House of Commons

Environmental Audit Committee

Action on Air Quality

Sixth Report of Session 2014–15

HC 212

House of Commons

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Sixth Report of Session 2014–15

Report, together with formal minutes relating to the report

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Environmental Audit Committee

The Environmental Audit Committee is appointed by the House of Commons to consider to what extent the policies and programmes of government departments and non-departmental public bodies contribute to environmental protection and sustainable development; to audit their performance against such targets as may be set for them by Her Majesty's Ministers; and to report thereon to the House.

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Evidence relating to this report is published on the inquiry webpage at www.parliament.uk/eac-air-quality-2014

Committee staff

The current staff of the Committee are Simon Fiander (Clerk), Richard Clarke (Committee Specialist), Julia Keddie (Inquiry Manager), Ryan Kelly (Inquiry Manager), Andrew Wallace (Senior Committee Assistant), Anna Browning (Committee Assistant), and Nicholas Davies (Media Officer).

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Summary

This is now our third report on air quality in five years. Our predecessor Environmental Audit Committee reported on air quality in 2010. In 2011 we published a follow-up report. Our main recommendations for the Government in 2010 and 2011 have not been implemented. Meanwhile air pollution continues to be an invisible killer, costing the lives of 29,000 people per year. The UK Government has been found guilty of failing to meet EU air quality targets in our cities, some of which will not meet the required limits until 2030. However, meeting EU standards should be the minimum requirement. Regardless of EU rulings it is unacceptable that UK citizens could have their health seriously impaired over decades before this public health problem is brought under control.

The Government must act urgently to:

- Update the 2007 Air Quality Strategy, adopting a cross-Government approach with clear demarcation of responsibilities between departments and between central and local government;
- Meet EU nitrogen dioxide targets as soon as possible;
- Engage with local authorities to establish best practice in tackling air pollution across the UK;
- Introduce a national framework for low emission zones to help local authorities reduce air pollution;
- Adjust planning guidance to protect air quality in local planning and development;
- Build in air quality obligations to transport infrastructure;
- Examine fiscal and other measures to gradually encourage a move away from diesel vehicles towards low emission options;
- Close legal loopholes to end the practice of removing filter systems from existing vehicles;
- Apply pressure at European level to ensure effective EU legislation and emission standards backed up by a robust testing regime; and
- Institute a national public awareness campaign to increase understanding, publicising the UK-AIR forecast website and encourage measures to reduce air pollution.

A fresh approach is needed for the health challenge we face, coordinating action by local authorities and communities as well as the Government.

Definitions

This report refers to several types of pollutants. The following definitions are taken from *Ambient Air Quality* POST Note 458, Parliamentary Office of Science and Technology, Feb 2014 and Defra's UK-AIR website:

Particulate matter (PM) includes:

primary particles–those directly emitted from a source, including combustion and mechanical sources, such as traffic emissions.

secondary particles–those formed in the atmosphere as a result of chemical reactions between gases such as ammonia, nitrogen oxides or sulphur dioxide.

PM is conventionally defined and measured by size:

Coarse particles (PM_{10} - $PM_{2.5}$)–particles smaller than 10 μm (10 thousandths of a millimetre or a micron) in diameter but greater than 2.5 μm diameter. Coarser particles arise from re-suspended road dust, brake and tyre wear, sea salt, quarries and soil.

Fine particles ($PM_{2.5}$ - $PM_{0.1}$)–particles less than 2.5 μm diameter, which include most combustion particles; such as those emitted from diesel engine exhaust, waste burning, bonfires, and domestic biomass burning; and secondary particles of ammonium sulphate or nitrate.

Ultrafine particles ($PM_{<0.1}$)–less than 100nm diameter (100 millionths of millimetre or nanometre), which are emitted in large numbers from diesel engine exhaust.

Nitrogen oxides (NO_x) Combustion processes (e.g. inside motor vehicles) emit a mixture of nitrogen oxides (NO_X), primarily nitric oxide (NO) which is quickly oxidised in the atmosphere to nitrogen dioxide (NO_2). Nitrogen dioxide has a variety of environmental and health impacts. It is a respiratory irritant which may exacerbate asthma and possibly increase susceptibility to infections. In the presence of sunlight, it reacts with hydrocarbons to produce photochemical pollutants such as ozone. NO_2 can be further oxidised in air to acidic gases, which contribute towards the generation of acid rain.

Ozone (O_3) is not emitted directly from any sources. It is a secondary pollutant formed through the reaction of volatile organic compounds with NOx and hydrocarbons in the presence of sunlight. Whereas nitrogen dioxide acts as a source of ozone, nitric oxide (NO) destroys ozone and acts as a local sink (NO_X-titration). For this reason, O_3 concentrations are not as high in urban areas (where high levels of NO are emitted from vehicles) as in rural areas. Ambient concentrations are usually highest in rural areas, particularly in hot, still and sunny weather conditions which give rise to summer 'smogs'.

1 Introduction

1. We published our most recent report on air quality in October 2011,[1] which followed up an earlier report by the previous Environmental Audit Committee in March 2010.[2] Our 2011 report noted growing scientific evidence for damage caused to public health by air pollution. The UK was failing to meet European targets for safe air pollution limits in 40 out of 43 UK assessment zones. We were concerned that the Government was not adopting a joined-up cross-departmental approach to the problem, and was still not giving air quality a high enough priority. The step change called for in the earlier 2010 report had not happened.

2. Our 2011 report recommended a number of Government actions, including:

- Setting up a Ministerial Group to oversee delivery of a new cross-Government air quality strategy;
- Engaging with local authorities;
- Establishing a national framework of low emission zones;
- Ensuring that air quality was central to the work of new Health & Well-being Boards in local authorities; and
- Launching a public awareness campaign.[3]

3. Since our last report there have been a number of reviews strengthening the evidence that links air pollution to ill-health. Public Health England, who submitted evidence to our current Inquiry, highlighted:

- The World Health Organisation's International Agency for Research on Cancer finding diesel-engine exhaust and ambient air pollution to be carcinogenic. Ambient air pollution was associated with increased mortality from lung cancer.
- The recent *Review of evidence on health aspects of air pollution*, undertaken by WHO at the request of the European Commission to inform revision of the EU's air quality policies. This confirmed evidence linking exposure to ambient air pollution with adverse effects on the respiratory and cardiovascular systems and suggested a possible association with the endocrine system (diabetes) and the nervous system. It also suggested ambient NO_2 having direct effects for respiratory outcomes.[4]

Dr Ian Mudway of King's College London, who also gave evidence to us, believed that "the negative health impacts associated with pollution have become more robust", and that:

> We have also found effects on infant mortality rates, on pre-term birth and on cognitive performance in children. There is some interesting data emerging on traffic proximity, diesel emissions and potentially autism spectrum disorders… The evidence over the last three or four years that children growing up near

1 Environmental Audit Committee, Ninth Report of Session 2010-12, *Air quality: a follow up report,* HC 1024
2 Environmental Audit Committee, Fifth Report of Session 2009-10, *Air Quality,* HC 229.
3 Environmental Audit Committee, Ninth Report of Session 2010-12, *Air quality: a follow up report,* HC 1024-I, paras 30, 37, 41, 46, 52
4 Public Health England (AIR 0013) paras 6-9

> traffic in areas with high NO_2 and primary particle emissions have stunted and impaired lung development is incredibly strong. Back in 2010 there was an HEI report that very critically looked at the evidence-based traffic data, and at the time it said there was a suggested link between impaired lung capacity in children and traffic pollution. I would say in the intervening period that data has become very strong.[5]

He believed that the WHO research indicated that "there are significant health effects below our limit values, and so not attaining our limit values should be seen in a very negative light. They are not a magic barrier we have to cross. They are our minimum expectations to protect public health."[6]

4. In April 2014, Public Health England calculated the local impact of particulate matter pollution on premature mortality, ranging from 2.5% in some local authorities in rural Scotland and Northern Ireland to over 8% in some London boroughs.[7] Their report re-confirmed the oft-quoted estimate by the Committee on the Medical Effects of Air Pollutants that approximately 29,000 deaths per year in the UK could be attributable to man-made particulate matter pollution, equivalent to a loss of 340,000 life-years. Defra estimates the cost to the economy to be about £16 billion per year.[8] The Natural Capital Committee's risk assessment for the Government gave seven types of natural asset the highest risk category including clean air. Any "improvements in urban air quality … [would be] of particularly high value".[9]

5. In its latest statistical release in April 2014—*Air quality statistics in the UK 1987–2013*—Defra highlighted:

> Urban background and roadside particulate pollution has shown long-term improvement but remained stable since 2008.
>
> Urban background ozone pollution has shown a long-term increase while rural background ozone pollution has shown no clear long-term trend but increased in 2013 to 70 [micrograms per cubic metre] from 66[micrograms per cubic metre] in 2012, bringing it back to its previous levels in 2008.
>
> There were on average fewer days of moderate or higher pollution at urban pollution monitoring sites in 2013 compared with 2012. There is a long-term decline in days of moderate or higher pollution at urban sites.
>
> There were on average more days of moderate or higher pollution at rural pollution monitoring sites in 2013 compared with 2012, reversing the decrease in the previous year. However, there is a great deal of year-on-year variability and there is no clear long-term trend.
>
> The main drivers of the average number of days when air pollution is "moderate" or higher are particulate matter and ozone, for urban and rural

5 Qq15, 17
6 Q5
7 *Estimating local mortality burdens associated with particulate air pollution*. Results included 6.4% in Birmingham, 5.4% in Liverpool, 7.2% in London, 5.9% in Manchester and 5.5% in Sheffield.
8 Defra, *Protecting and enhancing our urban and natural environment to improve public health and wellbeing.* Accessed 13 November 2014
9 Natural Capital Committee, *The State of Natural Capital: Restoring our Natural Assets*, March 2014, p10

pollution monitoring sites in the UK respectively.[10]

Professor Alastair Lewis of the National Centre for Atmospheric Science told us in our current Inquiry that overall air pollution levels have remained "broadly flat" over the last decade or so.[11] Dr Ian Mudway of King's College London noted that measurements showed "there has been no change" in London.

6. A broadly flat trajectory, however, will not allow the UK to meet EU air quality targets. Defra's latest Annual submission to the European Commission, *Air Pollution in the UK in 2013*, published in September 2014, reported that the EU *annual mean* limit value for NO_2 was exceeded in 38 out of 43 air quality zones.[12] The limit values for *hourly* NO_2 were met in all zones except one—Greater London. The limit values for PM_{10}, and the stage 1 limit values for $PM_{2.5}$ [25 micrograms per cubic metre by Jan 2015] were met by all zones. Stage 2 limit values for $PM_{2.5}$ [20 micrograms per cubic metre by Jan 2020] were met in all zones except Greater London.[13]

7. Since our last report, two court cases against the Government have been prompted by a failure to meet EU nitrogen dioxide limit values in 16 areas.[14] The original deadline for meeting NO_2 limit values under the Ambient Air Directive[15] was 2010. Other countries had also failed to meet this deadline but the Commission had agreed extensions for those which had produced "a creditable and workable plan" for meeting the air quality standards by 2015. The UK did not submit plans for the 16 worst areas because Defra deemed it impossible to meet the 2015 extended deadline. Instead Defra's air quality improvement plans gave an estimate of 2025 to meet NO_2 limit values in London and 2020 for the other areas. These estimates were subsequently revised upwards: Documentation used at a European Court of Justice (ECJ) hearing in July estimated that NO_2 limits would now not be met in London, Leeds or Birmingham until after 2030.[16]

8. The first case, brought by Client Earth, led to a Supreme Court ruling in 2013[17] that the UK was in breach of its obligations under the EU Ambient Air Quality Directive.[18] The Supreme Court referred the case to the ECJ. There, the European Commission and Client

10 *Air quality statistics in the UK, 1987 to 2013,* Defra, Statistical release, 23 April 2014

11 Q1

12 Greater London Urban Area, West Midlands Urban Area, Greater Manchester Urban Area, West Yorkshire Urban Area, Tyneside, Liverpool Urban Area, Sheffield Urban Area, Nottingham Urban Area, Bristol Urban Area, Brighton/Worthing/Littlehampton, Leicester Urban Area, Portsmouth Urban Area, Teesside Urban Area, The Potteries, Bournemouth Urban Area, Reading/Wokingham Urban Area, Coventry/Bedworth, Kingston upon Hull, Southampton Urban Area, Birkenhead Urban Area, Southend Urban Area, Glasgow Urban Area, Edinburgh Urban Area, Cardiff Urban Area, Swansea Urban Area, Belfast Metropolitan Urban Area, Eastern, South West, South East, East Midlands, North West & Merseyside, Yorkshire & Humberside, West Midlands, North East, Central Scotland, North East Scotland, South Wales, North Wales

13 *Defra, Air Pollution in the UK in 2013* (September 2014)

14 Greater London, West Midlands Urban Area, Greater Manchester, West Yorkshire, Teesside, The Potteries, Kingston Upon Hull, Southampton, Glasgow, Eastern England, South East England, East Midlands, North West & Merseyside, Yorkshire & Humberside, West Midlands and North East England

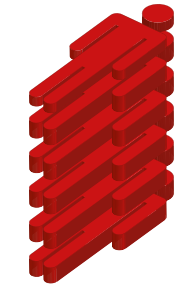
15 DIR2008/50/EC in Official Journal 152 of 11 June 2008

16 *Updated projections for Nitrogen Dioxide (NO2) compliance,* Defra, July 2014. A 2030 estimate is given for Portsmouth and Southampton, and 2025 for Greater Manchester, Tyneside, Liverpool, Sheffield, Nottingham, Bristol, Leicester, Teesside, The Potteries, Coventry/Bedworth, Kingston upon Hull, Glasgow, Cardiff, Eastern, South West, South east, East Midlands, North West & Merseyside, Yorkshire & Humberside, West Midlands, South Wales and North Wales. A 2020 estimate is given for Brighton/Worthing/Littlehampton, Bournemouth, Reading/Wokingham, Birkenhead, Southend, Edinburgh, Swansea, Belfast, Central Scotland and North East Scotland

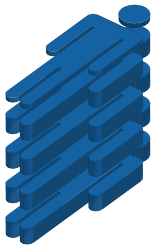
17 JUDGMENT R (on the application of Client Earth) (Appellant) *v* The Secretary of State for the Environment, Food and Rural Affairs (Respondent)

18 DIR2008/50/EC in Official Journal 152 of 11 June 2008

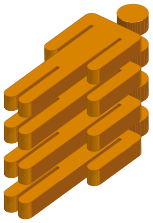
Deaths attributable to air pollution, 2010



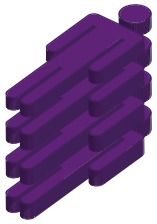
25,002
England



1,320
Wales

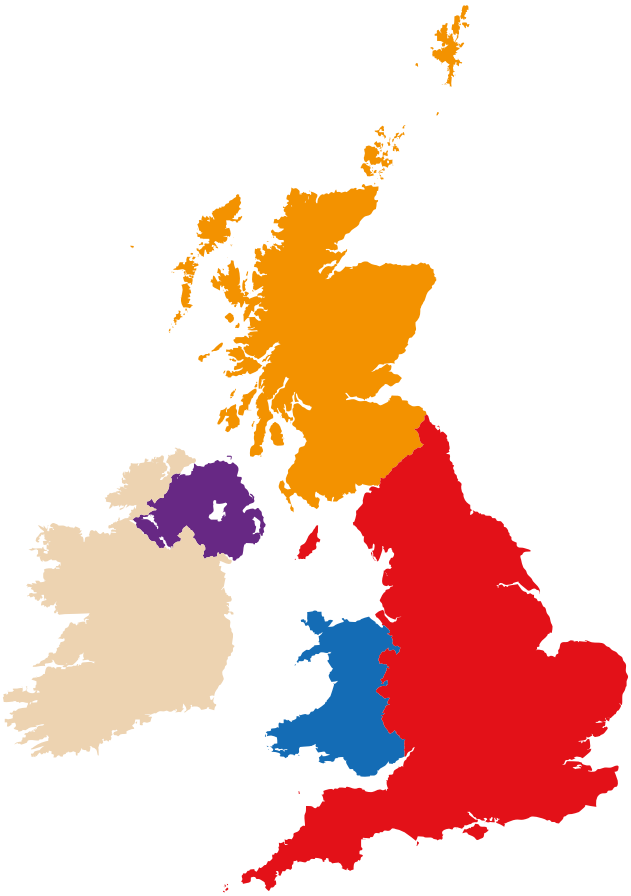


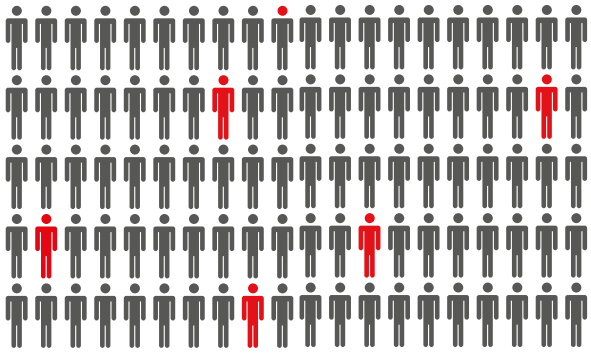
2,094
Scotland



553
N. Ireland

(Attributable Deaths per year)

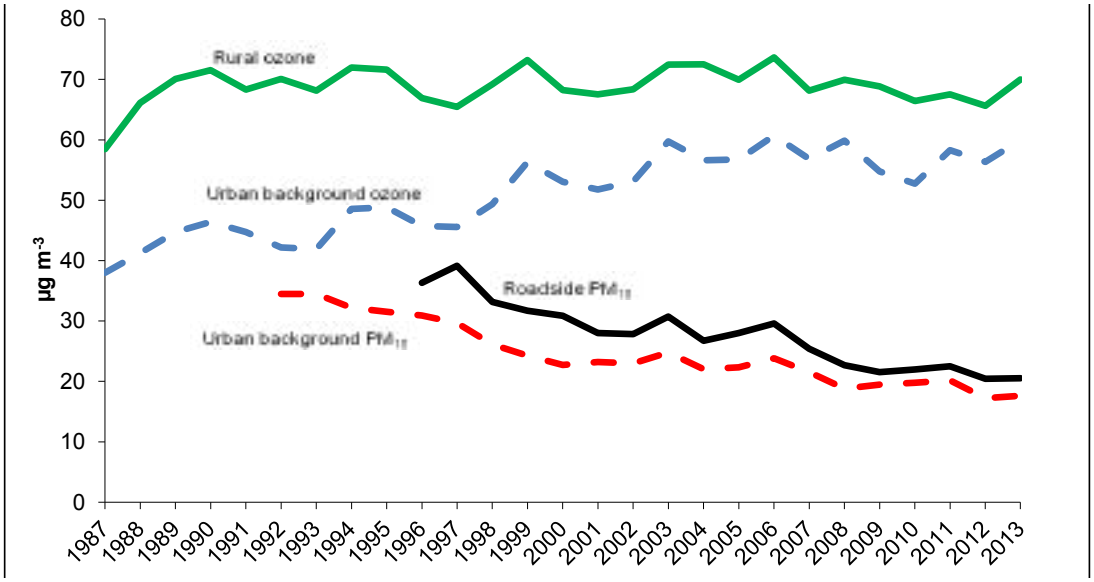




5-3%
of deaths in the UK in 2010 were attributable to long-term exposure to pollution

Source: Public Health England

Annual levels of PM10 and Ozone in the UK, 1987-2013



Source: Defra Statistical Release, ***Air quality Statistics 1987-2013***, 23 April 2014

Earth argued that national governments should prepare plans that involve the use of all scientific remedies available regardless of cost and give a deadline for implementation. The UK Government argued that economic considerations should be permitted to be taken into account when planning air quality measures. The ECJ ruled on 19 November 2014 that the UK Government should have prepared plans to achieve compliance with limit values by January 2015, and that UK national courts could order the Government to produce an air quality plan which achieves nitrogen dioxide limits in "as short [a time] as possible".[19] The UK Supreme Court is expected to make a final ruling in 2015.

9. In the second case, the European Commission started proceedings against the UK Government in February 2014.[20] A judgment is not expected until 2018, at which point a fine could be imposed if the finding is against the UK. The European Commission told us that they were currently taking action against 17 other states for infringement of PM_{10} limit values and one for sulphur dioxide limit values, and were considering action against 17 other states for infringement of NO_2 limit values.[21]

Our Inquiry

10. Against a background of firmer evidence on the health impacts of air pollution and the stalled progress on meeting EU air quality standards, we decided to examine the situation three years after out last report. In our previous report we emphasised the need for greater public awareness of this issue. In conducting this follow-up inquiry—our third on this topic in five years—we aim again to increase public awareness and to challenge the Government to continue to keep these matters in the forefront of public debate and policy-making and to account for its failure to take decisive action to improve air quality. We examined the situation in England, reflecting the scope of Defra's responsibility for air quality, though we recognise that some policy responses will have wider impacts, including the possible transfer of air pollution infraction fines to local authorities.

11. The bulk of our evidence focussed on pollution from road transport, which is the main cause of pollution in 92% of Air Quality Management Areas.[22] It is "recognised as the biggest single contributor to two of the most harmful and widespread sources of air pollution—nitrogen oxides (NOx) and particulate matter (PM). Road transport is responsible for 42% of carbon monoxide, 46% of nitrogen oxides and 26% particulate matter in England.[23] Our report accordingly focuses on road traffic, including the transport and development planning policies that impinge on it, although we acknowledge there are other policy areas that also warrant further examination.

12. We took evidence from expert witnesses in the field, from the European Commission, the Mayor of London and Sheffield City Council, and Ministers and officials from Defra, the Department for Transport and DCLG. To everyone who provided evidence, we express our thanks. We undertook our own research by wearing personal air pollution monitors around Westminster and in some constituencies. We are grateful to Dr Benjamin Barratt and his colleagues at the Environmental Research Group at King's College London for

19 Court of Justice of the EU, 'The Court clarifies Member States' obligations as regards respecting the limit values for nitrogen dioxide'. Press release 153/14 19 November 2014

20 See Commission press release: '*Commission takes action against UK for persistent air pollution problems*', 20 February 2014.

21 Q92

22 Chartered Institution of Water and Environmental Management (CIWEM) (AIR 0010) para 11

23 *Air Quality in the City regions toolkit,* PTEG, August 2014

their analysis of the monitoring data (paragraphs 42, 82) and to Air Monitors Ltd for providing the monitors.

13. In Part 2 we examine areas where urgent action is needed to meet EU limit values; including low emission zones, and cleaning up transport, in particular taking action on diesel vehicles. We investigate the responsibilities of local authorities and the support provided by central government, as well as the role of the planning system. We also call for greater public awareness and changes in behaviour to mitigate air pollution and its effects. We call for a more coherent cross-Government approach to air quality and for the Government to apply pressure at EU level for robust and effective air quality targets in the future.

Man-made sources of air pollution in England (in percentage)

Source	Pollutant (source contribution as a percentage of the total)			
	Carbon monoxide	Nitrogen oxides (NO_x)	Particulate matter (PM_{10})	Sulphur dioxide
Power stations	4	26	7	60
Transport	42	46	26	4
Burning of fuels (industries)	25	17	10	20
Burning of fuels (commercial)	7	4	10	2
Burning of fuels (residential)	12	3	13	7
Other industry	8	1	15	7
Farming	0	0	9	0
Waste	0	0	0	0
Other	2	3	10	4
Total	**100**	**100**	**100**	**100**

Source: Passenger Transport Executive Group. Air Quality in the City Regions: A Transport Toolkit, August 2014

Sources of NO_x emissions in selected city region areas

Source	Source contribution in city region (as a percentage of the total)		
	Manchester City (Greater Manchester)	Birmingham City (West Midlands)	Kirklees (West Yorkshire)
Transport which includes;	**52**	**47**	**33**
- *Road*	45	42	30
- *Aircraft*	3	0	0
- *Rail*	4	5	3
Industry (electricity, waste etc)	**10**	**14**	**15**
Heating (domestic / commercial)	**10**	**8**	**6**
Other (ships, farming etc)	**11**	**12**	**12**
Sources from outside the region	**17**	**20**	**34**

Source: Passenger Transport Executive Group. Air Quality in the City Regions: A Transport Toolkit, August 2014

2 Areas for action

Low Emission Zones

14. The Healthy Air Campaign told us that low emission zones had been "proven to dramatically reduce" pollution.[24] London has operated a low emission zone since 2008, but elsewhere in the UK few have been set up, and those that have been (in Norwich for example) are limited in scope. In contrast, Germany has a national framework of over 70 LEZs which, we heard, especially focus on diesel vehicles.[25]

15. In our 2011 report we advocated a national framework for low emission zones, to help local authorities reduce pollution from traffic by establishing a recognised standard for emissions and vehicle identification that could be applied in an LEZ.[26] In its response to our report the Government said it would "investigate" the feasibility of a national framework,[27] although it put the emphasis on action at local authority level. The Government noted at that time that while local authorities had shown "some interest" in LEZs, there had also been "a number of reservations and concerns".[28] Today there is no national framework in place. In our current inquiry the Government made it clear that it intends to leave low emission zones to individual local authorities:

> The Government considers that decisions on the introduction of low emission zones should be made at local level by the local authorities, and has provided support where low emission zones or low emission strategies were the appropriate measure for tackling air quality issues. Since 2011 funding of approx. £1.8 million has been provided for a variety of low emission strategy and low emission zone projects.[29]

16. Alan Andrews of Client Earth was critical of that policy:

> Defra are essentially taking a bottom-up localism agenda-type approach. … What we need is a national framework of low emission zones that sets the relevant standard, establishes a certification scheme for the retrofit equipment and ensures that we have a coherent network of low emission zones. What we have at the moment… means that we will run the risk of having a vehicle operator in Leeds having a vehicle that he can drive in Leeds but not in the low emission zone in Sheffield or Manchester, which makes absolutely no sense at all.[30]

Bristol City Council (representing Core Cities) and Exeter City Council agreed with the need for such a national framework. Jack Scott of Sheffield City Council noted:

> It seems very strange to me we have so many local authorities doing very similar

24 Client Earth (AIR 0056) recommendation 4a
25 Q56 [Alan Andrews, Client Earth]
26 Environmental Audit Committee, Ninth Report of Session 2010-12, *Air quality: a follow up report,* HC 1024-I para 46
27 Environmental Audit Committee, Seventh Special Report of Session 2010-12, *Air quality: a follow up report: Government Response,* HC 1820 para 44
28 *Ibid,* para 48
29 Defra (AIR 0050) para 58
30 Q68

> work and yet starting all over again from scratch every single time that they do it. The absence of guidance is not especially helpful. I think it would have been useful to have a kind of toolkit for local authorities around the development of low emission zones, and also there could be much more done by Defra around sharing best practice within local authorities.[31]

The British Vehicle Rental and Leasing Association, in a similar vein, were concerned that a lack of a common framework could have "economic effects … in terms of transporting goods between LEZ cities operating different emissions standards".[32]

17. The Environmental Industries Commission explained how such a framework could function. There would need to be a national certification scheme, with vehicles classified as meeting a particular emission standard, perhaps modelled on the scheme currently used by the London LEZ. Such a framework, they told us, could include a nationally recognised standard for emissions and vehicle identification, with a nationally valid window sticker indicating the emission standard of the vehicle to facilitate enforcement. Local authorities would then be able to decide the minimum emissions standard to be allowed in their particular LEZ.[33]

18. Dan Rogerson MP, the Defra Minister, when asked about the possibility of a national framework for LEZs, told us that it was "something we could consider in the future",[34] and was similarly lukewarm about the scope for a common vehicle certification scheme, highlighting the need for "strategies that work in each area".[35] The Institute of Air Quality Management and Institution of Environmental Sciences articulated the political problem:

> In order to be transformational for air quality, a Low Emission Zone has to be very aggressive in its requirement for a low emission vehicle. Some of the Low Emission Zones that have been implemented to date have been relatively timid in their specification for a low emission vehicle. There is a very practical problem here in that making the requirement too stringent risks alienating political support, as it will effectively prohibit many vehicles deemed essential for the running a town or city's local economy.[36]

The Freight Transport Association saw LEZs that restrict only buses or HGVs as a politically "easy option" because the public would not be too inconvenienced.[37] The RAC Foundation were concerned that lower-income groups, who are more likely to own older more polluting vehicles, should not be disproportionately disadvantaged.[38]

19. The cost of schemes did not appear to be an insurmountable issue. The Freight Transport Association argued that LEZs could be expensive,[39] and Transport for London has stated that London's LEZ is a net cost to the authority, and it regards the scheme as a pollution control measure rather than a revenue-raiser.[40] Liverpool rejected a potential LEZ

31 Q178
32 BVRLA (AIR 0082)
33 Environmental Industries Commission (AIR0027) paras 7.8, 7.9. 9.1 – 9.4
34 Q248
35 Q250
36 Institution of Environmental Sciences (AIR 0029) para 7.2
37 Freight Transport Association (AIR 0048) para 16
38 RAC Foundation (AIR 0014) para 12
39 Freight Transport Association (AIR 0048) para 17
40 See 'What prospects for more low emission zones?' By Paul Bennett, Bircham Dyson Bell, Lexology website, accessed 17 November 2014

in 2006 when a feasibility study concluded that the costs would be excessive.[41] However others have noted that the expense need not be a hurdle for local authorities if some of the cost can be recovered from zone users. Birmingham Friends of the Earth argued that LEZs could provide a source of income to be ring-fenced for sustainable transport.[42] The balance to be struck appears to be between having sufficiently high charges to deter users and to cover some of the costs, while minimising any adverse impact on local businesses. The Mayor of London told us that it was difficult to get the balance right between the different interests.[43] London's current Low Emission Zone has been criticised both for having too many exemptions, and for having too few. The Mayor's plan for introducing an Ultra Low Emission Zone in central London in 2020[44] have similarly been criticised by some for the charge to be levied on diesel vehicles, and by others who favour an outright ban on polluting vehicles. The Ultra Low Emission Zone has also been criticised for taking too long to implement when pollution levels need tackling now, and for covering too small a geographical area to be effective.[45] Clean Air in London estimates that there will be 6,851 deaths attributable to air pollution in London in 2020 and 6,422 in 2025.

20. **Low Emission Zones are one of the most powerful tools that local authorities have for controlling vehicle emissions, but few have introduced them. Barriers include their perceived cost and a lack of guidance and support from Government. The case we made in our 2011 report for a national framework for LEZs remains as compelling today. A national framework could provide a template for creating LEZs with common core features including a national common certification scheme for vehicles meeting particular emissions standards, but allowing individual authorities to strike a locally relevant balance in tackling air quality while protecting local businesses. This would help reduce the cost of LEZs and make it easier for local authorities to administer them. Such an approach would also make it easier for vehicle fleet operators to meet the requirements of individual zones, and reduce the risk of heavily polluting vehicles simply being redeployed from one part of the country to another. A national framework, and individual local authorities' willingness to introduce LEZs based on it, could provide the Government with a more credible basis on which any EU infraction fines might be passed on to the local authorities (paragraph 65).**

21. ***The Government should without any further delay introduce a national framework for Low Emission Zones, with common metrics and a national certification scheme for vehicles meeting particular air quality standards, to facilitate their widespread adoption.***

Diesel vehicles and vehicle standards

22. The imperative for Low Emission Zones comes in part from the higher pollution from diesel-fuelled vehicles compared with petrol vehicles, and the inability of EU engine standards to produce the intended reduction in diesel pollution.

23. Government incentives over many years have encouraged the purchase of diesel rather than petrol vehicles because they were considered to be more environmentally friendly. Their greater fuel efficiency produced less greenhouse gas per mile. The RAC

41 Ibid.
42 Birmingham Friends of the Earth (AIR 0039) para 5.2
43 Q117 ff.
44 Mayor of London (AIR0070), Section 3
45 Q56 [Mr Andrews]. See also Clean Air for London (AIR0045) para 32, and London Forum of Amenity and Civic Societies (AIR0063) para 5d

Foundation explained:

> This is a consequence of the focus on climate change. The automobile industry's response to the European average new car CO_2 emissions targets of 130g/km by 2015 and 95g/km by 2021 has been to make more diesel cars, as these are more fuel-efficient than their petrol counterparts. And greater fuel efficiency equals lower CO_2 emissions. Unsurprisingly individual and fleet buyers have responded by choosing diesel, enticed not only by the prospect of reduced fuel costs, but also by lower rates of Vehicle Excise Duty and company car tax incentives, which reward low CO_2 options.[46]

However, diesel vehicles produce more air pollutants. Transport for London noted that diesel vehicles produce 22 times as much particulate matter and four times as much NOx as petrol vehicles.[47] Alan Andrews of Client Earth told us that "the NO_2 compliance problem we have … is overwhelmingly a diesel transport problem", which should be tackled through low-emission zones and "stopping the growth in new diesel vehicles".[48]

24. Fuel tax is charged equally on petrol and diesel. Currently Vehicle Excise Duty and Company Car Tax are both calculated on the basis of CO_2 emissions. This has favoured more fuel-efficient diesel vehicles, although Dr Ian Mudway of Kings College believed that "the newer generation of petrol vehicles have no penalty in terms of CO_2. ... So we are effectively pointing our car ownership scheme in the wrong direction."[49]

25. New EU emissions standards are now being introduced—'Euro VI' for heavy vehicles and 'Euro 6' for lighter vehicles (see paragraph 36). However these standards apply only to new vehicles. The London Forum of Amenity & Civic Societies calculated that it could take 10-15 years for the new standards to make a real difference to the national vehicle fleet.[50] In the meantime more immediate measures are needed. A number of submissions recommended that adjusting fiscal incentives should play a role, to take into account air pollutants as well as greenhouse gases when calculating Vehicle Excise Duty and Company Car Tax.

26. The London Forum of Amenity & Civic Societies told us that because "many people believe wrongly that [diesel vehicles] have an overall beneficial impact on the environment compared with petrol vehicles", any measures to discourage diesel use should be accompanied by campaigns to raise awareness "of the harm to human health from diesel vehicles, and to explain that any residual advantages to climate change from diesel vehicles are outweighed, especially in cities, from the damage to local air pollution caused by diesel vehicles".[51] (Public awareness campaigns are discussed further below in paragraphs 76ff). They also favoured differential parking charges for petrol and diesel vehicles. The RAC Foundation wanted taxes to "reflect the true cost to society—air pollution, accidents, congestion, noise and so on—and not unnecessarily distort the market towards any particular technology or behaviour".[52]

27. The Environment Minister, Dan Rogerson MP, noted that any fiscal incentives

46 RAC Foundation (AIR 0014) para 7
47 *Improving the health of Londoners: transport action plan,* Transport for London, February 2014
48 Q37 [Mr Andrews]
49 Q14 [Dr Mudway]
50 London Forum of Amenity and Civic Societies (AIR 0063) para 5a
51 London Forum of Amenity and Civic Societies (AIR 0063) Summary f, para 8b
52 RAC Foundation (AIR 0014) para 20

proposals would have to be "explored with the Treasury" but that "we do not have any proposals to do so at the moment".[53] John Hayes MP, the Transport Minister, was also reluctant to use fiscal disincentives for diesel because of "the differences between the way that a vehicle might be driven in town and the way it might be driven in the countryside—people in the countryside often have to travel much further to access public services, work and so on—and … relating hotspots and existing problems with emissions to vehicle use".[54]

28. Several witnesses indicated to us that retrofitting new exhaust technologies to older diesel engines can have a dramatic effect on polluting emissions. The Transport Minister attributed a 31% fall in particulate matter from vehicles since 1990 to diesel particulate filters being fitted to new cars.[55] Retro-fitting diesel particulate filters and/or 'selective catalytic reduction' technology to old vehicles is expensive, leading some to call for the Government to subsidise retrofitting cars (as it already does with some bus fleets: paragraph 45). Some proposed adding urea to fuel tanks to reduce NOx pollutants from diesel combustion.[56] Others wanted action on the illegal practice of using cars which have had diesel particulate filters removed. In February 2014 the Department for Transport changed the MoT test to require a visual check that the filters were in place. The Department was aware that in some cases internal components are removed and is exploring appropriate policy options, including further tightening the MoT test.[57]

29. The Mayor of London and others have proposed a diesel scrappage scheme, along the lines of the 2009 scheme introduced by BIS to boost the automobile industry.[58] He saw this as compensation for "people who have been seduced into buying a diesel vehicle … [which was] a massive failure of public policy".[59]

30. **Diesel vehicles have increasingly been identified as the most significant driver of air pollution in our cities, exacerbated by the growth in their number as a result of favourable fiscal incentives compared with the taxes applied to petrol and petrol vehicles. Low emission zones provide a potentially effective means of restricting their use in pollution hotspots, but will need to be supplemented with other measures if such zones charge rather than ban vehicles. In such cases, LEZs can be complemented by a relatively less favourable fiscal regime for diesel and diesel vehicles. The original favourable tax treatment for diesel was the result of an understandable effort to adjust the vehicle mix in a way that would help limit greenhouse gas emissions. It is important however that fiscal policies are flexible enough to accommodate changing understanding. We are disappointed that Ministers have no plans for discussing these issues with the Treasury. *Defra and the Department for Transport should work urgently with the Treasury to establish long-term goals and timescales for a step by step re-balancing of fuel duty and Vehicle Excise Duty consistent with reducing not just CO_2 emissions but also NO_2 and particulate matter impacts.***

53 Q253
54 Q256-57
55 Q254
56 When urea is injected into the exhaust stream of a diesel engine, the heat breaks it down into ammonia which in turn breaks the NOx down to harmless nitrogen gas and water vapour. It is estimated that this can reduce harmful emissions by as much as 80 percent. The best known example is Mercedes' BlueTec system. See "Urea tanks on diesel trucks", EurekAlert, accessed 14 November 2014
57 Department for Transport (AIR0100) paras 9-10
58 The previous scrappage scheme ran between May 2009 and March 2010. Consumers were offered a £2,000 incentive to buy a new car in exchange for scraping one registered before September 1999. Some 400,000 vehicles were bought under the scheme. (Source: RAC Foundation)
59 Qq107-08

31. ***The Government should explore regulatory and enforcement options for ensuring that, once fitted, diesel particulate filters are not removed from vehicles, and where filters are fitted standards are enforced through thorough testing and monitoring. Having raised this with the Minister, we welcome his commitment to tackle this matter and expect an early statement on the actions planned.***

32. ***We recognise that the rationale for previous moves to promote diesel—to reduce carbon emissions—was sound at the time. In the light of increasing public health concerns, however, we need to change policy direction. The Government should consider the scope for subsidising diesel vehicle owners to retrofit their engines or a national diesel vehicle scrappage scheme on the basis of a full cost-benefit analysis that reflects the different circumstances, costs and benefits in urban and rural areas.***

33. European emission standards define acceptable limits for exhaust emissions of new vehicles sold across the EU (They do not apply to vehicles already on the road). Since 1970 a series of EU directives have made emissions standards progressively more stringent. Vehicles are tested using a 'New European Driving Cycle' testing regime. In our last report we commented on the failure of the testing procedure for nitrogen dioxide emissions.[60] The European Commission has admitted that the tests were not done in 'real-world' conditions:

> Successive generations of Euro standards and fuel quality standards have been agreed so as to control vehicle emissions in the EU. The required reductions have been delivered, with one exception: NOx emissions from light-duty diesel engines. Real-world NOx emissions from Euro 5 cars type-approved since 2009 now exceed those of Euro 1 cars type-approved in 1992, and are in the region of five times the limit value. This has a major impact on concentrations of NO_2, ozone and secondary particles across Europe, generating negative publicity and reputational damage for vehicle manufacturers.[61]

Mike Galey of the Environmental Industries Commission explained that the tests were ineffective because they:

> worked absolutely fine on the test cycle, but it was proved later that the test cycle was far from representative of real urban driving [which] produce far more emissions. In particular, the strategies that are used for injecting urea for the selective catalytic reduction process will not work, by in large, in an urban environment on the engine as supplied. So you will get much higher emissions. NOx can be three times what it was on the legislative cycle.[62]

34. The 'Euro V' standards (for heavy vehicles) and 'Euro 5' standards (for light vehicles), introduced in 2009, were superseded by Euro VI/6 standards in September 2014 (paragraph 25). But more stringent testing procedures to ensure vehicles are meeting these standards in real world conditions are planned to be introduced only in 2017. The European Commission told us:

60 Environmental Audit Committee, Ninth Report of Session 2010-12, Air quality: a follow up report, HC 1024-I para 44
61 European Commission, A Clean air programme for Europe, 18 December 2013, para 2.2.1
62 Q28

> On Euro 6, we have committed to improving the test cycle procedures so that the standards will reflect the real world conditions. It is our job because EU standards can only be harmonised at EU level.[63]

Most observers think that the Euro VI/6 standards will prove fitter for purpose. Mike Galey, of the Environmental Industries Commission, told us:

> A 'Euro 6' exhaust system is a big beast weighing more than 100 kilograms, because it contains catalyst, filters, air injection and all sorts of things to be built in to allow the engine manufacturer to meet the Euro 6 standard. It has become a much more complex thing altogether, and I am quite hopeful that Euro 6 will deliver the expected benefits.[64]

35. King's College London told us that the vehicle industry in Europe was attempting to delay the introduction of the new testing regime, to 2020 or later, rather than 2017. The Transport Minister told us that the Government is working closely with the European Commission to ensure that the new tests "are right".[65] He was "determined" to ensure the new system will come into effect in 2017.[66]

36. **New European emissions standards offer the prospect of significant cuts in pollution, but only if vehicles are designed to pass a test regime that is configured to reflect real world driving conditions.** ***The Government should continue to work with the European Commission to develop Euro VI/6 standards and the vehicle emission tests to reflect realistic driving conditions. It should maintain pressure on the Commission to deliver that testing regime in 2017, as planned.***

Ultra low emission vehicles

37. In the long term, a more comprehensive solution to vehicle air pollution is likely to be the development of new technologies, such as electric, hydrogen fuel-cell or other alternative-fuel vehicles. The market for such 'ultra low emission vehicles' is still undeveloped, with low public awareness, despite a recent increase in sales from a low base. The Office for Low Emission Vehicles (OLEV) is offering grants towards the upfront costs of buying electric vehicles (£200m between 2015 and 2020), developing public awareness, and providing a strategy for a national infrastructure of charging points to overcome consumer concerns about the range of vehicles and the time taken to re-charge them. The Government aims for the entire UK car fleet to have zero exhaust-pipe emission by 2050. It has allocated £900 million up to 2020 towards this goal. The Transport Minister told us that:

> Between July and September 2014 over 5,000 grants were provided, almost double the number in the previous three months and almost a third of all grants since the scheme was launched in 2010. There are now over 17,000 grant-funded vehicles of this kind on UK roads.[67]

63 Q67
64 Qq28, 75
65 Qq259-60
66 Q263
67 Q264

Sheffield City Council suggested that the Government consider labelling vehicles with their total 'cost of ownership' to highlight for potential customers the longer-term cost savings of ultra low emission vehicles.[68]

38. The Committee on Climate Change, in its fourth progress report on meeting carbon budgets, recommended in July 2014 that the Government continue to invest in charging infrastructure, especially on-street residential charging, support the setting of an EU 2030 target for new car emissions (paragraph 95), and encourage local authorities to promote electric vehicle uptake through bus lane access, parking policy, car clubs and public procurement policies.[69] The Government noted that, in addition to their lower exhaust emissions, electric and hybrid vehicles will use regenerative braking (braking which recharges the vehicles' batteries), which could help to reduce brake particulate production.

39. OLEV maintains that it is "technology neutral" and has plans to support gas refuelling for HGVs and to boost the market for hydrogen fuel cell vehicles. Some of the evidence we received, however, criticised the Government for failing to support other fuels. Autogas criticised "a history of introducing and then removing grants" which had harmed the market for liquefied petroleum gas.[70] The Liquid Air Energy Network highlighted the potential of liquid nitrogen as a vehicle fuel.[71] The Anaerobic Digestion & Biogas Association said that over 10% of the UK's domestic gas demand could be delivered through biomethane produced by anaerobic digestion.[72] The Government is maintaining the differential between the main rate of fuel duty and the rate for road fuel gases such as compressed natural gas, liquid natural gas and biomethane at current levels until March 2024.[73] The Committee on Climate Change has recommended that the Government fully evaluate the carbon implications of the use of natural gas in vehicles before any nationwide roll-out of gas infrastructure.[74]

40. **The Office for Low Emission Vehicles is encouraging a market in low emission vehicles in the face of past negative perceptions of such vehicles among consumers. The challenge for Government is in supporting alternative fuels in a way that does not run too far ahead of public appetite, and avoids 'picking winners'. *OLEV should work with departments, including DECC, to bring a step change in reducing air pollution and carbon emissions. The Government should consider the scope for financial incentives for a range of alternatively fuelled cars, including gas-fuelled cars, while taking care not to reduce the momentum now emerging for expanding electric vehicle usage or to cause doubts about the Government's commitment to the electric vehicle technology. Such financial support, however, should be based on a strategic assessment of the relative benefits of the different options for using limited available funds, mindful for example that financial support might also be used to support local authorities in introducing low emission zones (paragraph 18).***

68 Sheffield City Council (AIR 0044) para 7.18
69 Meeting Carbon Budgets – 2014 Progress Report to Parliament
70 Autogas, LPG Autogas blueprint: a low carbon alternative fuel for today. (September 2014). Unpublished
71 Liquid Air Energy Network (AIR 0043)
72 Anaerobic Digestion & Biogas Association (AIR 0046) para 28
73 Defra (AIR 0050) para 27
74 Meeting Carbon Budgets – 2014 Progress Report to Parliament

Cleaner public transport

41. Public road transport is dominated by heavy diesel vehicles with very high mileage punctuated by frequent stops and starts. It is responsible for a disproportionate amount of emissions, particularly of nitrogen dioxide. Transport for London noted that its buses account for 0.2% of London vehicles but are the source of 25% of NOx emitted by vehicles in the city.[75]

42. Our own air monitoring experiment during this inquiry showed high levels of air pollution exposure during taxi journeys on London.[76] As part of London's Low Emission Zone the Mayor of London introduced a 15 year age limit on taxis which prompted the retiring of 3,000 taxis (as well as a 10 year age limit for public hire vehicles), and required all new taxis to meet the Euro V standard.[77] As we noted above, 'Euro V' standards have failed to meet expectations for reducing pollution (paragraph 33), making it difficult to demonstrate the impact of such initiatives. King's College London noted that "more modern taxis tend to be higher emitters of NO_2".[78] Clean Air for London believed that "the only two new diesel taxis that meet the Mayor's turning-circle requirement emit more primary NO_2 than most if not all previous taxis".[79] This is a particularly London problem and so is a matter for the Mayor of London's office to examine within a national policy on public transport.

43. Sheffield City Council noted that taxis are intensively operated and involve a lot of stopping and starting.[80] Diesel particulate filters, which need regular sustained high engine output (from motorway driving for example) to 'regenerate', are often faulty on taxis and expensive to rectify. Hybrid taxis, on the other hand, would be cheap to run and maintain. In February 2013 the Mayor of London announced a planned Ultra Low Emission Zone (paragraph 19), with all newly licenced taxis having to be 'zero emission capable' (i.e. electric or electric-hybrid) from 2018.[81]

44. Sheffield City Council estimated that if all the buses and taxis within the city were Euro VI or equivalent there would be a 19% reduction in NOx emissions.[82] Bus operators told us, however, that meeting Euro VI standards would drive up their costs. Mike Galey of the Environmental Industries Commission told us that retrofitting a bus to bring it close to Euro VI would cost about £10,000.[83] Some urban councils (e.g. Bristol and Edinburgh) have retrofitted buses with assistance from Government funding schemes, including the £89 million Green Bus Fund. Sheffield City Council wanted the Government to also help with continuing higher maintenance costs, which could be up to £1,000 a year.[84]

75 Transport for London, Improving the health of Londoners: transport action plan (February 2014), p38
76 KCL monitoring reports – Mike Kane (AIR 0079), Caroline Nokes (AIR 0076), Matthew Offord (AIR 0078), Caroline Spelman (AIR 0102), Joan Walley (AIR 0077), Alan Whitehead (AIR 0075)
77 Mayor of London (AIR 0070) para 2.1
78 Environmental Research Group (AIR 0033) Para 3.5
79 Clean Air in London (AIR 0045) para 30
80 Sheffield City Council (AIR 0044) paras 7.1 – 7.2
81 Mayor of London (AIR 0070) para 2.2
82 Q176
83 Q24
84 Sheffield City Council (AIR 0044) para 7.15

45. The average life of a bus is 13-15 years. There is therefore a balance to be made between retrofitting older buses near the end of their lives and replacing them with newer lower-emission versions. Transport for London have recently completed retrofitting 1,400 buses, but also retired 900 of its oldest buses and replaced them with Euro VI buses at a cost of £18 million.[85] It has plans to increase the number of hybrid buses to 1,700 by 2016.[86]

46. A common complaint we received from local authorities outside London was that they do not have the same control over bus fleets as Transport for London. Sheffield City Council told us that it was difficult to enforce air quality requirements on a privately owned bus fleet:

> In an almost entirely deregulated market, which we have in local government outside of London, we know there is a huge issue around air quality for us arising from our bus fleet, it is very difficult to enforce any improvement there without being told by bus companies to bear almost all of the cost for that … Local authorities could have a duty to oversee all transport in their area or the emissions of all transport within their area, rather than the current system that does not seem to imply any responsibility or duty at all.[87]

However, some observers considered that local authorities already have powers to insist on air pollution standards for public transport when putting routes out to tender. Mike Galey of the Environmental Industries Commission believed that local authorities could "insist that [bus companies] meet certain environmental standards, but precious few of them do that".[88] The Transport Minister considered that local authorities could similarly already make decisions, under the Transport Act 2000, on the best kind of contracts to service local communities for bus and other services.[89] Quality Partnership Schemes and Voluntary Partnership Agreements, which can include air quality provisions, are widely used, and 'Quality Contract' schemes were being considered in the North East. Bristol City Council believed that local authorities had mechanisms for setting regulations for emissions but wanted these to be made simpler.[90]

47. **There is a lack of clarity over the degree of influence that local authorities have to ensure good air quality standards in local bus fleets.** ***The Government should identify best practice in managing bus fleet pollution and provide local transport authorities with advice on how this issue can be addressed when putting out bus route tenders for contract. The Government should also put an emphasis on tackling pollutants as well as carbon emissions in its Green Bus Fund and the Clean Vehicle Technology Fund when helping to meet the costs of upgrading vehicles.***

Planning

48. The planning system has an impact on road pollution, and on people's exposure to that pollution, through decisions on roads and development. Since our last report in 2011 the Government has published the National Planning Policy Framework (NPPF).[91] This

85 Mayor of London (AIR 0070) para 2.2
86 Q113
87 Qq155,158
88 Q74
89 Q246
90 Bristol City Council (AIR 0084)
91 National Planning Policy Framework. Defra. March 2012.

aimed to simplify the planning system within an overarching "presumption in favour of sustainable development". It has encouraged local authorities to complete Local Plans, because in their absence the terms of the NPPF would be followed for guiding development. We examined the NPPF in 2011, when we criticised its potential for emphasising economic growth at the expense of other aspects of sustainable development.[92]

49. The NPPF defines:

> An environmental role—contributing to protecting and enhancing our natural, built and historic environment; and, as part of this, helping to improve biodiversity, use natural resources prudently, minimise waste and pollution, and mitigate and adapt to climate change including moving to a low carbon economy.[93]

On air quality specifically, it states:

> Planning policies should sustain compliance with and contribute towards EU limit values or national objectives for pollutants, taking into account the presence of Air Quality Management Areas and the cumulative impacts on air quality from individual sites in local areas. Planning decisions should ensure that any new development in Air Quality Management Areas is consistent with the local air quality action plan.[94]

The Government told us that "the Framework is clear that the planning system should prevent new and existing development from contributing to, or being put at unacceptable risk from, or being adversely affected by air pollution".[95] DCLG told us that the NPPF stated that:

> The effects, including cumulative, of pollution should be taken into account. You also have explicit reference to the need for policies to sustain compliance with and contribute to EU limit values or national objectives for pollutants.
>
> All of that is translated into the key actions that are at the heart of the planning system of ensuring that these are taken into account in Local Plans and that Local Plans need to be in accordance with the National Planning Policy Framework …. Those Local Plans need to be translated into what matters and to reflect what is relevant to the local areas. Those local plans, for example, need to ensure that they have regard to any Air Quality Management Areas and that decisions are consistent with any Local Air Quality Action Plans. So it is very woven into the planning system.[96]

DCLG told us that while no Local Plans have been found "unsound" on air quality standards since May 2010, inspectors had commented on aspects of air quality in several instances.[97]

92 Environmental Audit Committee, Correspondence on National Planning Policy Framework, November 2011
93 National Planning Policy Framework. Defra. March 2012, p2 para 7
94 ibid. p24 para 124
95 Defra (AIR 0050) para 31
96 Q213
97 DCLG (AIR0101) para 2

The Transport Minister assured us that air quality would be given serious consideration when developing the National Policy Statement for nationally significant large infrastructure projects, which the Government plans to lay before Parliament by the end of this year.[98]

50. Some of our witnesses were concerned, however, that the planning regime was making it more difficult to refuse planning permission on the grounds of air quality. Bristol Council noted that conversions of buildings from offices to residential use are no longer subject to planning permission, and therefore no longer require an air quality assessment.[99] The Institute of Air Quality Management and Institution of Environmental Sciences said:

> The explicit desire of the current government is to reduce its guidance substantially and planning has been a prime example of this. Whilst there are some features of the current guidance that are helpful for air quality, such as the reference to the status of Air Quality Management Areas in planning, it is largely free of substance. Most of the guidance is expressed as ideas and concepts, with little in the way of clear boundaries or direction.[100]

Some of our witnesses felt that current planning guidance focused too much on individual planning applications. The London Forum of Amenity and Civic Societies identified:

> a particular risk that plans for a significant number of additional tall buildings in London will increase air pollution, though creating 'street canyons', which trap pollutants. Planning permissions for tall buildings therefore need to include specific safeguards that air pollution will not as a result be worsened.[101]

51. The planning system should be used, we were told, to ensure buildings such as houses, schools, hospitals and care homes are not placed near major road intersections or other pollution hotspots. Schools should have adequate public transport links to reduce the need for car journeys and be easily reached by cycling or walking from the surrounding community. This would encourage "active travel" (paragraphs 81ff). Existing schools could be fitted with air filtration systems where necessary if they are sited in pollution hotspots. The Healthy Air Campaign favoured a national default 20mph speed limit for residential areas, which "should be achieved through education and enforcement rather than physical calming measures which may encourage greater acceleration and braking".[102] Local authorities have a responsibility for such roads and should work with groups who advocate 20mph speed limits.

52. The NPPF includes in its 'core planning principles' a need to "actively manage patterns of growth to make the fullest possible use of public transport, walking and cycling, and focus significant development in locations which are or can be made sustainable".[103] The Active Travel for Healthy Living Coalition noted the importance of planning in delivering active transport measures.[104] Workplaces should also be encouraged in areas that allow employees to walk, cycle or take public transport to work rather than drive.

98 Qq201, 224
99 Bristol City Council (AIR 0084)
100 Institution of Environmental Sciences (AIR 0029) para 4.2
101 London Forum of Amenity and Civic Societies (AIR 0063) para 13
102 Client Earth (AIR 0056) Section 5b
103 National Planning Policy Framework, Defra, March 2012, p6
104 Active Transport for Healthy Living Coalition, *The Case for Action* (June 2014), p14-16

53. We received a number of submissions from local groups suggesting that some planning applications were only paying lip service to air quality considerations. There were complaints that local authorities were failing to protect and maintain woodland and other green areas. The Mayor of London, on the other hand, highlighted an example of where planning permission had been refused on air quality grounds.[105] The NPPF makes no provisions for the location of community buildings, such as schools, away from pollution sources. Local authorities can facilitate such development principles through their Local Plan, but only half of authorities have so far completed one.

54. The Institute of Air Quality Management identified what they saw as a wider problem of inadequate strategic planning:

> The current DCLG guidance is focused very much on the evaluation of individual planning applications, with some reference to the role of Local Plans and neighbourhood planning. There is also a passing reference to air quality being a consideration in Strategic Environmental Assessment. The IAQM believes that planning has been consistently neglected as a means of long term air quality management, mostly because any consideration of air quality is usually restricted to a reactive evaluation of the impact of individual planning applications. If a more strategic approach could be taken to the allocation of land use, then this might have benefits for emissions at the national and regional scale. … Strategic planning appears to be unfashionable at present, supplanted by the desire for localism. The latter may have its merits, but effective long term air quality management is aided by a more strategic and regional approach to planning.[106]

Some expressed concern about the way air quality is dealt with at different tiers of local government. Environment Protection UK told us:

> Much better cooperation between different tiers of local government is essential if measures to control emissions are to be effective. Most importantly, the statutory obligation to develop and implement local action plan measures must be focused on those tiers of government where the control of the sources of emissions lies. For example, local authorities have very few levers to reduce traffic pollution, as transport is controlled by the County Council (within two-tier authorities); a statutory obligation to develop and implement action plan measures should be placed on the County with regard to this sector. This approach would lead to a more coherent process, to identify local problems and develop appropriate and proportionate actions to address these.[107]

Transport infrastructure and the Highways Agency

55. Several local authorities have expressed concern that motorways and trunk roads are major sources of air pollution but are outside their planning jurisdiction, being under the control of the Highways Agency. Jack Scott, of Sheffield City Council, told us:

105 Mayor of London (AIR0090) Section 6
106 Institution of Environmental Sciences (AIR 0029) para 4.3
107 Environment Protection UK (AIR 0037) para 26

> If you look at the M25 in London, if you look at the M1 in Sheffield or the M62 in Manchester, it is absolutely the case that some of the roads that are the busiest, fastest and most polluting are also the ones that are statutorily completely outside of local authority control.[108]

The Highways Agency's stated aim is to work in a way that is "compatible with working toward compliance with statutory air quality limits as part of our broader Environmental Strategy". It is also "a statutory consultee in the local air quality management process".[109] However, the Campaign for Better Transport highlighted an absence of binding legal obligations for air quality.[110]

56. The Highways Agency is to be made into a Government-owned company—the Strategic Highways Company—under the Infrastructure Bill.[111] The draft licence for this new company mentions support for national and local economic growth, road safety and sustainable development.[112] The summary of the proposed strategic road network, published in November 2014,[113] outlined a governance system designed to ensure that the Strategic Highways Company fulfils its environmental responsibilities, including the setting up of a watchdog and monitor. The new organisation will still be subject to existing legislation, including the need for major road improvement schemes to undergo environmental assessment. John Hayes MP, the Transport Minister, assured us that the Company's requirements would include tough environmental standards:

> The … delivery requirements for the new Highways Agency, in its amended form, will reflect the department's objectives for tougher environmental standards. … I am going to make sure that those requirements on the company include environmental performance, both in terms of the general operation of the company and the specific schemes. I think it is important that that is set out as part of the new company's modus operandi.[114]

He agreed that air quality should be an important aspect of major road schemes, and would be debated during the passage of the Infrastructure Bill.[115]

57. Some have pointed out that investing in the road network could relieve congestion and so improve air quality by reducing engine idling and stop-start driving. Boris Johnson told us that "there are still lots of pinch-points … where cars are belching out fumes. If you can get the traffic flowing more smoothly then you will improve the air quality, so we are pursuing that."[116] During the House of Lords debate on National Networks in May 2014, Baroness Kramer made a similar point.[117]

58. The Campaign for Better Transport noted that the Highways Agency had adjusted plans in 2013 for the M60 and M62 motorways around Manchester explicitly because of concerns about breaching EU legal limits for air quality.[118] The Transport Minister

108 Qq154, 163
109 Highways Agency, 'Air quality', accessed 12 November 2014
110 Campaign for Better Transport (AIR 0036) para 1.3
111 Infrastructure Bill [Lords], Part 1 [Bill 53 (2014-15)]
112 Department for Transport, *Strategic highways company: draft licence,* October 2014
113 Department for Transport, *Transforming our strategic roads- a summary,* October 2014
114 Q237
115 Q234
116 Q127
117 Draft National Policy Statement for National Networks, HL Deb 8 May 2014 c1638
118 Campaign for Better Transport (AIR 0036) section 1.1

highlighted a range of possible mitigation measures for major road schemes, including "reducing speeds … barriers and traps and all kinds of other measures … [and] pollution abatement technology".[119] The Campaign for Better Transport nevertheless remained concerned that:

> both for individual schemes and as part of a wider programme of road-building, the Highways Agency's operations will delay compliance with the [Air Quality] Directive.[120]

59. Friends of the Earth identified a "non-deterioration principle" in EU law, which it believed required road building to ensure that air quality does not get any worse than it was before.[121] DCLG told us, however, that "achieving sustainable development is always about a balance between the social, economic and environmental considerations".[122]

60. **The air quality provision in the National Planning Policy Framework provides a basis for local authorities to address air pollution in development applications. Local authorities are able to include air quality provisions in their Local Plans provided they remain consistent with the NPPF. In practice, however, half of authorities have yet to complete their Local Plan, in which case the NPPF itself applies. The NPPF does not provide any guarantee of avoiding worse pollution as a result of development, but rather a means of considering all aspects of sustainability, balancing or trading-off sometimes conflicting economic, social and environmental objectives. Nevertheless, given the urgent need to make real progress in tackling unacceptable pollution, there is a need for the NPPF regime to move that balance more towards air quality protection.** ***The Government should issue NPPF guidance which makes clearer the great importance of protecting good air quality including protecting green spaces in development planning. Specifically, the NPPF should make it impossible to build new schools, care homes or health clinics near existing air pollution hotspots, and any redevelopment of such existing buildings should only be approved if they reduce pollution exposure for their users. Building regulations should provide for existing schools sited near pollution hotspots to be fitted with air filtration systems.***

61. ***We welcome the Minister's commitment to ensure that the Strategic Highways Company (transforming the Highways Agency to a company) will have a remit which includes environmental performance. The Government should give it a legal duty to protect air quality and introduce a specific clause to that effect in the Infrastructure Bill.***

62. Some local authorities have also observed that they have little control over air pollution hotspots around airports, caused not just by the aeroplanes themselves but by the extra traffic generated. Hounslow and the London Forum of Amenity and Civic Societies wanted to see more attention paid to air quality issues by the Airports Commission which, they believed, should be given an additional objective "to achieve compliance with, and remain compliant with, the EU limit values set for air quality"[123] when evaluating airport expansion options. Gatwick Airport were optimistic that, even with increased aircraft and road traffic from an extra runway, the evolving technology for cleaner aircraft and the

119 Q246
120 Campaign for Better Transport (AIR 0036) section 1.2
121 Friends of the Earth (AIR 0054) Section a para 8
122 Q220
123 London Borough of Hounslow (AIR 0034) para 6.7

introduction of Euro VI vehicle standards could allow pollution not to increase.[124]

63. ***The Government should add an explicit air quality objective to the Airports Commission Appraisal Framework.***

Support for local authorities and local air quality monitoring

64. In our 2011 report we raised the spectre of EU infraction fines being passed on by the Government to local authorities. We considered that a blanket approach to passing on EU fines to local authorities would be unfair, as the causes of air pollution are often beyond any individual local authority's control.[125] In its response, the Government stated that mitigations and safeguards built into the Localism Act 2011 would ensure that in the event of a fine an independent panel would decide on fair apportionment of responsibility and costs for the local authorities concerned.[126]

65. The European Commission announced proceedings against the UK Government in February 2014[127] (paragraph 9). In March, Defra wrote to all local authorities affected by the case, reminding them of the Government's discretionary powers to pass on all or part of an infraction fine.[128] Councillor Jack Scott, of Sheffield City Council, criticised the uncertainty created for local authorities.[129] London Councils told us that the arrangement would be:

> Unfair, because at the time the Localism Act was being debated, the government was already exceeding air pollution targets and had less than a year to get an extension from the EU or face a potential fine of £300m which it ultimately failed to do, as the EU began legal proceedings earlier this year.
>
> Unreasonable, because the cause and impact of air pollution cannot be contained within administrative boundaries.
>
> Disproportionate, because government funding cuts to London's local authorities, and to other organisations such as Transport for London and the Environment Agency, diminishes their capacity to tackle air quality in London. Any other financial penalties imposed on them would reduce this even further and only serve in hindering progress towards meeting the EU targets.[130]

Defra told us that if the infraction was "at national level and the issue is for central Government, that kind of fine would not be passported" to local authorities, but if action was "not being taken forward that is their responsibility, then that is something that might be more appropriate".[131] The Defra minister emphasised that he was focusing on resolving the problem, so that fines were not incurred in the first place.[132]

124 Gatwick Airport (AIR 0047)
125 Environmental Audit Committee, Ninth Report of Session 2010-12, *Air quality: a follow up report*, HC 1024-I para 39
126 Environmental Audit Committee, Seventh Special Report of Session 2010-12, *Air quality: a follow up report: Government Response,* HC 1820 paras 37-38
127 *Environment: Commission takes action against the UK for persistent air pollution problems,* European Commission, press release, 20 February 2014
128 Defra, Extract of a letter for LA's (inside the zones identified by the Commission) (March 2014)
129 Q161
130 London Councils (AIR 0031) para 4
131 Q199
132 Qq194-95

66. In tandem with this possibly penalising regime, Defra has also provided guidance[133] and support, including some additional funding,[134] to affected local authorities to help them tackle poor air quality. In response to our 2011 report the Government noted that it had added an air quality indicator for the mortality effect of fine particulate matter ($PM_{2.5}$) to the Public Health Outcomes Framework which would assist Directors of Public Health in prioritising air quality in local areas, and it provided £3million of Air Quality Grants.[135] In July 2014 Defra announced that the 2014-15 Air Quality Grant programme (worth £1 million) would concentrate specifically on supporting projects set up to tackle NO_2 emissions, with preference given to authorities in the 16 areas which have exceeded limits for nitrogen dioxide (paragraph 7).[136] Defra also supports local air quality monitoring:

> Defra itself invests in the region of £10 million per annum to provide the monitoring network, modelling and evidence necessary to support this work. Defra assesses air quality in the UK through a combination of monitoring and modelling, as well as through the development and upkeep of a national emissions inventory. Defra supports a network of 273 monitoring sites in the UK, measuring concentrations of 13 pollutants for the purposes of statutory reporting and national assessment. Modelling is also used to report levels of pollutants where monitoring does not take place and allows Defra to assess levels of pollutants both now and in the future.[137]

67. Local authorities are responsible for assessing air quality under the Local Air Quality Management system, to check they meet national air quality objectives. If they fall short, they must declare an Air Quality Management Area and produce an action plan to meet the standards. Currently councils are required to submit an assessment every three years, plus further detailed assessments and a formal action plan if an Air Quality Management Area is declared. In 2013 Defra consulted on potential changes to the Local Air Quality Monitoring regime.[138] Defra more recently explained the purpose of the intended changes:

> Recent experience suggests that Local Air Quality Management (LAQM) is not delivering to the extent that it should be, particularly in relation to action planning. Defra consulted on a package of measures in 2013 aimed at transforming LAQM so that local authorities could focus on action to improve air quality and to achieve better public health and environmental outcomes…
>
> The process will seek to realign local obligations to better meet the challenges of local air quality, and also to link in more proactively with EU air quality standards. The review will also clarify roles and responsibilities for action (for example, improving deliverability of action plan measures in two-tier authorities; reducing reporting burdens and providing local authorities with access to evidence on best practice measures to improve air quality).[139]

133 See Local Air Quality Management (LAQM) Support webpage [accessed 10.11.2014]
134 See Air Quality Grants Programme. Webpage [accessed 10.11.2014].
135 Environmental Audit Committee, Seventh Special Report of Session 2010-12, *Air quality: a follow up report: Government Response,* HC 1820 paras 33, 43
136 *'£1 million boost for local air quality projects*'. Defra Press Release 9 July 2014
137 Defra (AIR 0050) paras 7 - 9
138 Defra, *Local air quality management in England: review 2013*
139 See Defra, Local air quality management in England: review 2013

The Environment Minister, Dan Rogerson MP, told us that:

> given the resources that local authorities have at their disposal, we wanted to make sure that what they are reporting on is done in as efficient a way as possible and takes account of the fact that with some pollutants we are in a much better place now than we were historically, so there needs to perhaps potentially be less of a focus on those but more of a focus on the others, and then a focus on delivery. Obviously there has to be some monitoring, that is the whole point of the process, but it is not just about monitoring and reporting it back. It is that they can use as much of the resource as possible.[140]

68. While some local authorities welcomed the potential for reduced bureaucracy, others are concerned that the review will lead to less robust monitoring, and a closure of local monitoring stations by removing local authorities' legal duty to monitor air quality in detail. Alan Andrews of Client Earth believed that the initiative was "hijacked by the Government's attack on red tape; … part of the deregulatory agenda that saw air pollution regulation as a restraint on economic growth".[141] Defra have announced that a second consultation with a "final set of options" will be published by the end of 2014.

69. The focus of the Government's policy on air quality appears to be on localism. But some of our local authority witnesses appeared to want a deeper involvement by central government. Jack Scott of Sheffield City Council told us that "there could be much more done by Defra around sharing best practice within local authorities, which is something I think is not particularly well shared at the moment, unless local authorities do it themselves".[142] Some felt a degree of confusion in the guidance provided. The City of London Corporation told us that:

> greater clarity and guidance on local authorities' responsibilities in this area would be beneficial. In the public health indicators compiled by the Department of Health, the air pollution measure is based on exposure to $PM_{2.5}$. However, this does not cohere with local authority obligations under the Environment Act 1995, which places no statutory obligations on local authorities in respect of $PM_{2.5}$. The obligation is for PM_{10}. Local authorities are no longer implementing measures to reduce PM_{10} as compliance with the limit value has been achieved, yet reducing PM_{10} concentrations further would have the benefit of reducing concentrations of $PM_{2.5}$.

Jack Scott also saw confusion:

> There is not always clarity from Government about the extent to which the Department for Transport and Defra are responsible for air quality measures or air quality actions. It seems to me there is a split between the responsibility and perhaps some of the tools that are at the Government's disposal. The responsibility seems to lie with Defra for improving air quality but the tools for tackling that, which relate to transport, seem to lie with the Department for Transport. That gives something of a confusing picture to those of us in local authorities who are trying to find a way forward.[143]

140 Q241
141 Q65
142 Q178
143 Q154

70. The Government provided funding to local authorities through the Air Quality Grant Programme (£55m given since 1997), the Local Sustainable Transport Fund (£560m in 2011–2015 for local transport projects), and the recently announced Clean Vehicle Technology Fund worth £5 million. Bristol City Council felt that they were spending too much time and resources on bidding for such funds and would prefer the Government to simply allocate funding to cities based on their air quality needs, to free up local officials to concentrate on delivery.[144]

71. The Environment Minister saw local authorities having increasing control. He cited the delegations implicit in local Growth Deals and Local Enterprise Partnerships.[145] Local authorities' Public Health & Well-being Boards have operated since April 2013, guided by a Public Health Outcomes Framework which includes an air pollution indicator and informed by *Estimates of local mortality from air pollution* statistics published by Public Health England.[146] The Public Health & Well-being Boards are under a statutory duty to involve local people in the preparation of joint strategic needs assessments and the development of health and well-being strategies. These, PHE explained, should "enable public health strategies to be developed that meet the needs of the whole local community".[147] The abolition of most ring-fences in local authority funding would appear to increase the imperative for strong groundwork of this sort to underpin air quality and other local health strategies. Unfortunately, King's College London found that "with a small number of exceptions, we are not aware of public health practitioners in local authorities becoming substantively engaged in air quality management and taking action on air pollution due to public health drivers."[148]

72. The picture appears to be mirrored in Growth Deals and Local Enterprise Partnerships. Research suggests that while LEPs have expressed support for air quality improvement schemes such as active travel, in practice few have produced plans for such schemes. Philip Insall of Sustrans told us:

> We have carried out a fairly detailed analysis of the strategic economic plans of the LEPs, and very few of them give more than a very cursory and passing mention of walking and cycling, because that is not their target. Their target is really to generate economic growth and development, and create jobs at all costs. There are obviously good points about that approach, but if one of the costs is going to be a worsening of the local air quality with all the consequences that we have heard of, then maybe they need a little reframing.[149]

We found a similar failure to adequately address environmental considerations in our review of BIS's management of the Regional Growth Fund.[150]

73. **There is some confusion over the boundary of local and central government responsibilities for air quality. That confusion is exacerbated by an unresolved debate over the localism agenda and how that impinges on action on air quality. On the one hand, Government provides air quality grants to local authorities from whom it requires proposals to be justified and explained, complicating the process. The**

144 Bristol City Council (AIR 0084)
145 Q245
146 Public Health England, *Estimating local mortality burdens associated with particulate air pollution, (April 2014)*
147 Public Health England (AIR 0013) para 17
148 Environmental Research Group (AIR 0033) para 6.1
149 Q51
150 Environmental Audit Committee, Seventh Report of Session 2013-14, *Sustainability in BIS, HC 613*

NPPF (paragraph 48) circumscribes local discretion in a planning regime that might be used locally to focus on tackling pollution. But, on the other hand, it maintains that local authorities are responsible for air quality, could potentially reduce their air quality monitoring and reporting obligations, and has laid legislative groundwork for passing on EU infraction fines. It is not surprising that against that background some local authorities are confused about what they can do in this policy area, and find Government advice unclear.

74. ***The Government should set out a clear picture of the demarcations within central government and between central and local government on the management of air quality, bringing greater consistency to that relationship. The Government should work with the most polluting cities to identify what, if any, of the powers held by London might be replicated elsewhere to improve air quality. It should explain how far localism should operate in this policy field. The Government should ensure, however, that its desire to reduce red tape will not be allowed to undermine robust air quality monitoring across the country, which must be a responsibility that central government cannot absolve itself from.***

75. ***Clarity about the extent of local government responsibility for air quality would help to present a clearer perspective for Health & Well-being Boards on the priority they need to give to this critical health challenge. Public Health England should engage with the Boards to ensure that they are discharging that responsibility, and raise with Government any evidence that local authority governance arrangements are preventing appropriate action.***

Public awareness and active travel

76. Air pollution is invisible and its effects on health are not immediately obvious. In our 2011 report we criticised the Government's reluctance to produce a significant national public awareness campaign. The Government's response welcomed the many campaigns carried out at a local level, supported by Government funding to local authorities,[151] but resisted our recommendation. Although public awareness of air quality issues appears to have improved since our last report, it is still not widespread enough. The stalled progress on reducing pollution (paragraph 5) and the recent additional evidence on the significant health impacts of air pollution (paragraph 3) make the need for greater public awareness even more pressing today.

77. Defra works with Public Health England to issues pollution forecasts, supplied by the Met Office, on its UK-Air website.[152] It has recently added a five-day air pollution forecast and the capability for people to obtain data by postcode. Automatic monitoring data from 130 locations is provided to the public on a near real-time basis. "The forecasts … allow people to plan ahead and where relevant take the recommended action to reduce the effects of air pollution."[153] The website offers an email service, twitter feed and RSS feed, and a freephone helpline is provided. The website had 987,000 visits in the first 9 months of 2014, an increase from 626,000 in 2013.[154] The 'Saharan dust smog' at the beginning of April 2014:

151 Environmental Audit Committee, Seventh Special Report of Session 2010-12, *Air quality: a follow up report: Government Response,* HC 1820 para 57

152 See UK-Air pollution forecast [accessed 10.11.2014).

153 Defra (AIR 0050) para 10

154 Usage statistics, accessed 11 November 2014

> resulted in unprecedented media coverage and raised levels of public awareness around issues of air quality. The UK-air website received 195,000 visits to the site across the 4 days amounting to 532,000 page views compared to an average day of 1000–2000 visits per day. Defra also saw the number of followers on our twitter service double over the 4 day period.[155]

78. Clean Air in London criticised what it saw as a Defra failure to issue air pollution alerts on Bonfire Night. Several of our witnesses nevertheless praised the new UK-Air forecasts. King's College London concluded that:

> The integration of air pollution forecasts into weather maps is now possible through the Met Office public weather service. The clear potential of this tool to communicate air pollution information was shown by the extensive public realisation of UK-wide air pollution problems in early April 2014; in part linked to Saharan dust. This should be compared to the complete absence of media information and debate about more severe UK air pollution events just few weeks before.[156]

There was also praise for the alerting services available in some local areas, such as 'Airtext' in London, which sends alerts to mobile phones. Many wanted to see such mobile alert services extended nationally.

79. There is however room for further development and improvement. Some felt that the current alerting services were too reliant on social media and 'smart' devices to which the elderly and other vulnerable groups might not have access. Alan Andrews of Client Earth saw a reticence on the part of Defra which he attributed to divided interests:

> We should be as used to seeing information about air pollution on weather forecasts as we are seeing pollen warnings, UV warnings and all these meteorological and environmental factors, which have much lower health effects than air pollution. I do not understand the Government's reticence to get that information out there to the general public … The problem we have is that Defra is responsible for achieving compliance with limit values and also responsible for issuing smog warnings, so there is obviously a conflict there where they will not want to embarrass themselves.[157]

Others pointed out that no health advice was issued alongside the air quality forecasts.[158] In response, the Environment Minister told us that Defra was working with charities that represent vulnerable groups on how to communicate messages about pollution events.[159] Some witnesses wanted specific information for organisations such as schools and care homes on what action to take in the event of a high air pollution event.

80. ***The Government should work more closely with the Met Office, BBC and other broadcasters to ensure that high air pollution forecasts are disseminated widely via mainstream media in the same way pollen and UV forecasts are broadcast now, together with advice on what action should be taken. The Government should ensure that local authorities are aware of where to find this information. Schools and care homes should***

155 Defra (AIR 0050) para 66
156 Environmental Research Group (AIR 0033) para 7.7
157 Qq40-14, 45
158 The National Centre for Atmospheric Science
159 Q186

be identified and presented with air pollution advice so that they know what to do during air pollution events.

Promoting active travel

81. Public awareness is not just about making vulnerable groups aware of high pollution events. It is also about alerting everyone to the dangers of poor air quality and what can be done to deal with it. The Transport Minister acknowledged that "we have punched slightly below our weight in terms of that public awareness issue".[160] He planned "enhanced public awareness, a new marketing plan"[161] for the forthcoming road investment strategy. Alan Andrews of Client Earth highlighted the need for the general public to be made aware of the risks of air pollution, not just vulnerable groups, and believed that Defra were "at pains to make sure that does not happen, and in some ways really keep this problem under wraps".[162] The Chartered Institution of Water & Environmental Management believed that "public pressure is important to challenge the current inadequacies of local authorities in solving air quality, but the public is generally unaware of the issue".[163]

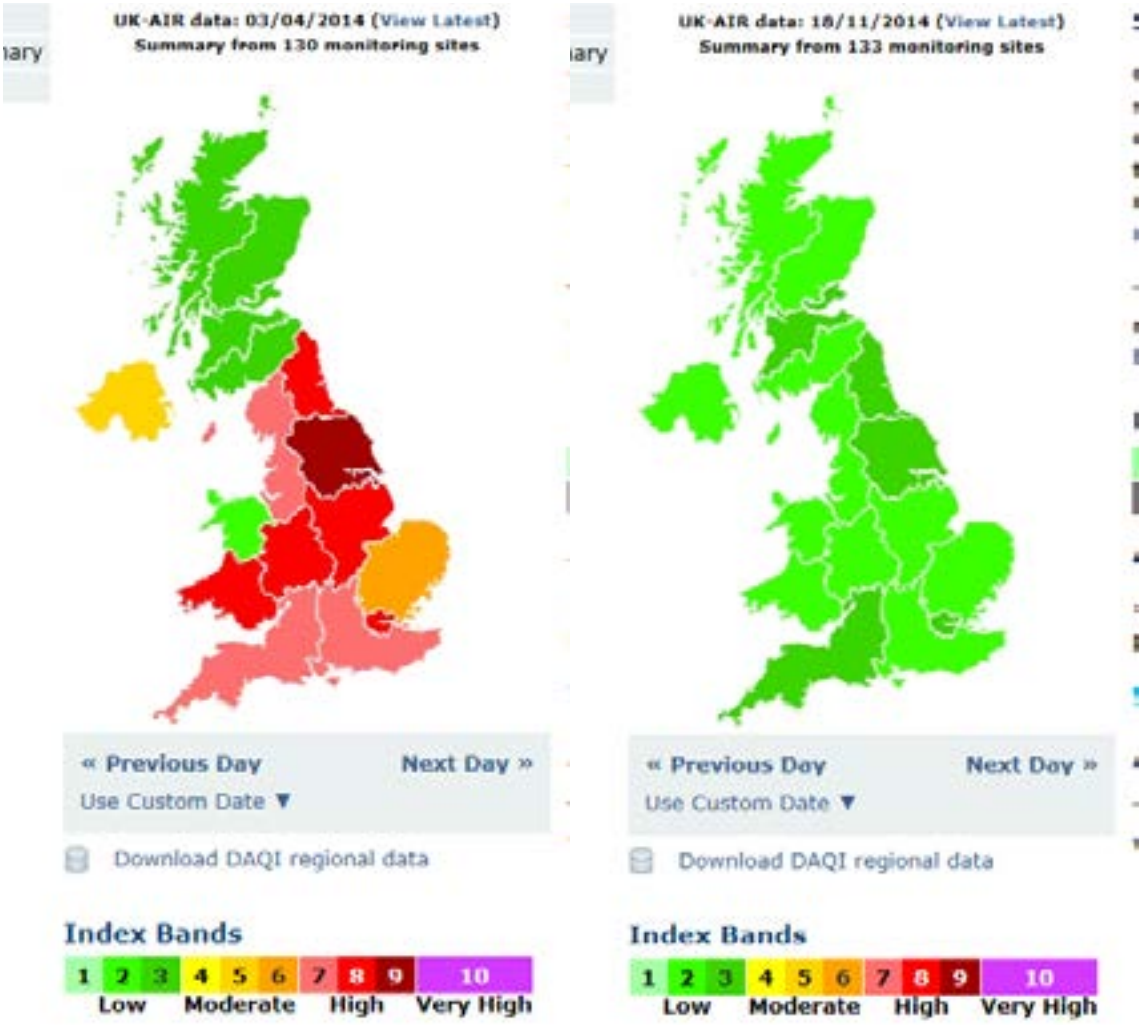
82. The Government's 2007 Air Quality Strategy[164] acknowledged the importance of engaging with the public to achieve more environmentally friendly behaviour. Recent research by Ricardo-AEA for the RAC Foundation noted, however, that:

> Our attitudes and habits when it comes to travel are very deep-rooted and can be hard to change, which means that significant and comprehensive packages of measures are needed to make a difference in the first place, and that thereafter maintaining this level of engagement has proved difficult. [165]

We have discussed (paragraph 26) the need to raise public awareness of the polluting effects of diesel vehicles. Simple measures to reduce exposure include encouraging people to walk away from the edge of congested roads, or when walking to take alternative low pollution routes using back streets or parks which Dr Ian Mudway calculated can reduce exposure to pollutants by almost 50%.[166] The results of our own personal air quality monitoring suggested, perhaps surprisingly, that drivers and passengers in vehicles on congested roads are more at risk than people walking alongside busy traffic.[167] Buses and trains provided good protection for their passengers. Such awareness could underpin essential changes in behaviour: the answer to poor air days is not to take to our cars, but to take public transport or to work at home if we can. "Active travel"—walking and cycling—appears to be healthier than car travel in terms of air pollution exposure as well as providing exercise benefits. The Healthy Air Campaign wanted the Government:

160 Q271
161 Ibid.
162 Q39 [Mr Andrews]
163 CIWEM (AIR 0010) para 36
164 *The Air Quality Strategy for England, Scotland, Wales and Northern Ireland,* Cm 7169. July 2007.
165 *Air Quality and road transport,* Ricardo-AEA. 2014, p 95
166 Q52
167 KCL monitoring reports – Mike Kane (AIR 0079), Caroline Nokes (AIR 0076), Matthew Offord (AIR 0078), Joan Walley (AIR 0077), Caroline Spelman (AIR 0102), Alan Whitehead (AIR 0075)

Air pollution measurement summaries for UK regions



Source: Defra UK-AIR website

The measurements are based on the maximum air quality index measured across all stations in each region. It displays the daily maximum air quality index for each date. The overall air pollution index for a site or region is determined by the highest concentration of five pollutants: Nitrogen Dioxide, Sulphur Dioxide, Ozone, Particles < 2.5µm (PM2.5), Particles < 10µm (PM10).

> to set national targets to double the proportion of local trips made by foot, bike or public transport from 40% to 80%, and direct dedicated, sustained and significant transport investment to active travel.[168]

83. Philip Insall of Sustrans told us that the benefits of active travel exceeded the costs, which should focus infrastructure investment decisions.[169] But fears about road safety will also need to be overcome to encourage more people to cycle or walk, perhaps through increased pedestrianisation of urban areas or dedicated cycle-ways. Dr Iarla Kilbane-Dawe, of Par Hill Research Ltd, calculated that separation of pedestrians and cyclists from traffic reduces pollution exposure by 10%-30%.[170] The Active Travel for Healthy Living Coalition highlighted Hamburg as an example of a city with a "green network" linking up parks, recreational areas and gardens.[171] They believed that:

> active travel plays a valuable role in strengthening the economies of local communities and high streets. A clear message is that people who travel to the shops on foot, by cycle or by public transport spend as much, if not more than those who travel by car.[172]

In September 2014 the Mayor of London announced plans for cross-London cycling 'superhighways'.[173]

84. One approach to raising public awareness and encouraging follow-on action is through 'citizen science' and similar projects, often run by universities and local community groups. Having people able to monitor air quality in their areas and then look at local mitigating actions are key to their success. Dr Ian Mudway of King's College told us that as a result of public outreach activities over the last few years there had been "a sea change in public opinion".[174] But a lack of central government involvement, he told us, "creates pockets of understanding, but it does not really get the message across to people that this is our No. 1 environmental public health issue".[175]

85. **In undertaking our inquiry, and by conducting our own air quality monitoring, we have sought to draw greater public attention to the issue of air pollution. We challenge the Government to follow our lead by instituting a national public awareness campaign about these issues.** ***We welcome the Transport Minister's commitment to us for a "new marketing plan" on air quality, which should be introduced as quickly as possible.***

86. ***The Government should ensure that air quality data are widely available to the general public, including drivers, along with advice on measures to reduce air pollution and how they can reduce their own pollution exposure. The Government should encourage active travel such as walking and cycling—the ultimate low emission options.***

168 Client Earth (AIR 0056) Section 5a
169 Q50
170 Iarla Kilbane-Dawe (AIR 0051) p2
171 Active Transport for Healthy Living Coalition, *The Case for Action,* (June 2014) p12
172 *ibid,* p10
173 See Traffic modelling data released for the Mayor's East-West & North-South Cycle Superhighways. Press release, September 2014.
174 Q38
175 Q38

87. ***We welcome increasing examples of 'citizen science' and other local projects that raise public awareness of air quality issues, which central and local government should actively support. Local Health & Wellbeing Boards (paragraph 71) and clinicians should be taking a lead in promoting public awareness and active travel.***

A new Air Quality Strategy

88. The Government's current *Air Quality Strategy* is now 7 years old.[176] A further document, published in 2010, addressed the links between climate change and air quality.[177] Witnesses told us that the *Strategy* needed updating to take into account emerging further scientific evidence and developments on international standards. A consistent theme from the evidence in our inquiry has been that there is no single solution to air pollution. A revised *Strategy* could set out a new policy framework with a suite of air quality measures to reflect the urgency of the need to meet EU limits. The Healthy Air Campaign wanted a new strategy to set out new measures needed to comply with EU limit values in the shortest time possible, but also to move towards World Health Organisation guideline limits.[178] Others recommended measures to control rural emissions of ammonia (generated by farms) which contribute to $PM_{2.5}$ concentrations in urban areas,[179] and greater emphasis on real-world measurement techniques.[180]

89. A new Air Quality Strategy could identify actions with co-benefits for climate change and air quality, or where policies might conflict to identify optimal trade-offs. In June 2014 the US Government announced an integrated approach to air quality and climate change linking reductions in CO_2 emissions to air pollution improvements. The National Centre for Atmospheric Science wanted to see the UK Government adopt a similar approach.[181] Any new policies need to be backed up by robust scientific evidence. Our expert witnesses[182] wanted to see trials of potential solutions, followed by in-depth evaluation of the results. This would require investment from the Government as well as a widespread network of air quality monitoring stations.

90. An updated Strategy could clarify the role of each Government department and identify areas requiring cross-cutting policy-making, a theme we discussed in our earlier 2011 report.[183] The Government highlighted coordination between Defra and the Department of Transport:

> Defra is the lead department for air quality policy, responsible for monitoring and reporting on air quality to the Commission and ensuring plans are in place to deliver compliance. Defra works very closely with other departments across Government seeking to embed air quality considerations into policy making and delivery … Ownership of measures that would deliver improvements in air quality primarily rest with other departments. Officials and Ministers therefore work closely with these departments. For example there is Ministerial

176 *The Air Quality Strategy for England, Scotland, Wales and Northern Ireland,* Cm 7169. July 2007.
177 *Air pollution: action in a changing climate,* March 2010.
178 Client Earth (AIR 0056) Sections 2-3
179 The Chartered Institution of Water and Environmental Management, CIWEM (AIR 0010) para 22
180 National Centre for Atmospheric Science
181 National Centre for Atmospheric Science (AIR 0009)paras 16-18
182 King's College London, and the National Centre for Atmospheric Science
183 Environmental Audit Committee, Ninth Report of Session 2010-12, *Air quality: a follow up report,* HC 1024-I paras 27 -30

> level engagement on air quality between Defra and DfT and regular meetings at official level. As well as close cooperation on individual projects (ultra-low emission vehicles and the clean vehicle technology fund) the two departments are working together to further strengthen the evidence base for delivery of other measures needed to improve air quality.[184]

Several witnesses, however, criticised Defra's inability to ensure change. The Institute of Air Quality Management and Institution of Environmental Sciences believed that Defra has "relatively little control over emissions, whereas DfT and DCLG could exert more influence but do not appear to have air quality as any priority".[185] Environmental Protection UK emphasised the need for air quality focussed action by the Department for Transport on road transport, by DECC in avoiding "a narrow carbon reduction remit", by DCLG through its oversight on the planning system, and by the Treasury which should "consider air quality as a priority given the costs to health and the economy from air quality impacts and the potential infraction fines from Europe".[186] Friends of the Earth and King's College saw a role for BIS in educating businesses about the "opportunities and benefits"[187] of tackling air quality and to support the timely development of the European Commission's vehicle engine emission testing regime (paragraph 34).

91. A new strategy could clarify the respective responsibilities of central government and local authorities (paragraph 69), including the scope for fiscal incentives and penalties to encourage better air quality (Paragraph 27). The Mayor of London told us that even when his proposal for an Ultra Low Emissions Zone and other measures are delivered in 2020 (paragraph 19), these will not be enough for London to meet EU NO_2 limit values and the Government itself will still have much to do to provide sufficient support.[188]

92. Some witnesses advocated the creation of an independent body—an Air Quality Commissioner—to ensure the implementation of a sufficient, consistent, cross-Government approach. Some suggested that such a role could be taken on by the Environment Agency or Public Health England. Our 2011 report recommended that the Cabinet Office take on a similar role but this was rejected.[189] In our current inquiry, the Defra Minister told us that he did "not think we need another tier, another body".[190] We also received evidence calling for a public inquiry on air quality.[191]

93. **In the past the Royal Commission on Environmental Pollution would have helped to review air pollution and make recommendations for remedial action. The Sustainable Development Commission, similarly, might have been expected to address this important sustainability issue. Both no longer exist.** ***In the absence now of an independent body responsible for air quality, the time has come for decisive action and we therefore support calls for an independent public inquiry to look at the required urgent action on air pollution.***

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184 Defra (AIR 0050) paras 23-24

185 Institution of Environmental Sciences (AIR 0029) paras 3.1, 4.5

186 Environment Protection UK (AIR 0037) paras 10, 13, 15-16, 19

187 Friends of the Earth (AIR 0054)

188 Mayor of London (AIR 0070) paras 1.4-15, 5.2, 6.3

189 Environmental Audit Committee, Seventh Special Report of Session 2010-12, *Air quality: a follow up report: Government Response,* HC 1820 para 31

190 Q275

191 Campaign for Air Pollution Public Inquiry (AIR0003) and John McDonnell (AIR0099)

94. ***The Government should update its 'Air Quality Strategy' of 2007, clearly spelling out the responsibilities of each Government department and identifying cross-Government actions needed to tackle air pollution. An updated Strategy should set out detailed plans and responsibilities for addressing the 16 air quality zones that are subject to potential EU infraction fines. The Strategy should clearly delineate the respective roles and responsibilities of central and local government. The Government should rationalise air quality funding schemes and provide a clear rationale for what local authority actions will be funded by central government and what by local authorities themselves. This would help bring forward the needed debate about the appropriate extent of localism in this policy area (paragraph 69).***

EU proposals

95. The European Commission issued a package of new proposals on clean air in December 2013:

- A new Clean Air Programme for Europe with measures to ensure that existing targets are met in the short term [up to 2020], and new air quality objectives for the period up to 2030. The package also includes support measures to help cut air pollution, with a focus on improving air quality in cities, supporting research and innovation, and promoting international cooperation.
- A revised National Emission Ceilings Directive, with stricter national emission ceilings for the six main pollutants.
- A proposal for a new Directive to reduce pollution from medium-sized combustion installations, such as energy plants for street blocks or large buildings, and small industry installations.[192]

The main 2008 Ambient Air Quality Directive[193] is not being amended. The European Commission explained why:

> The existing air quality standards in the Ambient Air Quality Directive were carefully examined in the review, and it is clear that they are insufficient in relation to the WHO air quality guidelines on air pollution, which represent the levels where health risks are minimized. But it is also clear that further tightening existing EU air quality standards will be ineffective unless we see real cuts in air pollution from the main sources. As many Member States are currently facing infringement cases for failing to reach existing standards, proposing stricter standards at this point in time may prove counter-productive. Instead, the new policy proposes stricter emission ceilings in the revised National Emission Ceilings Directive and… this will pave the way for tightened standards in the Ambient Air Quality Directive at a later stage.[194]

Marco Gasparinetti from the European Commission told us:

> The 2020 deadlines have been proposed in order to be fully in line with our international commitments and not to create an extra problem for the Member

192 *Environment: new policy package to clean up Europe's air,* European Commission, press release, 18 December 2013
193 Council Directive 2008/50/EC
194 *Questions and answers on the EU Clean Air Policy Package,* European Commission, 18 December 2013, Section 8

> States. That was the criteria. We created in Gothenburg, national emission ceilings for these pollutants and the 2020 deadline in this proposal for the Directive is just reflecting our international commitments without creating extra powers.[195]

96. Many of our witnesses were unimpressed by the ambition of the proposals. They noted that the proposed limits were less stringent than current WHO guidelines—for PM_{10} and $PM_{2.5}$ that are respectively 2 and 2.5 times the WHO guideline levels.[196] And the WHO guidelines, we were told, were likely to become even tighter in the light of recent scientific evidence that there is no safe limit for $PM_{2.5}$. Friends of the Earth was one of the organisations which has urged the Government to argue for stricter limits and to aim for the WHO guideline limits.[197] Alan Andrews of Client Earth told us:

> The current proposal sets a target for 2020, a non-binding indicative target for 2025 and then a further binding target for 2030. The target for 2020 is lower than the current EU-based one. So member states would be able to emit more than they are currently allowed to under currently agreed EU legislation. So it is utterly meaningless and will do nothing to drive down emissions of air pollution and thereby improve air quality in the next five to 10 years. The 2025 target is non-binding; it is indicative. Member states can flout that at will. It will have very little effect. So we are looking at the 2030 target; that is far too late. The ambition level within that target is far too low. Even if all member states achieved that target, we would still have 260,000 premature deaths each year in the EU. 20,000 of those would be in the UK, so it really only addresses half the problem, if that.[198]

He blamed lobbying from the UK and others for the absence of a revised ambient air quality directive.[199] Many witnesses acknowledged, however, that the proposals were probably the best that the European Commission could deliver politically.

97. The draft legislation is currently being discussed within EU institutions under the co-decision procedure. Our witnesses raised concerns that the UK Government might seek to weaken the proposals to provide more time and flexibility in meeting the pollution targets. Ministers told us that the proposals had to be "ambitious but deliverable",[200] and:

> realistic and proportionate. We could set targets and bring them forward but if they are not achievable for us or for other member states then they will ultimately lack meaning and will mean that we will not be able to take everybody across society with us to take the actions that we will need to do to meet them. So we think that they need to be proportionate and deliverable.[201]

195 Q96
196 Client Earth (AIR 0056) Overview para 8-9
197 Friends of the Earth (AIR 0054) Summary recommendation a
198 Q81
199 Q82 [Mr Andrews]
200 Q204
201 Q206

98. Recent media reports have raised the possibility that the current clean air proposals may be dropped altogether under the new European Commission's work programme to be announced in December 2014.[202] ***To demonstrate its commitment to tackling air pollution, and a required new comprehensive Air Quality Strategy, the Government should work with the European Commission and the Council of Ministers to make the proposed new EU air quality directives effective and robust.***

202 See "Juncker tests waters on withdrawing Barroso propsals" in *European voice,* 10 November 2014 and *Exposure to air pollution during pregnancy linked to ADHD,* EurActiv, 7 November 2014

3 Conclusion

99. **This is now our third report on air quality in five years. Our main recommendations for the Government in 2010 and 2011 were not implemented, prompting our third Inquiry in the hope that this time the Government will take this as seriously as we do. It is unacceptable that a whole generation of people living in our towns and cities could have their health seriously impaired by air pollution above EU limits before the Government brings this public health problem under control. It should not need a European court case to focus Government attention on air pollution.**

100. **Urgent change is needed in transport and planning policy to save lives and ensure that the UK meets European safety targets much sooner than the expected dates indicated by Defra. Air pollution is an invisible killer and a public health imperative. The challenge for policy makers is that no one single solution can solve this problem and no one single department has all the necessary levers. This change should start with the Government response to this report. A fresh approach is needed for the health challenge we face, coordinating action by local authorities and communities as well as the Government.**

Conclusions

Low Emission Zones

1. Low Emission Zones are one of the most powerful tools that local authorities have for controlling vehicle emissions, but few have introduced them. Barriers include their perceived cost and a lack of guidance and support from Government. The case we made in our 2011 report for a national framework for LEZs remains as compelling today. A national framework could provide a template for creating LEZs with common core features including a national common certification scheme for vehicles meeting particular emissions standards, but allowing individual authorities to strike a locally relevant balance in tackling air quality while protecting local businesses. This would help reduce the cost of LEZs and make it easier for local authorities to administer them. Such an approach would also make it easier for vehicle fleet operators to meet the requirements of individual zones, and reduce the risk of heavily polluting vehicles simply being redeployed from one part of the country to another. A national framework, and individual local authorities' willingness to introduce LEZs based on it, could provide the Government with a more credible basis on which any EU infraction fines might be passed on to the local authorities. (Paragraph 20)

Diesel vehicles and vehicle standards

2. Diesel vehicles have increasingly been identified as the most significant driver of air pollution in our cities, exacerbated by the growth in their number as a result of favourable fiscal incentives compared with the taxes applied to petrol and petrol vehicles. Low emission zones provide a potentially effective means of restricting their use in pollution hotspots, but will need to be supplemented with other measures if such zones charge rather than ban vehicles. In such cases, LEZs can be complemented by a relatively less favourable fiscal regime for diesel and diesel vehicles. The original favourable tax treatment for diesel was the result of an understandable effort to adjust the vehicle mix in a way that would help limit greenhouse gas emissions. It is important however that fiscal policies are flexible enough to accommodate changing understanding. We are disappointed that Ministers have no plans for discussing these issues with the Treasury. (Paragraph 30)

3. New European emissions standards offer the prospect of significant cuts in pollution, but only if vehicles are designed to pass a test regime that is configured to reflect real world driving conditions. (Paragraph 36)

Ultra low emission vehicles

4. The Office for Low Emission Vehicles is encouraging a market in low emission vehicles in the face of past negative perceptions of such vehicles among consumers. The challenge for Government is in supporting alternative fuels in a way that does not run too far ahead of public appetite, and avoids 'picking winners'. (Paragraph 40)

Cleaner public transport

5. There is a lack of clarity over the degree of influence that local authorities have to ensure good air quality standards in local bus fleets. (Paragraph 47)

Planning

6. The air quality provision in the National Planning Policy Framework provides a basis for local authorities to address air pollution in development applications. Local authorities are able to include air quality provisions in their Local Plans provided they remain consistent with the NPPF. In practice, however, half of authorities have yet to complete their Local Plan, in which case the NPPF itself applies. The NPPF does not provide any guarantee of avoiding worse pollution as a result of development, but rather a means of considering all aspects of sustainability, balancing or trading-off sometimes conflicting economic, social and environmental objectives. Nevertheless, given the urgent need to make real progress in tackling unacceptable pollution, there is a need for the NPPF regime to move that balance more towards air quality protection. (Paragraph 60)

Support for local authorities and local air quality monitoring

7. There is some confusion over the boundary of local and central government responsibilities for air quality. That confusion is exacerbated by an unresolved debate over the localism agenda and how that impinges on action on air quality. On the one hand, Government provides air quality grants to local authorities from whom it requires proposals to be justified and explained, complicating the process. The NPPF circumscribes local discretion in a planning regime that might be used locally to focus on tackling pollution. But, on the other hand, it maintains that local authorities are responsible for air quality, could potentially reduce their air quality monitoring and reporting obligations, and has laid legislative groundwork for passing on EU infraction fines. It is not surprising that against that background some local authorities are confused about what they can do in this policy area, and find Government advice unclear. (Paragraph 73)

Public awareness and active travel

8. In undertaking our inquiry, and by conducting our own air quality monitoring, we have sought to draw greater public attention to the issue of air pollution. We challenge the Government to follow our lead by instituting a national public awareness campaign about these issues. (Paragraph 85)

A new Air Quality Strategy

9. In the past the Royal Commission on Environmental Pollution would have helped to review air pollution and make recommendations for remedial action. The Sustainable Development Commission, similarly, might have been expected to address this important sustainability issue. Both no longer exist. (Paragraph 93)

Conclusion

10. This is now our third report on air quality in five years. Our main recommendations for the Government in 2010 and 2011 were not implemented, prompting our third Inquiry in the hope that this time the Government will take this as seriously as we do. It is unacceptable that a whole generation of people living in our towns and cities could have their health seriously impaired by air pollution above EU limits before the Government brings this public health problem under control. It should not need a European court case to focus Government attention on air pollution. (Paragraph 99)

11. Urgent change is needed in transport and planning policy to save lives and ensure that the UK meets European safety targets much sooner than the expected dates indicated by Defra. Air pollution is an invisible killer and a public health imperative. The challenge for policy makers is that no one single solution can solve this problem and no one single department has all the necessary levers. This change should start with the Government response to this report. A fresh approach is needed for the health challenge we face, coordinating action by local authorities and communities as well as the Government. (Paragraph 100)

Recommendations

Low Emission Zones

12. The Government should without any further delay introduce a national framework for Low Emission Zones, with common metrics and a national certification scheme for vehicles meeting particular air quality standards, to facilitate their widespread adoption. (Paragraph 21)

Diesel vehicles and vehicle standards

13. Defra and the Department for Transport should work urgently with the Treasury to establish long-term goals and timescales for a step by step re-balancing of fuel duty and Vehicle Excise Duty consistent with reducing not just CO_2 emissions but also NO_2 and particulate matter impacts. (Paragraph 30)

14. The Government should explore regulatory and enforcement options for ensuring that, once fitted, diesel particulate filters are not removed from vehicles, and where filters are fitted standards are enforced through thorough testing and monitoring. Having raised this with the Minister, we welcome his commitment to tackle this matter and expect an early statement on the actions planned. (Paragraph 31)

15. We recognise that the rationale for previous moves to promote diesel—to reduce carbon emissions—was sound at the time. In the light of increasing public health concerns, however, we need to change policy direction. The Government should consider the scope for subsidising diesel vehicle owners to retrofit their engines or a national diesel vehicle scrappage scheme on the basis of a full cost-benefit analysis that reflects the different circumstances, costs and benefits in urban and rural areas. (Paragraph 32)

16. The Government should continue to work with the European Commission to develop Euro VI/6 standards and the vehicle emission tests to reflect realistic driving conditions. It should maintain pressure on the Commission to deliver that testing regime in 2017, as planned. (Paragraph 36)

Ultra low emission vehicles

17. The Office for Low Emmission Vehicles should work with departments, including DECC, to bring a step change in reducing air pollution and carbon emissions. The Government should consider the scope for financial incentives for a range of alternatively fuelled cars, including gas-fuelled cars, while taking care not to reduce the momentum now emerging for expanding electric vehicle usage or to cause doubts about the Government's commitment to the electric vehicle technology. Such financial support, however, should be based on a strategic assessment of the relative benefits of the different options for using limited available funds, mindful for example that financial support might also be used to support local authorities in introducing low emission zones. (Paragraph 40)

Cleaner public transport

18. The Government should identify best practice in managing bus fleet pollution and provide local transport authorities with advice on how this issue can be addressed when putting out bus route tenders for contract. The Government should also put an emphasis on tackling pollutants as well as carbon emissions in its Green Bus Fund and the Clean Vehicle Technology Fund when helping to meet the costs of upgrading vehicles. (Paragraph 47)

Planning

19. The Government should issue NPPF guidance which makes clearer the great importance of protecting good air quality including protecting green spaces in development planning. Specifically, the NPPF should make it impossible to build new schools, care homes or health clinics near existing air pollution hotspots, and any redevelopment of such existing buildings should only be approved if they reduce pollution exposure for their users. Building regulations should provide for existing schools sited near pollution hotspots to be fitted with air filtration systems. (Paragraph 60)

20. We welcome the Minister's commitment to ensure that the Strategic Highways Company (transforming the Highways Agency to a company) will have a remit which includes environmental performance. The Government should give it a legal duty to protect air quality and introduce a specific clause to that effect in the Infrastructure Bill. (Paragraph 61)

21. The Government should add an explicit air quality objective to the Airports Commission Appraisal Framework. (Paragraph 63)

Support for local authorities and local air quality monitoring

22. The Government should set out a clear picture of the demarcations within central government and between central and local government on the management of air quality, bringing greater consistency to that relationship. The Government should work with the most polluting cities to identify what, if any, of the powers held by London might be replicated elsewhere to improve air quality. It should explain how far localism should operate in this policy field. The Government should ensure, however, that its desire to reduce red tape will not be allowed to undermine robust air quality monitoring across the country, which must be a responsibility that central government cannot absolve itself from. (Paragraph 74)

23. Clarity about the extent of local government responsibility for air quality would help to present a clearer perspective for Health & Well-being Boards on the priority they need to give to this critical health challenge. Public Health England should engage with the Boards to ensure that they are discharging that responsibility, and raise with Government any evidence that local authority governance arrangements are preventing appropriate action. (Paragraph 75)

Public awareness and active travel

24. The Government should work more closely with the Met Office, BBC and other broadcasters to ensure that high air pollution forecasts are disseminated widely via mainstream media in the same way pollen and UV forecasts are broadcast now,

together with advice on what action should be taken. The Government should ensure that local authorities are aware of where to find this information. Schools and care homes should be identified and presented with air pollution advice so that they know what to do during air pollution events. (Paragraph 80)

25. We welcome the Transport Minister's commitment to us for a "new marketing plan" on air quality, which should be introduced as quickly as possible. (Paragraph 85)

26. The Government should ensure that air quality data are widely available to the general public, including drivers, along with advice on measures to reduce air pollution and how they can reduce their own pollution exposure. The Government should encourage active travel such as walking and cycling—the ultimate low emission options. (Paragraph 86)

27. We welcome increasing examples of 'citizen science' and other local projects that raise public awareness of air quality issues, which central and local government should actively support. Local Health & Wellbeing Boards and clinicians should be taking a lead in promoting public awareness and active travel. (Paragraph 87)

A new Air Quality Strategy

28. In the absence now of an independent body responsible for air quality, the time has come for decisive action and we therefore support calls for an independent public inquiry to look at the required urgent action on air pollution. (Paragraph 93)

29. The Government should update its 'Air Quality Strategy' of 2007, clearly spelling out the responsibilities of each Government department and identifying cross-Government actions needed to tackle air pollution. An updated Strategy should set out detailed plans and responsibilities for addressing the 16 air quality zones that are subject to potential EU infraction fines. The Strategy should clearly delineate the respective roles and responsibilities of central and local government. The Government should rationalise air quality funding schemes and provide a clear rationale for what local authority actions will be funded by central government and what by local authorities themselves. This would help bring forward the needed debate about the appropriate extent of localism in this policy area. (Paragraph 94)

EU proposals

30. To demonstrate its commitment to tackling air pollution, and a required new comprehensive Air Quality Strategy, the Government should work with the European Commission and the Council of Ministers to make the proposed new EU air quality directives effective and robust. (Paragraph 98)

Formal Minutes

Wednesday 26 November 2014

Members present:

Joan Walley, in the Chair

Peter Aldous	Caroline Nokes
Zac Goldsmith	Dr Matthew Offord
Mark Lazarowicz	Mrs Caroline Spelman
Caroline Lucas	Simon Wright

Ordered, That the following written evidence relating to Action on air quality be reported to the House for publication on the internet.

Department for Transport

Department for Communities and Local Government

Kings College monitoring report for Caroline Spelman MP

Draft Report (Action on Air Quality), proposed by the Chair, brought up and read.

Ordered, That the draft Report be read a second time, paragraph by paragraph.

Paragraphs 1 to 100 read and agreed to.

Summary agreed to.

Resolved, That the Report be the Sixth Report of the Committee to the House.

Ordered, That the Chair make the Report to the House.

Ordered, That embargoed copies of the Report be made available, in accordance with the provisions of Standing Order No. 134.

[Adjourned till Tuesday 2 December at 2.45 pm

Witnesses

The following witnesses gave evidence. Transcripts can be viewed on the Committee's inquiry page at www.parliament.uk/eacom .

	Question number
Wednesday 25 June 2014	
Mike Galey, Chair, Environmental Industries Commission Air Quality Working Group, **Dr Ian Mudway**, Lecturer, Respiratory Toxicology, Environmental Research Group, King's College London, **Alan Andrews**, Health and Environment Lawyer, Client Earth, Philip Insall, Health Director, Sustrans, and **Professor Alastair Lewis**, Deputy Director, National Centre for Atmospheric Science.	Q1-87
Thursday 17 July 2014	
Marco Gasparinetti, Principal Lawyer, Directorate-General for the Environment, European Commission.	Q88-99
Wednesday 10 September 2014	
Boris Johnson, Mayor of London, and **Matthew Pencharz**, Senior Advisor, Environment and Energy, Greater London Authority.	Q100-152
Councillor Jack Scott, Sheffield City Council	Q153-180
Wednesday 22 October 2014	
Rt Hon John Hayes MP, Minister of State, Department for Transport, **Rosalind Wall**, Head of Environmental Strategy, Department for Transport, **Dan Rogerson MP**, Parliamentary Under-Secretary of State, Department for Environment, Food and Rural Affairs, **Dr Cheryl Case**, Head of Atmosphere and Noise, Department for Environment, Food and Rural Affairs, and **Louise Barr**, Planning Directorate, Department for Communities and Local Government.	Q181-275

Published written evidence

The following written evidence was received and can be viewed on the Committee's inquiry web page at www.parliament/eacom. INQ numbers are generated by the evidence processing system and so may not be complete.

1 Adrian Foster (AIR0058)
2 Air Products (AIR0011)
3 Anthony Greenough (AIR0021)
4 Autogas Ltd (AIR0052)
5 Baroness Jones, London Assembly (AIR0080)
6 Battersea Society (AIR0059)
7 Birmingham Friends Of The Earth (AIR0039)
8 Breathe Clean Air Group (AIR0012)
9 Bristol City Council (AIR0084)
10 British Heart Foundation (AIR0057)
11 Butler Kelly Ltd (AIR0007)
12 Bvrla (AIR0082)
13 Campaign For Air Pollution Public Inquiry (AIR0003)
14 Campaign For Better Transport (AIR0036)
15 Carter Knowle And Millhouses Community Group (AIR0086)
16 City Of London Corporation (AIR0019)
17 Ciwem (AIR0010)
18 Clean Air In London (AIR0045); (AIR0088)
19 Clientearth (AIR0056)
20 Committee On The Medical Effects Of Air Pollutants (Comeap) (AIR0027)
21 Crigglestone Parish Council (AIR0074)
22 David Davies (AIR0066); (AIR0092)
23 Defra (AIR0050)
24 Department for Communities and Local Government (AIR0101)
25 Department for Transport (AIR0100)
26 Dr Stanislaw Prokop (AIR0005)
27 East End Quality Of Life Initiative (AIR0062)
28 Environmental Industries Commission (AIR0065)
29 Environmental Protection Uk (AIR0037)
30 Environmental Research Group (AIR0033)
31 European Commission (AIR0064)
32 Exeter City Council (AIR0081)
33 Freight Transport Association (AIR0048)
34 Friends Of The Earth (AIR0054)
35 Gatwick Airport Limited (AIR0047)
36 Healthy Air Campaign (AIR0098)
37 Hybridrive Solutions (AIR0085)
38 Iarla Kilbane-Dawe (AIR0051)
39 Institution Of Environmental Sciences (AIR0029)

40 Ita Policy & Strategy Team On Behalf Of The West Midlands Strategic Transport Officers Group (Stog) (AIR0026)
41 James M Donlon (AIR0071)
42 Jill Austen (AIR0022)
43 John D Hall (AIR0001)
44 John Kaye (AIR0067)
45 John McDonnell MP et al (AIR0099)
46 KCL monitoring report - Alan Whitehead MP (AIR0075)
47 KCL Monitoring Report - Caroline Nokes MP (AIR0076)
48 KCL Monitoring Report - Joan Walley MP (AIR0077)
49 KCL Monitoring Report - Matthew Offord MP (AIR0078)
50 KCL Monitoring Report - Mike Kane MP (AIR0079)
51 KCL Monitoring Report–Caroline Spelman MP (AIR0102)
52 Liquid Air Energy Network (AIR0043)
53 London Borough Of Hounslow (AIR0034)
54 London Councils (AIR0031)
55 London Forum Of Amenity And Civic Societies (AIR0063)
56 London Sustainability Exchange (AIR0040)
57 Mayor of London (AIR0070); (AIR0090);
58 Michael Ryan (AIR0096)
59 Ms Rosemary Atkins (AIR0072)
60 Murad Qureshi Am (AIR0016)
61 National Centre For Atmospheric Science (AIR0009)
62 Natural Environment Research Council (Nerc) (AIR0015)
63 New West End Company (AIR0061)
64 Nicholas Bradshaw (AIR0087)
65 Nigel Roberts (AIR0006)
66 No To Silvertown Tunnel Campaign (AIR0023)
67 Pendragon Pr (AIR0069)
68 Public Health England (AIR0013)
69 Putney Society (AIR0032)
70 Rac Foundation (AIR0014)
71 Sheffield City Council (AIR0044); (AIR0089); (AIR0093)
72 Society Of Motor Manufacturers And Traders (Smmt) (AIR0017)
73 Sophie Howard (AIR0053)
74 Sustrans (AIR0002)
75 The Anaerobic Digestion & Biogas Association (AIR0046)
76 The Dearman Engine Company Ltd (AIR0035)
77 The Greenfuel Company Ltd (AIR0008); (AIR0060)
78 Tim Henderson (AIR0028)
79 Tom Kennedy (AIR0049)
80 Weareresidents.Org (AIR0024)
81 Zipcar (Uk) Limited (AIR0025); (AIR0083)

Unpublished evidence

The following written evidence has been reported to the House and copies have been placed in the House of Commons Library, where they may be inspected by Members. Other copies are in the Parliamentary Archives (www.parliament.uk/archives), and are available to the public for inspection. Requests for inspection should be addressed to The Parliamentary Archives, Houses of Parliament, London SW1A 0PW (tel. 020 7219 3074; email archives@parliament.uk). Opening hours are from 9.30 am to 5.00 pm on Mondays to Fridays.

1 Councillor Jack Scott, Sheffield City Council (further written evidence)

2 Boris Johnson, Mayor of London (further written evidence)List of Reports from the Committee during the current Parliament

List of Reports from the Committee during the current Parliament

All publications from the Committee are available on the Committee's website at www.parliament.uk/eacom .
The reference number of the Government's response to each Report is printed in brackets after the HC printing number.

Session 2014–15

First Report	Marine protected areas	HC 221 (HC 651)
Second Report	National Pollinator Strategy	HC 213 (HC 698)
Third Report	Growing a circular economy: Ending the throwaway society	HC 214 (HC 699)
Fourth Report	Sustainability in the Home Office	HC.222 (HC 823)
Fifth Report	An environmental scorecard	HC 515 (HC 822)

Session 2013–14

First Report	Embedding sustainable development: an update	HC 202 (HC 633)
Second Report	Outcomes of the UN Rio+20 Earth Summit	HC 200 (HC 633)
Third Report	Transport and the accessibility to public services	HC 201 (HC 632)
Fourth Report	Protecting the Arctic: The Government response	HC 333
Fifth Report	Progress on Carbon Budgets	HC 60 (HC 928)
Sixth Report	Biodiversity offsetting	HC 750 (HC 1195)
Seventh Report	Sustainability in BIS	HC 613 (HC 1069)
Eight Report	Codes for Sustainable Homes and the Housing Standards Review	HC 192 (HC 8830)
Ninth Report	Energy subsidies	HC 61 (HC 1103)
Tenth Report	Sustainability in the UK Overseas Territories	HC 332 (HC 1167)
Eleventh Report	Plastic bags	HC 861 (HC 239)
Twelfth Report	Green Finance	HC 191 (HC 330)
Thirteenth Report	HS2 and the environment	HC 1076 (HC 216)
Fourteenth Report	Invasive non-native species	HC 61 (HC 385)
Fifteenth Report	Well-being	HC 59 (HC 639)

Session 2012–13

First Report	The St Martin-in-the-Fields seminar on the Rio+20 agenda	HC 75
Second Report	Protecting the Arctic	HC 171 (HC 858)
Third Report	Wildlife Crime	HC 140 (HC 1061)
Fourth Report	Autumn Statement 2012: environmental issues	HC 328 (HC 1087)
Fifth Report	Measuring well-being and sustainable development: Sustainable Development Indicators	HC 667 (HC 139)
Sixth Report	Energy Intensive Industries Compensation Scheme	HC 669 (Cm 8618)
Seventh Report	Pollinators and Pesticides	HC 668

Session 2010–12

First Report	Embedding sustainable development across Government, after the Secretary of State's announcement on the future of the Sustainable Development Commission	HC 504 (HC 877)
Second Report	The Green Investment Bank	HC 505 (HC 1437)
Third Report	Sustainable Development in the Localism Bill	HC 799 (HC 1481)
Fourth Report	Embedding sustainable development: the Government's response	HC 877
Fifth Report	The impact of UK overseas aid on environmental protection and climate change adaptation and mitigation	HC 710 (HC 1500)
Sixth Report	Budget 2011 and environmental taxes	HC 878 (HC 1527)
Seventh Report	Carbon Budgets	HC 1080 (HC 1720)
Eighth Report	Preparations for the Rio +20 Summit	HC 1026 (HC 1737)
Ninth Report	Air Quality a follow up Report	HC 1024 (HC 1820)
Tenth Report	Solar Power Feed-in Tariffs (Joint with the Energy and Climate Change Committee)	HC 1605 (HC 1858)
Eleventh Report	Sustainable Food	HC 879 (HC 567)
Twelfth Report	A Green Economy	HC 1025 (HC 568)

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