



Inquiry into air quality in Scotland

Transform Scotland evidence to Scottish Parliament Environment, Climate Change and Land Reform Committee inquiry

2 August 2017

Introduction

Transform Scotland is the national sustainable transport alliance, campaigning for a transport system which is environmentally sustainable, economically responsible and socially inclusive. We have around 60 member organisations across the private, public and third sectors. We are politically independent, evidence-based and strictly not-for-profit, with an elected board of directors drawn from business, local government and charities.

We note that the Committee describes poor air quality as the greatest environmental threat to health, with elevated pollution levels usually located in urban areas with high road traffic volumes. Whilst this inquiry is concerned with air pollution associated with many sectors, such as agriculture and energy, as Transform Scotland focuses on transport-related issues, our evidence is confined to the relationship between air quality and transport, and specifically the transport elements of the Clean Air for Scotland Strategy.

Transform Scotland welcomes the opportunity to submit these comments and would be pleased to engage with you further on this subject.

Does Scotland have the right polices (Clean Air for Scotland Strategy), support and incentives in place to adequately tackle air pollution?

The Committee cites the 'Cleaner Air for Scotland: the road to a healthier future' strategy and Progress Report (June 2017). It notes the EU's subsequent directive to reduce air pollution and the High Court judgement on the UK response. The Committee specifically asked:

- Whether Scotland has the right polices (i.e. CAFS), support and incentives in place
- Whether the policies are sufficiently ambitious
- Whether the policies and delivery mechanisms are being effectively implemented
- And if there are policy conflicts or barriers to delivery of the air quality objectives

This focus is useful. Whilst the UK government has overall responsibility for air quality vis-a-vis EU requirements, the Scottish Government's input through CAFS is critical. The Scottish Government should consider whether its input is sufficient, and likely to produce the immediate response, needed to avoid the legal sanctions which may follow from the High Court judgement.

Analysis: specifics

The broad vision for transport in CAFS is "A Scotland that reduces transport emissions by supporting the uptake of low and zero emission fuels and technologies, promoting a modal shift away from the car, through active travel (walking and cycling) and reducing the need to travel."

The Committee has previously heard that the fundamentals of transport-generated air pollution are road traffic volumes, the mixture of traffic, and the kinds of combustion engines used. Weather and other local conditions (e.g. streetscape) affect the dispersal of pollution. The CAFS vision is therefore appropriate. It sets out actions to achieve it (which may be considered the 'support and incentives in place'):

1. Ensure all local authorities have a corporate travel plan consistent with any local air quality plan
2. Finalise and deliver the National Walking Strategy Delivery Plan by 2016
3. Work collaboratively with partners to deliver the Cycling Action Plan vision that 10% of everyday journeys will be by bike by 2020
4. Review support for green buses by 2016, including scope for retrofitting vehicles
5. Evaluate the Bus Investment Fund in 2016 to inform future support for public transport projects
6. Review the Bus Operators Grant by 2016, and options to encourage use of low emission buses
7. Review guidance and legislation on local authority powers over bus services by 2016 to see if they could be more effective and ensure sufficient consideration of to air quality
8. Actions in Switched On Scotland: A Roadmap to Widespread Adoption of Plug-In Vehicles
9. Review the Roadmap and develop a post-2015 plug-in vehicle plan
10. Work with partners to investigate hydrogen fuel and opportunities to use hydrogen for energy
11. Continue to engage with partners on the role of lower carbon intensive fuels in the transition to near zero emission road transport by 2050
12. Encourage Freight Quality Partnerships to consider environmental impacts
13. Encourage local authorities with an AQMA to establish a Freight Quality Partnership, or use an existing Partnership, to consider measures to improve air quality by 2017
14. Review existing guidance on Regional and Local Transport Strategies in light of the refreshed National Transport Strategy
15. Review trunk road impacts on AQMAs by 2016 and implement mitigation where they are the primary contributor to air pollution by 2020

Six of these actions (2, 4, 5, 6, 7 and 15) had a 2016 completion date. They can therefore be assessed through the 2016 Progress report, published in 2017:

Item 2, The National Walking Strategy Action Plan, was launched in March 2016.

Item 4, Reviewing support for green buses by 2016, appears to be still in progress.

Item 5, Evaluating the Bus Investment Fund in 2016, is "nearing completion".

Item 6, Reviewing the Bus Operators Grant by 2016, appears to have been achieved.

Items 7, Reviewing guidance and legislation on local authority powers over bus services, and 15, reviewing trunk road impacts by 2016 and mitigation by 2020, are not cited in the progress review.

Delivery of these short-term actions is therefore mixed, although the report demonstrates progress or delivery on most of them and the longer-term actions.

CAFS also sets out 'Placemaking' (or Planning) actions to reduce the need to travel:

1. Development does not compromise air quality; places are designed to minimise pollution and its effects
2. Ensure future revisions of Scottish Planning Policy and the National Planning Framework take account of CAFS
3. Expect planning authorities to review Local Development Plans and at the next update, ensure they are consistent with CAFS and local air quality plans
4. With Environmental Protection Scotland, update air quality and planning guidance
5. With SEPA, introduce air quality training for local spatial and transport planners
6. Support SEPA in revising Strategic Environmental Assessment guidance in line with CAFS

The Scottish Government has indicated that its Transport Bill will be launched some time within the next parliamentary year. This presents a significant opportunity to align transport policy with CAFS.

Analysis: questions of approach

The importance of the six Placemaking actions cannot be understated. Ultimately, the role of Planning is perhaps the single most important factor in managing transport. However, its full value can be realised only over the long term; sometimes 30 years or more. Because of this, whilst the importance of Planning is well-recognised in academic and decision-making circles, recently there has been a tendency to overlook it because of limited immediate benefits. The point is illustrated by the Edinburgh City Bypass, built in the 1980s, which initially offered substantial environmental gains within the urban area. However, the convenient car-borne access it provided led to the development of multiple car-oriented (particularly retail) sites along the route; so that now it acts as a distributor road as well as a bypass for long-distance traffic. At weekends in particular, it generates substantial volumes of traffic and air pollution.

Hence measures to improve traffic flow (ostensibly to reduce congestion-related pollution) can be self-defeating. As long ago as 1994 the Standing Advisory Committee on Trunk Road Assessment established that for congested roads, the predicted benefits of increased capacity were reduced by induced demand. This was reinforced by subsequent research (notably by Prof Phil Goodwin and associates). Whilst demand management subsequently influenced decision-making, it has gone somewhat out of fashion since the early 2000s, perhaps being seen as 'too difficult' in political circles.

Although that research focused on traditional physical infrastructure, the logic that 'traffic expands to fill the space available' applies equally to congestion which is managed by technological means, such as traffic management systems. This needs to be taken into account in respect of CAFS transport item 15 ('Review trunk road impacts on AQMAs by 2016 and implement mitigation where they are the primary contributor to air pollution by 2020'). It also begs questions of expectations implied on CAFS page 44 that "these will contribute to reducing emissions from transport...Using intelligent traffic system management to make the most efficient use of the existing transport assets."

In passing, we also caution against overreliance on 'Avoiding travel through...(ii) digital technology' (also on page 44); this implies an assumption that communications technology will reduce travel demand. The history of travel demand is littered with examples of communications technology which did not reduce travel growth – or increased it – stretching back to the invention of the telegram, the telephone, television and the internet. We see no evidence to suggest the future will be very different.

Our main criticism of CAFS is, therefore, that it fails to address the need to restrain vehicular use and relies on 'enabling and encouraging' approaches. These may be more politically acceptable and are, indeed, useful, but they are not sufficient. In effect, traffic volumes continue to be determined by cost (e.g. fuel, insurance and, for commercial operations, employment), congestion, and the availability of parking.

The CAFS progress report cites welcome, but relatively small-scale, funding for air quality initiatives, such as Switched On Fleets (total investment £3.5 million), the Scottish Green Bus Fund (£14.76m), and the Bus Service Operators Grant (£53.5m). These sums are extremely modest compared to capital expenditure on major road-building projects such as some £6,000 million on the A9 and A96 dualling projects.

Walking and cycling are low-cost alternatives to using polluting vehicles, and are considered in Actions 2, 3, potentially 14, and the Placemaking actions. There is now a wider appreciation of how to design for cycling, but less of an appreciation of how to design for walking. Political commitment and resourcing to deliver both, however, is patchy. As noted above, achieving change through Planning is critical, but long-term. There is a substantial backlog of existing streetscape throughout Scotland which is neither pedestrian nor cycle-friendly.

The cost of public transport is, however, a significant barrier to using it. The cost of motoring has declined relative to bus and rail over recent decades. Government policy and investment directly affects rail fares (industry cost inflation is another factor), but rising costs within the bus industry, which feed directly through to fares, is perhaps more complex. Nevertheless, congestion adds significantly to bus operating costs, and affects reliability and journey times which further discourage bus use. In six UK cities recently studied, bus speeds reduced 0.5% and 1.5% per year over the past 30 years, an average of 0.98%/yr. A 10% decrease in speed reduces patronage by at least 10%, while fuel efficiency (km/litre) declined by 35% since 2000. In Edinburgh, one of the cities studied, bus speeds increased when the bus lane network was extended from the 1990s, but more recently have begun to decline again.

Whilst controlling emissions from buses will contribute to air quality, placing disproportionate requirements on their operators runs a considerable risk of increasing fares further, and thus being self-defeating. As noted above, the forthcoming Transport Bill will need to address how buses can be protected from congestion.

Similarly, scrappage schemes, if considered, need to be carefully designed to ensure they do not effectively become subsidy for car purchase.

The EU has attempted to introduce increasingly demanding limits on the emissions of all combustion engines although, as is now widely understood, these have been circumvented by car manufacturers. Conversely, the newest Euro 6 standard applying to buses radically reduces their emissions. The future of such regulations when the UK leaves the EU clearly needs to be considered, but is perhaps such a wide-ranging and uncertain subject that it cannot conveniently be addressed here.

It is surprising that CAFS appears sanguine about air quality in stations, focusing on road vehicles accessing their interior. Whilst their removal will help, pollution in stations can be very high where they are enclosed. Continued expansion of railway electrification provides a solution, and this needs to be continued.

The Committee asked whether Scotland is on target to have a pilot LEZ in place by 2018 and whether there should be more than one LEZ. Transform Scotland believes that LEZs should be established in areas with long-standing air pollution problems and the Scottish Government should provide financial incentives to Local Authorities by assisting with their setup costs. Given the experience elsewhere, we are not clear why a pilot project is necessary, particularly if limited to one area. It appears to introduce unnecessary delay into the process.

Scotland's public bodies (not just Councils) should be required to have average fleet emissions under 95g/km by 2020 by procuring lower-emission vehicles and better maintaining existing fleets.

Conclusions

Scotland has to meet its legal responsibilities to cut air pollution. With court judgements now confirming that the UK government is failing to do so, Scotland will very shortly have to improve its own response.

We consider that the Scottish Government's strategies to date, whilst a start, will not prove adequate and early enough to meet legal requirements.

The Scottish Government will need to consider how some of its capital expenditure priorities conflict with its policy vision of reducing transport emissions by supporting the uptake of low and zero emission fuels and technologies, promoting a modal shift away from the car, through active travel and reducing the need to travel.

It will need to ensure that it does not over-rely on technical solutions, and will need to give much more consideration to how it can limit and manage travel demand, and encourage shift to more sustainable travel modes.

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