 per cent support) promote more cycling by implementing clear and safe travel routes, ensure cycle safety training for all ages and ability and ensure legislative changes are pursued to promote access eg through parks (88 per cent support).

<p>Brighton & Hove Climate Assembly (Brighton & Hove Council 2020)</p>	<p>Question: “How can we step up actions to reduce transport related carbon emissions in the city?”</p> <p>Top five recommendations in priority order:</p> <ul style="list-style-type: none"> • a car-free city centre • the public transport system should be affordable/accessible • creation of healthier low traffic/ pedestrianised communities • the council should actively consult and engage with the community • introduce mobility hubs - a mobility hub is a recognisable place which provides and connects up different types of travel, like cycle hire, station, parking and transport information.
<p>Kendal Climate Change Citizens’ Jury (Kendal Town Council 2020)</p>	<p>Question: ‘What should Kendal do about the emergency of climate change?’</p> <p>Key transport recommendations:</p> <ul style="list-style-type: none"> • we must improve the local public transport system in particular – buses, ensuring bus travel is affordable, frequent and reliable for all users (ranked first in of all priorities) • we must shift the priority from cars to an infrastructure that prioritises pedestrians and cyclists. This will reduce car usage so reducing emissions and congestion. To achieve this we must think imaginatively: we must make it easier for more people to take up cycling as a form of transport (ranked 18th of all priorities).
<p>Climate Change People’s Jury (Lancaster City Council 2020)</p>	<p>Question: “What do we need to do in our homes, neighbourhoods and district to respond to the emergency of climate change?”</p> <p>Key transport recommendations:</p> <ul style="list-style-type: none"> • we must make it easier for people to not use cars (ranked 10th of all priorities) • we must make it as easy as possible for people to take up the use of electric vehicles. The infrastructure must be in place so that as the cost of cars comes down people can switch easily (ranked 17th of all priorities).
<p>Newham’s Citizens’ Assembly on Climate Change (Newham Council 2020)</p>	<p>Question: “How can the council and residents work together to reach the aspiration of being carbon zero by 2050 at the latest?”</p> <p>Key transport recommendations:</p> <ul style="list-style-type: none"> • businesses and council to apply for grants to provide e-charging points in accessible areas across the borough (100 per cent support) • improve existing cycle lanes and walkways make them safer for use eg road surface, lighting and cut back vegetation enabling greater individual and group use. (94 per cent support) • introduce a free park and ride scheme for schools (using electric buses) along with car sharing schemes and walking buses (91 per cent support).

<p>Climate Assembly UK (Climate Assembly UK 2020)</p>	<p>Question: “How should the UK meet its target of net zero greenhouse gas emissions by 2050?”</p> <p>Top five transport recommendation:</p> <ul style="list-style-type: none"> • ensure solutions are accessible and affordable to all sections of society • help create significant change at an individual level, including through education, incentives and disincentives • achieve cross-party support for decisions so that they are not changed by successive governments • follow the principle that the polluter should pay • check and be careful about side effects, including moral, ethical and environmental implications.
<p>2019</p>	
<p>Brent Climate Assembly (Traverse 2020)</p>	<p>Question: “How can we work together to limit climate change and its impact while protecting our environment, our health and our wellbeing? Consider the council, businesses and organisations, individuals.”</p> <p>Key transport recommendation:</p> <ul style="list-style-type: none"> • support use of public transport through incentives for tube, bus and trains, affordable transport and fares and encouragement and raising awareness of benefits of public transport (ranked second of all priorities).
<p>Greater Cambridge Citizens’ Assembly on Congestion, Air Quality and Public Transport (Greater Cambridge Partnership 2019)</p>	<p>Question: “How do we reduce congestion, improve air quality and provide better public transport in Greater Cambridge?”</p> <p>Top five transport outcomes:</p> <ul style="list-style-type: none"> • provide affordable public transport • provide fast and reliable public transport • be environmental and zero carbon • restrict the city centre to only clean and electric vehicles • be people centred – prioritising pedestrians and cyclists.
<p>Camden Citizens’ Assembly on the Climate Crisis (Camden City Council 2019)</p>	<p>Question: “We are now facing a climate and ecological crisis. How can the council and the people of Camden help limit the impact of climate change while protecting and enhancing our natural environment? What do we need to do in our homes, neighbourhoods, council and country?”</p> <p>Key transport recommendations:</p> <ul style="list-style-type: none"> • enable electric transport with infrastructure and incentives (96 per cent support) • create more green space on residential streets (89 per cent support) • install more segregated cycle lanes (84 per cent support).
<p>Dudley People’s Panel (Dudley Metropolitan Borough Council 2019)</p>	<p>Question: “What can communities and the Council do together to make Dudley and Brierley Hill town centres places that are vibrant, welcoming and somewhere we are proud of? 2. How will we know we are making a difference in: 12 months; three years; by 2030?”</p> <p>Key success criteria with transport implications:</p> <ul style="list-style-type: none"> • for Dudley: Be full of public squares to meet, eat, relax and be • for Brierley Hill: Be livelier with open public spaces for people to sit and congregate.

<p>Kingston Citizens' Assembly on Air Quality (Royal Borough of Kingston Upon Thames 2020)</p>	<p>Question: "How do we collectively improve air quality in the borough?"</p> <p>Key transport recommendations:</p> <ul style="list-style-type: none"> • remove pollutants within school boundaries • prioritise changes to planning rules and enforcement to place indoor and outdoor air quality as the highest priority • plan to urgently invest in greener and accessible transport and infrastructure for all • increase residents' awareness of air pollution and encourage positive behaviour change • accelerate the transition to sustainable vehicles.
<p>Leeds Climate Change Citizens' Jury (Leeds Climate Commission 2019)</p>	<p>Question: "What should Leeds do about the emergency of climate change?"</p> <p>Key transport recommendation:</p> <ul style="list-style-type: none"> • we recommend that extensive positive action is taken to make the use of private cars a last resort for transportation. As a priority, bus provision (starting with First Bus) should be taken back within public control (ranked highest of all priorities).
<p>Oxford Citizens' Assembly on Climate Change (Ipsos Mori 2019)</p>	<p>Question: "The UK has legislation to reach 'net zero' by 2050. Should Oxford be more proactive and seek to achieve 'net zero' sooner than 2050?"</p> <p>Key transport recommendation:</p> <ul style="list-style-type: none"> • encouraging behaviour change with a shift away from private car use was seen as key – people can feel reliant on their car. Implementing infrastructure changes (ie more and safer cycling infrastructure) and technological changes was also important • a unified strategy for transport planning between Oxford City, the County Council, and public transport providers was important to Assembly Members. Incentivising public transport use and consideration of how vulnerable groups (especially children and the elderly) can get about were important areas to address when encouraging a move away from cars.
<p>Romsey Citizens' Assembly (Test Valley Borough Council 2019)</p>	<p>Question: "How do we improve the area around Crosfield Hall and the Bus Station to deliver the maximum benefit to Romsey?"</p> <p>Key transport recommendations (in order of priority):</p> <ul style="list-style-type: none"> • make Romsey an attractive, vibrant town, a centre of excellence, including green spaces and wildlife corridors • well-planned, connected accessible infrastructure (including travel, access, public spaces, education, tech and business) with good flow for transport and pedestrians to encourage business and tourists • improved transport infrastructure to encourage a sense of community - with viable options for moving around.

Source: Authors' analysis

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