IPPR Fair Transition Unit

UNLOCKING LOCAL ACTION ON CLEAN AIR

Maya Singer Hobbs,
Louise Marix Evans
and **Stephen Frost**

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IPPR's Fair Transition Unit (FTU) was established in June 2022 as a new landmark initiative to carry forward the work of IPPR's cross-party Environmental Justice Commission and award-winning work on environmental breakdown.

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The Environmental Justice Commission drew on views and recommendations from citizens from across the country in a way that has genuinely shaped policy thinking and had tangible policy and media impact. Building on this legacy, the FTU puts the public at the heart of its work through extensive public deliberation.

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IPPR
4th floor,
8 Storey's Gate
London
SW1P 3AY
T: +44 (0)20 7470 6100
E: info@ippr.org www.ippr.org
Registered charity no: 800065 (England and Wales), SC046557 (Scotland)

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ABOUT THE AUTHORS

Maya Singer Hobbs is a senior research fellow at IPPR.

Louise Marix Evans is co-director of Quantum Strategy & Technology.

Stephen Frost is a principal research fellow at IPPR.

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SUMMARY

There is an urgent need to address air pollution. Preventing the premature deaths of up to 43,000 people per year in the UK and reducing cases of cancer, strokes, heart attacks, dementia and asthma would be reason alone. Those who suffer the most from air pollution are people living on the lowest incomes, in deprived areas and from minoritised communities, so improving air quality offers an opportunity to tackle these inequalities. But improving air quality can deliver many other benefits, including supporting people to live more active lives, creating more green spaces and people-friendly streets in our towns and cities, saving the UK economy billions of pounds, and reducing carbon emissions.

The air quality targets set by national government do not align with the guidelines outlined by the World Health Organization (WHO), which are decided based on safe limits of air pollutants for health. To reduce air pollution to within WHO guidelines, action will need to be taken across multiple sectors, including transport, planning and construction, industry, and agriculture. The scale of the changes required is significant and urgent, but if implemented well, will have impacts that go beyond just improving air quality.

Those politicians and campaigners who seek to polarise air quality policies, portrayed extensively in the media, do not reflect the way that most people engage with these issues. The 2023 'plan for motorists' proposes to limit local authority action, running counter to our findings, which suggest local authorities know their communities best. In conversations with local campaigners, councillors and the public, we found a shared vision for the future of communities in England less directly related to clean air or public health but focused on neighbourhoods people could feel proud of.

KEY FINDINGS

- Local authorities have powers to address air pollution, but there are gaps, and some of the powers they do have are hard to implement or unclear. The councils taking ambitious steps to improve air quality across the country share several traits: strong leadership, integration of air quality as a priority across the council, and ambition and a mandate to act.
- However, local authorities face a number of barriers to action, including a lack of funding, resources and political support; over 70 per cent of councillors polled felt they were not getting enough support from national government to take action on air quality.
- There is support for ambitious action to improve air quality among councillors and the public. Over 80 per cent of the councillors we polled backed adopting WHO guidelines locally and supported a wide range of interventions designed to improve air quality, despite the narrative that addressing air quality is challenging or not politically salient.
- Councillors almost uniformly agreed that the public should be involved in the design of policies to address air pollution.

KEY RECOMMENDATIONS

Across local and national government there is a need for greater ambition and urgency around air quality. Insights from councils that are leading the way with ambitious action to improve air quality suggested that adopting bold targets can help galvanise action.

Recommendation: National and local governments should adopt ambitious air quality targets aligned with WHO guidelines and outline credible plans to get there.

- National government should act unlock local action on air pollution rather than limiting local authorities' powers. This should be done through enabling local authorities to act, setting standards, and taking a proactive approach to new sources of pollution, and providing information and data where required.

Recommendation: National government should provide long-term financial support for action on clean air.

- This funding should have an explicit focus on equitable interventions – through providing well-funded scrappage schemes that support people living on low incomes or with disabilities, and for small businesses, for example.

Recommendation: Greater fiscal devolution will support local leadership.

- Local authorities should have the powers seen elsewhere in the world to raise and spend money more locally, particularly on transport.

Recommendation: Councils need to adopt air pollution as an urgent priority, embed it across all relevant council functions and appoint an air quality champion.

- Local authorities will need to take a strategic and long-term approach to deliver interventions at the scale required to deliver better health outcomes.

Recommendation: Local authorities should carry out meaningful engagement with the public, businesses and local partners to ensure proposals meet the needs of people living in those areas, and that they are fair and equitable.

- Policies addressing air quality receive more support if they are perceived to be fair and effective. Better communication and engagement are key for this, alongside improved information about air quality through monitoring, and support for business to make different choices.

Recommendation: There are shorter-term interventions that can be delivered rapidly and at lower cost, sending a clear message about a commitment to clean air.

- Local transport plans should have an explicit aim to reduce reliance on cars by prioritising walking, wheeling and cycling, along with better public transport.
- Councils should carry out road reallocation - for example, by rolling out school streets wherever possible. They should also lead the way on reducing air pollution. Electrifying their fleets would be a good example of this.

1. INTRODUCTION

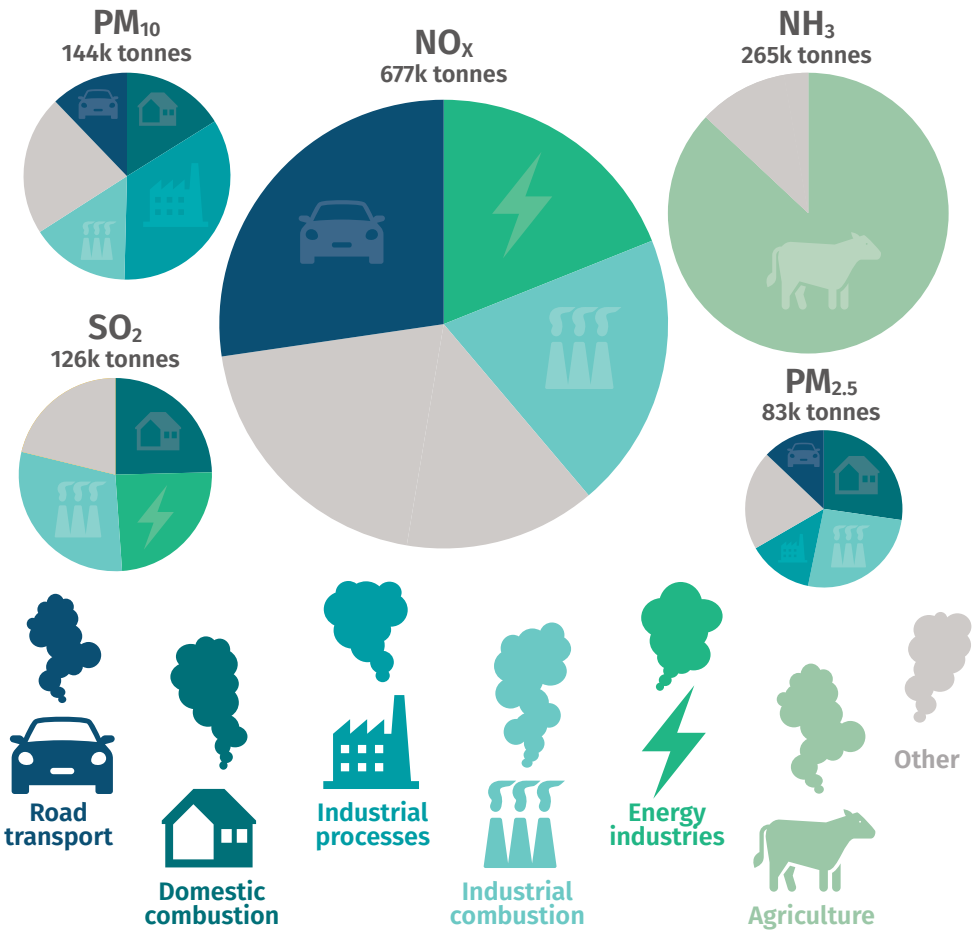
WHAT DO WE MEAN BY AIR POLLUTION AND WHERE DOES IT COME FROM?

Air pollution is the contamination of the air by substances that are harmful to people, other living beings or to the environment. Although it can refer to both indoor and outdoor pollution, indoor air pollution is often neglected when drawing up strategies or carrying out monitoring (Environmental Audit Committee 2023). In this report, air pollution is used to refer to pollutants that are harmful to human health.

The most common pollutants are nitrous oxides (sometimes referred to as "NO_X", which includes nitrogen dioxide, NO_2), particulate matter ($PM_{2.5}$ and PM_{10}), ozone (O_3), sulphur dioxide (SO_2), carbon monoxide (CO) and ammonia (NH_3). Common sources of air pollution are shown in figure 1.1. Some pollutants are highly correlated. For example, areas with high NO_2 levels from transport are also likely to have high PM_{10} and $PM_{2.5}$ concentrations (Defra 2017).

FIGURE 1.1: COMMON SOURCES OF AIR POLLUTION ARE FROM A COMBINATION OF BUSINESSES (INDUSTRIAL, AGRICULTURE) AND INDIVIDUAL ACTIONS (WOODBURNING, CAR USE)

Common sources of air pollution and their contribution to total UK emissions (bubble size relative to tonnes emitted per year)



Source: Defra (2023a)

Transboundary pollution

Some air pollutants are localised, meaning they remain in the location where they are generated. For example, NO_2 is a localised pollutant, which leads to pollution hotspots by some roads. Particulate matter, on the other hand, is a transboundary pollutant. It is estimated that one third of the particulate pollution in the UK has blown over from mainland Europe (Defra 2023b). Similarly, ammonia, which is generated from farming practices, reacts with other air pollutants to form particulate matter which can blow into cities. The nature of transboundary pollution requires collaborative working to identify solutions.

WHY DOES AIR POLLUTION MATTER?

Air pollution has been linked to strokes, heart diseases, lung cancer, respiratory diseases, dementia and other conditions, and is estimated to be associated with 7 million premature deaths globally per year (WHO 2023) and up to 43,000 premature deaths in the UK alone (UKHSA 2022). Emerging research has shown that there are no safe levels of exposure to some pollutants, notably $PM_{2.5}$. In 2020, a coroner found that excessive atmospheric air pollution from London's South Circular Road had contributed to the death of nine-year-old Ella Adoo-Kissi-Debrah in 2013.

These impacts are not felt uniformly. Children, pregnant people, older people, and those with pre-existing health conditions (particularly lung or heart diseases) are more susceptible to the impacts of air pollution (Global Action Plan 2023). Exposure is also shown to be highest among people living on lower incomes, in more deprived areas, or from minoritised backgrounds (Mayor of London 2021).

What's more, some studies suggest that meeting the WHO guidelines for air pollution could save £3.3 billion annually through the economic benefits from reduced illness and deaths, and improved labour market impacts (CAF 2022). Estimates include "388,000 fewer reported asthma symptom days in children each year".

WHAT ARE OUR TARGETS?

The World Health Organization (WHO) has adjusted its clean air targets as more evidence has emerged demonstrating how seriously air pollution affects people's health. Prior to leaving the European Union, legally binding targets were set for the UK through the EU Air Quality Directive (2008/50/EC), which were brought into UK law through the Air Quality Regulations 2010. In 2023, the EU voted to align air quality limits with WHO guidelines, but not until 2035 (ClientEarth 2023). This leaves the UK with targets that are out of date and out of step with other European countries. For example, the UK has a $PM_{2.5}$ target, for which there are no safe levels of exposure, that is double that of the WHO guidelines (see table 1.1). For some pollutants, the UK has no target at all.

TABLE 1.1: THE UK LIMITS AND TARGETS ARE LESS AMBITIOUS THAN THE WHO GUIDELINES, IN SOME CASES EXCEEDING THEM BY FOUR TIMES

The pollutants outlined by WHO with the corresponding WHO targets and UK limits and targets

Pollutant	Averaging Time	WHO guidelines (2021)	England limits and targets
NO_2, µg/m3 (nitrogen dioxide)	Annual	10	40 (by 2010)
	24-hour	25a	200 (hourly mean concentration, not exceeded more than 18 times/year)
$PM_{2.5}$, µg/m3	Annual	5	12 (by 2028) 10 (by 2040)
	24-hour	15a	-
PM_{10}, µg/m3	Annual	15	25 (by 2015) Scotland has adopted a target of 10 µg/m3. (Tyers 2023)
	24-hour	45a	50 (not exceeded more than 35 times / year)
O_3, µg/m3 (ozone)	Peak season	60	-
	8-hour	100a	100 (not to be exceeded more than 10 times per year)
SO_2, µg/m3	24-hour	40a	125 (not to be exceeded more than three times per year)
CO, µg/m3	24-hour	4a	10 (eight hour mean)
NH_3, µg/m3 (ammonia)			-

µg = microgram

a = 99th percentile (ie three–four exceedance days per year). Annual and peak season is long-term exposure, while 24 hour and eight hour is short-term exposure.

Source: WHO (2021), Defra (2023b)

Alongside the pollutants in table 1.1, there are also air quality objectives for local authorities on lead, benzene, and 1,3-butadiene, although local authorities in England are not expected to report on these pollutants since their concentrations are low.

In government documents, percentage reductions are sometimes used as targets rather than absolute values. This makes it hard to compare UK government targets with WHO guidelines, and to interpret current air pollution figures. This obfuscation might be accidental, but it makes it harder to hold government to account.

There is some variation across the country. The Mayor of London and several London boroughs have committed to meeting the WHO guidelines by 2030 (Mayor of London 2023a), including Hackney (Hackney Council 2021) and Camden (Camden Council 2023). Lambeth has adopted WHO's interim targets, with an intention to review the targets every three years.

OUR RESEARCH APPROACH

This research draws on a range of different evidence sources. To understand the powers and duties that local authorities hold to deliver clean air we have undertaken a systematic desk-based review, interviewed a range of local government officers

and councillors, and engaged with stakeholders with expert knowledge of local government and air quality. To further test and refine our understanding of the context in which local authorities act to improve air quality, we convened two small workshops of officers and councillors and undertook polling of 500 urban councillors in August 2023.

Our research also included engagement with the public. We recruited residents from urban areas in England to take part in in-depth interviews and focus groups. Everyone involved lived on a low income (a household income of £20,000 or less) and participants represented a range of demographics, including young people and those with respiratory conditions. The conclusions from this qualitative research were further refined in a deliberative 'clean air panel' and shared principles for local action were defined. Separately we also engaged clean air campaigners, local and national, to explore the barriers and successes they have had in advocating for action to improve air quality.

2. CLEAN AIR PANEL: PRINCIPLES FOR ACTION

Our clean air panel was held online in July 2023. This panel included ten members of the public who had previously participated in either an in-depth interview or a focus group with us. All lived on a low income, and they represented a range of demographics and urban areas of England. Some members of the group had respiratory conditions.

Over two evenings, panel members heard each other's perspectives and had a chance to learn about the causes, impacts of, and solutions to air pollution. They reviewed the findings of our qualitative research to ensure that our interpretation of the interviews and focus groups reflected their experiences, and then deliberated on a response to the following question:

> ***"What does taking action to improve air quality in a fair way look like?"***

The principles detailed below are their answer to that question. We have kept as closely as possible to the words our panellists used.

CLEAN AIR PANEL'S PRINCIPLES FOR FAIR ACTION ON LOCAL AIR QUALITY

Tackling air pollution is an urgent issue. It affects the most vulnerable in society the most, and we need to act to protect them.

Our lifestyles will need to change if we are to address this challenge. This comes down to individual choices, and people need to take responsibility for the impact of their behaviours if we want our children to have a healthy future.

People need support to be able to make big changes in their life. We need to be considerate and understand the different challenges people face when asking them to take action. This includes being mindful of the barriers that people with disabilities might face in making certain changes in their lives. When putting in place bans and fines that aim to improve air quality, we need to provide practical support for those on the lowest incomes to make changes in their lives.

Positive actions should be incentivised. Even short-term incentives can work to communicate the change that people need to make and support them to think about doing things differently.

Provide more information about air pollution and have better education about it in schools. People should be told what it is, what its impacts are, what is being done about it and the changes they can make to reduce it in their homes and in their city. People living in cities often don't know the harm it is doing them until they experience fresh air in the country. More can be done to involve people in 'clean air days' and similar awareness raising events.

There should be a public conversation about how to fairly change our cities to improve air quality, what's already working, and the benefits it will bring. The voices of those most affected by poor air quality need to come through more.

The wealthiest shouldn't be able to avoid making changes because they can afford to pay their way out of them. We should prioritise making changes that affect everyone equally and ensure that those with the most resources take on their fair share of the effort. There may be a role for more regulation in stopping the most polluting behaviours by the wealthiest or by companies.

Be led by the evidence. Focus on protecting those at the highest risk and reducing the biggest sources of pollution.

Decision makers need to think more about normal people and listen to them. Politicians and those making the decisions that affect people feel distant from their reality. Decision makers need to work harder to understand people and earn their trust. Keep in mind that what needs to happen, and what is fair, will be different in different places.

Developments shouldn't happen where they make the problem worse. We cannot put new housing in places where people are going to need cars to get to work or to other places they need to go.

Businesses, including farmers, should do their bit and be supported by government to tackle sources of air pollution.

3. ACTION ON CLEAN AIR: WHAT WORKS WELL AND WHAT ARE THE BARRIERS?

Most local authorities across the country have the same set of powers available to them to address air pollution, yet ambition and action vary significantly. By engaging with stakeholders in local authorities and speaking to members of the public, it was possible to identify the features that have led to ambitious action to improve air quality. This also highlighted the barriers local authorities face in taking action.

LEADERSHIP AND A MANDATE TO ACT

Despite local authorities having many powers to improve air quality, uptake of interventions has been patchy. Local authorities that have taken effective action on air quality share some traits:

- **Strong leadership**: This does not necessarily have to be the leader of the council (although their support is essential) but someone senior who champions and takes ownership for the issue.
- **Integration across the council:** Including air pollution as a priority in council strategies means it can be embedded across policies and teams, forming part of decision-making processes. This means that transport or planning teams must consider air quality early in policy and programme development and can deliver integrated solutions, and that Directors of Public Health should be involved. This could be as part of a 'net health gain' approach (PHE 2019). Anecdotally, this has protected councils that have taken bold action from being overruled by the Planning Inspectorate, because the actions are well justified.
- **Ambition and a mandate to act:** Councils that have adopted ambitious targets (for example, aiming to be within the WHO guidelines by 2030) state that these help justify the urgent action required to improve air quality. When the council feels it has a mandate to act, either by having campaigned on a manifesto along these lines or having done extensive public engagement, it helps embed action on air quality throughout the council, and explain the reason behind interventions.

Local authorities have an important role to play through their 'soft' powers, particularly their enabling and communicating functions. This might include encouraging businesses to switch to greener options - for example, by installing on-street EV charge points for business e-vans, supporting electric van or e-cargo bike consolidation and last-mile delivery schemes, and by carrying out sustainable travel planning with larger employers.

UNDERSTANDING OF AIR POLLUTION

In our engagement with the public, people felt they had limited understanding of air pollution, beyond a broad sense that it is bad for health, and that traffic is a major source. In general, there was limited understanding of where and when there is a particularly high chance of increased exposure - for example, that car users are more exposed to certain pollutants than cyclists, bus passengers or pedestrians

(Fuller 2023). In its response to the Coroner's Prevention of Future Deaths Report, which stated that there is "low public awareness of the sources of information" (Barlow 2021), government committed to taking immediate action to increase public awareness about air pollution (Defra 2021). However, several interviewees felt that despite being more aware of air pollution, they didn't know where to look for information, and their friends and families didn't think it was a big concern. Doctors have called for education on the link between air pollution and health to be better able to support people (Howard 2023). Across everyone we spoke to, from members of the public to local authority officers and councillors, understanding of indoor air pollution was poor.

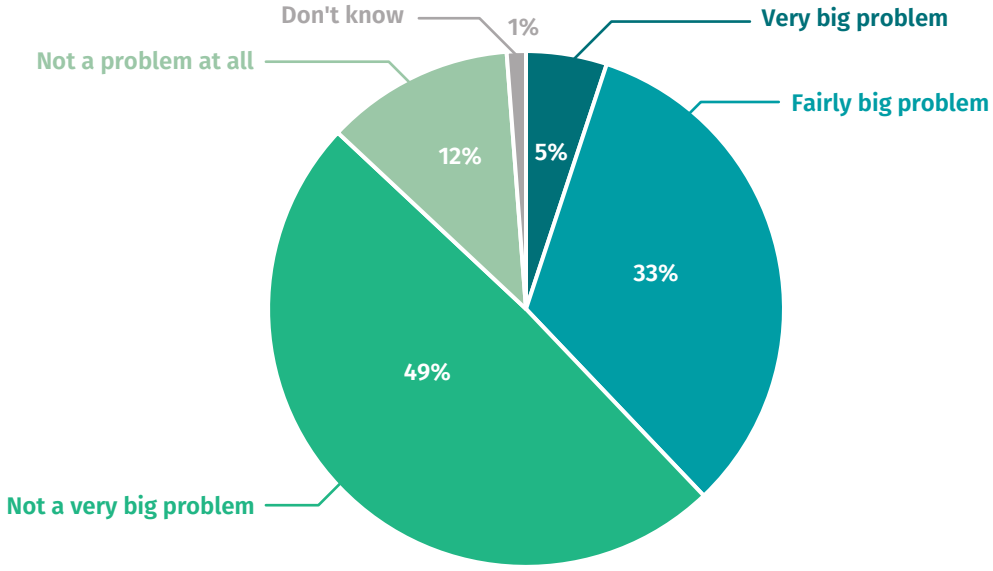
> ***"Air pollution is invisible – because you can't see it, it's out of sight and out of mind. People don't know how bad it is."***
> Public workshop participant

Half (49 per cent) of the councillors we polled felt that air pollution was a problem[1], but they thought that only 38 per cent of their constituents would say the same (figure 3.1). This mismatch goes some way to explaining a reluctance to act on air pollution by some councillors, who perceive that it might not be politically salient in their constituencies. Although the councillors and officers we spoke to agreed there was a need to improve air quality, most said that it was not a major priority. Only in the councils where air pollution was part of the overall strategy was it seen as a priority that was factored into decision-making across the council.

There were more councillors who thought that people would be more likely to vote for a party that would tackle air pollution (39 per cent) compared to those who didn't (24 per cent), but a significant proportion (36 per cent) neither agreed nor disagreed, suggesting that councillors do not feel strongly that this is an electoral issue.

FIGURE 3.1: URBAN COUNCILLORS POLLED DO NOT THINK AIR POLLUTION IS OF BIG CONCERN TO THEIR CONSTITUENTS

Response to the question: "How much of a problem, if at all, do you think your constituents would say air pollution is in your area?"



Source: Authors' analysis of polling commissioned for this project

1 14 per cent felt that air pollution was a 'very big issue' and 35 per cent a 'fairly big problem'.

Councillors' perceptions reflect national polling. Over half (55 per cent) of the public did not think air pollution was a problem in their local area in August 2023 (YouGov 2023). The public we spoke to were keen for more access to information about the risks and solutions to air pollution, perhaps through a public health campaign. However, it is worth noting that analysis of behavioural interventions has found that "raising awareness in itself is not enough to effect change: it must be done in conjunction with other behavioural and non-behavioural interventions" (PHE 2019).

COMMUNITY MONITORING OF AIR QUALITY

Although local authorities have a duty to publish air quality information, it is reportedly often hard to find or to understand. The Air Quality Strategy Framework for Local Authority Delivery (2023) states that this information is often "hard to read, buried deep on council websites, years out of date, or is simply missing" (Defra 2023c). There is a lack of real-time monitoring of air pollution or regular communication about air quality.

However, there are examples of communities or local authorities taking innovative approaches to monitoring and communicating information about air quality with local people. In Sheffield, a 20-metre banner with a poem 'In Praise of Air' was hung above a major through-route, printed on a material that can remove air pollution. It was designed to start a conversation about air pollution in the city (Gavins 2017). Elsewhere in the city, community groups have carried out local monitoring using low-cost diffusion tubes to build local understanding (Defra 2017).

UNDERSTANDING WHAT WORKS AND DELIVERING EFFECTIVE INTERVENTIONS

The lack of understanding of air pollution is compounded by the challenges associated with measuring and evaluating interventions designed to improve it. Interventions can vary from hyper-local changes (for example, tree planting outside a school) to large-scale measures (for example, walking and cycling networks, planning policies or city-wide clean air zones (CAZs)). Additionally, measures might take place over a number of years (such as the introduction of regulations or standards) or target different pollutants. Interventions are often implemented alongside a range of other measures, making it difficult to detect and quantify changes, particularly since air quality is highly sensitive to other conditions like the weather and the location of monitoring instruments (AQEG 2020).

Councils are expected to report to Defra on the impacts of funding such as the Air Quality Grant Scheme. However, the Air Quality Expert Group notes that often these assessments fail to reach robust conclusions about effects of interventions or causes of any changes in concentrations (AQEG 2020). It provides advice on better study design at the early stages of project planning, but this is not a priority for many councils.

Some interventions aimed at urgently bringing pollution levels below legal limits can take years to deliver. Many of the Clean Air Zones implemented were due to ministerial direction and are one of the most effective ways to rapidly reduce NO_2 emissions (Defra and DfT 2022). However, they involved building a business case, conducting impact assessments and consultations, and putting in place mitigations like scrappage schemes. Birmingham City Council submitted its business case for a CAZ in December 2018 (Birmingham City Council 2018), after having been instructed by government to implement one in 2015 (Defra 2015). The CAZ came into force in June 2021 (Birmingham City Council 2021), more than five years after the city was

told to reduce illegally high levels of NO_2, during which time people in the city continued to breathe polluted air.

Research suggests that the most effective way to reduce air pollution of all types is to implement a combination of measures. This includes transport, spatial planning, industry, agriculture and behavioural changes (PHE 2019).

The importance of being able to implement multiple measures, and to sequence them if appropriate, in order to secure changes across the transport system is backed up by UK100's Powers in Place report. This states that "the lack of an integrated whole-place approach to transport in all areas of the country except London has severely restricted local authorities' ability to plan for zero carbon transport. The actions that have been taken are piecemeal and even the leading local authorities do not manage to incorporate the whole suite of measures needed" (Fenna and Marix Evans 2023).

There are examples of councils taking a more well-rounded approach. In London, Camden and Hackney have adopted WHO air quality targets, and Oxfordshire is in the process of implementing a zero emission zone without receiving a ministerial direction. These actions, and others across the country, illustrate that there are some actions that can be implemented more rapidly, and for less upfront investment, than CAZs. This includes school streets, experimental cycle lanes, and awareness campaigns. But none of these will sufficiently reduce emissions to within WHO guidelines on their own.

Nottingham's Workplace Parking Levy was successful in reducing air pollution. Nottingham has not needed a Clean Air Zone because it has been improving its public transport, bus and taxi fleet and active travel infrastructure for a decade, funded by the revenue raised through the levy (Bounds 2019).

Despite the length of time taken for implementation, the ministerial direction for local authorities to implement CAZs has been the most successful intervention in forcing action.[2] Both Birmingham and Bath[3] have reported a reduction in NO_2 emissions since the introduction of their clean air zones in 2021 and 2022 (Barltrop 2023, Birmingham City Council 2022). The ministerial direction required cities that might otherwise have been concerned about political opposition to act. It also provided significant funding for the cities to implement clean air zones, both for scrappage schemes and for the initial installation of Automatic Number Plate Recognition (ANPR) cameras.

The financial arrangement for the CAZs involves government recouping a portion of the fines to cover the cost of the programme, with the rest returning to the council to be spent on transport projects or support the scrappage scheme. However, many councils lacked the upfront funding to support those living on low incomes or with disabilities who were impacted by the change and required support from central government.

FUNDING, CAPACITY AND CAPABILITY

A significant barrier to local authority action is a lack of funding. This applies to specific funding for clean air, but also the lack of long-term investment in public transport or active travel, and over-investment in roads. The lack of funding for clean air is a problem when trying to design measures that are equitable. Local authorities need financial support from central government to offer mitigations

2 The cities were: Bath, Birmingham, Bradford, Bristol, Greater Manchester (currently under review), Portsmouth, Sheffield, Tyneside – Newcastle and Gateshead. The ULEZ was already underway in London, so it was not included in the Directive.

3 Bath's CAZ, introduced in 2021, charges taxis, vans, lorries and buses, but not private vehicles.

if encouraging people to change their behaviour by, for example, providing scrappage schemes when implementing a clean air zone.

Years of austerity and limited local authority funding have resulted in a lack of capacity and capability within local authorities. Some of them have also faced struggles in recruitment of specialist air quality or environmental health officers (LGA 2023). This suggests there might be a lack of expertise at a national level, pointing to the need for investment in these skills by central government.

These issues go beyond recruitment. **In our engagement with local authorities we heard that in some cases, there are simply not enough officers with the relevant skills to change diffusion tubes or to monitor smoke control areas.** This can make enforcement challenging, in smoke control zones for example, particularly if the council does not have real-time monitoring of particulate matter (since diffusion tubes only measure NO_x) which can tell them when there have been breaches in air quality. Anecdotally, smoke control breaches are often people reporting their neighbours rather than being based on measurements of emissions, making enforcement challenging.

In some local authorities, the cost of regulating and enforcing environmental permitting or smoke control areas is higher than the money the local authority collects in fees or fines. Fees and fines are set by national government, so the local authorities find themselves unable to raise the revenue needed to cover their costs, an issue exacerbated by rising inflation.

ENFORCING SCHOOL STREETS IN LONDON

In London, it was found that school streets reduced air pollution around the school by 23 per cent and met with an approval rating of 81 per cent (TfL 2021).

Research by Mums for Lungs in 2023 found that London's school streets that used Automatic Number Plate Recognition (ANPR) enforcement were self-funding within their first year. The costs of installing the cameras and carrying out enforcement were repaid and recovered within the first year (MfL 2023).[4]

Under the powers granted to local authorities to install ANPR systems for school streets or low traffic neighbourhoods, any revenue raised through fines or fees must cover maintenance costs or road and environmental improvements rather than be used as an income stream for the council.

For indoor air quality, local authorities have a responsibility to implement Minimum Energy Efficiency Standards (MEES) for the private rental sector, but without a central register of private rented properties, councils cannot check their EPC ratings. Councils have limited resources to challenge private landlords, and tenants are often reluctant to raise issues with the council due to the precarity of the private rental sector. Some local authorities have prioritised energy efficiency through communicating with landlords, providing information and undertaking enforcement, or through the introduction of landlord licencing.

4 A School Street with a multi-camera ANPR scheme costs on average £56,375 (around £20,000 for a single-camera scheme) and returns on average £63,113 per year in penalty enforcement notices.

MULTIPLE STAKEHOLDERS CAN MAKE IT HARDER TO ACT (AND EASIER TO BRUSH OFF POLITICAL RESPONSIBILITY)

The legislative, regulatory and administrative landscape for air pollution is complicated. The lack of available information and general poor level of understanding result in a lack of accountability at many levels. Multiple organisations hold different powers and levers to address air quality, each of which might have differing incentives, which can lead to inconsistent messaging on the importance of delivering clean air. In some areas, air quality partnerships are already in place and offer an effective way of improving air pollution by facilitating strategic approaches at a county or regional level. But elsewhere, the role of different partners seems fragmented and can impede or slow action.

Although air quality partners[5] have a duty to act to improve air quality, the political sensitivity of some of the interventions can disincentivise them from engaging fully. MPs, metro mayors and others have all claimed that local authorities alone should be responsible without acknowledging their responsibility to help improve air quality (Tyers 2023). Beyond this, councillors might face opposition from other political parties or central government, as well as the public.

The lack of clarity over responsibilities also extends to a council level. Despite the impact of air pollution on health, public health professionals in local government have limited policy levers available to them. Most of the powers to act on air pollution sit within transport, planning and environmental protection, and environmental health teams. The siloed decision making in local authorities hinders cross-council action, and this is compounded by unaligned incentives, with planners and transport officers having different priorities from those in the public health teams. In addition, structural barriers such as government processes favour business cases for roads over active travel (UK100 2023).

COUNCILLOR PERCEPTIONS

The vast majority (81 per cent) of local councillors we polled backed adopting WHO guidelines locally and supported a wide range of interventions designed to improve air quality (see figure 3.2). These interventions include investment in public transport (94 per cent support) but also charging people for using polluting vehicles in areas that breach safety guidelines. This polling was carried out after the Uxbridge by-election, where London's Ultra Low Emission Zone (ULEZ) proved contentious, so it might have been expected that respondents were more nervous about charging people. Despite this, 57 per cent of councillors polled supported this measure to improve air quality.

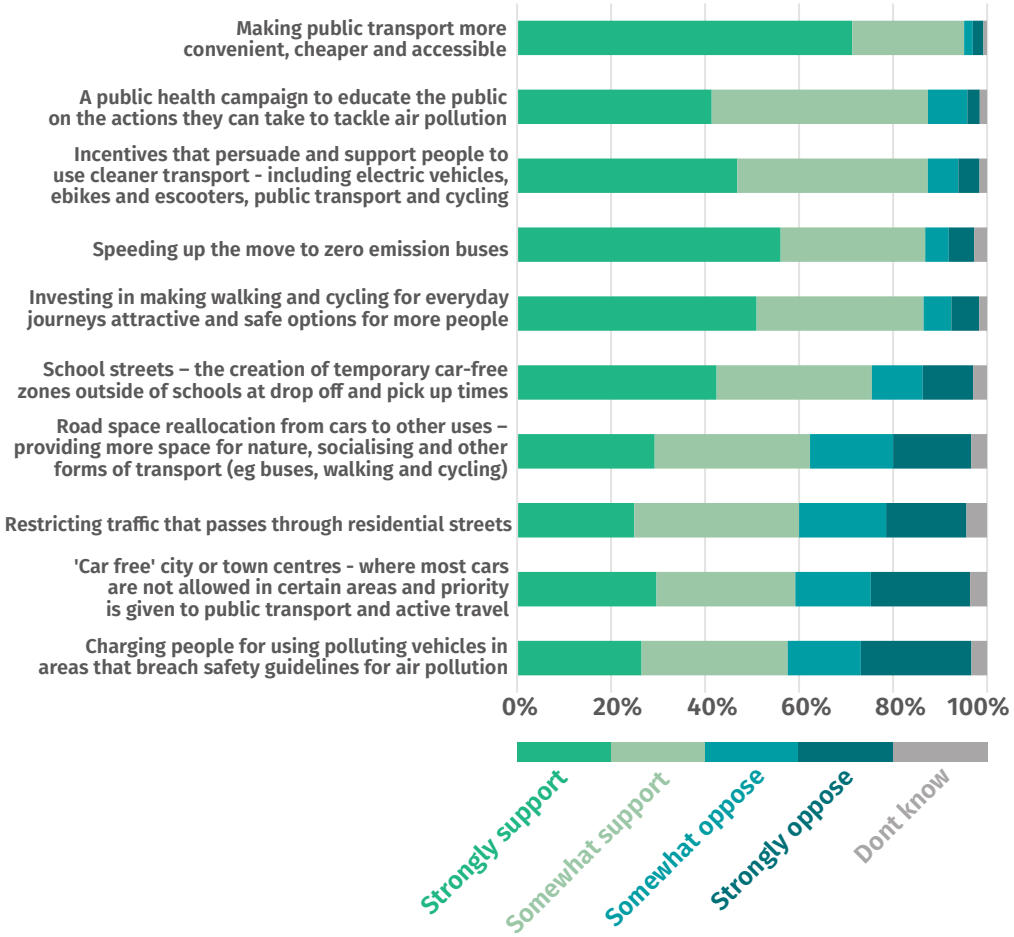
Lack of national support is seen to inhibit acting on this ambition, **with 70 per cent of councillors feeling that the government was not doing enough to support local authorities to improve air quality**. We found that councillors feel that the potential political pushback from opposition parties and constituents to actions on air quality are a significant barrier. Additionally, although most local authorities have the powers to implement the interventions in figure 3.2, most councillors we polled felt that they did not have the powers they needed to tackle air pollution.[6]

5 Air quality partners are outlined in the Environment Act 2021 as neighbouring authorities, county councils, combined authorities and National Highways.

6 52 per cent felt they did not have the powers they need, 29 per cent felt they did, and 19 per cent did not know.

FIGURE 3.2: URBAN COUNCILLORS POLLED SUPPORT ALL PROPOSED INTERVENTIONS TO IMPROVE AIR QUALITY

Response to the question: "To what extent do you support or oppose the following measures to improve air quality?"



Source: Authors' analysis of polling commissioned for this project.

ENGAGING THE PUBLIC IN DELIVERING AMBITIOUS AND FAIR ACTIONS

The principles developed by our clean air panel show that the public support urgent action to improve air quality and want to be involved in meaningful opportunities to shape the future of their cities. As has been well established, **climate policies receive more support if they are perceived to be fair and effective** (Mitev et al 2023). **The same is true for those targeting improvements in air quality.**

In the discussions that informed these principles, panel members were concerned about the weak links that can exist between local politicians and local communities, and the impact this has in limiting the effectiveness and fairness of policies. The clean air campaigners we spoke to also shared their experiences of attempting to engage with complex political structures through what they described as "performative consultations" with narrow parameters and pre-determined views on the outcomes. **Both the public and campaigners spoke of the opportunity for more ambitious action if local authorities adopted more creative and longer-term approaches to engaging people.**

The councillors we polled were in almost uniform agreement that the public should be 'effectively involved' in the design of policies that aim to address air pollution, with 50 per cent thinking it 'very important' and 38 per cent thinking it is 'important'. Less than 3 per cent thought it was not important at all.

22 per cent of councillors went on to say that 'fairness' meant it was more important to hear the views of those most exposed to high levels of air pollution than those whose behaviours would be most affected by the policies being proposed (with 10 per cent saying the reverse). By far the majority (over two thirds, 67 per cent) of councillors felt it was equally important to hear from both groups in designing fair policies, perhaps a reflection that people might often be in both groups. Political party can be a strong predictor of councillor views on this question, with Green Party councillors being much more likely to say that it was those experiencing the worst impacts of pollution who needed the loudest voice (58 per cent) than Conservative Party councillors (5 per cent). Around a quarter (28 per cent) of Labour and Liberal Democrat councillors agreed with this position.

Our conversations with the local campaigners, councillors and the public revealed a common vision of the future of cities in England. This vision was less directly about clean air or public health and more about the desire for shared action to improve their local area and restore pride in their neighbourhoods. Many of the policies that will improve air quality, such as making more space for trees and investing in public transport, connect to these hopes for the future and resonate across political divides. **The polarisation that is dramatised so extensively in the media simply doesn't reflect how most people engage with these issues**. Given the opportunity to hear each other's views, they quickly find common ground, particularly when people from different backgrounds are offered a platform to share their experiences:

> ***"It's powerful to hear it from someone who's directly affected. I'm not affected in the same way, and hearing it come from someone in the room, those stories are really important to hear."***
>
> Public workshop participant

Alongside building a shared vision rooted in people's sense of community, there is a need to understand the challenges that might restrict some people's ability to act. As we've shown, and many of the campaigners told us, "Pollution is not a top-five thing for many people." The solutions proposed have to resonate with their lived experience, which could be shaped by many things, including their age, race, health or income. With cost of living a significant concern, people worry about any additional charges on their behaviours and feel limited to act by their lack of money:

> ***"It's the fear of expense that holds people back from making significant change."***
>
> ***"I feel like choice is taken away from us. If we pay clean air tax, just another thing we're being charged for, but will it help? Will people think of different ways to get places? Public transport is expensive, people are already struggling... People will start staying in and that's not good, not good for our mental health."***
>
> Public workshop participants

The members of our panel reacted negatively to any perceived hypocrisy or inconsistency from decision makers. A concern for many of our panel members was new housing being built that locked in ways of living that are incompatible with reducing air pollution:

> *"New developments are happening here but there's no employment nearby, so everyone has to have a car - or maybe two or three - because they're all going to different places for work."*
>
> Public workshop participant

Examples like this are used to challenge the effectiveness of other interventions and, given the mistrust of politicians and government many also felt, can lead to accusations of policies being implemented with alternative motivations (eg, to raise funds). Public support can be built by ensuring that all decisions are aligned behind achieving common goals and focused on making the most desirable social and environmental behaviours the easiest and most affordable options for people.

4. LOCAL AUTHORITY DUTIES AND POWERS TO ACT ON CLEAN AIR

This chapter provides an overview of the powers and duties available to local authorities to improve air quality. Further details are provided in the technical report.

HISTORY OF AIR QUALITY LEGISLATION AND ITS ENFORCEMENT

The first legislation in the UK that addressed air pollution was the 1875 Public Health Act, enacted to tackle coal smoke and factory pollution. The first Clean Air Act was in 1956, amended in 1968 and repealed and replaced by the Clean Air Act 1993. However, the current legislation that dictates most action on air quality is ad-hoc, arising from EU directives, industrial regulation and various local authority duties. This has resulted in a complex legislative and regulatory picture. Although national government is responsible for overall emissions and large industrial emissions (via the Environment Agency), most duties on air pollution are managed by local authorities.

The UK government was taken to court, and defeated, three times by the NGO ClientEarth, in 2010, 2015 and 2018 (ClientEarth 2018). The Supreme Court ruled that the UK government was in breach of its legal obligations due to levels of air pollution being too high in some areas, a lack of a plan to reduce emissions, and the fact it had not placed an obligation on local authorities to act on illegal levels of pollution. The judge made it clear that it was not enough to develop a plan, it must be followed by action:

> ***"This litigation demonstrates that good faith, hard work and sincere promises are not enough. The Court, it seems, must keep the pressure on the government to ensure the compliance with the regulations and the Directive is actually achieved."***
>
> Judge in ClientEarth Case (RCJ 2018)

In response, the UK government was instructed to draw up a plan, *Improving Air Quality in the UK*, which was followed in 2017 by the *UK Plan for Tackling Roadside Nitrogen Dioxide Concentrations.* This led to the formation of the Joint Air Quality Unit (JAQU) which sits between Defra and the Department for Transport (DfT). Although initially local authorities were 'encouraged' to develop action plans, this was found in court not to be compliant or robust enough.

As a result, national government identified local authorities in which NO_2 exceeded legal levels. Using a ministerial direction, local authorities were required to implement plans to address illegal pollution levels as soon as possible, resulting in the implementation of Clean Air Zones (CAZ) in eight cities. Local authorities under ministerial direction have access to an Implementation Fund and a Clean Air Fund, which cover the costs of things like ANPR cameras and scrappage schemes, respectively (Defra 2018a).

Funding for local authorities to improve air quality is available through the Air Quality Grant Scheme, and is tied to their air quality status. Local authorities that have declared a Local Air Quality Management Area or an Air Quality Action Plan apply through a different stream to those without.

LOCAL AUTHORITY PRIMARY DUTIES, POWERS AND FUNCTIONS FOR CLEAN AIR

Three different laws give lower tier local authorities[7] explicit duties and powers to improve air quality and prevent pollution. These are **Local Air Quality Management** (LAQM), **environmental permitting**, and **smoke control**. Duties are legal requirements, whilst powers describe actions available to local authorities.

The government has recently strengthened some of the powers and duties through the Environment Act 2021. The Act strengthens the obligation for local authorities to take action by shortening timeframes for local authorities to develop plans and implement them. It tightens up accountability through more timely and rigorous reporting, and provides more support for local authorities. Local authorities must also 'have regard' for the national Air Quality Strategy when carrying out their functions.[8]

TABLE 4.1. LOCAL AUTHORITY DUTIES AND THE POWERS AVAILABLE TO THEM TO IMPROVE AIR QUALITY

	Local air quality management	Smoke control	Environmental permitting
Primary duties and powers	Monitoring and assessment, if in exceedance, declare an Air Quality Management Area Develop and implement an air quality management plan	Enforcement of smoke control areas Enforcing trading standards and correct fuel sales	Duty to publish a register of all the permitted installations in the local area Inspections and enforcement (of specific installations)
Secondary duties and powers	Transport and highways Local planning Green infrastructure	Communication of smoke control areas	

Source: Authors' analysis

Local Air Quality Management (LAQM)

Key regulation: *Part IV of the Environment Act 1995 as amended by the Environment Act 2021, and Air Quality (England) Regulations 2000, as amended in the Air Quality (England) Regulations 2002.*

Lower tier local authorities must consider the National Air Quality Strategy and report on air quality in their areas, specifically monitoring NO_2, PM_{10} and SO_2. Other pollutants (CO, benzene, lead, 1,3-butadiene) are monitored but there are no targets for local authorities. Local authorities do not currently have a formal duty on $PM_{2.5}$, although they need to measure and report $PM_{2.5}$ levels, and national

7 Lower tier local authorities include district and unitary councils, including city and borough councils. County councils or combined authorities are known as upper tier local authorities.

8 'Have regard' suggests local authorities must show they are aware of the Strategy, but does not place additional obligations on them or force them to align with the Strategy.

government has suggested that if concentrations do not drop sufficiently[9] they will bring in a duty (Defra 2023b).

If air quality does not meet the national objectives the local authority must declare an Air Quality Management Area (AQMA). An AQMA requires them to develop an action plan that outlines how they will comply with legal air pollution standards. Local authorities must now declare an AQMA within 12 months of identifying air pollution that is above national objectives, and within 18 months of the AQMA must produce an Air Quality Action Plan. The action plan must include measures they will take to meet the objectives and dates by which these will be implemented. They must submit monitoring data and an Annual Status Report to Defra.

Within local authorities, environmental health teams are usually responsible for implementing Local Air Quality Management (LAQM). Some authorities have combined these with climate, health or transport teams. The duties also apply to other departments which must take account of LAQM, particularly Highways and Transport, Planning and Public Health. When drawing up an Air Quality Action Plan, local authorities can request that their '**Air Quality Partners**' (neighbouring authorities, County Councils and Combined Authorities, and National Highways, as outlined in the Environment Act 2021) propose actions they will carry out to meet the objectives. There is an obligation for the partners to deliver those actions and if action is not seen to be sufficient, the Secretary of State can issue a directive.

Smoke control

Key regulation: *Clean Air Act 1993, Environmental Protection Act 1990, Environment Act 2021 and Air Quality (Domestic Solid Fuels Standards) (England) Regulations 2020.*

Local authorities have the power to declare and enforce smoke control areas.[10] They also have a duty to declare smoke control areas if they are directed to by the Minister. It is an offence to emit dark smoke[11] from chimneys, grit and dust from furnaces and smoke from domestic chimneys within smoke control areas. Local authorities have a duty to periodically inspect their area to detect any statutory nuisances and if they receive complaints, they must investigate them. Smoke from a home in a smoke control area can be classified as a Statutory Nuisance. Local authorities can set standards for fuels that can be burnt in smoke control areas (for example 'Ready to Burn' fuel) and local authorities can enforce the sale of these fuels in smoke control areas.

Monitoring and enforcement activities relating to smoke are carried out by the Environmental Health/Environmental Protection team at the district or unitary council level, whilst ensuring that the correct fuel is being sold is the role of Trading Standards.[12]

Environmental permitting

Key regulation: *Environmental Permitting (England and Wales) Regulations 2016 (EP Regulations) and Pollution Prevention and Control Act 1999.*

9 'Sufficiently' is not defined in the Air Quality Strategy, but there is an expectation that local authorities should be taking some action to reduce $PM_{2.5}$ in their areas.

10 Areas where you cannot release smoke from a chimney, or you can only burn authorised fuel (unless you have an appliance approved by Defra).

11 Smoke is classified according to its shade of grey on a scale of 0 – 5. Smoke that is shade 2 or above is considered 'dark smoke' (HM Government 2023)

12 Trading Standards are local authority teams that enforce legislation related to consumer protection.

Local authorities have a duty to publish a register of all the permitted installations[13] in the local area. An environmental permit is required for any activity that could increase flood risk, adversely affect land drainage or produce pollution. The permissible emissions levels are set nationally, but local authorities can set a Local Air Quality Management (LAQM) area if an industrial process is producing excess emissions.

Air quality emissions from industrial processes are monitored by local authorities[14] under two different processes: Integrated Pollution Prevention and Control (IPPC), which covers emissions to air, water and land, and Local Authority Pollution Prevention and Control (LAPPC) which only covers air pollution. LAPPC covers large-scale emissions, but also dry cleaners and petrol stations.

Data collection and monitoring

Key regulation: *National Emission Ceilings Regulations 2018 (EU 2016 Directive), EU Air Quality Directive and Environment Act 2021.*

National government monitors total overall emissions (through a combination of data collection and monitoring), but under Local Air Quality Management (LAQM), local authorities also have duties to monitor and submit air quality data to Defra.[15]

The most common monitoring device is a diffusion tube. These perform well at measuring average pollution levels and changes over time (for example, the impact of a new traffic scheme), but they do not give detailed information about when pollution levels are high or low, and they only measure nitrogen dioxide. This means that spikes in pollution might be missed, making it harder to identify the need for targeted measures to reduce emissions. For compliance with targets, more accurate automatic analysers should be used, but these are more expensive.[16] Anecdotally, smoke control breaches are often people reporting their neighbours. Without accurate analysers that can detect particulate matter, enforcement of smoke control areas is challenging but leading local authorities are increasingly installing different types of air quality monitors including real time monitors.

LOCAL AUTHORITY 'SECONDARY' POWERS AND FUNCTIONS FOR CLEAN AIR

Beyond the three explicit requirements on air quality (plus the duty to collect and report data), local authorities have several other policy levers available to them to reduce air pollution in their areas. These secondary duties, powers and functions include transport and highways, planning, building control, housing, and trading standards. Some of these, particularly transport and planning, have a duty to carry out an assessment of the impact on air quality when considering new applications. Local Air Quality Action Plans list policies and interventions for these departments to improve air quality.

County Councils and Combined Authorities do not hold direct duties on air quality like their districts and unitary councils, but they do have duties as '**Air Quality Partners**', and they are able to act via 'secondary' powers to improve air quality. As 'Air Quality Partners' they have a duty to provide proposals to local authorities making air quality action plans, which outline what the partners will do to help deliver the air quality targets. They then have a duty to carry out the measures. Table 4.2 outlines the powers different 'air quality partners' have.

13 Installations as industrial processes, for example waste management, energy generation, refineries or factories. Larger industries, (A(1) installations), are regulated by the Environment Agency. Local authorities will grant permits for smaller sites, known as permitted installations.

14 Usually the environmental health protection teams.

15 The LAQM (local authorities) and the EU Air Quality Directive (JAQU) have different monitoring and assessment criteria, sometimes leading to a mismatch in the status of the area.

16 For example, in Hackney, automatic air quality monitors detected spikes in air pollution due to barbeques in London Fields park. This information was used to ban barbeques (Hackney Council 2019).

TABLE 4.2. FUNCTIONS FOR DIFFERENT TYPES OF LOCAL AUTHORITIES RELEVANT TO AIR QUALITY

Function/LA type	District Council	Unitary Council	County Council	Combined Authority[17]
Environmental Protection (Environmental Health)				Some deliver an Air Quality collective role
Transport	(car parks)			
Highways				
Planning				
Housing				
Spatial Planning				
Trading Standards				
Licencing				Some set taxi standards
Public Health				Some convene public health directors
Education				

Source: Authors' analaysis

National bodies can also be Air Quality Partners, specifically the Environment Agency, which has a wide remit on environmental protection (particularly regulating industry), and National Highways, which manages the strategic roads network. National Highways is an important partner since major roads can feed traffic into local areas and can therefore be a significant contributor to NO_2 and particulate pollution. National Highways has a duty to propose actions it will carry out within the local authorities' Air Quality Action Plans.

Beyond national bodies and county or combined authorities, local authorities have a duty to act if asked by a neighbouring local authority preparing an Air Quality Action Plan. As a result of this, there are various Air Quality Partnerships that have been formed by proactive local authorities and combined authorities to work together to deliver clean air.

17 Combined Authorities have different powers and functions depending on their devolution agreements, so this is indicative.

Transport and highways

NO_2 emissions have dropped significantly since the 1990s due to improving vehicle standards, although the decrease has plateaued since 2020. While electric vehicles (EVs) do not emit NO_2, they still produce particulate matter from tyre wear and brake dust. **Reducing pollution from road transport will require an overall reduction in the number of vehicles on the roads, alongside a strategy to incentivise the use of cleaner or electric vehicles left on the roads.**

Powers on transport and highways are provided through at least 10 acts of parliament and a multitude of regulations and guidance.[18] Different types of councils and combined authorities have differing powers over transport. County councils and unitary authorities have numerous powers in their role as Highways Authorities, while district councils only have powers over their own car parks. Combined authorities are the Integrated Transport Authorities for public transport but do not have powers over the roads, which are managed by local authorities or National Highways.

The powers available to local authorities to address pollution from road transport can be broadly broken down into three categories: fiscal levers, road reallocation, and public transport and taxis.

Fiscal levers

- **Road charging:** This refers to charges for some drivers for using their vehicles under certain circumstances. Clean Air Zones, Low Emission Zones and Congestion Zones are all forms of road charging.[19] They improve air quality by encouraging a shift to less polluting vehicles or reducing the total number of vehicles on the road. In London, the Mayor has separate powers to introduce road charging across all Greater London or some parts of it.
- **Electric vehicle charging:** District councils can install charge points for electric vehicles in their own car parks, while Highways Authorities use Traffic Regulation Orders under the Road Traffic Regulation Act 1984 to assign road space to EV chargers.
- **Parking charges:** Local authorities have powers to enforce parking regulations such as, for example, preventing parking in bus stops, cycle lanes or in EV charging bays. Local authorities cannot raise parking charges unreasonably, but they can reward the use of EVs and car club vehicles by making parking free or cheaper, or scale parking charges according to emissions or vehicle size, as several councils across London have done (EST 2019, Lambeth Council 2023). Merton Council charges more for car parks near public transport services and less for those not well served by public transport (Merton Council 2019), while Lyon, France, is introducing higher charges for heavier cars to dissuade people from using larger and more polluting vehicles[20] (Thompson 2023).
- **Workplace Parking Levy:** Local authorities have powers under the Workplace Parking Levy 2009 to charge businesses that provide staff parking. Businesses can pass these costs to employees.
- **Speed limits:** The Road Traffic Regulation Act 1967 provides powers to county councils and unitary authorities to introduce speed limits, such as 20mph zones. In urban areas, reducing speed limits results in small improvements in air quality (Davis 2018), making roads more attractive for active travel through reducing casualties with minimal impact on journey times (Owen 2023).
- **Idling:** The Road Traffic (Vehicle Emissions) (Fixed Penalty) England Regulations 2002 gives local authorities the power to issue fixed penalties to drivers who leave their engines idling while stationary.

18 See technical briefing: http://www.ippr.org/research/publications/unlocking-local-action-on-clean-air

19 They are introduced using road charging powers under Part III of the Transport Act 2000.

20 The new charges are means tested to ensure those on lower incomes or with three or more children do not pay more than the lowest rate.

FISCAL LEVERS FOR REDUCING AIR POLLUTION FROM TRAFFIC

Low emission zones have been found to be the most effective measure to reduce NO_2 levels in the shortest possible time. Other measures can be effective, but need to be delivered in combination with each other, often take longer to have an effect, and the impact of those interventions can be hard to measure (AQEG 2020).

However, fiscal levers can be politically charged. London's Ultra Low Emission Zone (ULEZ) and Nottingham's Workplace Parking Levy, both of which have delivered cleaner air, faced some vocal political and public opposition which has potentially put off other cities or elected officials considering similar initiatives. But it is well-established that, if policies are well designed, pushback can be short-lived and soon settles down – an effect known as the 'Goodwin curve' (Goodwin 2006).

Encouraging people to change their behaviour is always challenging, particularly if it involves raising costs for some during a cost of living crisis. **Our engagement with the public suggests that people will be less opposed if the measures are seen to be effective and fair. This means 'everyone doing their bit', while understanding that some people might need support.**

The legislation that enables councils to award parking or traffic fines[21] is clear about where any surplus must be spent, preventing councils from making undue profit or financial gain. Rather, the financial impact is to act as a disincentive, and schemes should fund themselves. Fines can be used for road or environmental improvements or, in London, for supporting the London transport strategy (HM Government 1984).

Road reallocation and green infrastructure

- **Restricting traffic access:** Local authorities have various powers to restrict motorised traffic on certain streets and at certain times. These powers can be used to introduce school streets[22] or low traffic neighbourhoods.[23] The restrictions can apply at certain times and can also include weight restrictions on the vehicles. Authorities can also prevent parking or driving in cycle or bus lanes.
- **Walking and cycling infrastructure:** Local authorities have several ways to introduce cycling infrastructure. This includes carrying out 'highways improvements' to create walking and cycling routes,[24] or through compulsory purchase of land, if needed, to create new cycle routes under the Highways Act 1980. They can also convert or widen existing walking routes, footpaths or bridleways.
- **Green infrastructure:** This refers to natural features[25] that deliver multiple benefits such as improved drainage or screening from pollution sources. Under the Highways Act 1980, authorities have the powers to plant trees or hedges to absorb some pollutants and capture particulates on their leaves. The impact of green infrastructure on air pollution is variable and should not be seen as an alternative to removing sources of pollution (AQEG 2018).

21 This applies to driving through school streets or low traffic neighbourhoods when not permitted, or parking fines, or fines for driving in bus or bike lanes.

22 School streets are the temporary restriction of motorised traffic on a road outside a school at school drop-off and pick-up times. They can be enforced physically, with temporary bollards and people standing in the street, or with automatic number plate recognition (ANPR) cameras.

23 Low traffic neighbourhoods are designed to reduce traffic on residential roads.

24 Active Travel England supports local authorities in this and is now a statutory consultee in the planning process for larger developments that could generate new vehicle traffic.

25 For example, trees, rivers, or other green space and waterways.

Public transport and taxis

- **Buses:** Until recently, local authorities outside London had limited power over bus services. They have the power to commission bus services to meet social needs not met by the competitive market under the Transport Act 1985. Prior to 1985, they had coordinating powers. However, as IPPR has called for previously, local authorities can reallocate road space to buses to improve services (Frost 2023).

BUS FRANCHISING

The Bus Services Act 2017 introduced the potential to franchise bus services. It also allowed local authorities to develop Bus Service Enhancement Plans to access funding and to form Enhanced Partnerships with bus service providers. Enhanced partnerships enable local authorities to specify timetables and multi-operator ticketing. The 2017 Act also required operators to provide improved online timetables and real-time service information, but it prevented local authorities from setting up new bus companies.

The franchising route has proved complex, with legal challenges faced by the Greater Manchester Combined Authority (GMCA) from two bus companies in the process. However, franchising should be complete for the 10 local authority areas that comprise GMCA by the end of 2024, with Bolton and Wigan introducing new services from September 2023.

- **Rapid transit systems:** Trams, light rail and underground trains are effective alternatives to car travel, but it is very difficult for local authorities to bring forward schemes at pace since they rely on central government funding as well as legislation. Greater powers and funds for combined authorities or regions to introduce rapid transit schemes could help reduce reliance on cars.
- **Taxi licencing:** Growing numbers of local authorities are using taxi licencing powers to transition their taxi fleet to zero emissions (EST 2022). Taxis can be significant polluters due to their high mileage, predominantly urban journeys and generally older vehicle age.

Planning

The planning system can be used to improve air quality in several ways. This includes longer-term planning to enable behaviour change. The use of air quality mitigations through planning permission and regulation on construction also have important roles to play in improving air quality. In general, a development that is aligned to air quality standards will likely also be aligned to net-zero standards, offering local authorities an opportunity to address two priorities.

Local planning

- **Developing local plans:** Local Planning Authorities[26] must develop local plans which should address any council strategies and consider the Joint Needs Strategic Assessment,[27] which provides evidence on health and air quality.
- **National Planning Policy Framework (NPPF):** Local plans must consider the NPPF and its corresponding guidance, which includes provisions that relate to air quality, and states that planning decisions should "sustain and contribute towards compliance" (DLUHC 2012). Developments should consider public transport catchment but in practice, many new developments are isolated from existing infrastructure (Transport for New Homes 2022).

26 District councils and unitary authorities.

27 Produced by Public Health and Integrated Care Boards.

IPPR has argued previously that local plans should take a more strategic view rather than a "development-by-development" approach, to support measures to reduce car dependence, improve active travel and public transport links, and develop housing in line with emissions reductions targets and nature restoration (Singer Hobbs et al 2023). London has developed an 'Air Quality Positive' approach, which takes a holistic approach to improving air quality from planning through to the reduction of building and transport emissions (Mayor of London 2023b).

CASE STUDY: BATH AND NORTH EAST SOMERSET LOCAL PLAN

In 2023, Bath and North East Somerset's local plan was updated in line with the council's objective to address climate change and improve air quality (BaNES 2023). The revised plan evidences the health impacts of poor air quality and inactivity and tackles the disproportionate effects on disadvantaged areas.

The plan includes measures to develop existing Park and Ride facilities into multimodal transport interchanges that include co-location of cycling, e-bike charging, lockers and freight consolidation. The plan strongly promotes sustainable transport in new developments, including reducing the impacts of delivery vehicles through centralised consolidation for deliveries that can then be made through new services such as e-cargo bikes.

Mitigations and planning permission

- **Environmental protection:** Environmental protection teams must be consulted on planning applications. Air quality mitigations can include the developer paying for measures detailed in the Air Quality Action Plan,[28] Local Cycling and Walking Investment Plan or focused through sustainable travel contributions for new bus stops or travel passes. Developments in Local Air Quality Management (LAQM) areas or large developments require an assessment on their potential impact on air quality. Planning permission can be refused or amended if a development is perceived to have impacts that will be unacceptable and cannot be sufficiently mitigated.
- **Industrial developments:** As part of the planning process, planning authorities can also specify the layout of a development and the location and height of chimneys.
- **Energy standards:** Local authorities can use the planning system to improve indoor air quality. Under the Planning and Energy Act 2008, local planning authorities can set energy standards above building regulations and require on-site renewables for new developments. Some local authorities have been successful in this, while others have been challenged by the Planning Inspector (Skidmore 2023).

Construction

- **Construction management plans:** Local Planning Authorities can take steps to control pollution from construction traffic, demolition and building works. This can include a construction management plan and recommended minimum emissions standards for Non-Road Mobile Machinery for city centre major developments.

28 Local authorities with Local Air Quality Management (LAQM) Areas will have a local Air Quality Action Plan, which will have a range of actions. Those without a LAQM Area are advised to have an Air Quality Strategy. If the local authority has neither, but it has concerns about the air quality impact of a development, the developer might be asked to suggest mitigations and fund them.

Building regulations

Building regulations are set nationally. Under the Building Act 1984, local authorities are required to check that buildings and extensions are built to the correct standards,[29] to ensure adequate ventilation while preventing external sources of air pollution from entering buildings. They also cover the installation of domestic fuel burners and stoves to the correct standard, unless installed by a certified contractor.[30]

The pushing back of the mandate for low carbon heat in new buildings from 2025 to 2035 in the Future Homes Standard will result in poorer indoor air quality for those homes, and it means they will need to be retrofitted at a later date. This change would have been administered through building regulations. There is a consultation on mandating that from 2026, all newly installed gas boilers are 'hydrogen ready'. However, the role of hydrogen in a decarbonised heating system is unclear, it is not currently possible to be rolled out at scale, and research suggests that some hydrogen boilers produce more NO_X emissions than the current systems (Bristow 2022).

Housing standards

Local housing authorities have limited powers to address elements of indoor air pollution caused by poor housing conditions. Indoor air quality can be affected by damp and mould as well as by poorly fitted or unsafe gas appliances.

- **Minimum Energy Efficiency Standards (MEES)**: Local authorities can check private rented properties meet energy efficiency standards (sometimes through Trading Standards). Most rented properties must have an Energy Performance Certificate rating of E or better. A bill that was recently abandoned by government (Slow 2023) proposed to improve MEES to EPC of C for new tenancies by December 2025 and existing ones by December 2028. Just under 2.7 million privately-rented homes (55 per cent) have an EPC of D or below (DLUHC 2022).
- **Housing Health and Safety Rating System (HHSRS)**: Local authorities have a duty to keep under review the conditions of all residential buildings in their area and take action where hazards are identified.[31] Enforcement can range from improvement notices to prohibition, demolition or clearance, and local authorities can provide financial support in addressing the hazards.[32]
- **Decent Homes Standard:** The social housing sector (council and registered provider homes) has to meet the Decent Homes Standard, which means homes must have no HHSRS category 1 hazards,[33] be in a reasonable state of repair, have reasonably modern services and facilities, and provide a reasonable level of thermal comfort. The Decent Homes standard was reviewed in 2021.
- **Social Housing Regulation Act 2023:** This introduced stronger regulation of the sector after the death of two-year-old Awaab Ishak in 2020, caused by mould in his social housing accommodation. The Act gives the Regulator of Social Housing powers to set strict time limits for social landlords to address hazards such as damp and mould.

Trading standards and licencing

Trading Standards carry out duties under a wide range of legislation including consumer protection and safety. Their two main roles in relation to air quality are fuels and taxi licencing (discussed in Transport and Highways). Trading Standards

29 The standards are the Building Regulations 2010 and (Amendment) Regulations 2021, and include energy performance (Part L) and ventilation (Part F) (HM Government 2010).

30 Contracts can be certified through the Competent Persons Scheme.

31 Hazards include NO_2 and carbon monoxide (gas appliance fumes) and the presence of damp and mould and volatile organic compounds (VOCs).

32 Financial support can be offered to the owner, landlord or tenant.

33 Category 1 hazards are where there is a serious and immediate risk to a person's health and safety. The category of hazard is decided by the environmental health inspector from the council.

will check that fuels on sale are compliant for Smoke Control Areas. This means they should check fuel on sale is 'ready to burn' and, for larger volumes, that information on storage, drying and moisture content is provided to the customer. Trading standards also cover 'rogue traders' who may be installing measures in houses that are not carried out properly - including badly installed boilers and insulation.

Public health

Under Local Air Quality Management (LAQM), Directors of Public Health are expected to play a role in developing Air Quality Action Plans and Air Quality Strategies. Councils can use calculations of local morbidity attributable to particulate air pollution to make improving air quality a strategic priority (OHID 2023). Directors of Public Health should also ensure local health professionals, schools and care organisations know the risks of air pollution and are equipped to discuss it with their patients, pupils and clients. These might include preventative measures or alerts via text message on high pollution days.

Local authorities must also prepare and publish a Joint Strategic Needs Assessment and Joint Local Health and Wellbeing Strategies, which inform local health and social care services.[34] These are referred to by planners when producing local plans and can be used to argue for air quality mitigations.

Local authorities have duties to take steps to improve the health of people in their areas.[35] This might include giving information and advice, providing financial incentives to help people make healthier choices, or providing assistance to people to minimise health risks from their accommodation or environment.

GAPS IN POWERS OR REGULATION

Local authorities have many of the powers they need to improve air quality. However, there are a number of gaps in their powers and a lack of regulation due to emerging sources of pollution, both of which need to be addressed.

- **Trains:** Diesel trains are a source of pollution in urban areas, but local authorities have no powers to address this source of pollution. In response, some authorities are lobbying for more rapid electrification.
- **Environmental permitting:** Energy generators between 1MW and 5MW do not generally require a permit (until 2029) under Environmental Permitting Part B Activity - The Medium Combustion Plant Directive. Local authorities do not have the powers they need to identify the presence of these generators or mitigate their emissions.
- **Burning biomass:** An increasing proportion of emissions from the fuel burnt on industrial sites is from the burning of biomass, rising from 2 per cent of total $PM_{2.5}$ emissions in 2010 to 15 per cent of total $PM_{2.5}$ emissions in 2021 (Defra 2023a).
- **Commercial food and drink:** Councils we spoke to said that emissions from restaurants were often high in particulate matter, but they currently have no mechanisms through which to regulate these industries.
- **Residential burning:** Although local authorities can prevent the sale of some fuels in smoke control areas, they are not able to completely ban wood burners or designate other heating sources.
- **Agricultural emissions:** Ammonia, which is predominantly (88 per cent) caused by agricultural practices (Defra 2023a), and has remained broadly stable since 2008, is a transboundary pollutant that reacts in the air to form $PM_{2.5}$. The

34 This is under Section 116 of the Local Government and Public Involvement in Health Act 2007, amended by the Health and Care Act 2022.

35 Under section 12 Health and Social Care Act 2012.

power to address agricultural emissions sits with national government, who have made some efforts to reduce emissions.[36] The Environmental Improvement Plan suggests that environmental permitting might be expanded to include dairy and intensive beef farms, which would be welcomed (Defra 2023d).

- **Temporary/mobile generators:** Generators that are classified as mobile, often used in street works, for events, or on construction sites, are not subject to the same restrictions as other generators, and are not regulated by local authorities.

LOOKING AHEAD TO LEGISLATIVE CHANGES

Despite some recent changes and proposed changes to legislation tightening requirements on air quality, there is concern that under the Retained EU Law Act, the National Emission Ceilings Regulations 2018 will be removed. The Office for Environmental Protection (OEP)[37] has criticised the move, stating that it removes one of the ways in which the government can be held to account and weakens environmental protection (Horton 2023). The Environment Act 2021 tightened requirements on local authorities to act on clean air, with their action plans to be more closely monitored and reviewed. It also introduced $PM_{2.5}$ into the list of emissions to be measured.

Across all regulatory processes, there is a lack of powers available to local or national government to address indoor air pollution. The Secretary of State recently contacted local authorities asking for information on damp and mould in the private rental sector. The report produced suggests that local authorities do not have sufficient powers, capacity or capability to deal with the issue (DLUHC 2023).

The current political landscape threatens to derail steps that have been taken to address air pollution and current action is off-track, despite some studies suggesting that if the UK implements in full its policies related to net zero and air pollution, it is possible to reach the WHO interim targets for $PM_{2.5}$ (CAF 2022).

36 In 2018, £3 million was invested to offer support and guidance for farmers to reduce ammonia emissions from their land. In the Environmental Improvement Plan 2023, a further £13 million was announced to further reduce ammonia emissions (Defra 2018b, Defra 2023d).

37 The Office for Environmental Protection was set up in 2020 to replace the environmental oversight and protection functions of the EU. However, a number of independent experts have noted that it does not have sufficient powers, independence or funding.

5. RECOMMENDATIONS

The case for addressing air pollution is clear, and there are examples from around England of local authorities taking ambitious action to improve air quality in their areas, but more action is needed. Local authorities have many of the necessary powers, but to truly unlock local action on air quality, national government has a role to play. Our recommendations include actions for both national and local government.

AMBITIOUS TARGETS

There is a lack of ambition and urgency around air quality among many local authorities and national government. Research suggests that if 'current and proposed' policy proposals are implemented the UK will meet WHO safety targets[38] (CAF 2022), but current action is not on track, and the WHO safety targets are not ambitious enough in the long term.

> **Recommendation:** National and local government should adopt WHO guidelines for air pollution, and the WHO safety targets as an interim ambition. They should outline a credible plan to achieve their targets by 2030. The ministerial directive for cities to meet air quality targets should be extended as air pollution targets become more ambitious.

For national government, a credible plan to address air pollution should enable local authority action and take a proactive and forward-looking approach, as outlined below. Local authority plans should clearly identify where the action needed is beyond their existing powers and resources, and who will be required to act to address these.

RECOMMENDATIONS FOR NATIONAL GOVERNMENT

National government has three key roles to play in unlocking local action on air pollution. This includes enabling local authority action, setting standards, and taking a proactive approach to collecting and disseminating information and data.

Enabling local authority action

The Environment Act 2021 goes some way to strengthening the accountability of local authorities in delivering cleaner air, but they need political and financial support from central government to deliver. Competitive funding rounds mean councils that are better resourced are more able to win funding than others, leading to disparities. To address the root causes of car dependency, local authorities need greater powers over public transport.

38 The WHO safety targets are an interim target, distinct from the WHO guidelines referenced previously.

> **Recommendation:** Government should provide long-term financial support for action on clean air. Funding should be linked to local authorities developing a credible plan to reduce emissions in a reasonable timeline. Funding can be used to cover implementation, monitoring, staffing, or public transport, and should have an explicit focus on equitable interventions. For example, in London, there should have been more support for the ULEZ scrappage scheme (from central government) for SMEs in London, people living on low incomes or with disabilities, or who travel to London for work. Funding should be accompanied by greater powers over public transport.

As previously called for by IPPR's Environmental Justice Commission (2021), national government should introduce an easy to access, national scheme to support people to shift to cleaner transport modes, for example by making grants available for EVs, ebikes, car clubs or public transport.

Local authorities have reported that the cost of enforcing environmental permitting or parking fines is greater than the value raised through the fees and fines themselves. Local authorities have limited abilities to raise funds, which means they have less to spend on mitigation measures such as better public transport or scrappage schemes.

> **Recommendation:** Greater fiscal devolution will support local leadership on improving air quality, and England's local authorities should have the powers seen elsewhere in the world to raise and spend more money locally (Johns 2023). In the short term, government should reform traffic fines and environmental permitting fees, along with funding for local authority enforcement, to ensure local authorities have sufficient capacity to enforce air quality measures.

Setting standards and being forward-looking

Where local authorities do not have the powers to address air pollution, national government must step in to bridge these gaps. This will require being proactive about emerging sources of air pollution and putting processes in place to address them. This might include expanding Best Available Technology (BAT) regulations, which are used to apply pollution controls to industries, or expanding environmental permitting. Addressing the air pollution caused by the construction industry, and throughout the life of a building, is another area where national government has a role to play (Marsh and Green 2022).

> **Recommendation:** Tighten the regulatory landscape to ensure products and practices are in line to meet WHO targets.

This should include:

- expanding Best Available Technology (BAT) regulations to cover agricultural emissions, and consider extending to other pollutant sources such as industrial food preparation and diesel generators;
- tighter building regulations to limit emissions during construction and operation of new builds. Ensuring local authorities have capacity to enforce these, for example by creating and funding construction compliance officers (Pearce 2022); and
- phase-out of gas boilers, as IPPR has advocated for previously (Emden 2023), electrification of heat, reducing use of biomass in district heating schemes, and banning woodburning stoves.

With the continued introduction of EVs, which do not currently pay vehicle excise duty[39] or fuel duty, there are calls for an alternative tax to replace the lost revenue for government (Transport Committee 2022, Adam and Stroud 2019). National

39 Electric vehicles will have to pay vehicle excise duty from Aprill 2025.

road pricing would address this gap, and would help address the wider costs of motoring, including pollution from tyre wear (which remain a problem with electric vehicles), congestion, and a range of other externalities (IFS 2019).

If introduced, road pricing should replace existing taxes (vehicle excise duty and fuel duty) and current clean air zone charges. It should be designed more progressively than the current system. For example, a 'pay per mile' system has been shown to reduce the burden on low-income households (CfBT 2022, Corfe 2022). The system could also include exemptions (for example, for disabled people) to ensure that those living on low incomes do not lose out, and actually benefit from the new system.

> **Recommendation:** Government should consider how road user charging could be rolled out nationally and what mitigations would need to be in place beforehand to ensure it does not have a disproportionate impact on those with the lowest incomes. These mitigations should be drawn up in part through a deliberative process.

Information and data

In our deliberative work, it was clear that government needs to rebuild trust with the public. Participants in our workshop said they felt they had a limited understanding of the risks of air pollution and, when asked about interventions, there was strong support for a public health and education campaign. This would also act to raise the salience of the issue with the public and lower the tolerance of the impact on health. It is important to note that information campaigns alone do not necessarily result in behaviour change, and that although the public have a right to be informed, the responsibility for addressing air pollution should not sit with those most impacted.

> **Recommendation:** Government should show it is serious about addressing air pollution. This should start by including clean air in the priorities of the Office for Environmental Protection (OEP) and ensuring the OEP is able to hold government to account. This should also involve a public health campaign by the Office for Health Improvement and Disparities, which should outline the risks and actions individuals can take to reduce air pollution,[40] explain the interventions being put in place across the country to improve air quality and provide a way to inform the public of pollution levels, particularly on days of high air pollution alerts.
>
> **Recommendation:** Evaluation of initiatives is challenging since impacts are often due to a combination of factors. Government should provide more monitoring and funding for evaluations for local authorities, and should ensure this data is accessible to the public.

RECOMMENDATIONS FOR LOCAL GOVERNMENT

Interventions at the scale needed to deliver better health outcomes will require a strategic and long-term approach by local authorities. However, alongside more structural or process-oriented interventions, there are several options available to local authorities that can be implemented independently of larger programmes, rapidly and at lower cost. These also send a clear 'clean air' message. We argue that both changes will be necessary to reduce air pollution to safe levels.

40 This might include information about smoke control areas or the impact of gas boilers and supporting heat pump uptake. It might also be transport-related; encouraging active travel, public transport use, EV car uptake, walking kids to school, buying smaller cars and anti-idling campaigns.

Strategic interventions

Councils should set and communicate ambitious targets for improving air quality in their areas. Those councils that are leading the way generally have air quality fully integrated across council operations, helping to break down siloed thinking and ensuring effective implementation and monitoring. Environmental health and protection officers should be supported to work with teams across the council, including public health, parks and estates, planning, and transport.

> **Recommendation:** Local authorities should adopt health or air quality targets into their strategies. Targets should be drawn up through meaningful engagement with the public, businesses, and local partners, including advocacy organisations, to ensure the council has buy-in and a mandate for action. If not already in post, an air quality champion (for example, a senior director) should be named to ensure air quality is integrated across council operations, planning and delivery. Officers should work together to develop local transport and spatial plans that meet air quality standards.
>
> **Recommendation:** Local authorities should carry out meaningful engagement with the public, businesses, and local partners to draw up targets and plans. Interventions to address air pollution should be co-designed with residents or community groups. This will help ensure proposals meet the needs of people living in those areas, identify any mitigations or financial support required for equitable measures, and ensure the council has buy-in and a mandate for action.

When drawing up plans for how to reach these targets, councils should consider the long-term ambitions of communities and engage those who are most affected by air pollution, and who are likely to be most impacted by measures introduced. This is key to provide attractive options for people to travel by cleaner, healthier modes of transport.

> **Recommendation:** Local transport plans should have an explicit aim to reduce reliance on cars and prioritise walking, wheeling, cycling and public transport, while ensuring these measures are convenient, safe, and affordable for local people.

Short-term interventions

There are several lower cost transport interventions that local authorities could deliver under their existing transport powers. Alone, these interventions will not be enough to reduce air pollution to the WHO guidelines. However, implementing these policies in a targeted way can deliver measurable benefits, such as school streets providing a reduction in air pollution around schools, while also encouraging a shift to active travel. It will also send a clear message that air quality is a priority. Local authorities have the powers to implement the following to deliver improvements on air quality:

Road reallocation

- Local authorities should adopt a 'school streets as the baseline' approach to schools in their area. The aim should be that school streets are rolled out wherever possible, and that safe, pleasant routes to school are created to make it possible for more children to walk, wheel, cycle or scoot.
- There are improvements to bus operations that don't involve investing in a whole new bus fleet or routes, such as ensuring bus lanes are free flowing with no parking.
- Councils should have a target for urban greening including tree cover targets, which should be part of a road reallocation rather than on pavements where they can impede the passage of wheelchair and buggy users.

- Councils should consider regular car free days (for example, car-free Sundays or a car-free day once a month). To provide reassurance for local businesses, the car-free days could be combined with differing rules on pavement licensing.[41]

Leading the way

- Local authorities should show the community how the council is reducing its own emissions - for example, by electrifying its fleets and supporting the electrification of local buses. This should also involve better enforcement of existing powers such as smoke control areas or emissions from construction.

Communication and engagement with the public and businesses

- Better real-time monitoring and communication of air pollution to help explain the need for action and inform the public is essential. Local authorities should not focus solely on health benefits when communicating policies. Instead, they should also describe a people-focused vision of the future that highlights how the changes will improve health alongside delivering thriving, green and safe neighbourhoods. Changes should be clearly explained to prevent confusion.
- Councils can mobilise businesses to act through supporting them to make different choices. For example, Leeds City Council gives businesses the opportunity to lease out electric vans at no cost for two months so they can try them before buying their own (Leeds City Council 2020). Councils can support businesses to improve air quality from freight by providing subsidies for cargo bikes and encouraging the use of consolidation hubs.

41 Pavement licensing was amended during Covid-19 under the Business and Planning Act 2020 and Highways Act 1980. There is a plan to extend this in the Levelling Up and Regeneration Bill (DLUHC 2022).

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