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less traffic

How Scotland would benefit from Road Traffic Reduction

> "If no action is taken to reverse traffic growth, the costs to the economy, the environment and society will reach unprecedented levels."

Road traffic reduction is the most vital component of a sustainable transport strategy. Without policies, programmes and projects to cut traffic levels, there is little or no prospect of achieving crucial targets for reducing climate change emisions or creating a productive and just society.

This isn't just a question of Scotland making a fair contribution to solving a massive global problem – it's also in our own short and long term interest. Too much traffic costs time and money to individuals and businesses, divides communities and degrades the environment, in rural as well as urban areas. Less traffic would mean fewer deaths both from accidents and air pollution, reduced congestion costs, less community severance, and less impact on the natural environment.

Commendably, in 2002 the Scottish Government set a road traffic stabilisation target of returning traffic levels to 2001 levels by 2021. However, a comprehensive action plan and interim goals are needed for the Government to achieve its traffic reduction target.

Forecasts suggest that, without action, traffic levels on Scotland's roads could rise by 27% between 2005 and 2021,[1] so this is clearly an ambitious target. But since the target was set, the scale and severity of the climate crisis has become much clearer, and the need for action more important. The Government has committed to a 80% reduction in Scotland's climate change emissions by 2050, and so we need to live and work more sustainably by reducing our reliance on road and air transport. The sooner we do this, the more swiftly we can move to the low carbon economy that we desperately need.

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2. Too Much Traffic Is Bad for Us All

Scotland's existing transport situation is unsustainable. It neither meets our current transport needs, nor does it ensure that future generations can satisfy theirs.

Road transport is a major – and growing – contributor to climate change, and it overwhelmingly relies on a non-renewable fuel source (oil) whose global production will peak within the next decade.[2] It also inflicts a high cost on individuals and society in a wide variety of ways:

- Air and noise pollution cause serious health problems, particularly amongst children and the elderly. Over 2,000 deaths a year in Scotland are now attributed to health-damaging particulates from vehicle emissions.[3]
- Obesity in children has increased, as walking and cycling have declined and parents have switched to the car for the school run. The UK Government's Foresight Programme estimates that by 2050 obesity will cost the NHS £10 billion per year, but will cost the economy as a whole £50 billion per year.[4]
- Unacceptably high numbers of people are killed and injured on Scotland's roads every year – 277 children were killed or seriously injured in 2007, part of a total of 16,213 casualties.[5] Internationally, Scotland's road fatality rate is up to 36% higher than countries such as the Netherlands, Sweden, Switzerland, Norway, Denmark, and Japan. For children between 0–14 years, our road fatality rate is higher still compared with these countries – up to 111% more than the rate in Japan.[6]
- Quality of life in neighbourhoods is reduced considerably and communities decline as crossing roads becomes more difficult and people become more isolated in their homes. Research has found that on busy streets, people have more than 75% fewer local friends compared with people living on similar streets with little traffic. Those on streets with light traffic also have a much wider area that they consider to be part of their home territory and a higher frequency of street-based recreational activities.[7]
- Too much traffic is also bad for the economy. For the city of Edinburgh alone, it has been estimated that a forecast 20% increase in traffic levels by 2021 would double the time lost in traffic due to congestion.[8] In his report for the UK Government, Sir Rod Eddington estimates that by 2025, congestion will cost the UK economy £22 billion, up from a current level of around £18 billion.[9]

3. Breaking the link between economic growth and traffic growth

It is a myth that economic growth must result in increased travel, and that measures to reduce traffic would therefore undermine economic development.[10] It has been a long-standing goal of transport policy to decouple traffic growth from economic growth; indeed, in 2004 the Scottish Government stated, "Historically growth in the economy is accompanied by growth in traffic volumes. We need to break that link."[11] We agree.

Not only is congestion known to harm businesses (through loss of productivity, delayed deliveries and travel stress for staff), investment in urban public transport has been shown to generate more jobs than money spent on car-based schemes.[12]

4. The Benefits of Traffic Reduction

A reduction in the need to travel, and a shift from car use to public transport, cycling and walking would yield enormous and widespread benefits across the economy, environment, and society. In broad terms, it would mean:

- Scotland would begin to make a fair contribution to solving the global climate change crisis and make substantial progress towards the Government's 80% emissions reduction target.
- Employees would be more productive and spend less time and money travelling to and from work. Businesses would increase productivity and spend less money on meetings.
- With less traffic and less congestion the economy would operate more reliably and efficiently.
- We would address the environmental injustice that sees those on lowest incomes experience the worst effects of traffic pollution.
- Faster and more reliable bus journeys would directly benefit the third of Scotland's households without a car (59% of households in Glasgow and 42% in Edinburgh).
- Reduced traffic would mean fewer deaths, injuries and illnesses from air pollution and road crashes.
- Streets would become safer, and encourage exercise by enabling children to walk to school.
- Walking and cycling, the most sustainable modes of transport, would become more attractive for all age groups.
- Neighbourhoods would become more vibrant, with an increased quality of life.

"There is a wide consensus that to prevent extreme climate change, Scotland and the UK must make an 80% reduction in emissions by 2050."

5. Key policies for delivering Road Traffic Reduction

Conferencing and Home Working

It has been estimated that almost half of the productivity growth in the European Union in recent years has been a result of effective exploitation of information communications technology (ICT).[13] In Scotland, it was found that ICT contributes 0.6% per year to productivity growth.[14] People who can work flexibly, combining home and office working, are happier and more productive, and spend less time travelling and more time working.[15] Investment in technology offers a 'no travel' option, and businesses are increasingly looking at ways of reducing both travel for business and staff travel to work. Better IT infrastructure, the wide reach of broadband and new technologies including high quality videoconferencing and audioconferencing are making this possible. Businesses now have realistic means to implement flexible working practices which can cut the need for travel, improve efficiency and reduce cost. There are now a wide range of technological solutions, from extremely low-cost but effective pay-as-you-go audioconferencing, to advanced telepresence solutions that realistically bring a remote office into the same room. This means that even small organisations can cut down on travel and realise significant cost and carbon emission savings.

Car Sharing

Average car occupancy in the UK has dropped from 2.0 in the early 1960s to only 1.58 in 2006. This includes 60% of cars being single-occupancy, rising to 85% when considering just commuting and business travel car trips.[16] A small rise in car occupancy can have a significant impact – raising occupancy by just 10% (to an average of 1.74) would reduce traffic on our roads by 9%. And an occupancy increase of 50% would result in a 33% drop in traffic.[17] Car clubs also encourage less traffic as members of car clubs are more likely to only use a car when necessary. When someone owns a car, most of the costs are fixed and so the tendency is to use it as much as possible to make the most of the high ownership costs. On the other hand, when someone is a member of a car club, they only pay when they use a car, and so there is no incentive to use it for journeys that can be avoided or made by walking, cycling, or by public transport.

Surveys of UK car club members show that they make far fewer of their journeys by car, using public transport and walking and cycling much more than the wider public. When compared to the national average, car club members complete 17%-25% fewer of their journeys by car, taxi or motorbike; 6% more of their journeys by walking or cycling; and 7%-24% more of their journeys by public transport.[18]

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6. Learning from good practice from elsewhere

Worldwide there are plenty of examples illustrating successful proactive interventions to secure road and air traffic reduction, including:

- The DfT's Sustainable Travel Demonstration Towns project has shown that improved public awareness of local alternatives to the car can result in significant shifts towards sustainable travel modes. [19] The three towns (Darlington, Peterborough and Worcester) have shown encouraging results, with increases in walking rates of up to 14%, increases in cycling up to 113%, bus use increases by up to 35%, and car use decreasing by up to 9%.[20] The Scottish Government is now pursuing its own sustainable travel towns programme, Smarter Choices, Smarter Places.[21]
- Members of the Liftshare website currently reduce traffic by 40,000 cars every day with an estimated 63 million shared miles per year.[22]
- The broad adoption of teleconferencing within BT eliminated the need for 300,000 face-to- face meetings and 1.5 million return journeys in one year – thereby reducing road, rail and air travel and keeping the company's CO^2 emissions 97,000 tonnes lower than if people had travelled to those meetings.[23] Through the use of conferencing rather than travelling to meetings, businesses can save on average over £400 per meeting.[24]
- Proctor & Gamble was able to cut 20% off its annual global travel budget in 2008 by using video conferencing, web conferencing and other IT-based strategies.[25]
- Denmark's capital city Copenhagen has reaped the benefits of road traffic reduction on the basis of better public transport services and parking restrictions. Its road network is no larger now than it was in 1970, and traffic levels have fallen by around 10%.[26]
- In London the implementation of congestion charging has produced a rise in bus use and cycling, while the level of traffic driving through the zone has reduced by 21%, or 70,000 fewer cars.[27]
- Even the most radical form of urban traffic management – road closures – is likely to find long-term favour with the public and deliver economic benefits, if carried out appropriately. Pedestrianisation measures in Oxford's city centre (since 1999) have resulted in more shopping activity within the affected areas, rather than less.[28]

7. How Much Traffic Reduction – and Where?

The Scottish transport sector is currently responsible for 24.4% of all greenhouse gas emissions.[29] But while other sectors of the economy have been yielding reductions in carbon emissions, transport emissions continue to grow.[30] There is a wide consensus that to prevent extreme climate change, Scotland and the UK must make an 80% reduction in emissions by 2050 brought about by cuts of at least 3% per annum. To support this, it is vital to secure widespread acceptance of the need for significant traffic reduction.

Scotland is sometimes stereotyped as a predominantly rural country. However, 69% of Scotland's people live in urban areas with a population of more than 10,000. This means that a large majority of our population live in the areas with the greatest potential for traffic reduction. However, experience in Switzerland, Denmark and Austria has also shown that vehicle use can also be reduced in sparsely populated rural areas where an efficient and integrated public transport system is available.[31]

A report produced by Professor John Whitelegg of the Eco-Logica consultancy concluded that proven methods of transport policy intervention could deliver significant reductions in traffic.[32]

The biggest reductions, unsurprisingly, were forecast for the largest population centres where public transport, walking and cycling alternatives are most accessible, but a wide range of settlement sizes were projected to make a significant contribution to traffic reduction:

- Cities of 1 million+ – 20% reduction. 1 Scottish settlement (Glasgow)
- Cities and towns of 100,000 to 999,000 – 15% reduction. 3 Scottish settlements (Edinburgh, Aberdeen, Dundee)
- Towns of 10,000 to 99,000 – 10% reduction. 52 Scottish settlements (eg. Falkirk, Dunfermline, Kirkcaldy, Inverness, Stirling, Perth)
- Towns and villages of 1,000 to 9,000 – 10% reduction. 305 Scottish settlements (eg. Fort William, Dunbar, Thurso, Crieff, Croy, Kinloss)

These represent very significant reductions in traffic which would make an enormous contribution to creating a more sustainable and just society. And the tools needed to achieve this are already available; we now only need the political will.

"There is a wide consensus that to prevent extreme climate change, Scotland and the UK must make an 80% reduction in emissions by 2050."

"The UK Government is currently promoting a shift to electric cars as a way to move to a low- carbon transport sector."

8. Is There An Alternative To Road Traffic Reduction?

The Road-Building Myth

The roads lobby would have us believe that as long as steps are taken to address the negative impacts of traffic growth then traffic levels can happily be allowed to keep growing without limit. This is fundamentally and dangerously wrong.

It is a myth that congestion can be reduced while traffic is allowed to grow without restraint.[33] Sweeping claims have been made for the congestion-relieving potential of major new roads such as the M74 Northern Extension and Aberdeen western bypass. But, as a rule, expanding road capacity in urban and suburban areas will generate extra traffic which soon fills up the new roads – as seen in the case of the Edinburgh City Bypass, London's M25, and elsewhere across Britain.

Alternative Fuels

Technical fixes in transport such as alternative fuels are often put forward as politically attractive ways to solve the negative environmental impacts of road traffic.

The UK Government is currently promoting a shift to electric cars as a way to move to a low-carbon transport sector. However, while seeking an increase in the use of electric power in transport remains a worthy ambition, questions remain over the availability of electricity – however generated, but in particular from renewable sources – to power the entire car fleet. Even if this could be proven to tackle greenhouse gas emissions from road transport, it would still fail to confront the wider problems of traffic growth: road congestion, productivity loss, obesity, air and noise pollution, road crashes, and community severance. It is therefore crucial – for economic, social and environmental reasons – that Scottish transport strategy focuses on securing road traffic reduction.

9. The current Scottish traffic target

The Scottish Government's 2002 commitment to road traffic stabilisation flowed from two Road Traffic Reduction Acts passed through the Westminster parliament during the 1990s.[34] However, progress has been poor, with Audit Scotland commenting in 2006, that there was, "a lack of incentive for local authorities to develop robust targets, with many recognising that the delivery of plans to reduce traffic volumes was not wholly in their control".

Some local authorities appeared "reluctant to take action without similar support from the [Scottish Government] in respect of trunk roads."[35]

We agree. Unlike in England, the Scottish Government has not made funding for local authorities' transport spending dependent upon their prioritising measures towards reducing traffic levels. And since the introduction of Single Outcome Agreements between the Scottish Government and local authorities in 2008, ring-fencing of funds for community and public transport has been removed. And even though funds for active travel are currently still ring-fenced, this is only for a limited period.

When lack of progress on the traffic target was officially confirmed,[36] the Government suggested that it might give up on the stabilisation target altogether,[37] despite having also committed itself to massive reductions in greenhouse gas emissions. Fortunately, following representations from Transform Scotland and other sustainable transport groups, the Scottish Government confirmed in December 2006 that it was retaining its target to return traffic levels to 2001 levels by 2021.

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10. Delivering Traffic Reduction in Scotland – Policies, Programmes & Projects

Much of the work to reduce road traffic and create a more sustainable transport system will inevitably rely on the Scottish Government and its spending, regulatory and promotional powers. But there are also important delivery roles for Regional Transport Partnerships, Local Authorities and the private sector.

Policies:

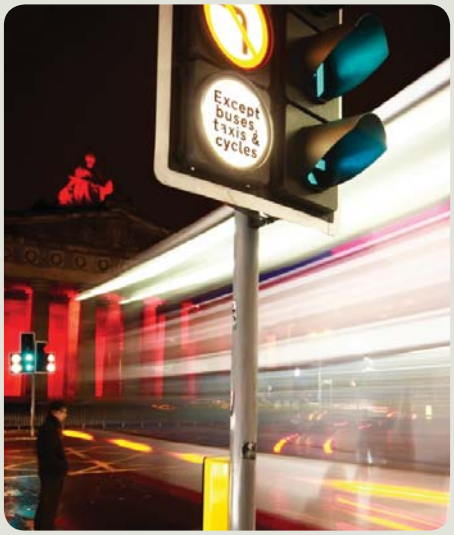
- The Government's current road traffic stabilisation target needs to be reviewed in light of the latest understanding of the severity of climate change and the Climate Change (Scotland) Bill. An appropriate new national traffic reduction target for 2021 needs to be at the core of Scotland's national transport strategy.
- Interim targets supported by an action plan are needed to ensure that each Scottish Government administration is obliged to work towards the long-term target, as recommended by the Scottish Parliament's 2005 climate change inquiry.[38] These should be supportive of the reductions needed in the transport sector to meet the climate Bill's emission reduction targets.
- Ministers should be obliged to publish their action plan and to report annually on progress.
- The Government should lead a culture change where investment in traffic-reducing measures such as ICT infrastructure and Smarter Choices interventions is considered ahead of traffic-generating infrastructure such as new roads and expanded airports.
- Scottish Government funding for Regional Transport Partnerships and local authorities' transport budgets should be contingent upon their delivering against agreed traffic reduction targets.
- The Government should actively encourage and promote flexible working within the public and private sectors as a means of reducing overall traffic and peak traffic flows.
- A national target for increasing walking, reviewed annually, with an accompanying action plan should be put in place as a matter of urgency. Walking is not only the most sustainable mode of transport but remains the second most common in terms of journeys. Walking remains the only form of transport for which the Government has no strategy, yet it can play a crucial role in traffic reduction and is already far more popular than commonly realised. In Edinburgh for example 25% of all journeys are on foot.

Programmes:

- Increase expenditure on cycling, walking and safer streets initiatives to at least 10% of the transport budget, as recommended by a coalition of 100 groups led by the Association of Directors of Public Health.[39] In future years, transport funds should be allocated to be proportionate to new and ambitious targets for walking and cycling.[40] Funding allocations to Regional Transport Partnerships and local authorities need to be ring-fenced.
- Deliver a national Smarter Choices programme, to be delivered at local and regional levels – making commonplace the implementation of schemes such as workplace travel plans, school travel plans, car clubs, and car sharing. Available research suggests that such measures are very cost-effective in delivering change in travel behaviour.[41]
- Deliver public travel awareness campaigns to encourage a shift towards more sustainable forms of transport such as walking, cycling, bus and rail.[42]
- Intervene to ensure that bus and rail fares do not rise beyond the cost of motoring – as has consistently been the case in recent years.[43] The Government should extend the Road Equivalent Tariff from ferries to encompass buses and trains in Scotland.
- Implement a national road user charging scheme, either in conjunction with the UK Government, or as a Scotland-only scheme should the UK Government delay action even longer.

Projects:

- Increase access for small businesses and voluntary organisations to affordable conferencing facilities through creation of local ICT hubs.
- Increase grant aid funding to help shift freight from road to rail and sea – for example, establishing new railheads and improved route infrastructure for the modern generation of taller freight containers.
- Deliver the rail investments outlined in the Strategic Transport Projects Review so that the inter-urban Scottish rail network can again become competitive with road journey times.
- Scrap traffic-generating road schemes such as the Second Forth Road Bridge and the Aberdeen western bypass. The price tag for the Second Forth Road Bridge alone equates to 100 years of active travel investment at current levels.



Conclusion

A dramatic reduction in unnecessary car and lorry journeys is crucial to the prosperity, health and welfare of future generations. However, progress will be impossible in the absence of properly developed targets, realistic delivery plans and robust monitoring procedures.

Getting people to reduce their reliance on car travel requires political leadership and integrity. Politicians must take into account all of the external costs of transport (eg, accidents, community severance, health, air quality) as well as congestion and emissions when making decisions.

Scotland has an opportunity to be at the forefront of progressive transport policies which contribute to a prosperous and equitable society, and demonstrate our willingness to contribute to the global climate change challenge. Traffic reduction must be at the heart of Scotland's national transport strategy.

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