

# WHY ROADS DON'T WORK

## New roads create new traffic

When a new road is built, new traffic will quickly fill it up. Some will be diverted from other roads, but many people will make trips they would otherwise not make, and will travel longer distances just because of the presence of the new road.

**This well-known and long-established effect is known as 'induced traffic'.**

Induced traffic means that the predicted congestion benefits of a new road are very quickly eroded. Traffic on bypassed roads often also rises faster than expected, all of which means the promised congestion benefits of a new road can evaporate very quickly.

The phenomenon of induced traffic has been observed by transport professionals repeatedly since 1925!

In 1994 the most authoritative study yet was published by the Standing Advisory Committee on Trunk Road Assessment (SACTRA). *'Trunk Roads and the Generation of Traffic'* concluded that:

**"An average road improvement, for which traffic growth due to all other factors is forecast correctly, will see an additional [i.e. induced] 10% of base traffic in the short term and 20% in the long term."**

These conclusions (along with massive public road protests) helped change government policy for the better in the 1990s, but now the lessons learned are all but forgotten.

## Further reading:

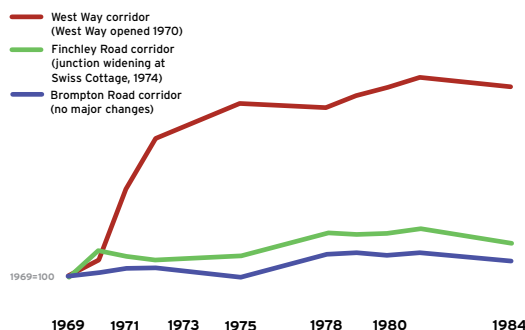
- Professor Phil Goodwin sums up the long history of induced traffic: [bit.ly/induced-traffic](http://bit.ly/induced-traffic)
- Presentation by John Elliot to a public meeting in Greenwich on the London studies: [bit.ly/london-road-studies](http://bit.ly/london-road-studies)
- More links, including to SACTRA reports: [www.bettertransport.org.uk/roads-nowhere/induced-traffic](http://www.bettertransport.org.uk/roads-nowhere/induced-traffic)

## London studies

In urban areas, induced traffic is even more pronounced. John Elliot worked for the Greater London Council in the 1980s and was asked to look at the long-term effects of increasing road capacity.

Comparing areas around roads that had been widened, such as the A40 Westway, with corridors where main roads had not grown significantly, it was clear that adding new road space had increased traffic far more than would be expected:

Effect of road widening in London, 1960s-1980s



## 'Unlocking' development

New roads often encourage shops and businesses to be relocated to out-of-town sites along the route.

The report *'Beyond Transport Infrastructure'* looked at the case of the 1996 Newbury bypass, the subject of fierce protests when it was built. The study found new development along the new road contributed to traffic levels predicted for 2010 being reached by 2004 – an increase of 50 percent.



**ROADS TO NOWHERE**

# IMPACT OF ROAD BUILDING

## Harm to people and the environment

New roads and more car travel means localised air and noise pollution, increased carbon emissions and other problems, such as safety and community severance.

We are monitoring more than 200 planned roads, and their potential effects on the environment. Many would affect areas protected for conservation, landscape and heritage reasons, including three National Parks, the Norfolk Broads and at least seven Areas of Outstanding Natural Beauty. The historic setting of several World Heritage Sites is under threat, including the City of Durham and Stonehenge.

The roads would have extensive effects on woodland, agricultural land and the green belt, and this would come not just from the roads themselves, but also from associated development.

## Effects on poverty and accessibility

Car dependency and the lack of good, affordable public transport, makes problems with finding jobs much worse, particularly for young people.

More than two thirds of job seekers have no access to a car, and policies that expand roads will only make life more difficult and poverty worse when public transport could be improved to help them instead.

## Air pollution

Air pollution is becoming a major issue for road campaigners, with schemes across the country threatening to make even more people breathe air that's over legal limits.

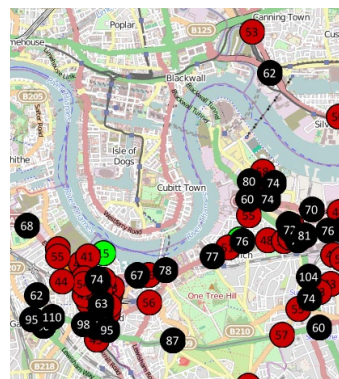
In May 2013, lawyers from Client Earth won a major victory when the UK Supreme Court ruled the Government was failing in its duty to protect people from the harmful effects of air pollution.

Road plans now need to be scrutinised particularly hard for evidence that they will contribute to this serious legal breach and make pollution worse for people already living with desperately poor air.

Read more about our work in this area - and see below for a very useful legal guide to the issue: [www.bettertransport.org.uk/blogs/roads/181013\\_air\\_pollution\\_warning](http://www.bettertransport.org.uk/blogs/roads/181013_air_pollution_warning)

## Citizen science

South and east London campaigners have measured current air pollution levels on the approach roads to the proposed route of the Silvertown Tunnel. The shocking pollution that already exists has helped make the case against the plans.



## Further reading:

- **Research on transport poverty and the effects of car dependency:** [www.bettertransport.org.uk/blogs/campaigns/transport-and-poverty](http://www.bettertransport.org.uk/blogs/campaigns/transport-and-poverty)
- **The Healthy Air Campaign's guide to air pollution laws:** [www.clientearth.org/reports/20150515-CleanAirHandbook.pdf](http://www.clientearth.org/reports/20150515-CleanAirHandbook.pdf)
- **No Silvertown Tunnel campaign:** [www.silvertowntunnel.co.uk](http://www.silvertowntunnel.co.uk)

[www.roads2nowhere.org.uk](http://www.roads2nowhere.org.uk)

# WHAT'S THE ALTERNATIVE?

ROADS TO NOWHERE

## Smarter spending

Promoting better and cleaner alternative transport plans is often the best way for campaigners to change people's minds about a road scheme.

Alternatives don't have to be road based. Would the money for a road be better spent on improving bus services (or stopping bus cuts?), reopening a rail line or station, or helping workplaces promote car sharing?

Councils and planners are often fixated on big projects but packages of smaller measures covering different modes and targeting different areas are often the best – and cheapest – ways to reduce congestion.

## Better not bigger



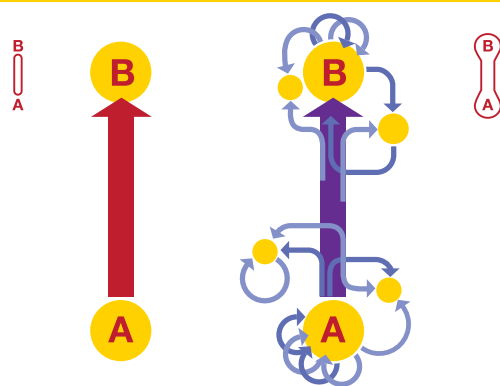
For the motorways and trunk roads run by the Highways Agency, we've got together with 12 major environmental groups to propose a £3 billion 'green retrofit' of existing roads.

Proposals include smart technology, noise, air and water pollution measures, cycling and walking facilities, as well as green bridges for wildlife.

A big retrofit programme would help reduce the impact of the current road network on communities and the environment without creating new traffic.

## We don't just travel from A to B...

On the left is how politicians and transport planners tend to assume people travel: long trips between major towns and cities using main roads.



But the image on the right is more accurate: there are some long trips but plenty of shorter journeys only using the main roads for a short while and causing localised congestion.

Government studies over the past few years have found that it is possible to cut traffic on motorways by managing demand for shorter journeys in urban areas, reducing congestion without the need for costly, and ultimately futile, road building.

Improving public transport or providing workplace or school travel plans in areas surrounding heavily congested main roads can have a dramatic impact – and cost far less than building bigger roads.

## Further reading:

- **Better not bigger report:** [www.bettertransport.org.uk/blog/roads/230914-roads-green-retrofit-programme](http://www.bettertransport.org.uk/blog/roads/230914-roads-green-retrofit-programme)
- **More on our 'corridor planning' approach:** [www.bettertransport.org.uk/roads-nowhere/corridor-planning](http://www.bettertransport.org.uk/roads-nowhere/corridor-planning)

[www.roads2nowhere.org.uk](http://www.roads2nowhere.org.uk)

# GETTING BETTER VALUE



## Money up in smoke

Building new roads is hugely expensive - the average cost **per metre** of recent local roads is nearly £25,000.

Rather than counter-productive tarmac, there are many ways for the government and local councils to get better value for money with their transport spending choices.

## Repair and renewal

Putting roads money into repairs rather than new capacity is an obvious way to make better use of funds.

We've called for a Road Repair and Renewal Fund to start to tackle the £12 billion backlog of potholes on local roads, and have analysed the figures for maintenance projects versus new capacity in the 43 local transport schemes funded by the Department for Transport in 2011 – see box.

We found bridge and road repairs were both good value and low carbon. In contrast, new 'link roads' and bypasses hugely increased carbon while proving much lower value for money.

During the United States stimulus programme of 2010, studies found excellent 'growth credentials' of road repairs because they:

- save drivers money in wear and tear on cars
- help a wider range of unemployed people find work as projects are spread across the country
- can get started more quickly than new road building
- are more labour-intensive, with a lower proportion of spending going on land end equipment.

## Further reading:

- **The Local Sustainable Transport Fund:** [www.bettertransport.org.uk/local-sustainable-transport-fund](http://www.bettertransport.org.uk/local-sustainable-transport-fund)
- **Our calls for road repairs to be prioritised instead of new roads:** [www.bettertransport.org.uk/blogs/roads/110613-road-repair-renewal-letter](http://www.bettertransport.org.uk/blogs/roads/110613-road-repair-renewal-letter)
- **Smarter Spending - our research on how best to spend transport money:** [www.bettertransport.org.uk/sites/default/files/research-files/Smarter-Spending.pdf](http://www.bettertransport.org.uk/sites/default/files/research-files/Smarter-Spending.pdf)

## Measuring the benefits

Value for money is measured with a 'benefit-cost ratio' (BCR) when making spending decisions.

The methods for calculating BCRs are very flawed and leave out important factors like the health benefits of active travel. But, even on the government's own terms, the Local Sustainable Transport Fund does better than roads:

| Scheme sample             | Average Carbon impact (tCO <sub>2</sub> eq) | Average BCR |
|---------------------------|---------------------------------------------|-------------|
| 2011 bypasses/link roads  | +49,000                                     | 5.1         |
| Large LSTF projects       | not known                                   | 5.9         |
| 2011 maintenance projects | -190,200                                    | 47.4        |

## Public transport means more jobs

As well as creating more jobs, including long-term careers running services after it is built, public transport infrastructure is also better for the wider economy.

Creating 100 jobs on the railways results in a further 140 indirect and induced jobs in the wider economy, compared with just 48 indirect jobs from the motor industry.

Studies in the USA have also shown that a dollar spent on public transport led to 70 percent more job hours than highway spending.