

# Impact of road transport on air quality not given sufficient priority in UK transport planning

August 30 2016

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Credit: University of the West of England

UK transport planning is not sufficiently taking into account the environmental impacts of transport choices according to researchers from the Centre for Transport and Society and Air Quality Management Resource Centre at the University of the West of England (UWE Bristol).

Dr Tim Chatterton and Professor Graham Parkhurst from UWE Bristol will present findings from a [synthesis](#) of research conducted over several

years today at the Royal Geographical Society (with IBG) Annual International Conference.

Road [transport](#) is the principal cause of air pollution in over 95% of legally designated 'Air Quality Management Areas' in the UK. Current estimates are that over 50,000 deaths a year can be attributed to air pollution in this country.

Yet despite considerable policy and practice activities at various levels of governance over the two decades since the Environment Act 1995 committed the UK to improve air quality to internationally-accepted standards, measurements in the real environment show little improvement has been achieved.

The UWE Bristol experts reviewed the findings of a number of projects they had been involved with to identify the underlying reasons why the air pollution concentrations from UK road transport have shown little-to-no reduction over the last two decades.

The researchers found that UK transport planners are not taking the environmental impacts of transport choices sufficiently into account. Despite pollution contributing between 15 and 30 times the annual number of deaths associated with road traffic accidents (RTAs) (2000-2015), Road Traffic Collisions (RTC) continue to remain the primary concern of transport planners while, at best, air pollution has been designated a 'shared priority' between the Department for Environment, Food and Rural Affairs (Defra) and the Department for Transport (DfT).

Professor Parkhurst said, "Air pollution is perhaps the grossest manifestation of a general failure of UK transport planning to take the environmental impacts of transport choices sufficiently into account. Currently air pollution is a shared priority between Defra and DfT, but

shared priority does not mean equal priority.

"Environmental managers only identify and monitor the problems. Insufficient relevant priority has been given within the sector responsible for most relevant emissions – transport policy and planning – which has instead prioritised safety and economic growth."

Alongside a lack of joined-up government, the study identified a strategic policy 'tone' which continues to signal and provide for the private car as central to national transport policy, combined with limited regulatory and financial support for alternative modes of transport and for local authorities seeking to introduce potentially effective air improvement measures such as 'low emissions zones'.

Further factors identified by the review as frustrating attempts to reduce pollution from UK road transport include:

- An over-reliance on policy measures to influence individual travel behaviour, whereas in practice transport choices emerge from individuals interacting with a wide range of social factors (employers, businesses, schools, healthcare providers etc) and are strongly conditioned by factors such as the nature of the built environment and the provision of transport alternatives.
- Lack of political salience of the problem amongst the wider population, which has limited awareness for example of the morbidity and mortality costs, therefore limited pressure to change the priorities in the road transport sector.
- Belief that technological improvement would make a big difference was misplaced, in part due to the emphasis placed on energy efficiency, which encouraged the adoption of diesel technology for private cars and encouraged technological change for heavy diesels, which reduced consumption but increased emissions of key pollutants. Additionally, emissions control

technologies have not performed as designed in the 'hostile' real-world road environment. It would take a major shift to zero emission vehicles to address this problem.

- Failure to recognise that, given the existing vehicle fleet is replaced only slowly, reduced vehicle use is the only sure way to bring about changes in measured concentrations. However, there is a corresponding lack of emphasis on 'push' behaviour change policies to encourage walking and cycling in particular. Instead, policies for behaviour change mostly rely on voluntary measures, which are as a result not very effective.

Additionally, there is a strong social equity issue, with households in poorer areas tending to be exposed to much higher levels of air pollution, whilst contributing much less to the problem, principally through driving less.

The study reviewed collaborative work between two leading research centres at UWE Bristol. The underlying research applied mixed methods, involving: in-depth analysis of local authority approaches to managing air quality; evaluation of data collected by government as part of annual MOT tests; analysis of longitudinal UK air quality data; and analysis of studies undertaken for the Department of Transport into people's attitudes and transport choices.

Professor Parkhurst and Dr Chatterton's findings reconfirm the need for poor air quality to be promoted as a public health priority issue.

Dr Chatterton said, "Air pollution-related morbidity and mortality are at 'epidemic' levels and, although less obvious, are more significant than [road transport](#) collisions as a cause of death and injury. Politicians at local and national levels must treat poor air quality as a public health priority, placing clear emphasis on the severity of the problem and the limitations of technological fixes.

"Existing approaches that focus on individual, voluntary, behaviour change and technological innovations are not sufficient to tackle poor air quality. There needs to be a strong political and societal commitment to protecting public health, particularly the health of children, whose life chances can be seriously compromised by exposure to air pollution. This will require not just improvements to transport infrastructure but also changes across society in our expectations of how we, and those we connect with, get around. The 'nudge' approach to behaviour change favoured by recent governments will not be adequate to meet this challenge. Given recent events, we would like to see the government making a clear, strong effort to 'take back control' of the [air pollution](#) problem."

A key recommendation coming out of the review is the need for key government departments (DfT, Defra) to look again at the relationship between environmental management and transport management at both the national and local levels. Specifically, transport agencies, such as Highways England, and local authorities should be required to give higher priority to air quality management, which would involve resource investment.

Professor Parkhurst concludes, "A local authority grant funding line is needed to tackle air quality problems through local transport policy measures, this would help ensure that poor [air quality](#) receives sufficient priority."

Provided by University of the West of England

Citation: Impact of road transport on air quality not given sufficient priority in UK transport planning (2016, August 30) retrieved 23 May 2024 from <https://phys.org/news/2016-08-impact-road-air-quality-sufficient.html>

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