House of Commons

Environment, Food and Rural Affairs Committee

Air Quality and coronavirus: a glimpse of a different future or business as usual

Fifth Report of Session 2019–21

Report, together with formal minutes relating to the report

Ordered by the House of Commons to be printed 2 February 2021

HC 468
Published on 11 February 2021
by authority of the House of Commons

The Environment, Food and Rural Affairs Committee

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Contents

Summary

Cleaner air and clearer skies were one of the few positives that many people experienced following the first covid-19 lockdown in March 2020. However, as the pandemic progressed evidence also began to emerge that air pollution might be playing a role in people's susceptibility to, and increased mortality from, covid-19. Air pollution is the largest environmental risk to UK public health and is linked to as many as 64,000 early deaths a year. It is an issue that our predecessor Committees returned to several times, concluding the Government had failed to address the scale of the challenge. We have revisited air quality in light of the pandemic and our key findings are:

- **Lockdown restrictions from March 2020 led to less traffic and changing travel patterns and many people experienced better air quality.** But by September 2020, most towns and cities saw a return to pre-lockdown levels of air pollution. The temporary improvement in air quality does not mask the need for faster progress on air pollution.

- **Although there is a link between poor air quality and covid-19 mortality and morbidity; a strong and established case already existed for taking action to reduce health inequalities from air pollution,** and the Government's Clean Air Strategy should be amended to include measures to reduce these long-term health inequalities. The Environment Bill should also be amended to include a health inequalities target; require the Secretary of State to take account of human health considerations when setting or reviewing air quality targets; and include a duty on all government departments and local government to work together to deliver these targets.

- **The Environment Bill does not provide the robust legal framework needed given the scale and urgency of the challenge**. It should be amended to include a specific target to reduce the annual mean concentration of PM2.5 to under 10µg/m3 by 2030, in line with World Health Organisation-guidelines. The Secretary of State should also use his discretionary powers in the Bill to set additional long-term air quality targets for the other key pollutants that harm human health.

- **The Clean Air Strategy relies too much on local authorities, delegating most responsibility for delivering air quality improvements to them without providing sufficient competencies and resources to deliver.** The duties related to local "air quality partners" in the Environment Bill should apply to all levels of government and public bodies; and the Government should commit to a long-term funding structure for local authorities to underpin their new duties in the Bill.

- **Reducing the use of public transport was necessary during the pandemic, but action is needed to prevent a permanent shift in public attitudes towards it as well as to maintain momentum in increasing active travel.** As restrictions are lifted, the Government should work with local authorities and providers to reassure the public that public transport is safe and to promote its use. The Government should also match its rhetoric on active travel with sufficient funding.

Introduction

1. Cleaner air and clearer skies were one of the few positives that many people experienced following the first covid-19 lockdown in March 2020.[1] As the pandemic progressed, evidence also began to emerge that air pollution might be playing a role in people's susceptibility to, and increased mortality from covid-19.[2] Air pollution is classified as the largest environmental risk to UK public health; with, depending on the study, it being linked to around 40,000 or 64,000 early deaths a year.[3]

2. Health problems caused by air pollution in the UK are estimated to cost individuals and society more than £20 billion a year.[4] Our predecessor's joint inquiry with the Environmental Audit, Health and Social Care, and Transport Committees concluded in 2018 that the Government had failed to address the scale of the challenge, and did not show the national leadership needed to deliver the necessary "step change" in how the problem of air quality was tackled.[5] Given the new concerns about air quality raised during the pandemic, we decided it was necessary to see if that step change had been achieved.

3. Our latest inquiry was launched in June 2020 to assess whether the Government's latest Clean Air Strategy published in 2019 and the Environment Bill would be able to meet the air pollution challenge after the pandemic.[6] Our call for evidence asked:

a) Did the UK Government's 2019 Air Quality Strategy set out an effective and deliverable strategy to tackle the UK's poor air quality and address the issues raised in our 2018 report? Has the UK Government put in place the necessary structures and resources to deliver its strategy?

b) Will the Environment Bill provide England with a robust legal framework to define and enforce air quality limits?

c) What progress had the UK Government made on reducing air pollution and enforcing legal pollution limits before the covid-19 pandemic?

d) What does the early evidence from the covid-19 pandemic say about the impact of poor air quality on health, and health inequalities for disadvantaged communities and other at-risk groups, and possible policy responses?

1 The changes in measured air quality are summarised in Air Quality Expert Group, *Estimation of changes in air pollution emissions, concentrations and exposure during the COVID-19 outbreak in the UK. Rapid evidence review – June 2020* (June 2020). For public perceptions see, Asthma UK and British Lung Foundation Partnership (AQU0029) para 6.6; and Global Action Plan and Guy's & St Thomas' Charity, *Build Back Cleaner Air: COVID-19 & Air Pollution, survey, 2020* (July 2020)

2 Global Action Plan and Guy's & St Thomas' Charity, *Build Back Cleaner Air: COVID-19 & Air Pollution, survey, 2020* (July 2020) pp7–9; and Asthma UK and British Lung Foundation Partnership (AQU0029) para 6.3

3 Public Health England *Health Matters: Air Pollution* (November 2018). The 40,000 deaths figure is cited in Royal College of Physicians and Royal College of Paediatrics and Child Health, *Every breath we take*: the lifelong impact of air pollution (February 2016), p. xiii. The 64,000 estimate is taken from Jos Lelieveld, Klaus Klingmüller, Andrea Pozzer, Ulrich Pöschl, Mohammed Fnais, Andreas Daiber, Thomas Münzel, "*Cardiovascular disease burden from ambient air pollution in Europe reassessed using novel hazard ratio functions*", *European Heart Journal*, vol 40, Issue 20 (May 2019), pp 1590–1596.

4 Royal College of Physicians and Royal College of Paediatrics and Child Health, *Every breath we take*: the lifelong impact of air pollution (February 2016), p xiii

5 Environment, Food and Rural Affairs, Environmental Audit, Health and Social Care, and Transport Committees, First Joint Report of Session 2017–19, *Improving Air Quality*, HC 433, para 11

6 Defra, *Clean Air Strategy 2019* (14 January 2019), Environment Bill [Bill 220 (2019–21)]

e) What are the current and emerging risks and opportunities for air quality posed by?

i) Short-term policy and societal changes in response to the pandemic, for example changes to transport to reduce the risk of transmission, and;

ii) Medium and long-term actions to promote economic recovery.[7]

We received around 90 written submissions and took oral evidence from academic experts; civil society organisations; local government leaders; and ministers and officials from the Department for Environment, Food and Rural Affairs (Defra) and the Department for Transport (DfT). We would like to thank everyone who contributed to our inquiry.

4. Our Report is intended to inform future policy and action by the UK Government and local authorities, both in response to the current pandemic and to enable the UK to achieve longer-term improvements in air quality. It is in three sections:

- Chapters 1 and 2 examine the impact of the pandemic and spring 2020 lockdown on air quality; and how the potential link between exposure to air pollution and covid-19 mortality that emerged has brought into sharper focus the health-inequalities linked to air quality;
- Chapters 3 and 4 consider the Governments strategy for tackling poor air quality; including whether the targets it is setting itself in the Environment Bill are sufficient, and the effectiveness of its reliance on local action to deliver national targets;
- Finally, Chapter 5 explores how to ensure that the promised "green recovery" from the pandemic will improve air quality, including ensuring that changes in behaviour spurred by lockdowns do not result in greater car dependency.[8]

5. Although our inquiry particularly focused on air quality issues relating to the pandemic, and particularly the issues it raised about transport given the impact of the lockdown on travel; the evidence we received raised many other issues, including wood-burning stoves and ammonia emissions from farming.[9] A number of these were covered in our 2018 report and may be issues that the Committee returns to in future. Air quality is a devolved competency, so this Report refers to England only unless otherwise specified.

7 Environment, Food and Rural Affairs Committee *'Once in a lifetime' opportunity to reduce pollution* (12 June 2020)

8 "*Boris Johnson: Now is the time to plan our green recovery*", Financial Times, 17 November 2020

9 See, for example, Gary Quinn (AQU0027) & Adrienne Williams (AQU0040) on wood burners, and Joint Nature Conservation Committee, Natural England (AQU0036) on farming.

1 Changes in UK air pollution

6. In this chapter we briefly explore how air quality has changed in recent decades and the progress, or lack of it, prior to the pandemic; before turning to the impact of the spring lockdown on air quality and its implications.

Box 1: Common types of air pollution and their effects on health[10]

- **Particulate matter (PM)** mainly comes from burning fuels, tyre and brake wear, wind-blown soil and dust, sea spray and fires from burning vegetation. PM is classified by size: **PM10** are coarse particles <10 microns (μm) in diameter; **PM2.5** are fine particles <2.5 μm in diameter; and **PM0.1** are ultrafine particles 0.1 μm in diameter. Particles bigger than PM10 are mainly deposited in the nose or throat. Smaller PM are a bigger health risk as they can be drawn deep into the lungs, and long-term exposure increases mortality and morbidity from cardiovascular and respiratory diseases and may cause lung cancer.
- **Nitrogen dioxide (NO2) and nitric oxide (NO) (together known as NOx)** are produced by combustion, with 80% of NOx emissions occurring in areas where the UK exceeds legal limits on NO2 because of transport, especially diesel-powered vehicles. Other sources are power generation, industrial processes and domestic heating. Short-term exposure to NO2, especially at high concentrations, causes inflammation of the airways. It is associated with reduced lung development, respiratory infections in early childhood, reduced lung function in adulthood and reduced life expectancy.
- **Sulphur dioxide (SO2)** comes from burning sulphur-containing fuels (e.g. coal). Chemical reactions of SO2 can produce sulphates in the air as secondary particles contributing to PM; and SO2 irritates the lining of the nose, throat and airways.
- **Ammonia (NH3)** comes from natural and man-made sources. Atmospheric NH3 reacts with acid gases to form secondary PM2.5. Agricultural emissions of NH3 can be a key contributor to short-term episodes of high PM pollution.
- **Ground-level ozone (O3)** is formed by heat and sunlight reacting with NOx and volatile organic compounds (VOCs) which produces smog and can affect people's respiratory and cardiovascular systems.
- **Non-methane volatile organic compounds (NMVOCs)** come from industrial processes, agriculture and household products. In sunlight they react with NOx to form ground-level O3.

7. Air pollution is known to affect people's health from before birth and to old age. It affects the vital organs including lungs, heart and brain, and is linked to physical and mental health problems including, asthma, lung cancer, heart disease, strokes, dementia, depression, anxiety, and poor concentration in children.[11]

10 Adapted from Public Health England, Health Matters: Air Pollution (November 2018)

11 Environment, Food and Rural Affairs, Environmental Audit, Health and Social Care, and Transport Committees, First Joint Report of Session 2017–19, *Improving Air Quality*, HC 433, paras 5–8

8. It has been estimated that every year up to 64,000 of all premature deaths may be linked to air pollution, with up to 40,000 premature deaths linked to exposure to particulates and nitrogen dioxide.[12] This was starkly highlighted by the Coroner's verdict in December 2020, into the death of Ella Roberta Adoo Kissi-Debrah who died aged nine on 15 February 2013 who lived near the South Circular Road in south-east London.[13] He concluded that Ella "died of asthma contributed to by exposure to excessive air pollution" and the medical causes of death were recorded as, "acute respiratory failure", "severe asthma", and, for what is believed to be the first time, "air pollution exposure."[14] He continued that:

> Air Pollution was a significant contributory factor to both the induction and exacerbations of her asthma. During the course of her illness between 2010 and 2013 she was exposed to levels of [NO2] and Particulate Matter in excess of World Health Organisation (WHO) Guidelines. The principal source of her exposure was traffic emissions. During this period there was a recognized failure to reduce the level of NO2 to within the limits set by EU and domestic law which possibly contributed to her death.[15]

9. Nationally there has been a long-term decline in overall emission levels in the last 50 years as emissions controls were implemented "on energy production and vehicles in the 1980s and 90s".[16] The National Centre for Atmospheric Science (NCAS) explained the reduction in emissions had slowed in recent years as it is "proportionately more and more difficult to reduce ambient concentrations as air quality improves," and past "easy wins" like phasing out coal power, better fuel quality and catalytic converters on petrol cars, meant there were "few easy sectors left to tackle".[17] Urban NOx have fallen since 2015 as issues with diesel vehicles are "now being slowly addressed", and should fall further with a new emissions standards for cars, and more electric vehicles.[18] PM2.5 concentrations have remained flat as "so many different primary sources and precursor emissions contribute to PM2.5", including new petrol and electric vehicles' brakes and tyres, although different particulates of the same size have different levels of toxicity. Meanwhile, little progress has been made in reducing NH3 emissions, despite the agricultural sector's efforts.[19]

12 The 40,000 deaths figure is cited in Royal College of Physicians and Royal College of Paediatrics and Child Health, *Every breath we take*: the lifelong impact of air pollution (February 2016), p xiii. The 64,000 estimate is taken from Jos Lelieveld, Klaus Klingmüller, Andrea Pozzer, Ulrich Pöschl, Mohammed Fnais, Andreas Daiber, Thomas Münzel, *"Cardiovascular disease burden from ambient air pollution in Europe reassessed using novel hazard ratio functions"*, *European Heart Journal*, vol 40, Issue 20 (2019), pp 1590–1596.

13 HM Coroner for the Inner South District of Greater London, Record of Inquest touching the death of Ella Roberta Adoo Kissi-Debrah, London Inner South Coroner's Court (16 December 2020)

14 HM Coroner for the Inner South District of Greater London, Record of Inquest touching the death of Ella Roberta Adoo Kissi-Debrah, London Inner South Coroner's Court (16 December 2020)

15 HM Coroner for the Inner South District of Greater London, Record of Inquest touching the death of Ella Roberta Adoo Kissi-Debrah, London Inner South Coroner's Court (16 December 2020)

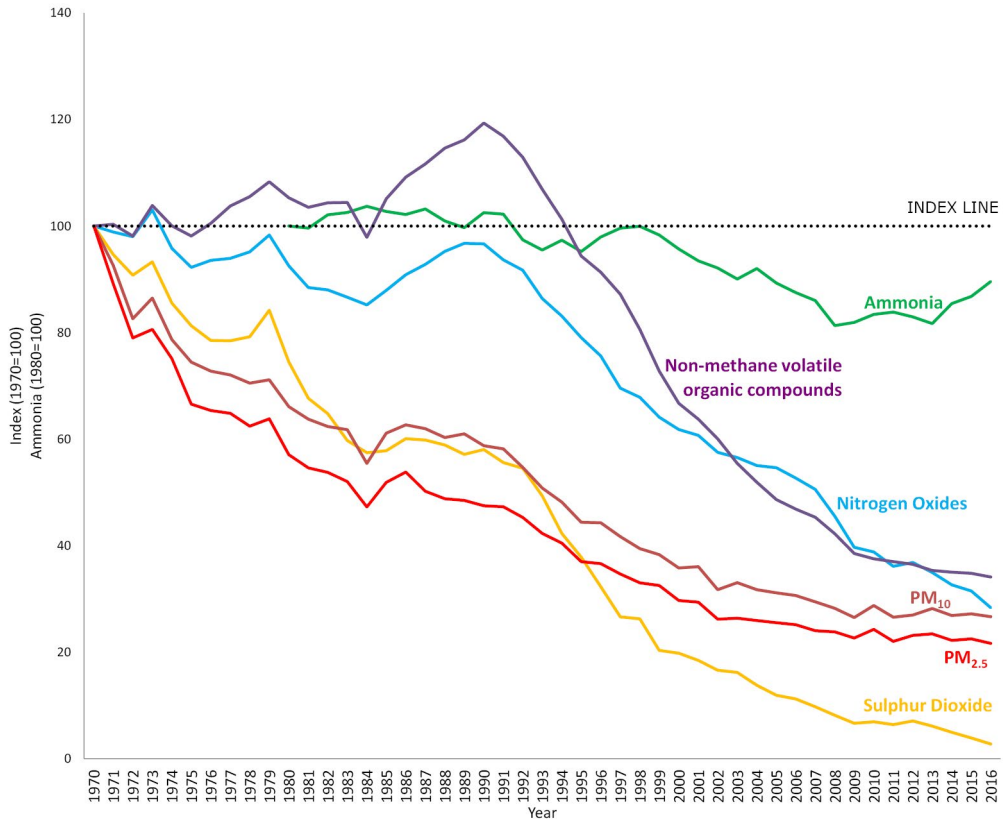
16 The National Centre for Atmospheric Science (AQU001) para 14

17 The National Centre for Atmospheric Science (AQU001) para 14

18 The National Centre for Atmospheric Science (AQU001) para 15

19 The National Centre for Atmospheric Science (AQU001) paras 14–22

Figure 1: Trends in UK emissions 1970–2016[20]



The index line is a comparator that shows the level of emissions if they had remained constant from the beginning of the time series.

UK targets

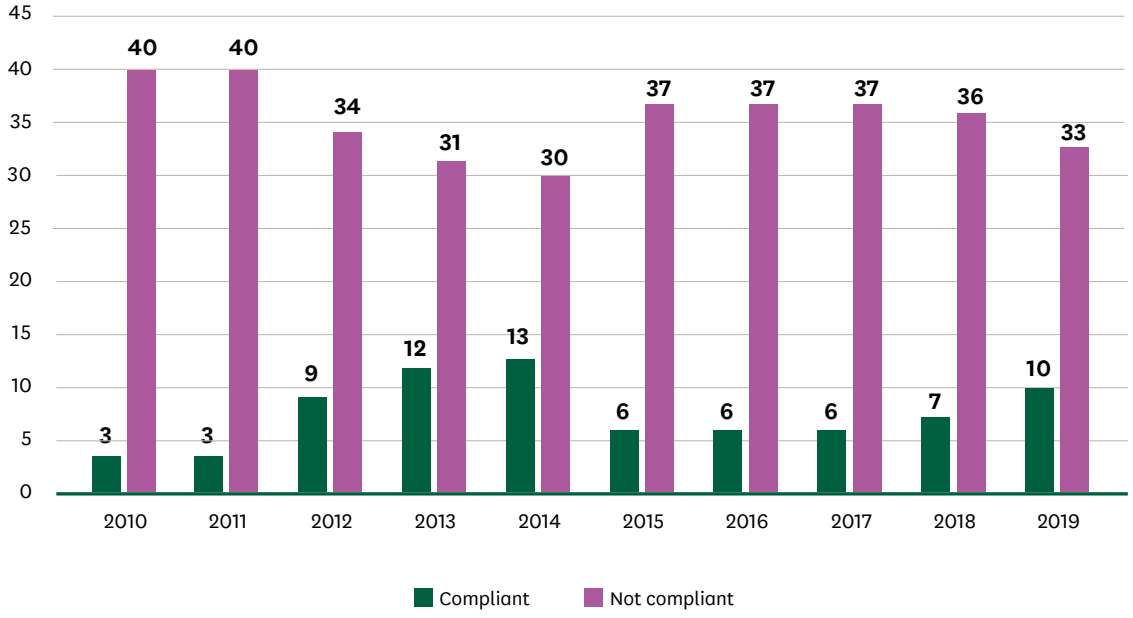
10. The UK is a party to the Gothenburg Protocol which sets national emissions ceilings for sulphur dioxide (SO2), NOx, volatile organic compounds (VOCs), ammonia (NH3) and PM2.5.[21] These are translated into UK law as annual emissions reductions targets via the National Emission Ceilings Regulations 2018.[22] The EU Air Quality Directive, which along with other EU air quality legislation is now incorporated into domestic law as EU retained law, set "limit values" on the levels of permissible outdoor air pollution which must not be exceeded.[23] However, the European Commission can no longer enforce these limits through the European Court of Justice since the UK has left the European Union.

11. Defra's stated that the UK was currently complying with the emission ceilings for annual emissions of NO2, NH3, SO2 and NMVOCs; and annual emissions for all fell between 2010–18 except for NH3, which rose by seven per cent.[24] The only EU Air Quality Directive limits the UK was failing to comply with were the hourly and annual mean limit values for NO2.[25] The UK has been in breach of the limit on NO2 since 2010, leading

20 Drawn from Defra, *Emissions of air pollutants in the UK, 1970 to 2016* (February 2018), reproduced from EFRA committee et al *Improving Air Quality* p 16
21 UNECE, 'Gothenburg Protocol,' accessed 26 January 2021
22 National Emission Ceilings Regulations 2018 (SI 2018/129)
23 Ambient Air Quality Directive 2008/50/EC
24 Department for Environment, Food and Rural Affairs (AQU0074) para 3.3
25 Department for Environment, Food and Rural Affairs (AQU0074) para 3.5. The "annual mean" is the mean average of the 8,759 individual values of the hourly average concentration of a pollutant across a year.

to European Commission infraction proceedings against the UK in 2014 and 2018.[26] Separately, the legal charity Client Earth brought three successful judicial reviews against the UK Government, with the courts ordering Ministers to publish new or updated air quality plans in 2015, 2016 and 2018 to bring NO2 levels under legal limits.[27] The failure to meet legal limits on NO2 was raised by several witnesses. The British Medical Association (BMA) said that, whilst the UK Government had "made good progress […] over the past two decades" this had "plateaued in recent years", referencing the lack of compliance on NO2 reported across the UK's air quality assessment zones.[28] By 2019, of these 43 zones that cover the UK, only 10 were meeting the mean annual limit on NO2 (see figure 2 below).[29] However, it has been reported that between 2016 and 2019, London saw a reduction in NO2 which was five times greater on average than in the rest of the UK.[30]

Figure 2: Compliance with the annual mean limit value for NO2 between 2010–2019 across 43 air quality zones[31]



26 European Commission, *Environment: Commission takes action against UK for persistent air pollution problems* (February 2014); European Commission, *Air quality: Commission takes action to protect citizens from air pollution* (May 2018)

27 *Brexit and Air Quality,* CBP 8195, House of Commons Library, May 2019

28 British Medical Association (AQU0043) para 3.1

29 Department for Environment, Food and Rural Affairs, *Air Pollution in the UK 2019*, (September 2020) p 41

30 Mayor of London and the Greater London Authority (AQU0057) para 5

31 Department for Environment, Food and Rural Affairs, *Air Pollution in the UK 2019*, (September 2020) p 51

The impact of covid-19 lockdown

12. In June, Defra's Air Quality Expert Group (AQEG) confirmed that, as expected, the lockdown introduced on 23 March 2020 to control the covid-19 pandemic had led to some improvements in air quality.[32] Up to 30 April, "NO2 [was] lower everywhere, but the picture for PM2.5 [was] mixed compared to previous years".[33] Professor Alastair Lewis, the Chair of AQEG, explained that NO2 saw "the largest change" mainly because of reductions from road transport, and by 30–40% in urban areas.[34] However PM-concentrations "did not change by really dramatic amounts", as "far more of PM2.5 comes from things that are not related to road transport", including industry, central heating, cooking, agriculture and other sources.[35] AQEG also reported that there was a growth in urban ground-level ozone because of "reducing nitrogen oxide emissions [during] the peak of the lockdown".[36]

13. Some people experienced a noticeable improvement in air quality; Asthma UK and the British Lung Foundation surveyed over 14,000 people living with a lung condition and found "1 in 6 reported having reduced symptoms, likely due to the reductions in air pollution over this period". A survey of 2002 adults by Global Action Plan and Guy's & St Thomas' Charity (GSTC) found that "18% of all people have found it easier to breathe during the lockdown, which increases to 21% for residents of any urban area, and 36% for London residents".[37] The figures rose to "29% for those with asthma and 30% for those with a cardiovascular disease".[38]

14. By July, traffic and emissions had not yet returned to normal although lockdown restrictions had been eased in June. Whilst car use had increased, the patterns and timing of traffic had changed with different working patterns and school closures.[39]

15. By the autumn, air pollution had returned to more normal levels. Analysis by the Centre for Cities found that by September 2020, in 39 of the 49 cities and large towns they looked at, "the pollution levels were at least back to pre-lockdown levels" but economic activity was not yet fully recovered indicating a risk that air pollution might start to exceed pre-pandemic levels.[40] The Centre speculated that "the long-term impact of the pandemic may be to make pollution worse as changed behaviour becomes entrenched even as economic activity is restored".[41]

32 The AQEG is an independent expert committee to Defra, which also reports to the Devolved Administrations, on air pollution and advises on the levels, sources and characteristics of air pollutants in the UK. Air Quality Expert Group, *Estimation of changes in air pollution emissions, concentrations and exposure during the COVID-19 outbreak in the UK. Rapid evidence review – June 2020* (June, 2020).

33 Air Quality Expert Group *Estimation of changes in air pollution emissions, concentrations and exposure during the COVID-19 outbreak in the UK. Rapid evidence review – June 2020* (June, 2020), p 29

34 Q7

35 Q7

36 Q7

37 Global Action Plan (AQU0023) para 51; Guy's and St Thomas' Charity (AQU0045) para 9

38 Global Action Plan (AQU0023) para 51; Guy's and St Thomas' Charity (AQU0045) para 9

39 The National Centre for Atmospheric Science (AQU001) paras 24–26

40 Centre for Cities, *How have the Covid pandemic and lockdown affected air quality in cities?* (December 2020), p 8

41 Centre for Cities, *How have the Covid pandemic and lockdown affected air quality in cities?* (December 2020), p 1

Indoor air pollution

16. We did not include indoor air pollution within our inquiry's terms of reference, but it was covered in several submissions. Professor Stephen Holgate, Royal College of Physicians Special Advisor on Air Quality, and UK Research and Innovation Clean Air Champion, argued that evidence is growing about its risks to health in public buildings and homes, including because of exposure to chemicals for cleaning that contain VOCs, reduced ventilation to conserve energy and the interaction of indoor and outdoor pollutants.[42] The Royal College of Paediatrics and Child Health said that it can also lead to health inequalities as poor housing linked to social deprivation can increase exposure to bad ventilation, moisture and mould triggering respiratory conditions.[43] Existing government guidance on indoor air quality may be out of date, and concerns were raised that the current Clean Air Strategy (see chapter 3) contains few measures to address the issue, especially given the increased time many people are spending at home during the pandemic,[44] with people spending 90–95 per cent of their time indoors.[45]

17. Defra's evidence highlighted that little was known about the impact of the lockdown on people's exposure to indoor pollution, and said that it was rapidly seeking to fill in its "knowledge gaps".[46] This included commissioning research and a roundtable led by the Chief Medical Officer and the Government's Chief Scientist.[47]

18. **Before the pandemic, the UK had made limited progress in improving air quality, with less than a quarter of air quality assessment areas meeting the annual mean limit for nitrogen dioxide (NO2). Lockdown restrictions from March 2020 led to less traffic and changing travel patterns and many people experienced better air quality. But by September 2020, most towns and cities saw a return to pre-lockdown levels of air pollution. However, the temporary improvement in air quality in the spring does not mask the need for faster progress on air pollution. Longer term changes to how people live, work and travel as a result of the pandemic will bring opportunities, but also risks, and will require changes to policy which we discuss in the following chapters.**

19. **The noticeable improvement many people had in their experience of air quality and their wellbeing following the initial lockdown illustrates the benefits of action to tackle air quality for all of us. The tragic death of Ella Kissi-Debrah, and thousands of others each year, shows the costs of the failure to do so. This highlights the need for legally binding air quality limits *and the Committee recommends that the Office for Environmental Protection (see chapter 3) be empowered to enforce them*.**

42 Stephen Holgate (AQU0088) para 3
43 Royal College of Paediatrics and Child Health (AQU0067) para 2.3
44 Clean Air in London (AQU0072) para 26; Professor Eloise Scotford (AQU0068) para 10
45 BEAMA Ltd (AQU0034) state "it is possible that the estimate that UK citizens spend 90 [per cent] of their time indoors will become understated as more people work from home", para 28
46 Department for Environment, Food and Rural Affairs (AQU0074) paras 4.3 and 5.4–5.5
47 Department for Environment, Food and Rural Affairs (AQU0074) paras 4.3 and 5.4–5.5

2 Health inequalities and covid-19

20. Our predecessor Committee's 2018 report described air pollution as "a national health emergency", which resulted "in tens of thousands of early deaths and costing billions of pounds in health impacts each year".[48] Given the reports of a link between poor air quality and increased mortality from covid-19, our new inquiry revisited the health impacts, and health inequalities caused by air pollution as a matter of urgency.[49] This chapter summaries the evidence and then explores the extent to which a focus on tackling health inequalities should influence air quality policy.

Health inequalities

21. Health inequalities "are systematic, avoidable and unjust differences in health and wellbeing between different groups of people".[50] They are often linked to the "social determinants of health"; the conditions in which people are "born, grow, live, work and age", and what power, money and resources they have access to; resulting in a "social gradient" whereby "the lower a person's social position, the worse his or her health".[51] In England, the difference between life expectancy for those living in the least and most deprived areas was 9.5 years for males and 7.7 years for females in 2016–18.[52]

22. According to the Chief Medical Officer, in 2017 deprived communities faced a "triple jeopardy" of higher exposure to air pollution, a greater burden of poor health, and a greater susceptibility to the impact of pollution.[53] In 2011, 85 per cent of the population living in areas that exceeded legal limits on NO2 also lived in one of the 20 per cent most deprived areas.[54] This is part of pattern observed by the British Heart Foundation (BHF) "that pollution levels are, on average, worse in areas of highest deprivation compared with areas of lowest deprivation".[55] According to the BMA, in London, "46% of disadvantaged communities experience levels of pollution that exceed EU limits", which "falls to 2% when we consider the wealthiest communities".[56]

23. These inequalities are even more pronounced when ethnicity is considered. Defra's evidence acknowledged that "air quality inequalities exist mostly in urban areas", with "higher concentrations of NO2 and PM10" being "observed in ethnically diverse neighbourhoods".[57] According to its mayor, in Greater London NO2 concentrations were "on average between 16 and 19 per cent higher in areas where non-white people were most

48 Environment, Food and Rural Affairs, Environmental Audit, Health and Social Care, and Transport Committees, First Joint Report of Session 2017–19, *Improving Air Quality*, HC 433, para 11
49 See for example "*Is air pollution making the coronavirus pandemic even more deadly?*", The Guardian, 4 May 2020.
50 Public Health England, *Chemical Hazards and Poisons Report* (April 2016), p 41
51 World Health Organisation, 'Social Determinants of Health,' accessed 16 January 2021; Institute of Health Equity *Fair Society, Healthy Lives - The Marmot Review Executive Summary* (2010), p 9
52 Institute of Health Equity, *Health Equity in England: The Marmot Review 10 Years On* (February 2020), p 16
53 Chief Medical Officer, *Annual Report of the Chief Medical Officer 2017: Health Impacts of All Pollution – what do we know?* (March 2018), p 9
54 Chief Medical Officer, *Annual Report of the Chief Medical Officer 2017: Health Impacts of All Pollution – what do we know?* (March 2018), p 9
55 British Heart Foundation (AQU0077) para 30
56 British Medical Association (AQU0043) para 4.2
57 Department for Environment, Food and Rural Affairs (AQU0074) para 4.6

likely to live compared to areas where white people were most likely to live".[58] According to the BHF, the link between higher air pollution levels and the ethnic diversity of an area persists even when deprivation is controlled for.[59]

24. However, those communities most affected by pollution often make the least contribution to the problem. Guy's & St Thomas' Charity (GSTC) pointed out that people living in "inner-city areas" are least "likely to own a car".[60] They are "also more likely to be affected by other important determinants of ill health" such as unemployment and childhood obesity; and "least likely to be involved in policy decisions or raise their voices about it".[61]

Covid-19 mortality risk

25. During the spring of 2020, there were reports of a link between air pollution and increased mortality from covid-19.[62] The Committee on the Medical Effects of Air Pollution (COMEAP) carried out a rapid review of the evidence in the spring and early summer of 2020. It concluded that "it would not be surprising if there was a link between exposure to air pollution (past or present) and the occurrence or severity of [covid-19] infection" given the association between long-term exposure to air pollution and some of the chronic diseases that had been linked to increasing the risk of covid-19 symptoms. However, although early studies had suggested a link, caution was needed in interpreting their findings.[63]

26. A study by the University of Birmingham published in July 2020 found that "[covid-19] positive BAME patients were [2.3 times] more likely, than patients of White ethnicity to be admitted" to hospital from those parts of the city with the worst deprivation and air pollution, and "that air pollution deprivation and housing quality deprivation" appear to affect when covid-19 positive patients go to hospital and contribute to them having worse outcomes.[64]

27. Anna Hansell, Professor of Environmental Epidemiology at the University of Leicester and a member of COMEAP, told us that "air pollution is associated with so many diseases. It is going to be really unlikely that it is not associated with covid" but cautioned:

58 Mayor of London and the Greater London Authority (AQU0057) para 85
59 British Heart Foundation (AQU0077) para 30
60 Guy's and St Thomas' Charity (AQU0045) para 28
61 Q55
62 See for example "*Is air pollution making the coronavirus pandemic even more deadly?*", The Guardian, 4 May 2020.
63 COMEAP provides independent advice to government departments and agencies on how air pollution impacts on health. Its review was published in the Air Quality Expert Group's, *Estimation of changes in air pollution emissions, concentrations and exposure during the COVID-19 outbreak in the UK. Rapid evidence review – June 2020* (June, 2020), p 9.
64 Soltan M, Crowley LE, Melville CR, Varney J, Cassidy S, Mahida R, Grudzinska F, Parekh D, Dosanjh DP, Thickett D., "*To what extent are social determinants of health, including household overcrowding, air pollution and housing quality deprivation, modulators of presentation, ITU admission and outcomes among patients with SARS-COV-2 infection in an urban catchment area in Birmingham, United Kingdom?*", preprint published on Research Square (8 July 2020).

> In the deprived areas, in the black and Asian minority groups, there are various reasons why they already might be more susceptible to covid-19. Disentangling all those impacts is very tricky, particularly with the data we have at the moment.[65]

Sir Michael Marmot, Professor of Epidemiology and Public Health at UCL, concurred:

> The more deprived the area, the higher the mortality from covid-19. […] That does not prove that it is the air pollution linking to covid-19 deaths. We are seeing a pattern here that links air pollution, covid-19 and inequalities in health more generally.[66]

28. Defra stated that the COMEAP report gave "an early snapshot of evidence" before 30 April, and promised a "detailed follow-up review in early 2021 when the evidence base is more mature, and studies have been peer reviewed".[67] Defra also referred to the Office for National Statistics' cross-Government study on "the links between mortality from [covid-19] and prior exposure to air pollution," which had not suggested a strong link.[68] It also argued that while in the early stages of the pandemic infections had clustered in urban areas causing a correlation with areas of poor air-quality, this correlation had weakened as the pandemic spread to rural areas.[69]

29. However, in a debate in the House of Commons on 21 January 2021, the Secretary of State for Health and Social Care said "there is a link between air pollution and a person's risk of dying from covid, and I have been talking about that to my right hon. Friend the Secretary of State for Environment, Food and Rural Affairs".[70]

How to respond

30. As to whether the pandemic made the case for greater action to tackle air quality related health inequalities, Professor Marmot told us he had "been saying from the beginning of the pandemic that covid-19 has exposed the underlying inequalities in society and amplified them, so it gives more urgency for policy and to take action right now".[71] Professor Hansell agreed there was "ample evidence for [the] effects of poor air quality on general health so we should act now" even if there wasn't yet the evidence "to justify policy action on air pollution specific to covid-19".[72]

31. Notwithstanding the impact of covid-19 we also explored whether the strong health inequalities linked to poor air quality required action to be focussed on deprived communities, or if action on pollution levels were also needed across the board.

32. Professor Alistair Lewis suggested the population exposure reduction target proposed in the Environment Bill should stop "people focusing on a small number of hotspots" and instead focus minds on developing solutions "that actually deliver benefits to everybody", noting for NO2 and PM2.5 "the harm to health does not stop once you reach the limit

65 Q38
66 Q38
67 Department of Environment, Food and Rural Affairs (AQU0074) para 4.4
68 Department of Environment, Food and Rural Affairs (AQU0074) para 4.5
69 Department of Environment, Food and Rural Affairs (AQU0074) para 4.5
70 HC Deb, 21 January 2021, col 1124
71 Q40
72 Prof Anna Hansell (AQU0081) para 2

value".[73] Similarly, Professor Marmot suggested that focussing only on "hotspots" would miss the majority of harm, and argued for "proportionate universalism", in other words there would be disproportionate action in areas of the highest pollution and poverty to reach the same universal air quality limits.[74]

33. Professor Dame Parveen Kumar of the BMA said we should "focus on deprived communities […] because we would probably see the greatest changes there" while also remembering that "this is happening to everybody everywhere".[75] Kate Langford of GSTC argued it was important to start "with the most deprived communities, partly because, if we solve this problem for those most deprived communities, it will have a positive impact on a much wider population" and "there is a moral imperative for us to start with people we know are already affected by cumulative health inequalities".[76]

34. In response to questions about how the Government will take into account the potential link between air pollution and covid-19, Rebecca Pow MP, Parliamentary Under-Secretary of State at Defra, argued there was "no decisive link" in the COMEAP assessment but said the Government was continuing to monitor the situation, adding that people "whose deaths [were] associated with coronavirus, potentially in air pollution areas, have, in many cases, had lots of underlying health issues as well".[77] We also asked whether the Government would include an additional target in the Environment Bill to reduce the health inequalities associated with air pollution. She responded that the target to reduce the concentration of PM2.5 currently required by clause 2 of the Bill "will address many of the areas you are getting at".[78]

35. **Many of the areas with the highest levels of social deprivation are also the most exposed to air pollution and this link is also more pronounced for people from ethnic minority backgrounds. Further research is urgently needed to fully understand the link between poor air quality and covid-19, which the Government has now accepted. However, notwithstanding the causal link between air quality and covid-19 mortality and morbidity, there was already a strong, established, case for taking action to reduce health inequalities caused and exacerbated by air pollution. That the communities most affected are often those that make the smallest contribution to the problem increases the moral case for action. Reducing long-term health inequalities will require both 'across the board' and targeted measures. *Defra, working with the Department of Health and Social Care and local health partners, should amend the Clean Air Strategy to include measures to reduce the long-term health inequalities associated with air pollution.***

36. ***The Environment Bill should be amended to include a health inequalities target, to reduce the number of deaths associated with air pollution; and to require the Secretary of State to take account of human health considerations when setting or reviewing air quality targets. It should include a duty on all Government departments and local government to work together to deliver these targets.***

73 Q24
74 Q42
75 Q58
76 Q58
77 Q264
78 Q263

3 Government strategy

37. The Government published a new Clean Air Strategy in 2019.[79] It included several legislative proposals that are now being enacted through the Environment Bill.[80] This chapter considers both in turn, and in particular whether the targets contained in the Environment Bill meet the scale of the challenge.

The Clean Air Strategy

38. Proposals in the 2019 Clean Air Strategy included:

- Aiming to "progressively cut public exposure to particulate matter pollution as suggested by the [WHO]", with a goal to "reduce PM2.5 concentrations across the UK, so that the number of people living in locations above the WHO guideline level of 10 μg/m3 is reduced by 50% by 2025";[81] and
- Introducing primary legislation via the Environment Bill to give local authorities "new powers to take action in areas of high pollution".[82]

39. In addition, the strategy also referenced existing Government plans to reduce road transport emissions. First, the 2017 *UK plan for tackling roadside NO2* which identified English local authorities that were directed to develop plans to reduce roadside concentrations of NO2 to legal limits "in the shortest possible time" by considering whether to establish Clean Air Zones (see chapter 4).[83] Second, the 2018 *Road to Zero Strategy* which aims "for all new cars and vans to be effectively zero emission by 2040".[84]

40. A number of respondents were concerned the Clean Air Strategy lacked ambition. For example, the campaign group Mums for Lungs told us it "does not adequately address the root causes of air pollution e.g. car use in urban areas and woodburning, and still leaves too much decision-making and responsibility to local authorities which do not all have the resources, power or motivation to act".[85] "There is no known level of safe exposure to PM pollution" according to Eloise Scotford, Professor of Environmental Law at UCL. She highlighted that the strategy "overall lacks the policy ambition that its rhetoric suggests".[86] For example, she highlighted that the commitment to reduce the number of people living in locations above the WHO guideline level for PM2.5 by 50% by 2025, would still leave many people living in places above the guideline, which was concerning.[87]

79 Department of Environment, Food and Rural Affairs *Clean Air Strategy 2019* (January 2019)
80 Environment Bill
81 Department of Environment, Food and Rural Affairs, *Clean Air Strategy 2019: Executive Summary* (January 2019)
82 Department of Environment, Food and Rural Affairs, *Clean Air Strategy 2019: Executive Summary* (January 2019)
83 Department of Environment, Food and Rural Affairs and Department for Transport, *UK plan for tackling roadside nitrogen dioxide concentrations: Detailed plan* (July 2017), p 1
84 Department for Transport, *The Road to Zero: Next steps towards cleaner road transport and delivering our Industrial Strategy* (July 2018), p 2
85 Mums for Lungs (AQU0047)
86 Professor Eloise Scotford (AQU0068) para 1
87 Professor Eloise Scotford (AQU0068) para 3

41. She also questioned the attempt to improve air quality governance by "strengthening and simplifying the legislative framework at the local level, when many of the governance challenges arise due to poor coordination between local and national regimes […] and inadequate action at the national level".[88]

42. The BMA was more positive, saying the strategy was "a robust diagnosis of air pollution and its harmful impact on public health", and welcomed "the UK Government's awareness that public communication and messaging will be vital […] preventative" measures.[89] However, it felt the strategy "falls short in setting out detailed steps as to how the UK Government intends to deliver on its ambition".[90] Furthermore the BMA highlighted that the PM2.5 target in the Environment Bill (see below) would not be "legally binding in order to prevent future backsliding" and that local government was not being given the capacity or resource "to deliver the role it has been given".[91]

43. Some respondents were also concerned the strategy did not include additional measures to address road transport emissions. For example, Client Earth pointed out that up to 80 per cent of illegal NO2 levels came from motor vehicles, but it was not clear that existing strategies were effective.[92] We examine one of these measures, Clean Air Zones, below.

The Environment Bill

44. The Environment Bill 2019–21 includes the following key measures on air quality:

- The Secretary of State will be required to periodically review the national Air Quality Strategy (which will now be England-only as air quality is devolved), within 12 months of the Bill coming into force, and then at least every five years; and make annual progress reports to Parliament;[93]
- Place a duty on the Government "to set at least two air quality targets" by October 2022: (1) "to reduce the annual average level of [PM2.5] in ambient air"; and (2) "a long-term target set a minimum of 15 years in the future, which will encourage long-term investment and provide certainty for businesses and other stakeholders";[94]
- Establish the Office for Environmental Protection (OEP) as an environmental oversight body to hold Ministers and public bodies in England to account, replacing the oversight of the European Commission. It will scrutinise Government progress against targets annually and be able to make

88 Prof Eloise Scotford (AQU0068) para 4
89 British Medical Association (AQU0043) para 1.1
90 British Medical Association (AQU0043) para 1.2
91 British Medical Association, (AQU0043) para 1.2
92 Client Earth (AQU0056)
93 *Commons Library analysis of the Environment Bill 2019–20,* CBP 8824, House of Commons Library, February 2020. The Bill includes an option to extend the Office for Environment Protection to Northern Ireland. The Scottish and Welsh governments intend to legislate for environmental governance in their nations.
94 Department for Environment, Food and Rural Affairs, '10 March 2020: Air quality factsheet (part 4),' accessed on 26 January 2021

recommendations if it considers more progress could be made. The OEP will be able to take the Government and public bodies to court for breaches of their duties under environmental law, including those to achieve long-term targets;[95]

- Give new powers to local authorities under the existing Local Air Quality Management framework, through which local authorities have legal responsibilities to improve local air quality, including to declare an Air Quality Management Area (AQMA) and establish plans to reduce public exposure to air pollution which exceeds air quality targets;[96]
- Place a duty on "air quality partners" to better share responsibility for dealing with local air pollution amongst relevant public bodies (designated by the Secretary of State), and to achieve better local cooperation to improve local air quality.[97]

45. A number of concerns about the wider environmental governance and principles provisions were raised, such as the possible weakening of environmental protection and standards; and particularly whether the OEP will have sufficient powers and independence to hold the government to account for meeting the targets set under the Bill.[98] These potential weaknesses with the OEP and wider environmental governance provisions in the Bill were examined in depth by our predecessor's pre-legislative scrutiny report in the last Parliament, so we do not cover them in detail in this report.[99]

46. However, several concerns specific to the air quality provisions in the Bill were raised in the evidence to this inquiry including:

- the nature of the PM2.5 targets, both in their level of ambition and enforceability;
- whether additional targets for other pollutants are needed; and
- and the role of local authorities and other air quality partners sharing responsibility for dealing with local air pollution.

PM2.5 targets

47. Clause 2 of the Bill requires the Secretary of State to set a target to reduce the mean level of PM2.5 in ambient air, but does not specify the target nor when it should be met.[100] Defra has said the Government "will consider the WHO's annual mean guideline level for PM2.5 when setting the target, alongside independent expert advice, evidence and analysis on a diversity of factors–from the health benefits of reducing PM2.5, to the practical

95 Department for Environment Food and Rural Affairs (AQU0074) para 2.6.
96 *Commons Library analysis of the Environment Bill 2019–20*, Commons Briefing Paper CBP 8824, House of Commons Library, February 2020
97 Department for Environment, Food and Rural Affairs, '10 March 2020: Air quality factsheet (part 4),' accessed on 26 January 2021. Environment Bill schedule 11
98 Prof Eloise Scotford (AQU0068) para 13; UK Environmental Law Association (AQU0024) para 16–26
99 Environment, Food and Rural Affairs Committee, Fourteenth Report of Session 2017–19, Pre-legislative scrutiny of the Draft Environment (Principles and Governance) Bill, HC 1893, 30 April 2019
100 Environment Bill, Clause 2

feasibility and economic viability of taking different actions", and that "the target level and achievement date will be developed during the target setting process and will follow in secondary legislation".[101]

48. This approach was rejected by many of those who gave evidence. For example, the UK Health Alliance on Climate Change called for the target to be included in the Bill, rather than secondary legislation, and considered that it should at least meet the WHO recommended limits for PM2.5 of 10μg/m3.[102] Transport for Greater Manchester (TFGM) similarly argued for targets that "are health-based and aligned to [WHO] 2030 guidelines, which is not currently explicit in the Bill".[103] It also argued against the "caveats" which would allow the Secretary of State to set the target at a level he is confident he can deliver rather than what is necessary for health.[104]

49. When asked whether the Government would commit to a PM2.5 target of reducing the annual mean concentration to under 10μg/m3 by 2030 on the face of the Bill, the Environment Minister said that "we cannot set that target until we have all the evidence and advice for doing so", and "while it might be feasible, it is incredibly difficult, complicated, diverse and […] we have to do it through a raft of measures, alongside setting our long-term target for PM2.5 through the Bill".[105]

The long-term target

50. In addition to the PM2.5 target, the Secretary of State will also be required to set at least one "long-term" target, i.e. with a target date of at least 15 years, relating to air quality. The compulsion to only set one further target was heavily criticised by many stakeholders. Client Earth stated that in order "to best protect people from the harmful impacts of air pollution, a suite of targets is needed, covering all harmful pollutants" because "no single target will be sufficient to drive improvements across the board".[106] The Chartered Institute of Environmental Health (CIEH) said that "we will have far fewer targets than those currently set by the EU limit values, which cover 12 different pollutants".[107] It suggested, "at the very least, we need to see targets for NOx and PM10, as these pollutants are the main reasons for the declaration of Air Quality Management Areas across the UK", and which the WHO recognises have "no 'safe concentration'".[108] Minister Rebecca Pow explained that, "we have rolled over all the ceilings and the targets that we had previously [under EU law]. They still exist. They are not going away".[109] ***The Committee recommends that the Office for Environmental Protection is given the necessary powers to enforce these limits.***

51. Many also questioned the timeline. The CIEH highlighted that the secondary legislation setting the targets does not need to be laid until October 2022, and set for a minimum of 15 years.[110] Although the Secretary of State must also set interim targets,

101 Department for Environment, Food and Rural Affairs, '10 March 2020: Air quality factsheet (part 4),' accessed on 26 January 2021
102 UK Health Alliance on Climate Change (AQU0053) para 12
103 Transport for Greater Manchester (AQU0038) para 7
104 Transport for Greater Manchester (AQU0038) para 7
105 Qq235–236
106 Client Earth (AQU0056) para 26
107 Chartered Institute of Environmental Health (AQU0063) para 14
108 Chartered Institute of Environmental Health (AQU0063) para 14
109 Q235
110 Chartered Institute of Environmental Health (AQU0063) para 16

the Bill does not impose an obligation to meet these.[111] Therefore, action could be delayed until the 2030s.[112] The CIEH said the Bill "should require the meeting of all current limit values by 2030 at the latest and include legally binding interim targets to encourage earlier action".[113]

Local authorities and local coordination

52. Professor Eloise Scotford argued that it was "misplaced" to make local authorities "the primary bodies responsible for achieving air quality standards", which was "boosted in the Bill as a mandatory obligation on local authorities", given the reality that it was "a multi-level governance problem".[114] She gave the example of local authorities having responsibility to reduce NO2 from road transport; but that "local authorities do not always have responsibility for the roads going through their areas".[115] This includes motorways which are managed by Highways England (see paragraph 61 below). However, the CIEH told us the latter "had received no legal directives from government to reduce air pollution".[116] Whilst Client Earth stated Highways England had "continuously delayed taking action" to deal with "illegal levels of pollution" on the Strategic Roads Network despite being "allocated £100m between 2015–2021 for this purpose".[117]

53. A number of respondents also stressed the need to ensure local authorities are funded to fulfil the new duties placed on them by the Bill.[118] Marvin Rees, the Mayor of Bristol, suggested cities should be given "predictable finance" (i.e. over 10–20 years) reflecting their leadership role on air quality enshrined in the Bill, to enable them to "replan and rebuild", rather than the current "one or two year" funding arrangement.[119] The Bill establishes the concept of "Air Quality Partners": these are local public bodies, of a type designated by the Secretary of State, identified by a local authority as contributing to local air quality, who will be placed under a duty to co-operate with "reasonable" requests to assist a council in fulfilling its duties to improve local air quality.[120] Defra issued a call for evidence on which public bodies should be designated in October 2020.[121] Client Earth and the CIEH argued that the Bill needed to include stronger duties on all levels of government and public bodies to take air quality into account in their work, including targets for national agencies and duties for them to co-operate with local government.[122] The Mayor of London also called for City and Regional Mayors to have the power to identify air quality partners to support city level measures.[123]

111 Chartered Institute of Environmental Health (AQU0063) para 16
112 Chartered Institute of Environmental Health (AQU0063) para 16
113 Chartered Institute of Environmental Health (AQU0063) para 16
114 Q16 and Q21
115 Q16
116 Chartered Institute of Environmental Health (AQU0063) para 13
117 Client Earth (AQU0056) para 36
118 See, for example, Transport for Greater Manchester (AQU0038); UK Health Alliance on Climate Change (AQU0053).
119 Q181
120 Environment Bill, Schedule 11, paragraph 8
121 Department for Environment, Food and Rural Affairs, 'Local Air Quality Management Call for Evidence - Designation of Relevant Public Authorities', accessed on 27 January 2021
122 Client Earth (AQU0056) para 2; Chartered Institute of Environmental Health (AQU0063) para 12
123 Mayor of London and the Greater London Authority (AQU0057) para 70

54. When asked whether the Clean Air Strategy and the Environment Bill put too much responsibility on local authorities without the necessary funding and resources, Minister Rebecca Pow said:

> We have said that all burdens that are brought forward through the Environment Bill will be fully funded. We have made that quite clear. Local authorities are a very important part of tackling air quality, but, equally, there are many other levers in place.[124]

The Minister considered that the additional responsibilities were "something we believe local authorities would be keen on" adding that "there will be more effective and co-operative co-ordination with other partners to work towards air quality objectives and health objectives, such as working better with neighbouring authorities".[125]

55. On the funding the Government provides, Rachel Maclean MP, Parliamentary Under-Secretary of State at the Department for Transport (DfT), clarified that:

> There are two pots of funding for local authorities. One is the implementation fund, which is provided to support them. It is expert advice. It is help with resources as they are working up their plans to help them set up those clean air zones and traffic management improvements […] Secondly, there is the clean air fund. That is for them to implement measures that will help mitigate any impact on local businesses. For example, that is investment in things like retrofitting buses, providing support for clean bus technology, other retrofit schemes and that sort of thing, to help local authorities and residents adapt to bringing in something that is quite a big change for how they travel around.[126]

56. **The Clean Air Strategy is a step in the right direction but relies too much on local authorities, delegating most responsibility for delivering air quality improvements to them without providing sufficient competencies and resources to deliver. It also lacks the ambition to fully address the challenges posed by England's air pollution problems, relying on existing strategies that are making limited progress. Although we welcome the Government's commitment to setting an air quality target to reduce the level of PM2.5 there is also a need to address the other key air pollutants - of NO2, PM10, SO2, NMVOCs and ammonia - which are also having a detrimental effect on people's health. We note the Minister's reference to the targets in retained EU law, but these are easily amended and sit outside of the new structure environmental governance the Government is seeking to create. Overall, therefore, the Bill's current provisions do not provide the robust legal framework required given the scale and urgency of the challenge.** ***We therefore recommend that the Government makes the following amendments to the Environment Bill:***

a) ***That clause 2 is amended to provide for a specific target to reduce the annual mean concentration of PM2.5 to under 10µg/m3 by 1 January 2030, in line with WHO-guidelines, and also include an interim target for 2025; and***

124 Q230
125 Q230
126 Q231

b) ***The duties related to "air quality partners" should apply to all levels of government and public bodies, and the power to request contributions to city wide action plans should be extended to regional and city Mayors and combined authorities.***

57. ***Alongside the PM2.5 target, the Secretary of State should use his discretionary powers in the Bill to set additional long-term air quality targets to reduce NO2, PM10, SO2, NMVOCs and ammonia. The Government should also commit to a long-term funding structure for local authorities to underpin their new duties in the Bill.***

58. ***As part of the Clean Air Strategy the Government should include a timeline on when the reduction in limits of other pollutants is to be delivered.***

4 National and local action

59. As discussed in Chapter 3, the Government's Air Quality Strategy relies on coordinated national and local action. This chapter further explores how well national and local leadership work together to persuade the public of the need for action on air quality and the actions the public sector can take to demonstrate leadership in tackling its own emissions.

Coordination

60. Sustrans, among others, made the case that the Government needs to provide stronger leadership on the need to tackle air pollution and build a consensus with the public and partners on the steps to address it.[127] Mums for Lungs told us that there was such "a gap in Government-action" that they had felt compelled to run their own awareness campaign about how air pollution damages children's health.[128] Jemima Hartshorn from the group told us that rather than parents pushing for action and having to mobilise people before the Government acted, the Government should be fulfilling its roles to both educate the public about the case for change and take action.[129]

61. Subrah Krishnan-Harihara from Greater Manchester Chamber of Commerce highlighted the need for join-up between local and national action, stating that "we have to have one national policy with a certain set of targets. It is not going to work if we adopt a piecemeal approach".[130] Paul Swinney from the Centre for Cities argued that while central Government should set the agenda, local authorities already had powers to introduce measures like congestion charging zones, but, apart from London and Glasgow, "by and large, pretty much all of them have chosen not to".[131] He did not think "we should let local authorities off the hook" but considered that "they need central Government support" to be able to act.[132] Marvin Rees, Mayor of Bristol, told us:

> One of our key drivers of concern is the M32. We do not control that. It comes right into the middle of the city […] We might even look at the way Government Departments work. One of the biggest drivers of road journeys in the city is the NHS. […] If we are frank about it and we are thinking about road journeys, Government departments have to think about the impact that their operations have on cities and how they are accountable to the local area.[133]

62. Councillor Matthew Holmes, Deputy Leader of Derby City Council, said "it was right" that the Council developed the solutions it felt were "best for our city and our region, and work with Government on that".[134] He added "we do not want it topdown […] It needs to be a partnership".[135] He also agreed that Government had an interest in how

127 Sustrans (AQU0071) paras 1, 3 and 14
128 Mums for Lungs (AQU0047) para 11
129 Q70
130 Q84
131 Q85
132 Q85
133 Q180
134 Q184
135 Q184

funding it provided was spent and its contribution to national ambitions.[136] Marvin Rees told us he wanted "a bankable partnership" through which national government helped the council "develop solutions that we know are going to cross the line because we worked on them together".[137] However, his experience was not one of active collaboration but one of central Government saying "send us your Excel sheet in a couple of years and we'll tell you whether it meets the criteria".[138]

63. Marvin Rees also criticised the lack of coordination in central Government which led to blocks on local action. Local NHS providers in Bristol had objected to the council's initial Clean Air Zone proposal, which would have involved a ban on diesel engines, as it would have increased their supply chain costs.[139] However, the Minister at Defra was unaware of the potential objections, as "there had been no conversation" with the DHSC about the proposed scheme's impact.[140]

64. Local leaders must also balance different competing local priorities and interests. Marvin Rees told us that people in Bristol understood why air quality needed to improve.[141] However, "the challenge comes in the nature of what we do to get there", questioning whether it was right to introduce a charging zone for some vehicles entering the city "as we go into the economic depression now… do we then introduce more charges to households and small businesses?"[142] He also stressed that "we have to respect the immediate challenges that people are facing right here, right now", which for some was not air quality, but the safety of their street or feeding their children.[143] If he did not listen to his residents immediate priorities he would "undermine our ability to lead the city".[144]

65. Addressing the question of co-ordination within Government, Minister Rebecca Pow explained that:

> The clean air strategy […] that sits under Defra's 25-year Environment plan. The 25-year Environment Plan is cross-Government […] We have to work with other Departments […] We work very closely with the Department for Transport. We work just as closely with BEIS [Department for Business, Energy and Industrial Strategy], because that has to deal with all the industry and business […] They are all having to look at reducing their emissions and pollutants. Then we work at the other end with the Department of Health. This is cross-Government. Perhaps we need to highlight that a bit more. Perhaps people are not aware enough of quite how closely we are working. Indeed, we probably need to work even more closely.[145]

The Ministers also highlighted the work of the Joint Air Quality Unit (JAQU) shared between Defra and DfT as a concrete example of joined up working across Government.[146]

136 Q184
137 Q183
138 Q183
139 Q171
140 Q171
141 Q185
142 Q185
143 Q204
144 Q204
145 Q244
146 Q226

66. Minister Racheal Maclean's response on how DfT worked with local authorities to tackle local air quality issues was:

> In the Department for Transport, we monitor. When the exceedances are identified, that is when we start the process of having that business plan […] the discussions will then take place in JAQU about how we help them to tackle the air quality issues they have in their particular local areas. I mentioned Bath, Bristol and Birmingham […] there is a long list of other areas that we are working with.[147]

67. **We recognise the commitment of the ministers in Defra and DfT, and their officials, to tackling poor air quality. However, it is not clear that this is matched elsewhere in Government, nor is the urgency of the issue being communicated strongly enough to the public. Local campaign groups will always have a vital role in raising public awareness of these issues, but they should not have to fill a void left by Government. Often those local authorities who have been leading the way on air quality have been frustrated by a lack of effective, joined-up, engagement from central Government. Where local councils need to show greater leadership in using the tools they already have; they would be assisted by more joined-up support from Government with all departments, not just Defra and DfT involved. The Ministers' answers do not give us confidence that this is happening. *The Government should therefore expand the Defra/DfT Joint Air Quality Unit (JAQU) to include the DHSC, Ministry of Housing, Communities and Local Government (MHCLG), Department for Business, Energy & Industrial Strategy, HM Treasury, and the Cabinet Office to achieve better coordination and increase its priority within Whitehall. The JAQU's remit should include building support for action on air quality collaborating with local government, the NHS, business, academic and clinical researchers and civil society.***

Showing leadership

68. Another way it was suggested that government and the public sector at all levels could show leadership was through reducing the air quality impact of their own operations and supply chains, for example converting public sector vehicle fleets to zero or low emissions models.[148] The BMA's evidence highlighted that over five per cent of all road travel in England is NHS related.[149] Kate Langford told us that GSTC had been working with local hospital partners to "improve population health by tackling their own emissions" and that "last year, they launched a freight consolidation hub, which is going to cut the number of truck deliveries into central London by 90% through taking off 36,000 truck deliveries every year".[150]

69. Local government leaders from Bristol and Derby told us their councils were transitioning their fleets to low emissions vehicles.[151] Similarly, Bath and North East Somerset Council told us it was ensuring that its "own fleet is compliant with the [Clean Air Zones] scheme, including the provision of electric vehicles and bikes for use by

147 Q242
148 See for example Global Action Plan (AQU0023)
149 British Medical Association (AQU0043) para 5.5
150 Q47
151 Q186 and Q189

employees".[152] Cllr Holmes from Derby emphasised the importance of local authorities showing leadership, because "how are we going to get local businesses and the general public to follow us if we do not lead by example? […] We need to be doing everything we are telling other people to do".[153]

70. However, Cllr Holmes cautioned:

> It is a challenge because we have to balance very tight budgets now. We have pressures on our children's services. We have the impact of covid-19. Now, yes, we are getting some Government support for those things. However, when we budget set, each year, it is a huge challenge […] Whether that is Government funding or local funding, it is irrelevant really in the public's eyes.[154]

71. UK Government Departments and their public bodies should already be setting an example through adhering to the minimum standards for procuring their own vehicles as set out in the Government Buying Standards for Transport 2017 (GBS).[155] For all vehicles, the GBS set a default requirement that they must comply with "zero or ultra low emission at tailpipe with alternatives considered only in exceptional circumstances".[156] To date, however, the wider public sector is only being "encouraged to meet these standards".[157]

72. **Government and the public sector at all levels must lead by example on air quality if they are asking businesses and individuals to make changes. There are numerous examples of that already happening in the NHS, local government and other sectors, with some public bodies, for instance seeking to minimise emissions from their own vehicle fleets and their suppliers. This should become standard across the public sector. This would contribute to the Government's drive to support a Green Recovery discussed in Chapter 5. *The Clean Air Strategy should be updated to included measures to reduce air quality impacts from central and local government and other public bodies (directly and from procurement and supply chains). Given the other pressures on budgets, where necessary, extra Government funding should be made available to facilitate this. The Government should also update the Government Buying Standards (GBS) to extend the mandatory requirement to procure only zero tailpipe emissions vehicles, except in exceptional circumstances, across the whole of the public sector by 2025. The Government should also set out in their response to this report how many organisations covered by the existing GBS have used the exemption for exceptional circumstances and why. The Committee looks to HM Treasury to incentivise sustainable public and private transport.***

Clean Air Zones

73. Clean Air Zones (CAZs), or Low Emission Zones (LEZs) are local authority-designated areas with policies designed to reduce pollution especially from vehicles, and will make

152 Bath & NE Somerset Council (AQU0086) para 23
153 Q189
154 Q190
155 Department for Environment, Food and Rural Affairs, *Government Buying Standards for Transport 2017*,' accessed 22 January 2021
156 Defra *Government Buying Standards for Transport 2017*
157 Defra *Government Buying Standards for Transport 2017*

up England's Clean Air Zones Framework.[158] They form the core of the Government's approach to tackling high NO2 levels in local areas, with 60 local authorities across the UK directed to consider whether introducing a CAZ would meet NO2 limits in the shortest possible time.[159] CAZs can be either 'non-charging' or 'charging' zones. Both involve targeted action in a specific local area including through planning policy, licencing of taxis and buses, and supporting walking and cycling.[160] Charging CAZs also impose a fee to enter, or move within, a zone for private vehicles that do not meet a prescribed emissions standard.[161]

74. The Government's reliance on CAZs and which areas should be directed to consider them has been a matter of long running controversy and litigation.[162] Only one CAZ has been implemented so far in Greater London. The London LEZ was introduced in 2008 and the Ultra-Low Emission Zone (ULEZ) introduced in 2019 and is due to be expanded in October 2021.[163] Client Earth suggested that 26 of the 40 English councils directed to produce stand-alone plans to tackle excessive NO2 concentrations, including considering a CAZ, are yet to do so with "many missing multiple government-imposed deadlines".[164]

75. Of those areas that had decided to introduce a CAZ, several have postponed them because of the pandemic, including Bath (from 2020 to 2021) and Greater Manchester (from 2021 to 2022).[165] As well as the impact of the pandemic on councils' wider capacity, lockdowns have prevented them collecting stable traffic and emissions data needed for public consultations on CAZs.[166] However, several CAZs had already been delayed before the pandemic including in Birmingham and Leeds, which Client Earth blamed in part on the Government's failure to deliver digital systems such as the vehicle checker tool and payment systems which local authorities need to implement charging.[167] The Transport Minister confirmed that the vehicle checker had been delayed, blaming the inevitable "hiccups" in any project, but added that it was now "on track".[168] TFGM also highlighted that it took a year (from March 2019 to March 2020) for the Government to consider its outline business case for funding.[169]

158 Department for Environment, Food and Rural Affairs and Department for Transport, *Clean Air Zone Framework: Principles for setting up Clean Air Zones in England* (February 2020)
159 Client Earth (AQU0056) para 16
160 *Local Government Air Quality Responsibilities*, CBP 8804, House of Commons Library, 25 February 2020, pp 14–15
161 *Local Government Air Quality Responsibilities*, CBP 8804, House of Commons Library, 25 February 2020, pp 14–15
162 Summarised in *Brexit and Air Quality,* CBP 8195, House of Commons Library, May 2019, pp 23–30
163 The Low Emission Zone (LEZ) covers most of Greater London to encourage the most polluting heavy diesel vehicles driving in London to become cleaner. Vehicles are charged if they do not meet LEZ emissions standards. Tougher LEZ standards for heavy diesel vehicles will be introduced on 1 March 2021. The Ultra Low Emission Zone (ULEZ) covers central London with most vehicles including cars, vans and lorries having to meet ULEZ emissions standards or drivers must pay a daily charge to drive within the zone. In October 2021 the ULEZ will expand to cover a single, larger zone covering central London up to, but not including, the North Circular and South Circular roads. Transport for London, 'Low Emission Zone' and 'Ultra Low Emission Zone,' accessed 27 January 2021.
164 Client Earth (AQU0056) para 49
165 Defra, 'Drive in a clean air zone,' accessed 27 January 2021; "*Greater Manchester pushes Clean Air Zone back to 2022*", Fleet World, 21 May 2020; Bath & NE Somerset Council (AQU0086)
166 Local Government Association (AQU0020) para 5.7
167 Client Earth (AQU0056) para 45
168 Q247
169 Transport for Greater Manchester (AQU0038) para 12

76. Following the pandemic, a number of areas are considering whether a CAZ is now needed. For example, in Leeds a review concluded its delayed CAZ was "no longer required" because of "air quality improvements […] made over the past two years".[170] Professor Alistair Lewis suggested that more broadly:

> If clean air zones […] are delayed for many more years, they will essentially be redundant because the NO2 problem is gradually going away. If they had been introduced in 2015, the integrated benefits of that would have been significant. One does have to worry a little bit that introducing something in 2023 or 2025 is effectively fighting yesterday's battle.[171]

However, Paul Swinney from the Centre for Cities argued that delays by local councils and the Government meant:

> Literally, the people they are serving are dying because we are not dealing with those air quality issues. That is a big thing to get hold of, to get them to understand and to push these policies through, with more financial support to assist in doing that.[172]

77. Paul Swinney also raised concerns around a lack of resources for CAZs, arguing that the Government's Clean Air Fund, which helps local authorities implement CAZs, needed to triple to £660 million, to enable councils to introduce the technology needed to make CAZs work.[173] These concerns are not new. In its 2018 report our predecessor Committee noted "local authorities face significant financial restrictions" which were "directly affecting their ability to meet air pollution targets" and recommended "commensurate financial increases in the Implementation Fund and Clean Air Fund".[174]

78. For some areas the issue was not about money, but a lack of skills and the impact on Officer and Member time. Cllr Matthew Holmes, Deputy Leader of Derby City Council, told us the CAZ process "needed specific skills and knowledge that we did not have within [the] local authority".[175] The Government had funded specific specialists and consultants that Derby "needed to bring in for this task, so it did not have a financial impact on the council", but "there was a [staff] resource impact".[176]

79. Professor Eloise Scotford identified the "fragmentation" of different approaches across the country as part of the problem, with councils left to come up with their own solutions.[177] She argued for a cooperative approach with local authorities "working together rather than competing for resources", with the "efficiency of having some more simple and common solutions" and a single CAZ-framework rather than lots of different ones.[178]

170 Leeds City Council, *Improving Air Quality in the City (Clean Air Charging Zone (CAZ) update)* (21 October 2020).
171 Q19
172 Q81
173 "*£260 million of clean air funding launched by government*", Defra press release, 23 March 2018; Q81.
174 Environment, Food and Rural Affairs, Environmental Audit, Health and Social Care, and Transport Committees, First Joint Report of Session 2017–19, *Improving Air Quality*, HC 433, para 77
175 Q182
176 Q182
177 Q18
178 Q19

80. Professor Scotford also identified "political resistance in local authorities to implementing" CAZs and some had "dragged their feet" according to Paul Sweeny.[179] We discussed with Marvin Rees and Cllr Holmes the trade-offs and challenges faced by local councils in developing CAZs alongside other action to tackle air quality and their wider responsibilities.[180] Cllr Holmes noted that, given Derby's "compact footprint", any action the Council took "causes resistance. Even small change is going to cause resistance".[181] Whilst maintaining his commitment to tackling air quality, Marvin Rees stressed the need not to "lose the dressing room" (i.e. the support of local people) because of the impact of a CAZ on households and small business at a time of economic distress.[182]

81. Mr Rees also echoed several other witnesses in questioning the wider CAZ policy, arguing that they are "a last gasp" and that "you have to support cities to build homes in the right places in the middle of the city and deliver the mass transit system".[183] Clean Air Zones are also "a very blunt tool" which made it difficult to focus on areas affected by health inequalities, as:

> You choose a set number of streets around the city and you say, "Get those to levels of compliance" […] There is no consideration of the inequalities and the impacts on health inequalities. Yet that is where all the energy […] [and] threat of legal action is driven, rather than talking to us and working out how we deliver compliance in general, which is what we want to do across the whole city.[184]

82. The need to evaluate local efforts to tackle air quality was emphasised by Kate Langford of GSTC, who suggested that few currently are.[185] As well as ensuring value for money, this was vital to building public support for schemes like CAZs so people could see the impact they had had. However, currently local authorities were "working on a shoestring" and needed "extra resource to make sure that these changes have the type of impact they are looking to have".[186]

83. In 2018, our predecessors found inconsistencies in air quality modelling and monitoring across the country and called on the Government to work with local authorities to improve the accuracy of air quality measurements.[187] This has not been a strong theme in the evidence for this inquiry. However, questions clearly do remain in some areas, as was highlighted in our evidence session with the Ministers in relation to Canterbury.[188] Dr Bill Parish from the Air Quality and Industrial Emissions team at Defra told us:

179 Qq18, 81
180 Qq192, 214
181 Q214
182 Q194
183 Q172
184 Q209
185 Q69
186 Q69
187 Environment, Food and Rural Affairs, Environmental Audit, Health and Social Care, and Transport Committees, First Joint Report of Session 2017–19, *Improving Air Quality*, HC 433, para 46
188 Qq232–234

> Some local authorities are understandably under financial pressure and have made their own decisions where kit is no longer maintained. To be quite honest, we do not have a clear understanding about which local authorities are really struggling to maintain an understanding of what is happening in their particular area.[189]

84. When asked whether the Government remained committed to implementing CAZs given its agreement to defer a number of them, the Transport Minister, Rachel Maclean, told us:

> There is no sense that we are letting any of it slip […] It is not really the case that, because we have had a lockdown and people are now working from home, we do not need to implement them anymore. We do still need to implement them. There might be some local changes for some of them but, broadly speaking, we know that we need to see those behaviour changes coming on stream.[190]

She added that Government had provided £880 million of funding for CAZs to date under its 2017 *UK plan for tackling roadside NO2*.[191] Defra Minister Rebecca Pow also highlighted the flexible and evolving nature of the CAZ process which had led to some being delayed or amended:

> There is upfront funding for local authorities, but it is really up to them when they want to put that funding into operation. Some hang on to it and wait until the CAZ is fully arranged, and some have spent money upfront. I was going to give the example of Leeds City Council. It spent quite a lot of its upfront funding on its taxis and heavy vehicles to swap them over to be less emitting and cleaner services. It sparked a whole change in behaviour and communication. That has brought forward what we call the compliance time to get within the legal limits sooner than was expected, so now it is not going to go full steam ahead with the CAZ.[192]

85. On evaluation, Andrew Jackson from the Defra and DfT JAQU stated:

> We have a full evaluation plan for all the measures implemented by local authorities […] It is work that we in JAQU are going to do to co-ordinate across local authorities with deep dives, long-term studies […] and some more rapid case assessments […] The plans are backed up with that plan for evaluation.[193]

189 Q234
190 Q245
191 Department for Environment, Food and Rural Affairs and Department for Transport, *UK plan for tackling roadside nitrogen dioxide concentrations* (July 2017)
192 Q248
193 Q249

86. The Government provided us with an updated timetable on Clean Air Zones on 29 January 2021.[194] However, this does not provide a full picture of the position of all local authorities which had been directed by the Government to consider introducing CAZs, including those authorities which have decided to introduce other measures or may be reviewing their decisions because of the pandemic.

87. **Clean Air Zones (CAZs) are the UK Government's key mechanism for reducing NO2 from road transport to legal levels "in the shortest possible time", but they illustrate the Government's over-reliance on local government to deliver progress. CAZs were already being held up before the pandemic by delays in national funding, lack of national support and local delays. The Government's updated CAZ-timetable provides only a partial picture with regards to all the local authorities that had been directed to consider whether to introduce CAZs. Many CAZs have been further held up by the pandemic so a concerted effort is needed to achieve faster progress, requiring a more cooperative and joined-up approach between national and local government, as well as more funding. Although local NO2 levels may fall below legal limits over time because of wider changes, in the interim, many local residents will die or suffer health impacts. We also note that some questions remain about the measurement and accuracy of air quality across the country.** ***The Government should, in its response to this report, set out revised timetables for when all the proposed CAZs in England will be implemented and ensure that they are "the shortest possible time". It should set out the current position with regards to those local authorities which have decided to introduce alternative measures to CAZs, and for those authorities which may be reviewing their proposals because of the pandemic. It should also review what further resources are needed to ensure those timetables don't slip further.***

88. ***The Government's framework should ensure that all CAZs are class D (i.e. charging zones), and include time-limited exemptions for people with reduced mobility to help them adapt.***

89. **We recognise that CAZs do not address the root causes of air pollution, nor the wider issues beyond their boundaries, and that local leaders sometimes have to strike a difficult balance so as to not "lose the dressing room". However, at times local government also needs to be prepared to push through CAZs and related actions, despite local opposition. They will be assisted in doing so by having clear evidence of the positive difference such interventions can have for local people and economies.** ***The JAQU should work with local authorities and interested charities to review the scope and accessibility of its evaluation programme, to ensure that it can be used effectively at a local level to design new interventions and build support for them.***

194 With regards to Bath and North East Somerset, Bristol, Tyneside, Sheffield, Bradford, Greater Manchester, Portsmouth and Liverpool. Department for Environment, Food and Rural Affairs (AQU0092) para 2

5 Green economic recovery

90. As we discussed in Chapter 1, the first lockdown in spring 2020 led to a temporary improvement of air quality on some measures, driven by the steep fall in economic activity it caused. There are concerns that post-pandemic changes to the economy and working patterns might increase pollution.[195] This Chapter explores how to support the economic recovery whilst accelerating progress on improving air quality, including how to enable businesses to reduce their impacts, maintaining the public transport network and reassuring the public it will be safe to use in future, active travel measures and how to adapt the built environment to enable people to change their travel behaviour.

91. The British Heart Foundation told us that measures "to promote economic recovery must prioritise a "green recovery" across all sectors to ensure a cleaner and greener future for all" including a "focus on clean growth" to "drive forward" the Clean Air Strategy.[196] On the other hand, the Road Haulage Association was more cautious, supporting a "sustainable" rather than "green" recovery, emphasising that "transport, the movement of freight and road haulage, drives economic well-being", so "policy-makers need to continue to support the economy and investment while creating a sustainable recovery".[197] Work by the Centre for Cities also highlighted the variable economic impact of the first lockdown across the country. Areas such as the South-East with higher numbers of workers who could work from home, saw fewer job losses in March and April compared to areas with a greater reliance on more traditional industries, although this picture was starting to change by the summer.[198]

92. The Prime Minister announced in June that the Government intended to "build back better, build back greener, build back faster", and deal with the "country's great unresolved challenges of the last three decades" on housing, health, skills, opportunities, productivity, connectivity, and "to unite and level up".[199] An example of the Government's attempt to promote a "green recovery" was the November 2020 announcement of the ending of the sale of solely diesel and petrol powered cars by 2030, compared to a previous target date of 2040, which was presented as an opportunity to both improve air quality and "support economic growth right across the UK" via the £1.8 billion pledged to support the transition to zero emission vehicles.[200]

Supporting businesses to reduce their impact on air quality

93. Current economic circumstances may hinder efforts to reduce air pollution. For example, the LGA told us that bus and haulage operators "may postpone or cancel plans for capital upgrades of their fleets" so "the oldest and most polluting vehicles [will be] on our roads for longer".[201] Similarly, GSTC said many businesses and business improvement districts had told them "they will find it difficult to invest in the current economic

195 Centre for Cities, *How have the Covid pandemic and lockdown affected air quality in cities?* (10 December 2020)
196 British Heart Foundation (AQU077) para 8
197 Road Haulage Association (AQU0059) para 3
198 Centre for Cities, *What does the COVID-19 crisis mean for the economies of British cities and large towns?* (16 April 2020) & Centre for Cities, *September update: what do the latest unemployment claim stats mean for the largest cities and towns?* (15 September 2020)
199 HM Government, *PM: A New Deal for Britain*, (30 June 2020)
200 Department for Transport, *Government takes historic step towards net-zero with end of sale of new diesel cars by 2030* (18 November 2020)
201 Local Government Association (LGA) (AQU0020) para 7.4

uncertainty" which "creates a compelling case for public sector co-investment to leverage wider business investment".[202] The charity had itself discussed loan schemes with local businesses to enable them to transition to greener options such as cargo bikes or electric vans.[203] There may also be a need for what Kate Langford told us would be a "combination of carrot and stick policies", including adapting carbon audit processes to also look at local air pollution.[204] Given many business "do not have the methodologies to do that", she suggested that the Government should set standards.[205]

94. The Transport Minister told us that the DfT was committed to:

> Building back better and putting a green recovery at the heart of everything we do […] We have committed to investing £2.5 billion altogether just in the transition to electrical vehicle infrastructure. That is only the start of what we need to invest. We are putting the full weight of Government behind this agenda.[206]

Asked whether the Government would introduce specific measures to enable business investment in reducing their contribution to air pollution, Minister Rebecca Pow referred to the existing "Best Available Techniques" process which requires the minority of industries regulated under the environmental permitting system to use the least-polluting processes and technologies.[207]

95. **We welcome the Government's commitment to a green recovery, including bringing forward the ban on the sale of petrol and diesel cars. This must include a strong focus on improving air quality, especially given the risk that changes in local economies and working patterns might exacerbate existing problems. We also welcome the additional investment from the Government to expand electronic charging infrastructure. The Government must ensure that capacity and coverage is in place across the country, and especially in rural areas, to enable people to switch away from petrol and diesel cars.** ***The Clean Air Strategy is reliant on local action and should therefore be updated not just to reflect the overall impact of the pandemic, but also its differential impact on local economies.***

96. **There are also opportunities to enable businesses to invest to reduce their contribution to air pollution; but risks this won't happen given the financial difficulties many face.** ***This should be in addition to the "Best Available Techniques" process which covers industrial sites regulated under environmental permits and help the many small businesses that are not covered by these regulations. The Government should:***

a) ***review policies that rely on vehicle fleet turnover to ensure there is not a slowdown in the removal of older and more polluting vehicles;***

b) ***develop financial incentives and support to encourage businesses to invest to reduce their impact on local air quality; and***

202 Guy's and St Thomas' Charity (AQU0045) para 4
203 Q66
204 Q66–67
205 Q67
206 Q284
207 Qq280–281; Environment Agency, *Best available techniques: environmental permits* (1 February 2016)

c) ***support the development of robust standards and processes for air quality audits.***

Public transport

97. Public transport use fell during the pandemic. After the lockdown in March, TFGM said passenger numbers fell by up to 95 per cent, and were still only 10 to 15 per cent once many restrictions had eased in the summer.[208] Bath and North East Somerset Council reported that bus ridership was running at 50–60 per cent of capacity in the early autumn.[209]

98. The Mayor of London considered that increased use of private cars would risk undoing many gains in local air quality.[210] It was reported that a survey by the RAC in November 2020 suggested that 57 per cent of people now considered having a car as more important than before the pandemic, and only 43 per cent (down from 57 per cent the year before) would consider using public transport even if it improved.[211] Perceived safety concerns were one driver for this. TFGM highlighted a survey that found "32% of public transport users say that they won't use public transport again for any reason until they feel safe to do so".[212] Dr Susan Kenyon of Canterbury Christ Church University noted:

> Throughout the crisis, coverage of public transport has been negative, with a focus on the potential of travel by public transport to spread the virus. The government stated that we have a 'civic duty' not to use public transport. The damage that this has caused must not be underestimated. We must counteract the perception that public transport, rather than covid-19, is the enemy, to ensure that public transport use does not fall, in favour of the car, once the crisis is over.[213]

In response to these concerns several submissions argued for government action to tackle negative perceptions of the safety of public transport. For instance, Asthma UK and the British Lung Foundation told us it was "imperative that government increase public confidence" in the use of public transport.[214]

99. TFGM told us that "the sharp downturn in patronage levels […] has had a significant impact on the financial sustainability of the network," and that changing public attitudes towards using public transport would mean usage and revenues would not return to pre-pandemic levels in the short to medium term once restrictions were lifted.[215] The Local Government Association (LGA) reported a similar picture across the country, with initial lockdown restrictions leading to "almost all commercial services" becoming "unviable overnight", meaning there would be a requirement for ongoing Government support.[216]

208 Transport for Greater Manchester (AQU0038) paras 16–17
209 Bath & NE Somerset Council (AQU0086) para 19
210 Mayor of London and the Greater London Authority (AQU0057) para 85
211 For example, "*Covid set back attitudes to public transport by two decades, says RAC*", The Guardian, 9 November 2020.
212 Transport for Greater Manchester (AQU0038) para 17
213 Dr Susan Kenyon (AQU0021) para 25
214 Asthma UK and the British Lung Foundation (AQU0029) para 6.2
215 Transport for Greater Manchester (AQU0038) paras 17–18
216 Local Government Association (AQU0020) para 7.3

Cllr Holmes of Derby City Council echoed this as vital to ensure the survival of "a viable public transport system" across the country to enable "modal shift" by people away from cars.[217]

100. The Local Government Association (LGA) also highlighted the risk that bus operators struggling as a result of the pandemic would cut investment in new, cleaner, vehicles; requiring existing policies that relied on the turnover of vehicles to be reviewed.[218] Marvin Rees suggested that Government should "come alongside" Bristol and other cities to make a mass purchase of thousands of electric and biogas buses to "transform the public transport offering almost overnight".[219]

101. Minister Rachel Maclean highlighted "the record amount of funding that has been put in by central Government to enable public transport to continue to run with social distancing in place" and added "services have been maintained. The frequency has been maintained so that people have confidence that, if they are travelling, they will be able to maintain social distancing".[220] Regarding public health advice, the Minister said "at the beginning of the pandemic, we definitely did have that focus on not using public transport […] on balance, it was felt it was necessary to protect public health, which was the Government's first priority".[221] She told us that later, the Government had adopted a different approach:

> We have made it clear that only essential journeys are permitted […] but we have not encouraged people to stay off public transport in quite the same way. That is a deliberate policy that we brought on because we definitely do not want to encourage long-term shifts to car use.[222]

102. **Although reducing the use of public transport has been necessary during the pandemic, action is needed to prevent a permanent shift in public attitudes towards it.** ***As restrictions are lifted, the Government should work with local authorities and providers to reassure the public that public transport is safe and to promote its use. We welcome the Government's efforts to help maintain public transport capacity through financial support to providers, given the likely shift in public behaviours this will need to be maintained for a period after restrictions are lifted. The Government will also need to consider whether the financial stress providers are under will slow their move to cleaner vehicles and whether further public investment will be needed to maintain momentum.***

Active travel

103. The Government and civil society had been promoting "active travel" - making journeys by a physical active means like walking or cycling - as an alternative to car use before the pandemic to tackle air pollution and for its wider health benefits.[223] The Government set out its ambition in 2017 that cycling and walking would become "the

217 Q216
218 Local Government Association (AQU0020) para 7.4
219 Q210
220 Q267
221 Q267
222 Q267
223 *Active travel: Trends, policy and funding,* CBP 8615, House of Commons Library, August 2020

natural choices for shorter journeys", alongside a ringfenced £316 million to fund active travel measures between 2016–20.[224] By February 2020 almost £1.2 billion had been spent by all levels of government.[225]

104. During the 2020 spring lockdown, active travel was further promoted as a safer alternative to public transport, seeking to prevent social distancing concerns leading to increased car use. In May, the Government published statutory guidance encouraging local councils to "reallocate road space" to cyclists and pedestrians, for example through temporary cycle lanes or creating "low traffic neighbourhoods" by restricting vehicle access to side streets, supported by a £250m "emergency active travel fund" taken from existing budgets.[226] During the spring lockdown, DfT estimated that cycling rates increased by around 100 per cent, and by up to 200 per cent on weekends.[227] The Government published a new cycling and walking plan for 2020–2025 in July, with the promise of £2 billion of ringfenced funding.[228]

105. There was widespread support amongst our witnesses for encouraging active travel.[229] However, the BMA questioned whether the Government's investment matched its rhetoric or the scale of need, given current spending on active travel was "just 2% of transport spending": the BMA estimated delivering the Government's plans would require £1.2 billion a year, compared to the £2 billion across five years it had committed.[230] A number of environmental groups also drew a contrast between the £2 billion for active travel with the Budget 2020 announcement of £28 billion for the Strategic Road Network, questioning whether this was consistent with meeting the Government's legal obligations on air quality.[231]

106. From the local government perspective, both Matthew Holmes and Marvin Rees told us they had been able to access central Government funding for the measures they were putting in place.[232] However, Marvin Rees cautioned that while funding for specific projects was available for a "patch and mend" approach, there was not support for a wholesale "just transition" so the impact of the required "system change" did not fall disproportionately on the disadvantaged.[233] Although the LGA told us that many councils had been making use of the new powers and funding to introduce active travel measures, there were concerns about the willingness of some local areas to introduce, and then continue, with measures.[234] Mums for Lungs, while recognising some councils had taken action, argued there had been wide disparities across England, with no political or financial pressure on local authorities to act.[235] It also suggested that some local "councillors and MPs have been using their power to obstruct active travel schemes".[236]

224 *Active travel: Trends, policy and funding,* CBP 8615, House of Commons Library, August 2020
225 *Active travel: Trends, policy and funding,* CBP 8615, House of Commons Library, August 2020
226 Department for Transport, '*£2 billion package to create new era for cycling and walking*,' accessed 17 January 2021
227 Department for Transport, *Gear Change: A bold vision for cycling and walking* (July 2020), p 10
228 Department for Transport, *Gear Change: A bold vision for cycling and walking* (July 2020)
229 For example: Qq44, 55 and 74
230 British Medical Association (AQU0082) paras 2–4
231 See, for example, Client Earth (AQU0056) para 18
232 Qq205–206
233 Q206
234 Local Government Association (AQU0020) para 5.5
235 Mums for Lungs (AQU0047) para 19
236 Mums for Lungs (AQU0047) para 19

107. Both Cllr Holmes and Mayor Rees discussed their experience of having to adapt or remove temporary local measures in response to feedback.[237] Cllr Holmes highlighted the fact that Derby had deliberately built in "review points" to its schemes and adapted them in response.[238] For example, both highlighted cases where temporary cycle lanes had interfered with the local bus network.[239]

108. The potential impact of cycle infrastructure on buses was also stressed by the bus operator National Express West Midlands.[240] It argued that some schemes risked indirect discrimination given the gender imbalance between cyclists, with men three times more likely to cycle in the West Midlands, and the fact that buses are disproportionately used by people from lower socio-economic and ethnic minority backgrounds.[241] GSTC observed that in their area many changes were being introduced in a reactive way "driven by wealthier, more vocal Communities" rather than taking a longer-term and more systematic approach.[242] Kate Langford of GSTC also noted that inner-city communities already had lower rates of car ownership, and the air pollution problem they faced often stemmed from traffic coming from outside their area.[243]

School streets

109. Temporary closures to vehicles of streets around a school at the beginning and end of the school day (termed school streets) were cited as one means of encouraging active travel as well as directly improving air quality around schools.[244] According to the Mayor of London, in 2016 every state school in Greater London was in an area that exceeded the WHO guideline for PM2.5 and over 450 were in areas exceeding the legal limit on NO2.[245]

110. Mums for Lungs noted that a number of school streets had been introduced as an emergency measure in the pandemic to assist with social distancing, and called for them to be made permanent and their use expanded.[246] Jemima Hartshorn from Mums for Lungs suggested that this would need further central Government support as "under-staffed and under-resourced" local authorities might struggle to afford the necessary investment in, for example, enforcement cameras.[247] In addition, air pollution levels around school streets would be well-supported by reducing parking outside them and measures to reduce idling (i.e. stationery vehicles leaving their engines running) and 20mph speed limits.[248]

111. As well as school streets, there are efforts to include the quality and scale of air quality monitoring outside schools to identify harmful levels of pollution. For example, the Mayor of London's Breathe London project has "used air quality sensors in backpacks to understand children's exposure to air pollution on their way to school".[249] The Mayor

237 Q203
238 Q203
239 Q203
240 National Express/National Express West Midlands (AQU0065) para 12
241 National Express/National Express West Midlands (AQU0065) paras 15–21
242 Guy's and St Thomas' Charity (AQU0045) para 28
243 Q57
244 School Streets Initiative, 'What are School Streets?,' accessed 17 January 2021
245 Mayor of London and the Greater London Authority (AQU0057) para 76
246 Mums for Lungs (AQU0047) para 20
247 Q68
248 Sustrans (AQU0071) para 56; Help Rescue the Planet (AQU0007) para 9; Paul Gwiazda and Janet Hutchinson (AQU0005) paras 1–7; Clean Air for London (CAL) (AQU0072) para 37
249 Mayor of London and the Greater London Authority (AQU0057) para 13

also undertook "detailed air quality audits" of 50 primary schools in 23 London boroughs to assess air quality "in some of the capital's worst polluted schools" and recommended actions to protect students' health.[250]

112. In its new strategy for walking and cycling published in July 2020, the Government made a commitment to "increase" the number of school streets, but did not quantify by how many.[251] It also committed to giving local authorities outside of London the legal powers necessary to enforce temporary closures, a long-standing local government ask.[252]

113. Responding to the BMA's estimate that the Government needed to spend £1.2 billion a year to deliver its active travel plans, compared to the £2 billion over five years it had ringfenced, the Transport Minister said that the Government's funding commitment was the biggest ever made to active travel and that it had:

> An ambition to make active travel the natural first choice of transport, because we all know that most journeys undertaken are less than five miles. There is no reason why a vast number of those journeys, not all but a lot, could not be done on foot, on a cycle, on an e-scooter […] we are determined to crack on with this because we think it is better for public health.[253]

On the DfT-funded emergency active travel measures, she noted that although there had been "one or two schemes where there have been very vocal criticisms" most had "been incredibly successful and very popular" even if local people "do not run to the media and say how fantastic they are".[254] However, the Government had listened to the feedback and for the next tranche of funding Ministers had been clear:

> that you have to consult all road users. You cannot let one group of road users dominate this […] The local authorities are responsible for doing that, so, if they have closed off roads and made mistakes in how they have been implemented, it is up to them to consult their local communities.[255]

114. **During the first lockdown in spring 2020, active travel increased significantly, facilitated in part by timely Government action.** ***It is important that this progress is not lost, and the Government must match its rhetoric on a longer-term shift to active travel with sufficient funding.***

115. **There remains a mixed picture on implementation across the country however, reflecting both local needs but also in some place the willingness of local leaders to make the case for changes which take time to bed-in. We recognise the difficult balancing act that local decision makers face.** ***Engaging the affected communities and adapting schemes in response to feedback and experience will be vital to embedding long-term changes, and the need to do this should be reflected in Government funding for schemes.***

250 Greater London Authority, 'Greater London Authority response to Defra consultation questions on the "Clean Air Strategy" 2018,' accessed 28 January 2021, p 5
251 Department for Transport, *Gear Change: A bold vision for cycling and walking* (July 2020) p 18
252 Local Government Association (AQU0020) para 5.6
253 Q274
254 Q274
255 Q274

116. **Active travel schemes, and other local efforts to tackle air pollution, must benefit the communities most affected by air pollution, and focus on changing the behaviour of those who contribute most to the problem. They must also avoid undermining public transport. We recognise the efforts of many schools, parents and local councils to improve the air around schools and encourage active travel through introducing school streets. These should also be supported by reducing parking outside schools and measures to reduce idling and 20mph speed limits. It is likely that more schools would benefit from them as well as from more and better air quality monitoring to help them identify when air pollution is a problem.** ***Where appropriate, temporary school streets introduced during the pandemic should be made permanent. The Government should be ambitious about increasing the number of school streets by working with local authorities, schools and civil society groups to develop a strategy to put them in place for every school where one would be appropriate, including measures to reduce parking and idling outside schools and the introduction of 20mph speed limits. This should be supported by an effective system of monitoring to help identify local exceedances of legal limits.***

The built environment

117. The need to address the underlying reasons for people's travel behaviour to facilitate permanent changes rather than a return to normal after the pandemic was raised throughout our inquiry. Dr Susan Kenyon argued that although with interventions by Government and transport planners some of the reductions in travel owing to the pandemic could be maintained, as soon as restrictions were lifted travel patterns would mostly revert to normal.[256] This was because they were shaped by the physical environment that people move through, and the increasing dispersal of where people live, work and socialise.[257] Although identifying the opportunity that more homeworking may reduce commuting, Sustrans highlighted that some people responded to the experience of lockdown by seeking to migrate from more to less densely developed areas, reinforcing the trend of dispersal that Dr Kenyon had identified.[258]

118. Dr Kenyon suggested "virtual mobility", replacing physical travel with carrying out activities online, was a potential answer to some of these issues, but it would require people being able, as well as willing, to make the change.[259] Our predecessor committee's 2019 report on rural connectivity highlighted that people in rural areas could particularly benefit from a move to online public services given the increased distances they need to travel to access physical ones, but that in practice they struggled to access them owing to poor connectivity.[260] It highlighted the need to reform policy and legislation to facilitate the Government's then target for the roll out of "full-fibre" connections to 100% of properties by 2025 (since dropped to 85% of properties having gigabit capable connections).[261]

256 Dr Susan Kenyon (AQU0021) para 3
257 Dr Susan Kenyon (AQU0021) para 12
258 Sustrans (AQU0071) para 74
259 Dr Susan Kenyon (AQU0021) paras 10–11
260 Environment, Food and Rural Affairs Committee, Seventeenth Report of Session 2017–19, *An Update on Rural Connectivity*, HC 2223, para 30
261 Environment, Food and Rural Affairs Committee, Seventeenth Report of Session 2017–19, *An Update on Rural Connectivity*, HC 2223, para 67; on the revision of the target see Digital, Culture, Media and Sports Committee, Fourth Report of Session 2019–21, *Broadband and the road to 5G*, HC 153, para 21

119. Sustrans suggested that, despite current planning guidance on density and active travel, developers find it "too easy […] to cite costs or conflicting priorities as justification for building isolated, out of town housing which leaves residents stranded away from the everyday things they need", promoting car dependency.[262] It argued instead for embedding the principle of "20 minute neighbourhoods" in the planning system whereby "everyday services and needs" are within a walkable, 20 minute, round-trip.[263]

120. Cllr Holmes of Derby City Council told us that delivering their ambitions, "is about a culture change, a modal shift and supplying homes within the city so that the travel is not required any more".[264] The Mayor of Bristol told us that "if we build [homes] centrally in active travel areas, people can travel actively. If we are sticking them on housing estates on the edge of the city, we will build in transport dependency".[265] To avoid this, he suggested that cities should be planned more coherently in future, as "our city systems […] have grown historically with no regard to air quality, climate and nature […] We need to redesign our housing systems, transport systems, waste systems and energy systems so that people can live a low-impact life without even thinking about it".[266]

121. The Government's 2020 Planning White Paper aims to speed up the planning process, in part by reducing the discretion of local decision makers in favour of greater certainty for developers.[267] The Chief Executive of the Royal Town Planning Institute, Victoria Hills, suggested that it may provide a "carte blanche" to developments that "perpetuate car dependency".[268]

122. Asked how the Government would use its reforms of planning policy to help local areas redesign communities to improve air quality, Minister Rebecca Pow told us:

> One of the aims of the new planning White Paper is to speed up development, but that still means […] getting it right for the environment. We have said, and the Prime Minister is at pains to say, that we will have a green recovery […] the measures in the Environment Bill and the measures related to air quality […] will all impact on that. If we want to get our PM2.5 down and we do not want big concentrations in certain places where people are living, around schools and hospitals, we have to design the places so that does not happen.[269]

123. **The pandemic has caused substantial shifts in how people travel. This has had a positive effect on some measures of air quality; but it is likely to be temporary, and positive moves such as more working from home and active travel may be offset by people moving away from cities and becoming more car dependent. The built environment constrains most people's transport choices, building in pollution from private car use. The local government leaders we heard from are keen to provide more homes in their city centres alongside more effective public, and active transport networks, reducing air pollution from travel. The Government says it is keen to**

262 Sustrans (AQU0071) paras 66–67
263 Sustrans (AQU0071) para 65
264 Q174
265 Q202
266 Q206
267 Ministry of Housing, Communities and Local Government, *Planning for the Future: White Paper* (August 2020)
268 Planning for the Future: planning policy changes in England in 2020 and future reforms, CBP8981, House of Commons Library, January 2020
269 Q278

support these aims through its planning reforms. However, we are concerned that the Planning White Paper overemphasises speed of development over other priorities. The Government also needs to ensure that it delivers the wider infrastructure development, especially in rural areas, that can help reduce car journeys such as fast broadband to enable working from home. ***In its response to this Report, the Government should set out specifically how its planning reforms will improve air quality, and support the modal shifts and changes in the built environment that are needed to reduce pollution from road transport.***

Conclusions and recommendations

Changes in UK air pollution

1. Before the pandemic, the UK had made limited progress in improving air quality, with less than a quarter of air quality assessment areas meeting the annual mean limit for nitrogen dioxide (NO2). Lockdown restrictions from March 2020 led to less traffic and changing travel patterns and many people experienced better air quality. But by September 2020, most towns and cities saw a return to pre-lockdown levels of air pollution. However, the temporary improvement in air quality in the spring does not mask the need for faster progress on air pollution. Longer term changes to how people live, work and travel as a result of the pandemic will bring opportunities, but also risks, and will require changes to policy which we discuss in the following chapters. (Paragraph 18)

2. The noticeable improvement many people had in their experience of air quality and their wellbeing following the initial lockdown illustrates the benefits of action to tackle air quality for all of us. The tragic death of Ella Kissi-Debrah, and thousands of others each year, shows the costs of the failure to do so. This highlights the need for legally binding air quality limits *and the Committee recommends that the Office for Environmental Protection (see chapter 3) be empowered to enforce them.* (Paragraph 19)

Health inequalities and covid-19

3. Many of the areas with the highest levels of social deprivation are also the most exposed to air pollution and this link is also more pronounced for people from ethnic minority backgrounds. Further research is urgently needed to fully understand the link between poor air quality and covid-19, which the Government has now accepted. However, notwithstanding the causal link between air quality and covid-19 mortality and morbidity, there was already a strong, established, case for taking action to reduce health inequalities caused and exacerbated by air pollution. That the communities most affected are often those that make the smallest contribution to the problem increases the moral case for action. Reducing long-term health inequalities will require both 'across the board' and targeted measures. *Defra, working with the Department of Health and Social Care and local health partners, should amend the Clean Air Strategy to include measures to reduce the long-term health inequalities associated with air pollution.* (Paragraph 35)

4. *The Environment Bill should be amended to include a health inequalities target, to reduce the number of deaths associated with air pollution; and to require the Secretary of State to take account of human health considerations when setting or reviewing air quality targets. It should include a duty on all Government departments and local government to work together to deliver these targets.* (Paragraph 36)

Government strategy

5. *The Committee recommends that the Office for Environmental Protection is given the necessary powers to enforce these limits.* (Paragraph 50)

6. The Clean Air Strategy is a step in the right direction but relies too much on local authorities, delegating most responsibility for delivering air quality improvements to them without providing sufficient competencies and resources to deliver. It also lacks the ambition to fully address the challenges posed by England's air pollution problems, relying on existing strategies that are making limited progress. Although we welcome the Government's commitment to setting an air quality target to reduce the level of PM2.5 there is also a need to address the other key air pollutants - of NO2, PM10, SO2, NMVOCs and ammonia - which are also having a detrimental effect on people's health. We note the Minister's reference to the targets in retained EU law, but these are easily amended and sit outside of the new structure environmental governance the Government is seeking to create. Overall, therefore, the Bill's current provisions do not provide the robust legal framework required given the scale and urgency of the challenge. *We therefore recommend that the Government makes the following amendments to the Environment Bill:*

    a) *That clause 2 is amended to provide for a specific target to reduce the annual mean concentration of PM2.5 to under 10µg/m3 by 1 January 2030, in line with WHO-guidelines, and also include an interim target for 2025; and*

    b) *The duties related to "air quality partners" should apply to all levels of government and public bodies, and the power to request contributions to city wide action plans should be extended to regional and city Mayors and combined authorities.* (Paragraph 56)

7. *Alongside the PM2.5 target, the Secretary of State should use his discretionary powers in the Bill to set additional long-term air quality targets to reduce NO2, PM10, SO2, NMVOCs and ammonia. The Government should also commit to a long-term funding structure for local authorities to underpin their new duties in the Bill.* (Paragraph 57)

8. *As part of the Clean Air Strategy the Government should include a timeline on when the reduction in limits of other pollutants is to be delivered.* (Paragraph 58)

National and local action

9. We recognise the commitment of the ministers in Defra and DfT, and their officials, to tackling poor air quality. However, it is not clear that this is matched elsewhere in Government, nor is the urgency of the issue being communicated strongly enough to the public. Local campaign groups will always have a vital role in raising public awareness of these issues, but they should not have to fill a void left by Government. Often those local authorities who have been leading the way on air quality have been frustrated by a lack of effective, joined-up, engagement from central Government. Where local councils need to show greater leadership in using the tools they already have; they would be assisted by more joined-up support from Government with all departments, not just Defra and DfT involved. The Ministers' answers do not give us confidence that this is happening. *The Government should therefore expand*

the Defra/DfT Joint Air Quality Unit (JAQU) to include the DHSC, Ministry of Housing, Communities and Local Government (MHCLG), Department for Business, Energy & Industrial Strategy, HM Treasury, and the Cabinet Office to achieve better coordination and increase its priority within Whitehall. The JAQU's remit should include building support for action on air quality collaborating with local government, the NHS, business, academic and clinical researchers and civil society. (Paragraph 67)

10. Government and the public sector at all levels must lead by example on air quality if they are asking businesses and individuals to make changes. There are numerous examples of that already happening in the NHS, local government and other sectors, with some public bodies, for instance seeking to minimise emissions from their own vehicle fleets and their suppliers. This should become standard across the public sector. This would contribute to the Government's drive to support a Green Recovery discussed in Chapter 5. *The Clean Air Strategy should be updated to included measures to reduce air quality impacts from central and local government and other public bodies (directly and from procurement and supply chains). Given the other pressures on budgets, where necessary, extra Government funding should be made available to facilitate this. The Government should also update the Government Buying Standards (GBS) to extend the mandatory requirement to procure only zero tailpipe emissions vehicles, except in exceptional circumstances, across the whole of the public sector by 2025. The Government should also set out in their response to this report how many organisations covered by the existing GBS have used the exemption for exceptional circumstances and why. The Committee looks to HM Treasury to incentivise sustainable public and private transport.* (Paragraph 72)

11. Clean Air Zones (CAZs) are the UK Government's key mechanism for reducing NO2 from road transport to legal levels "in the shortest possible time", but they illustrate the Government's over-reliance on local government to deliver progress. CAZs were already being held up before the pandemic by delays in national funding, lack of national support and local delays. The Government's updated CAZ-timetable provides only a partial picture with regards to all the local authorities that had been directed to consider whether to introduce CAZs. Many CAZs have been further held up by the pandemic so a concerted effort is needed to achieve faster progress, requiring a more cooperative and joined-up approach between national and local government, as well as more funding. Although local NO2 levels may fall below legal limits over time because of wider changes, in the interim, many local residents will die or suffer health impacts. We also note that some questions remain about the measurement and accuracy of air quality across the country. *The Government should, in its response to this report, set out revised timetables for when all the proposed CAZs in England will be implemented and ensure that they are "the shortest possible time". It should set out the current position with regards to those local authorities which have decided to introduce alternative measures to CAZs, and for those authorities which may be reviewing their proposals because of the pandemic. It should also review what further resources are needed to ensure those timetables don't slip further.* (Paragraph 87)

12. *The Government's framework should ensure that all CAZs are class D (i.e. charging zones), and include time-limited exemptions for people with reduced mobility to help them adapt.* (Paragraph 88)

13. We recognise that CAZs do not address the root causes of air pollution, nor the wider issues beyond their boundaries, and that local leaders sometimes have to strike a difficult balance so as to not "lose the dressing room". However, at times local government also needs to be prepared to push through CAZs and related actions, despite local opposition. They will be assisted in doing so by having clear evidence of the positive difference such interventions can have for local people and economies. *The JAQU should work with local authorities and interested charities to review the scope and accessibility of its evaluation programme, to ensure that it can be used effectively at a local level to design new interventions and build support for them.* (Paragraph 89)

Green economic recovery

14. We welcome the Government's commitment to a green recovery, including bringing forward the ban on the sale of petrol and diesel cars. This must include a strong focus on improving air quality, especially given the risk that changes in local economies and working patterns might exacerbate existing problems. We also welcome the additional investment from the Government to expand electronic charging infrastructure. The Government must ensure that capacity and coverage is in place across the country, and especially in rural areas, to enable people to switch away from petrol and diesel cars. *The Clean Air Strategy is reliant on local action and should therefore be updated not just to reflect the overall impact of the pandemic, but also its differential impact on local economies.* (Paragraph 95)

15. There are also opportunities to enable businesses to invest to reduce their contribution to air pollution; but risks this won't happen given the financial difficulties many face. *This should be in addition to the "Best Available Techniques" process which covers industrial sites regulated under environmental permits and help the many small businesses that are not covered by these regulations. The Government should:*

    c) *review policies that rely on vehicle fleet turnover to ensure there is not a slowdown in the removal of older and more polluting vehicles;*

    d) *develop financial incentives and support to encourage businesses to invest to reduce their impact on local air quality; and*

    e) *support the development of robust standards and processes for air quality audits.* (Paragraph 96)

16. Although reducing the use of public transport has been necessary during the pandemic, action is needed to prevent a permanent shift in public attitudes towards it. As restrictions are lifted, the Government should work with local authorities and providers to reassure the public that public transport is safe and to promote its use. We welcome the Government's efforts to help maintain public transport capacity through financial support to providers, given the likely shift in public behaviours this will need to be maintained for a period after restrictions are lifted. *As restrictions are lifted, the Government should work with local authorities and providers to reassure the public that public transport is safe and to promote its use. We welcome the Government's efforts to help maintain public transport capacity through financial support to providers, given the likely shift in public behaviours this will need*

to be maintained for a period after restrictions are lifted. The Government will also need to consider whether the financial stress providers are under will slow their move to cleaner vehicles and whether further public investment will be needed to maintain momentum. (Paragraph 102)

17. During the first lockdown in spring 2020, active travel increased significantly, facilitated in part by timely Government action. It is important that this progress is not lost, and the Government must match its rhetoric on a longer-term shift to active travel with sufficient funding. *It is important that this progress is not lost, and the Government must match its rhetoric on a longer-term shift to active travel with sufficient funding.* (Paragraph 114)

18. There remains a mixed picture on implementation across the country however, reflecting both local needs but also in some place the willingness of local leaders to make the case for changes which take time to bed-in. We recognise the difficult balancing act that local decision makers face. *Engaging the affected communities and adapting schemes in response to feedback and experience will be vital to embedding long-term changes, and the need to do this should be reflected in Government funding for schemes.* (Paragraph 115)

19. Active travel schemes, and other local efforts to tackle air pollution, must benefit the communities most affected by air pollution, and focus on changing the behaviour of those who contribute most to the problem. They must also avoid undermining public transport. We recognise the efforts of many schools, parents and local councils to improve the air around schools and encourage active travel through introducing school streets. These should also be supported by reducing parking outside schools and measures to reduce idling and 20mph speed limits. It is likely that more schools would benefit from them as well as from more and better air quality monitoring to help them identify when air pollution is a problem. *Where appropriate, temporary school streets introduced during the pandemic should be made permanent. The Government should be ambitious about increasing the number of school streets by working with local authorities, schools and civil society groups to develop a strategy to put them in place for every school where one would be appropriate, including measures to reduce parking and idling outside schools and the introduction of 20mph speed limits. This should be supported by an effective system of monitoring to help identify local exceedances of legal limits.* (Paragraph 116)

20. The pandemic has caused substantial shifts in how people travel. This has had a positive effect on some measures of air quality; but it is likely to be temporary, and positive moves such as more working from home and active travel may be offset by people moving away from cities and becoming more car dependent. The built environment constrains most people's transport choices, building in pollution from private car use. The local government leaders we heard from are keen to provide more homes in their city centres alongside more effective public, and active transport networks, reducing air pollution from travel. The Government says it is keen to support these aims through its planning reforms. However, we are concerned that the Planning White Paper overemphasises speed of development over other priorities. The Government also needs to ensure that it delivers the wider infrastructure development, especially in rural areas, that can help reduce car journeys such as fast broadband to enable working from home. *In its response to*

this Report, the Government should set out specifically how its planning reforms will improve air quality, and support the modal shifts and changes in the built environment that are needed to reduce pollution from road transport. (Paragraph 123)

Formal minutes

Tuesday 2 February 2021

Virtual meeting

Members present:

Neil Parish, in the Chair

Ian Byrne	Dr Neil Hudson
Geraint Davies	Robbie Moore
Dave Doogan	Mrs Sheryll Murray
Rosie Duffield	Julian Sturdy
Barry Gardiner	

Air quality

Draft Report (*Air quality and coronavirus: a glimpse of a different future or business as usual*), proposed by the Chair, brought up and read.

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

Paragraphs 1 to 123 read and agreed to.

Summary agreed to.

Resolved, That the Report be the Fifth 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 9 February at 2.30 p.m.

Witnesses

The following witnesses gave evidence. Transcripts can be viewed on the inquiry publications page of the Committee's website.

Tuesday 8 September 2020

Professor Eloise Scotford, Professor, University College London; **Professor Alastair Lewis**, Professor, University of York — Q1–28

Professor Anna Hansell, Director, Centre for Environmental Health and Sustainability, University of Leicester; **Professor Sir Michael Marmot**, Director of the Institute of Health Equity and Professor of Epidemiology, University College London (UCL) — Q29–42

Tuesday 29 September 2020

Kate Langford, Programme Director, Guy's and St Thomas' Charity; **Parveen Kumar**, Professor, British Medical Association (BMA); **Jemima Hartshorn**, Founder, Mums for Lungs — Q43–71

Paul Swinney, Director of Policy, Centre for Cities; **Subrah Krishnan-Harihara**, Head of Research, Greater Manchester Chamber of Commerce — Q72–96

Tuesday 3 November 2020

Marvin Rees, Mayor, Bristol City Council; **Matthew Holmes**, Deputy Leader, Derby City Council — Q167–219

Monday 16 November 2020

Rebecca Pow MP, DfT Minister, Defra; **Rachel Maclean MP**, Parliamentary Under Secretary of State, Department for Transport; **Dr Bill Parish**, Head of Air Quality & Industrial Emissions, Department for Environment, Food and Rural Affairs; **Andrew Jackson**, Deputy Director, Joint Department for Environment, Food and Rural Affairs and Department for Transport Air Quality Unit — Q220–296

Published written evidence

The following written evidence was received and can be viewed on the inquiry publications page of the Committee's website.

AQU numbers are generated by the evidence processing system and so may not be complete.

1 All Seasons Diy (AQU0010)

2 Alstom UK & Ireland (AQU0055)

3 Association of Anaesthetists (AQU0006)

4 Asthma UK and British Lung Foundation Partnership (AQU0029)

5 BAE Systems Power and Propulsion Systems (AQU0019)

6 BEAMA (AQU0034)

7 BESA (AQU0017)

8 Bath & North East Somerset Council (AQU0086)

9 Bird (AQU0012)

10 Bristol Clean Air Alliance (AQU0042)

11 Bristol Clean Air Alliance (AQU0046)

12 British Heart Foundation (AQU0077)

13 British Marine (AQU0037)

14 British Medical Association (AQU0043)

15 British Medical Association (BMA) (AQU0082)

16 Bryson, Professor John; Prof Francis Pope; Dr Catherine Muller; Prof Zongbo Shi; Dr Suzanne Bartington; Prof Lee Chapman; Dr Omid Ghaffarpasand; Prof Roy Harrison; and Prof William Bloss (AQU0032)

17 Cadent (AQU0050)

18 Campaign for Better Transport (AQU0064)

19 Centre for Environmental Health and Sustainability, University of Leicester (AQU0069)

20 Chartered Institute of Environmental Health (AQU0063)

21 Clean Air in London (AQU0072)

22 ClientEarth (AQU0056)

23 Cuff, Mr Michael (AQU0002)

24 Department for Environment, Food and Rural Affairs (AQU0092)

25 Department for Environment, Food and Rural Affairs (AQU0074)

26 Environmental Protection UK (AQU0013)

27 Environmental Research Group, Imperial College London (AQU0051)

28 Fairbairn, Lawrence (AQU0079)

29 Friends of the Earth (England, Wales and Northern Ireland) (AQU0016)

30 Global Action Plan (AQU0023)

31 Greater London Authority (AQU0057)

32 Guy's and St Thomas' Charity (AQU0084)

33 Guy's and St Thomas' Charity (AQU0045)

34 Gwiazda, Mr Paul; and Mrs Janet Hutchinson (AQU0005)

35 Hansell, Professor Anna (AQU0081)

36 Hardwick, Mr Ralph (AQU0028)

37 Help Rescue the Planet (AQU0007)

38 Higham, Dr Jonathan; Ms Cammy Acosta Ramírez; Dr Mark Green; and Professor Andy Morse (AQU0031)

39 Holgate, Stephen (AQU0088)

40 Imperial College London (AQU0089)

41 Institute of Air Quality Management (AQU0061)

42 Joint Nature Conservation Committee; and Natural England (AQU0036)

43 Kenyon, Dr Susan (AQU0021)

44 Liquid Gas UK (AQU0011)

45 Local Government Association (AQU0020)

46 London Forum of Amenity and Civic Societies (AQU0003)

47 MRC Toxicology Unit, University of Cambridge (AQU0076)

48 Magee, Mr (AQU0044)

49 Marston Holdings (AQU0008)

50 Mayor of Bristol (AQU0085)

51 Millea, Miss Anita (AQU0073)

52 Mineral Products Association (AQU0052)

53 Mums for Lungs (AQU0047)

54 National Centre for Atmospheric Science (NCAS) (AQU0001)

55 National Express/National Express West Midlands (AQU0065)

56 National Farmers' Union (AQU0018)

57 Nutbourne, (AQU0049)

58 Openreach (AQU0060)

59 Plantlife International (AQU0062)

60 Pupils 2 Parliament (AQU0004)

61 Quinn, Gary (AQU0027)

62 Road Haulage Association (AQU0059)

63 Royal College of Paediatrics and Child Health (AQU0067)

64 Royal College of Physicians (AQU0014)

65 Royal Society for the Protection of Birds (RSPB) (AQU0070)

66 Scotford, Professor Eloise (AQU0080)

67 Scotford, Professor Eloise (AQU0068)

68 Scowcroft, Victoria (AQU0022)

69 Selley, Dr Liza; Dr Julie Morrissey; Dr Joanne Purves; Ms Louise Corscadden; and Ms Rebekah Jukes-Jones (AQU0015)

70 Soltan, Marina (AQU0087)

71 Sustrans (AQU0071)

72 The AIR Alliance (AQU0035)

73 The City of London Corporation (AQU0066)

74 The Society of Motor Manufacturers and Traders Limited (AQU0075)

75 Transport for Greater Manchester (AQU0038)

76 UK Environmental Law Association (AQU0024)

77 UK Health Alliance on Climate Change (AQU0053)

78 UK Research and Innovation, UKRI (AQU0026)

79 White, Mrs Margaret J (AQU0033)

80 Williams, Ms Adrienne (AQU0040)

81 Wilson, Mr William (AQU0009)

List of Reports from the Committee during the current Parliament

All publications from the Committee are available on the publications page of the Committee's website.

Session 2019–21

Number	Title	Reference
1st	COVID-19 and food supply	HC 263
2nd	Pre-appointment hearing for the Chair-Designate of the Office for Environmental Protection (OEP)	HC 1042
3rd	The UK's new immigration policy and the food supply chain	HC 231
4th	Flooding	HC 170
1st Special	Plastic food and drink packaging: Government Response to the Committee's Sixteenth Report of Session 2017–19	HC 207
2nd Special	Beyond the Common Fisheries Policy: Scrutiny of the Fisheries Bill: Government Response to the Committee's Eleventh Report of Session 2017–19	HC 208
3rd Special	An Update on Rural Connectivity: Government Response to the Committee's Seventeenth Report of Session 2017–19	HC 228
4th Special	Coastal flooding and erosion, and adaptation to climate change: Interim Report: Government Response to the Committee's First Report of Session 2019	HC 272
5th Special	Scrutiny of the Agriculture Bill: Government Response to the Committee's Tenth Report of Session 2017–19	HC 273
6th Special	COVID-19 and food supply: Government Response to the Committee's First Report	HC 841