

## MISCONCEPTIONS AND EXAGGERATIONS ABOUT ROAD BUILDING IN GREAT BRITAIN EXECUTIVE SUMMARY

### Introduction

Almost everyone has views on roads and road building, which are coloured by personal experience, popular beliefs, comment in the media and propaganda. There are varying, and strongly held views about roads. This executive summary and the 'Roads and Reality' background paper 'Misconceptions and exaggerations about road building in Great Britain' presents the facts, to debunk the myths.

### Background

Road development is an essential area of transport policy, which is too often hindered by myths and misconceptions. As with all misconceptions, there is often a grain of truth in strongly held views, but the overall truth is lost amongst a series of exaggerations.

It is well accepted that transport plays a key role in our everyday lives, and that the private car has been instrumental in improving individuals' quality of life through broadening access to a range of opportunities.

*Transport plays a key role in all of our lives. We are all dependent on a well-functioning, well-connected transport system to give us access to employment and education, to receive goods and services or to visit family and friends. Road, rail and air networks need to work together for the continued success of our economy, our quality of life and to reduce our carbon emissions.*

*DfT (2008) Roads Delivering Choice and Reliability  
Section 1.1, p.8*

*'The private car has done much to improve our quality of life. Over the last fifty years, greater access to a car has transformed the way we live, giving many more of us access to a greater range of amenities and employment opportunities'.*

*DfT (2008) Roads Delivering Choice and Reliability  
Section 1.20, p.11*

As time has progressed society has begun to recognise that there are also problems associated with car use such as climate change, air pollution, congestion and road accidents. These issues are now well rehearsed within public debate.

Car usage can be both positive and negative, but current debate too often reverts to the simplistic arguments of 'car bad' 'public transport good', when in fact the reality is more complicated. This has led to the disapproval of road development amongst many vocal individuals and professionals, despite overall public support for road building as part of the solution to help tackle congestion.

The Department for Transport has now recognised the role that increasing road capacity plays within overall transport policy, but resistance to road building remains despite the benefits and the obvious need for road development as part of a wider strategy. This is largely because of the myths and misconceptions about road building in the public domain.

*'A case could be made for building an almost infinite amount of new road capacity. We recognise that, in the longer term, further expansion of the road network will be necessary in some places, as Eddington said'.*

*DfT (2008) Roads Delivering Choice and Reliability  
Section 1.10, p.9*

For those who are sure or unsure about what they believe this paper provides a guide to the eleven most common myths and misconceptions about road building.

## **Eleven Common myths and misconceptions**

### **1. New road capacity simply fills up with traffic**

***New road capacity does NOT simply fill up with traffic.*** New road capacity will generally relieve congestion and reduce travel costs. This can result in more traffic entering the road from surrounding congested roads. There will also be some entirely new traffic, as a new balance of supply and demand is reached. There may be more traffic than before, but the new capacity does not simply 'fill up' as a new balance of supply and demand is reached. The new traffic enjoys benefits which must be set against any disbenefits to existing traffic on the unimproved roads.

This is not only affected by the building of roads, but the policies used around their development. Worsening congestion on road network is largely due to social and economic reasons, not the road network itself.

Adding new roads on their own need not lead to excessive traffic generation if the right land use policies and pricing regimes are in place. The benefits of road development are most effective when they can be 'locked-in' by a pricing regime.

## **2. Building roads will have a significant effect on climate change**

### **Building roads will *NOT* have a significant effect on climate change.**

Britain contributes 2% of the world's annual carbon dioxide emissions. Greenhouse gas emissions from all forms of road transport make up 18% of the national total, which amounts to less than half a percent of the global greenhouse gas emissions total.

New road capacity can in some circumstances increase traffic (which raises greenhouse gas emissions), but new capacity can also reduce congestion (which reduces greenhouse gas emissions). The net effect of new roads will depend on local circumstances.

The Eddington Transport Study recommended an annual road-building programme of 360 lane kilometres per year between 2015 and 2025. Alongside road and junction improvements this scale of work is predicted to increase traffic by 0.6% and carbon dioxide emissions by 1%. The larger programme of 600 lane kilometres per year suggested by the Foundation's 'Roads and Reality' report between 2010 and 2041 would increase carbon emissions from road transport for this period by 4.6% by 2041.

Although road building on its own has the potential to increase carbon emissions a little, road pricing introduced alongside it could have an offsetting impact by reducing carbon emissions by 10%. Changes in road transport and vehicle technology will have an even larger effect. Therefore building roads will not have a significant effect on climate change, so long as wider policy measures are considered and implemented.

## **3. Traffic pollution is getting worse**

**Traffic pollution is *NOT* getting worse.** Vehicle technology developments have reduced traffic pollution, but some of the reductions have been partially offset by greater traffic volumes. Emissions from major types of pollutant have been reduced by 1/3<sup>rd</sup> since 1970 in spite of traffic increasing by two and a half times, and three of the most noxious emissions have been now been eliminated.

Noxious emissions from new petrol engines have fallen by 95% over the last fifteen years. For diesel engines, the improvements have been less but there has still been a significant improvement for most pollutants.

Tightening standards and the scrapping of older vehicles has outweighed the impacts of growing road traffic. The quietening of roads and road vehicles has also meant that less people are affected by noise pollution, despite increases in overall traffic.

#### 4. Roads occupy large areas of land

**Roads do NOT occupy large areas of land.** Anyone who has travelled in an aeroplane, used Google Earth or viewed the surrounding land from a high point would tell you that green fields or town buildings dominate the landscape rather than roads. Roads occupy less than 2% of the surface of Great Britain and most of these are local streets and lanes providing access to houses, offices factories and farms. Almost all the growth in road space in recent years has been for local access roads.

If all the motorways and other trunk roads in England were put together in one place, they would fill just over half of the Isle of Wight<sup>1</sup>, a relatively small area for a network that carries 32% of all traffic in England<sup>2</sup>.

Eight-five percent of England's surface areas is classed as 'greenspace', which also goes some way to dispel the myth that roads occupy large areas of land. It is certainly true that if not properly planned, or if the right environmental measures are not put in place, that a road can have a larger impact on the surrounding environment than just its surface area.

This should not be used as a reason against building new roads, which would provide much higher levels of environmental design than previous schemes.

#### 5. Roads are inefficient users of space compared with railways

**Roads are EFFICIENT users of space in comparison to the railways.** Main trunk roads carry almost five times more passenger and freight traffic than the railways, making them twice as efficient users of space, because they only occupy 1.5 times as much space as the railways.

Railways are sometimes presented as being more efficient users of land than roads, which is undoubtedly the case on routes into main urban centres, but generally this is not the case. The railway network is only a fraction of the length of the total road network (including local roads) and does not provide for facilities as roads do. Local roads provide space for a number of facilities and activities other than road traffic, such as parking, water, gas and electricity infrastructure, which would be needed in any event. They also provide space between buildings which aids access, day-light, ventilation and noise protection.

#### 6. Britain is unusual in relying so much on roads

**Britain is NOT unusual in relying on roads.** Britain relies on roads for transport to much the same extent as its continental European neighbours, but provision of roads is markedly lower than in the rest of Europe.

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<sup>1</sup> Area of Isle of Wight = 390km<sup>2</sup>. Total area taken by motorways and other trunk roads is 230km<sup>2</sup>.  $(230/390)*100 = 60\%$

<sup>2</sup> Source Transport Statistics Great Britain 2007 Table 7.4, p.126

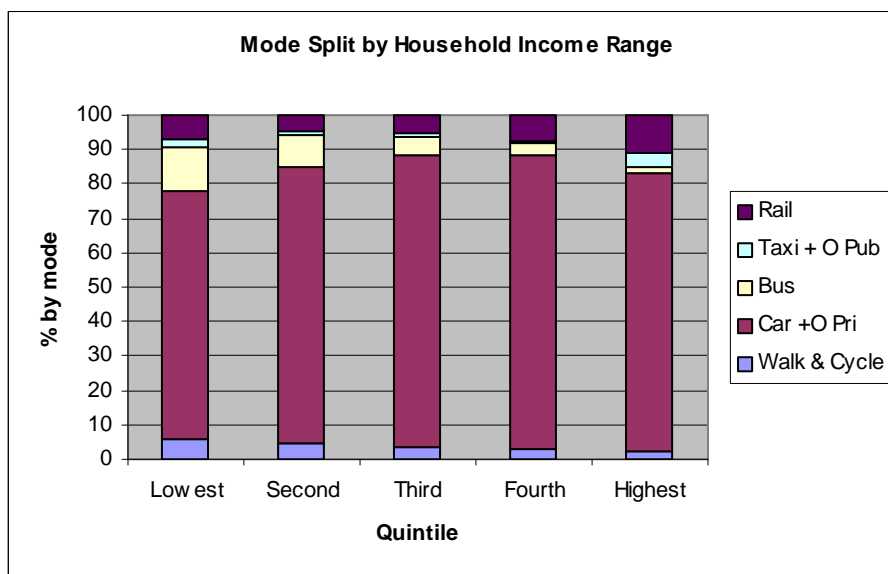
The UK has the lowest level of motorways and main roads relative to its population<sup>3</sup>, but has some of the greatest road travel per year, 4% higher than average road use<sup>4</sup>. If Britain's road length were doubled in length it would still be below the European average on three to four measures<sup>5</sup>. These facts show that the strongly held view that providing road space will increase road passenger use is simplistic. Road space increases do not necessarily equate to more road use, as there are other policies such as pricing and land-use, which have an impact.

## 7. Building roads will not benefit low-income groups

**Building roads WILL benefit low-income groups.** All income groups rely on roads for over 92% of their travel. Cars use is dominant for all income levels on average accounting for 70% or more of all travel.

People travel more as they get wealthier, but cars are now the most important form of transport for each and every income group.

### Modal split by income quintile, Great Britain 2006



Sources: Department for Transport (2007b) table 5.4

## 8. The construction industry could not accommodate a substantial increase in road building

**The construction industry CAN accommodate a substantial increase in road building.** Of the one hundred billion pound plus construction activity in Britain less than two percent was allocated to road building in 2006.

<sup>3</sup> in comparison to the 10 largest western European countries

<sup>4</sup> Second after Italy and France

<sup>5</sup> Such as Area, passenger km and GDP

If an average of 600 lane kilometres a year of new road capacity were built between 2010 and 2041 as recommended by the RAC Foundation's Roads and Reality report, this would be similar to the average achieved between the late 1980s and late 1990s. There is capacity to deliver.

When the construction of infrastructure is a high priority it is remarkable what can be achieved. During the Second World War, in less than five years, the concrete placed for airfields was about 1.75 times the size of the motorway system today. Any new road construction would need to have high environmental standards and would possibly include tunnelling. If the national roads programme required 10kms of tunnelling per year over the next thirty years, this would not present any major construction capacity problems.

### **9. Road traffic does not pay its way**

**Road traffic DOES pay its way.** Road users pay forty-five billion pounds a year in motoring related taxes. This dwarfs the cost of running the road network, which takes little more than ten billions pounds every year.

Even if road users were put in the unique position of paying for all their environmental emissions and the costs incurred by road accidents, they would only pay twenty two billion pounds to the Government in addition to general taxes, twenty-three billion less than is currently being collected.

### **10. Building new roads is too costly**

**Building new roads is NOT too costly.** Road building is affordable if there are good economic reasons behind developing a route. Widening roads tends to be a more costly option than building new routes. A yearly programme of one hundred kilometres of new and one hundred kilometres of widened road would cost less than two billion pounds per year. In many cases where roads have been built, the benefits of road development, vastly outweigh the costs.

### **11. Public transport is a ready alternative to the private car**

**Public transport is NOT usually a ready alternative to the private car.** Public transport currently accounts for thirteen percent of all personal travel. This will increase on certain routes, but the car will remain the main form of transport overall. Railways serve very distinct markets, and have little room for additional passengers. Trains in London and the South East carry two thirds of all rail journeys and any future growth in rail travel will be mostly focused on travel between towns and cities. Outside the London area stations are generally sparse and many car passenger and road freight journeys simply do not have a rail alternative.

Increased bus usage is also limited. Bus services cover no more than 23% of the road network and are generally a lot slower than journeys by car. If people switched from cars to public transport journeys, and spent the same time travelling as they do by car, the area they would be able to reach would be 87% less.

## **Conclusions**

Common perceptions about road building and its implications are too often wide of the mark. Roads are frequently portrayed as consuming land, causing environmental damage and generating traffic. It is also argued that we cannot afford to improve our road system and road users do not pay their way. None of these stand up to close scrutiny.

Public transport is widely advocated as a practical alternative to using cars and rail freight to the use of lorries. Building more roads, it is argued, will materially affect climate change and richer people are said to rely more on roads for their mobility than poorer people. There is only a grain of truth in all of these and they are typically much exaggerated.

Roads are regarded as environmentally damaging and it is often forgotten that the environmental impacts of road traffic have been steadily reducing and that this is set to continue. Improving the road system, if it is done sensitively, provides opportunities for reducing the environmental impacts of road traffic. Improving the road system would result in only small increases in Green House Gas emissions and the introduction of efficient pricing could bring these down overall.

It is also frequently argued that new road space 'simply fills up with traffic' back to its former level. Both theory and practice show this to be a false claim. And any new traffic that is provided for achieves a benefit.

Britain is characterised by some critics of its transport policies, as being too dependent on roads for its mobility. Road travel in Britain is in fact much the same as in Western Europe, but road provision in Britain, by any reasonable standard, is significantly inferior.

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