

Radical Transport Policy Two-Pager #3

The case for shifting road spending to sustainable travel

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Expenditure on road-building should be halted and replaced by a £90 billion 15-year Regional Sustainable Transport Fund from ring-fenced VED.

Building roads does not solve congestion. Evidence for over 20 years shows that new roads encourage new journeys and open up land for car-dependent development which creates more traffic.¹ This leads to a vicious circle of more congestion, more roads, more development, more traffic. Evaluation of large road schemes showed that traffic growth was generally higher than forecast, and significantly higher than increases in background levels of traffic and population.² Where bypass schemes were built to relieve congestion, the old bypassed roads experienced a temporary drop in traffic but after a few years traffic levels often returned to pre-bypass levels. It is delusional to think we can build our way out of congestion.

Building new roads may increase casualties. 27,000 people were killed or seriously injured on Britain's roads in the year to September 2017, of which over 2,000 were children.³ For anyone aged 5-25 road death is the single biggest cause of death not from disease.⁴ In the short term it is unlikely that new roads will reduce casualties;⁵ in the long term new roads may substantially increase the risk of casualties because they generate more, and higher speed, traffic.

Building roads does not improve the local economy. A widely held assumption that building roads creates economic growth is not backed up by on-the-ground evidence.⁶ An analysis of road schemes that had been justified on the grounds that they would boost the local economy, found that three quarters had weak or no evidence of economic benefits, and where there was evidence it was not clear the benefits were very significant or what was intended.⁸

Building roads is immensely damaging to the environment.⁹ More than half (49 out of 86) of all major road schemes built since 2002 have affected areas that were nationally or locally protected because of their wildlife, landscape or heritage values.¹⁰ Since 2002 there have been 14 major road schemes that damaged ancient woodland; 6 schemes that impacted Sites of Special Scientific Interest; 11 schemes that affected Areas of Outstanding Natural Beauty and three schemes that cut through or close to National Parks. As well as the impacts on their habitats, millions of wild birds and animals are killed each year on our roads.¹¹

Building roads exacerbates climate change, air pollution and noise. Road traffic is responsible for around a fifth of the UK's greenhouse gas emissions¹² and road building will increase this.¹³ Road traffic is also responsible for around 80% of nitrogen dioxide in areas where legal limits of this air pollutant are broken.¹⁴ Air pollution, much of it associated with road traffic, is estimated to cause around 40,000 premature deaths a year.¹⁵ 55% of the population were annoyed or disturbed to some extent by traffic noise in 2012, up from 40% in 2000, with 8% very or extremely annoyed.¹⁶

Building roads is a serious drain on public finances. Government has pledged over £15 billion on the first of two massive national road-building programmes on the Strategic Road Network (SRN)¹⁷ and is likely to spend £30 billion on the second stage post 2020.¹⁸ According to the government this represents a trebling of road spending compared to 2012-13 levels.¹⁹ This funding will also be used to pay for a newly created local authority managed Major Road Network.²⁰ This £30 billion sum is a minimum estimate, and does not include expenditure on local roads from other sources such as the Integrated Transport Block and Local Growth Funds.²¹ To help pay for all these road schemes, Vehicle Excise Duty (VED) will be diverted from 2020 into a National Roads Fund.²² Yet the external costs for which road traffic should be expected to pay (road safety, health and environmental impacts) far outweigh the £6 billion annual revenue from VED – a minimum estimate suggests external costs of road traffic are £50 billion but are more likely over £100 billion per year.²³

A large proportion of the population do not benefit from this spending spree: nearly a quarter of all households do not have access to a car, rising to 44% of households in the lowest income quintile.²⁴ So many people, particularly those on low income, have difficulty accessing jobs, shops, parks and green spaces, and even people in other parts of town, in much of their 'home' area. The historic under-investment in public transport has led to increasing car-dependency: people are forced to drive in order to access employment and services. Around 80% of the working age population can (theoretically) reach 7 or more large employment centres by car compared with 20% by public transport.²⁵ Good alternative transport options are required to reduce car dependency and enable everyone, not just the well-off, to access jobs, facilities and services.

To end this cycle of ever increasing levels of traffic, car dependency, and health/environmental damage government expenditure on building new roads should be halted for the foreseeable future.

Instead, the revenue from VED (or its equivalent) over the next 15 years should be ringfenced to form a £90 billion **Regional Sustainable Transport Fund**. This should be a dedicated fund for sustainable travel to redress the historic under-investment in walking, cycling and public transport. It would provide funding for attractive alternatives to car use for people to access employment and services, for the many short/medium-length car trips that are currently made on the SRN. The funding should be confirmed in deals between national and local government so the latter can plan with certainty. The existing funding for road maintenance would continue.

A Regional Sustainable Transport Fund would support important areas of historic under-investment, e.g.:

- Continuous cycle and pedestrian paths along all main roads between settlements (as in countries like Denmark).
- Tram and guided bus networks for urban areas that need them.
- Reopening of rail lines that are important for short intra-region trips.
- Selective reallocation of road space in cities and large centres (where congestion is often worst) to pedestrians, cyclists, public transport or improved public realm.²⁶

This will bring major benefits for the following:

Congestion – shifting car trips from the road network²⁷ to high quality alternatives will free up space for essential road users, such as emergency vehicles, businesses carrying tools and supplies to work sites or people with disabilities. DfT's former Chief Scientist has commented: *"Congestion on the SRN largely occurs near population centres where locally generated traffic impedes long-distance traffic. If carriageway is added, at considerable expense, the locals take advantage of initially higher speeds to increase trip length, most importantly when they change jobs or move house. These longer trips restore congestion to what it was, and long-distance users are no better off."*²⁸

Communities in new housing areas – who need short, attractive walking and cycling routes to local destinations, and public transport provision for longer trips.

Low income families – who need access to jobs, shops and services without the expense of having to run a car.

Town centres – which become more attractive as car-free destinations that more people can reach easily.²⁹

Local economies – improved transport links will decrease transport costs, widen workforce catchments for employers, and create thriving urban centres.

Air pollution - reducing levels of motor traffic on the roads by improving facilities for walking and cycling is one of the best ways to reduce exposure to air pollution.³⁰

Noise – by cutting traffic noise with benefits for children's learning and cognitive development.³¹

Climate change – by reducing traffic, one of the biggest single sources of greenhouse gas emissions.

Wildlife, landscape and heritage – by avoiding further destruction of ecologically, aesthetically and culturally valuable areas.³²

¹ Wood, D. A. (1994). Trunk Roads and the Generation of Traffic. The Standing Advisory Committee on Trunk Road Assessment, report to DfT, December 1994. Available at:

<http://www.bettertransport.org.uk/sites/default/files/trunk-roads-traffic-report.pdf>

² Sloman, L., Hopkinson, L. and Taylor, I. (2017). The Impact of Road Projects in England. Report for CPRE, March 2017. Available at:

www.transportforqualityoflife.com/http://www.cpre.org.uk/resources/transport/roads/item/4542-the-impact-of-road-projects-in-england

³ There were 27,010 people killed and seriously injured of which 2230 were children. There were 174,510 casualties of all severities of which 15,850 were children. Department for Transport (2018) Reported road casualties Great Britain, provisional estimates: July to September 2017. Available at:

www.gov.uk/government/statistics/reported-road-casualties-great-britain-provisional-estimates-july-to-september-2017

⁴ Dorling, D. (2014). 20mph Speed Limits for Cars in Residential Areas, by Shops and Schools. In "If You Could Do One Thing. Nice local actions to reduce health inequalities." Report for the British Academy for the humanities and social sciences. Jan 2014. Available at: www.dannydorling.org/wp-content/files/dannydorling_publication_id3924.pdf

⁵ Out of fifteen large road schemes examined, half showed an increase in collisions over a short time period following scheme completion. Sloman, L., Hopkinson, L. and Taylor, I. (2017). *op. cit.*

⁶ Ibid

⁷ Melia, S. (2018) Does road building boost the economy? The claim has never been proven. Blog for Campaign for Better Transport, 21 March 2018, available at: www.bettertransport.org.uk/blog/better-transport/does-road-building-boost-economy-claim-has-never-been-proven

⁸ Sloman, L., Hopkinson, L. and Taylor, I. (2017). *op. cit.*

⁹ Ibid

¹⁰ e.g. Area of Outstanding Natural Beauty (AONB), Special Landscape Area, National Park, Site of Special Scientific Interest (SSSI), Ramsar site, Special Protection Area (SPA), National Nature Reserve, Site of Importance for Nature Conservation, ancient woodland, settings or parkland of Grade I, II or II* listed buildings.

¹¹ Over 100 million vertebrates are killed on roads in Spain. Caletrio, J., Fernandez, J.M., Lopez, J. & Roviralta, F. (1996): Spanish national inventory on road mortality of vertebrates. *Global Biodiversity*, 5, pp 15-18. Between 89-340 million birds are killed on US roads every year. Loss, R. S., Will, T., and Marra, P. P. (2014) Estimation of Bird-Vehicle Collision Mortality on U.S. Roads. *The Journal of Wildlife Management*, 78(5), pp763–771. In Belgium, about 4 million larger vertebrates are killed per year due to road traffic. Rodts, J., Holsbeek, L. and Muyldermons, S. (1998) Dieren onder onze wielen. - Koninklijk Belgisch Verbond voor de Bescherming van de Vogels. Project Splatter, a research effort to quantify and map wildlife roadkill across the UK, welcomes reports from the public. See <https://projectsplatter.co.uk/>

¹² Transport was around 30% of total UK domestic greenhouse gases in 2016, and road transport was about 27% of total emissions. See BEIS (2018). Final UK greenhouse gas emissions national statistics: 1990-2016. Available at: <https://www.gov.uk/government/collections/final-uk-greenhouse-gas-emissions-national-statistics#2018> If international aviation and shipping are included in the UK total then road transport constitutes around 25% total UK emissions or 69% of total transport emissions.

¹³ Sloman, L., Hopkinson, L. and Taylor, I. (2017). *op. cit.*

¹⁴ Defra (2015). Air quality in the UK: plan to reduce nitrogen dioxide emissions (2015). How we plan to improve air quality by reducing nitrogen dioxide in our towns and cities. Available at:

<https://www.gov.uk/government/publications/air-quality-in-the-uk-plan-to-reduce-nitrogen-dioxide-emissions>

¹⁵ RCP and RCPCH (2016) Every breath we take: the lifelong impact of air pollution. Report by Royal College of Physicians and Royal College of Paediatrics and Child Health. Report of a Working Party, Jan 2016. Available at: <https://www.rcplondon.ac.uk/projects/outputs/every-breath-we-take-lifelong-impact-air-pollution>

¹⁶ Defra (2014). National Noise Attitude Survey 2012. Available at:

<http://randd.defra.gov.uk/Default.aspx?Menu=Menu&Module=More&Location=None&Completed=0&ProjectID=18288>

¹⁷ The Road Investment Strategy (RIS). RIS 1 covers 2015-2020; while RIS 2 covers 2020-2025. See:

<https://www.gov.uk/government/collections/road-investment-strategy>

¹⁸ Garner-Purkis, Z. (2017). Highways England to spend £30bn post-2020. Article for Construction News, 13 Dec 2017. Available at: www.constructionnews.co.uk/markets/sectors/roads/highways-england-to-spend-30bn-post-2020/10026248.article

¹⁹ HM Treasury (2015). The Summer Budget. Available at: www.gov.uk/government/publications/summer-budget-2015

²⁰ Department for Transport (2017) Proposals for the Creation of a Major Road Network Consultation. Available at: <https://www.gov.uk/government/consultations/proposals-for-the-creation-of-a-major-road-network>

²¹ Between 2015 and 2021 £1.55 billion was allocated to local roads through the Integrated Transport Block in addition to £6.2 billion over the same period for maintenance. DfT contributed a further £7 billion to the Local Growth Fund (LGF) managed by Local Enterprise Partnerships (LEPs). Ibid. A study by CPRE and CBT found that about 65% of the Local Growth Funds are spent on road projects. Berry, S. (2014). The truth about those road spending figures. Blog for Campaign for Better Transport. Available at:

www.bettertransport.org.uk/blog/roads/231114-road-spending-30-billion

²² HM Treasury (2015). The Summer Budget. Available at: www.gov.uk/government/publications/summer-budget-2015

²³ Official estimates of external costs of traffic in English urban areas in 2009 were £48.7 billion (around £60 billion in 2018 prices). Cabinet Office (2009). Wider costs of transport.

<http://webarchive.nationalarchives.gov.uk/+http://www.cabinetoffice.gov.uk/media/307739/wider-costs-transport.pdf> Scaled up to the rest of the UK the costs are £56 billion (around £67 billion in 2018 prices) but this

does not include important costs such as noise impacts on health (£4-5 billion) and community severance impacts (approximately equal to air pollution). Sustainable Development Commission (2011). Fairness in a car-dependent society. www.sd-commission.org.uk/data/files/publications/fairness_car_dependant.pdf Later estimates of the direct costs of all reported and unreported road casualties are estimated at around £13 billion a year, with a further £23 billion in the value of avoiding the risk of a road accident. DfT (2017). Accident and casualty costs.

www.gov.uk/government/statistical-data-sets/ras60-average-value-of-preventing-road-accidents#table-ras60003

The economic costs of transport related air pollution in urban areas in England is estimated at £5-11 billion a year. Defra (2010) Air pollution. Action In a Changing Climate.

www.gov.uk/government/uploads/system/uploads/attachment_data/file/69340/pb13378-air-pollution.pdf There

are also many costs which are difficult to estimate but which are not trivial, including loss of tranquillity, degradation of landscape and countryside, the opportunity cost of land used for roads and parking, waste disposal (cars, tyres, used oil), diffuse water pollution from oil runoff, and wildlife casualties. Hopkinson, L. (2011). The War on Motoring: Myth or Reality. Report for IPPR. www.ippr.org/files/images/media/files/publication/2012/08/war-on-motoring-myth_Aug2012_9542.pdf

²⁴ DfT (2017). National Travel Survey Table NTS0703. Available at: www.gov.uk/government/statistical-data-sets/nts07-car-ownership-and-access

²⁵ Within 45 minutes. DfT (2016). Road Use Statistics. Available at: www.gov.uk/government/statistics/road-use-statistics-2016

²⁶ A number of cities in the UK and around the world have already completed successful urban redevelopment projects, removing road space for the benefit of the community. See European Commission (undated) Reclaiming city streets for people. Chaos or quality of life? Available at:

http://ec.europa.eu/environment/pubs/pdf/streets_people.pdf

²⁷ 80% trips are <10 miles in length and 93% trips < 25 miles across all road types. 28% of the miles driven across all road types are <10 miles and 53% are < 25 miles. DfT (2015). Strategic Road Network statistics. Available at: www.gov.uk/government/uploads/system/uploads/attachment_data/file/448276/strategic-road-network-statistics.pdf

²⁸ Metz, D. (2014) "Why are we planning to spend so much on new roads when we live in an information age?", Local Transport Today, 16 December 2014 [LTT 662]

²⁹ DCLG (2012). Re-imagining urban spaces to help revitalise our high streets. July 2012. Available at:

www.gov.uk/government/uploads/system/uploads/attachment_data/file/5987/2185491.pdf

³⁰ Eunomia Research and Consulting (2017) Air Quality Benefits of Active Travel. Report by A. Ballinger. T. Chowdhury, G. Cole and O. Jamieson for Sustrans, November 2017. Available at:

www.sustrans.org.uk/sites/default/files/file_content_type/air_pollution_benefits_of_active_travel_-_nov_2017.pdf

³¹ Basner, M., Babisch, W., Davis, A. et al. (2014). Auditory and non-auditory effects of noise on health. The Lancet. 383: 1325-1332. DOI: 10.1016/S0140-6736(13)61613-X. Summarised in European Commission (2015). Science for Environmental Policy. Thematic issue: Noise impacts on health. Available at:

<http://ec.europa.eu/environment/integration/research/newsalert/pdf/47si.pdf>

³² One example is the 'M4 relief road' around Newport which will cut across the Gwent levels and five Sites of Special Scientific Interest and is opposed by many including Friends of the Earth, RSPB and Natural Resources Wales (NRW). See BBC News (2017). M4 relief road 'would affect local ecology'. 7 March 2017.

<http://www.bbc.co.uk/news/uk-wales-south-east-wales-39192825> The public enquiry closed in March 2018 and the outcome is expected in Autumn 2018. <http://m4-newport.persona-pi.com/>