OUR AIR, OUR VOICES

A growing movement for fairer, healthier air.

ASTHMA+ LUNG UK

June 2026

Contents

Asthma + Lung UK is working to shine a light on the injustice of air pollution through our project in partnership with Impact on Urban Health.

Participants taking part in a gardening workshop as part of the OUR AIR, OUR VOICES project.

Acknowledgements

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Report authors

Chloe Owen
Alev Ozturk
Anandita Pattnaik

Participants

Moyo
Yalda
Mame
Max*
Grace
Phool
Moin
Ambeta
Daju
Dylan
Habiba
Carla
Abdul
Mirzan
Ruwaad
Starsky
Ruby
Betty
Nancy

With thanks to

Maz Koshika Morris
Aicha Therese
Tony French
Poetic Unity
Live + Breathe
Choked Up
Garden Organic
Roots + Shoots
Healthy Air Coalition

In partnership with

Impact on Urban Health

Participant forewords

PHOOL

"By taking part in this project, I realised that we don't have to accept the status quo of breathing toxic air."

"I grew up in a really busy area of East London where the streets are narrow and full of traffic, so I know exactly what it's like to live somewhere badly affected by toxic air.

But if you've spent your entire life in a place where the air is polluted then it's just normal for you – that's part of the problem. If you've never actually had a chance to breathe clean air, you won't know there's any alternative.

That's why the OUR AIR, OUR VOICES project is so important.

It is giving young people like me, who have been exposed to high levels of air pollution, a unique opportunity to learn more about its harmful effects and make our voices heard.

By taking part in this project, I realised that we don't have to accept the status quo of breathing toxic air. We can fight for change.

The government needs to listen to our demands and take urgent action now to improve air quality, so that my generation – not just future generations – will experience the benefits of clean air. More delays will just lead to even more health inequalities."

MIRZAN

"Even as a child, I would always notice how different the air felt when we left London to go on trips to the countryside."

"I think it's really important for young people to have the biggest voice in campaigning for clean air, because it's going to affect our lives the most in the future.

I grew up in a flat with the A1 dual carriageway right in front of us and a car park behind, so my home was literally surrounded by air pollution.

Even as a child, I would always notice how different the air felt when we left London to go on trips to the countryside - how much fresher and cleaner it seemed.

We do have allotments near my parents' flat, but the problem is that people often burn their waste in there. Sometimes, we'd come home and there would be smoke from these fires everywhere – it would even come inside when we opened our front door.

Air pollution had crossed my mind before I took part in this project, especially living next to such a busy road and these allotments, but I learnt so much more about it from attending the workshop.

There's a real lack of awareness about the dangers of toxic air, so we need to educate everyone about how damaging it can be for our health."

Words from...

SARAH SLEET

Every year in the UK, up to 43,000 people die prematurely because of toxic air pollution. But this burden is not shared equally. Communities from lower-income and ethnically minoritised backgrounds are being hit the hardest – facing higher exposure, worse health outcomes, and often excluded from decision-making. Too little is being done by government to address this.

Asthma + Lung UK is working to shine a light on this injustice through our project in partnership with Impact on Urban Health. The partnership brings together the latest evidence and the voices of those most affected by toxic air to make the case to government for equitable, bold policy change.

The government wants to create a new era of local power, and have acknowledged that co-production ensures that communities affected are at the heart of policy.[1,2] Participation is not a favour to these communities, or a nice-to-have – it's essential to creating equitable policy that the public are on board with. Communities most impacted by air pollution must be meaningful partners in shaping government action on air quality.

OUR AIR, OUR VOICES is a project working with young Londoners, especially those disproportionately affected by poor air quality, to co-design clean air policy calls. This report sets out why we feel this method of policy development is vital for positive action on clean air, and brings together the demands that have been created as a result of the project, identifying where change is needed across government to deliver fairer and healthier air.

Sarah Sleet

Chief Executive of Asthma + Lung UK

"Every year in the UK, up to...

43,000

people die prematurely because of toxic air."

Defining the terms

Air pollution: a substance – such as a gas, particles or biological materials – in the air which damages health and the environment.

Air quality: describes how polluted the air we breathe is.

Clean air: though no level of air pollution is safe to breathe, we define 'clean air' as air that meets or falls below the World Health Organization (WHO)'s 2021 Air quality guidelines.

Inclusive policy development: a process that goes beyond informing or consulting communities and instead facilitates and enables community involvement from the outset of policy-making.

Ethnically minoritised communities: communities who are minoritised through social, political and institutional processes based on ethnicity. The term highlights the disadvantage caused by systems and structures that design unequal access to power, resources and opportunities.

List of abbreviations

AQEG – Air Quality Expert Group, a group of expert academics who advise government on levels, sources and characteristics of air pollutants

AQIS – Air Quality Information Systems review, a review of how well information about air pollution is provided to the public

AQS – Air Quality Strategy

CAZ – Clean Air Zone

COPD – Chronic Obstructive Pulmonary Disease

DAQI – Daily Air Quality Index

Defra – Department for Environment, Food and Rural Affairs

DfE – Department for Education

DfT – Department for Transport

DHSC – Department of Health and Social Care

DWP – Department for Work and Pensions

EIP25 – Environmental Improvement Plan 2025

EVs – Electric Vehicles

HHSRS – Housing Health and Safety Rating System

HSE – Health and Safety Executive

JAQU – Joint Air Quality Unit, a since-disbanded collaboration between DfT and Defra to lower NO_2

LAQM – Local Air Quality Management

LTNs – Low Traffic Neighbourhoods

MHCLG – Ministry for Housing, Communities and Local Government

NO_2 – Nitrogen Dioxide

NOx – Nitrogen Oxides, a group of reactive gases, primarily nitric oxide (NO) and nitrogen dioxide (NO_2)

OAOV – OUR AIR, OUR VOICES, the project that this report is about

OEP – Office for Environmental Protection

PERT – Population Exposure Reduction Targets

$PM_{2.5}$ – Fine Particulate Matter

PM_{10} - Particulate Matter

RCP – Royal College of Physicians

SCAs – Smoke Control Areas

UKHSA – UK Health Security Agency

ULEZ – Ultra Low Emission Zone

WHO – World Health Organization

ZEV – Zero Emission Vehicle

OUR RECOMMENDATIONS

These England-wide recommendations are the result of extensive discussion and revision with our participants.

1 An inclusive approach to clean air policy development

A. Across government, consider air quality as a driver of injustice and inequity

Government should:

- Introduce a statutory requirement for national and local policy to assess air pollution inequalities and identify where targeted interventions would deliver the greatest benefit.
- Improve integration of data which links air quality, health, and socioeconomic datasets to support more equitable policy decisions.
- Strengthen cross-departmental coordination on air quality, recognising that the drivers of unequal exposure span multiple departments, for example by revising the scope of the JAQU, which was disbanded in March 2026.

B. Improve policy development to rebuild public trust and make better decisions

Government should:

- Establish minimum standards for community involvement across all levels of government, backed by ring-fenced resources and funding.
- Proactively involve communities most affected by poor air quality, including by providing remuneration.

2 Air quality as a public health issue

A. Set ambitious targets, informed by the latest evidence, and aligned with the WHO Air quality guidelines set in 2021

Defra should:

- Commit to aligning long-term air quality targets with the 2021 WHO Air quality guidelines.
- Be required by law to set a plan – including interim milestones and exposure-reduction commitments – to meet full compliance with the 2021 WHO Air quality guidelines as soon a possible.

B. Raise awareness of the health harms of air pollution

Defra, DHSC, DfE and DWP should:

- Fund a multi-year, co-produced public awareness campaign across a range of digital and in-person platforms, delivered with trusted messengers and targeting the communities most severely impacted.
- Support a public awareness drive, revise the DAQI forecast thresholds to align more closely with the latest health evidence, and expand the air pollution alert system.
- Work with professional bodies to introduce mandatory training for healthcare professionals on recognising and communicating the impact of air pollution.
- In implementing the Curriculum and Assessment Review, the DfE should ensure that explicit examples of air pollution and its societal and health impacts are incorporated in the new Citizenship curriculum.
- Increase awareness and responsibilities of employers to recognise air pollution as an occupational health issue, including by instructing the HSE to include particulate matter in workplace exposure limits.
- Develop mechanisms and targets for measuring engagement with public awareness messaging and revised air quality information systems.

3 Tackling air pollution at the source

A. Enable the public to make cleaner transport choices

DfT should:

- Invest in making active travel safer and more interconnected with other forms of transport.
- Invest to make public transport an attractive alternative to private travel – affordable, reliable and accessible.
- Prioritise equitable and transparent traffic reduction measures through inclusive policy development and community engagement.
- Ensure adequate financial incentives and support are in place to make the transition to cleaner transport fairer – targeted scrappage schemes, expanded cycle to work schemes, and more support for individual transitions away from vehicles powered by petrol and diesel.

B. Enable the public to make cleaner heating choices

Defra and MHCLG should:

- Phase out the installation and use of wood burning stoves and open fires wherever alternative low-emission heating is available.
- Update regulations to ban the installation of new wood and solid fuel stoves in new build homes.
- Strengthen and update SCAs to reflect the latest health evidence.
- Provide financial support for households to transition away from domestic burning, including grants or subsidies to enable equitable access to cleaner heating options such as heat pumps.

C. Address indoor air pollution

Defra and MHCLG should:

- Develop a cross-government indoor air quality strategy across health, housing and energy policy. This includes the introduction of indoor air quality standards or limit values, starting with public buildings.
- Update the HHSRS to recognise indoor air quality as a standalone housing hazard.
- Provide additional funding for research and monitoring.
- Ensure that interventions are targeted towards communities in the greatest need, particularly those experiencing fuel poverty.

D. Close the green space gap

Defra and MHCLG should:

- Work to achieve the EIP25 target of access to green or blue space within a 15-minute walk from home.
- Include green infrastructure in the planning of all new developments.
- Provide sustained capital funding to prioritise park upgrades in deprived areas.
- Ensure communities are involved in the design of local green spaces.
- Monitor and evaluate measures to improve access to green space, including health and air pollution co-benefits.

E. Ensure industry plays its part in a clean air future

Government should:

- Use their powers to force vehicle manufacturers to recall any cars or vans found to have been fitted with illegal defeat devices and compensate consumers.
- Introduce a moratorium on all new incineration capacity.
- Strengthen regulations on biomass energy production and waste incineration to ensure the sector takes responsibility for reducing its emissions.
- Achieve their obligations in the EIP25 to support the agriculture industry to reduce ammonia emissions.
- Strengthen regulations in the construction sector and fund capacity for local authorities to enforce compliance.
- Provide construction companies with resources and a clear regulatory roadmap to drive investment in less polluting technologies.


Though you might not be able to see it, air pollution levels across the UK pose a very real danger to our health.

How does air pollution impact our health?

Air that is safe and healthy to breathe should be a basic right for everyone to enjoy. This principle is at the heart of the campaign for Ella's Law, led by Rosamund Adoo-Kissi-Debrah CBE, whose nine-year-old daughter, Ella, tragically died in 2013 from asthma exacerbated by air pollution.

Just as no one should have to drink dirty water, no one should be forced to breathe in toxic air. Though you might not be able to see it, air pollution levels across the UK pose a very real danger to our health.

Air pollution is incredibly complex and multi-faceted. Pollutants are caused by a large variety of human activities and natural sources.[3] However, while the chemistry is complex, the evidence of air pollution's effect on health is overwhelmingly strong, with over 60,000 studies – half of them published in the last decade.[4]

The main way we are exposed to air pollution is by breathing it in. Research demonstrates the impact of air pollution on almost every part of the human body. The disease outcomes most strongly associated with air pollution exposure include lung conditions (including asthma, chronic obstructive pulmonary disease (COPD), lung cancer and pneumonia), stroke, and heart disease. Research has also linked air pollution exposure to an increased risk of maternal health problems, childhood developmental problems, other cancers, diabetes, cognitive impairment, and neurological diseases including dementia.[5]

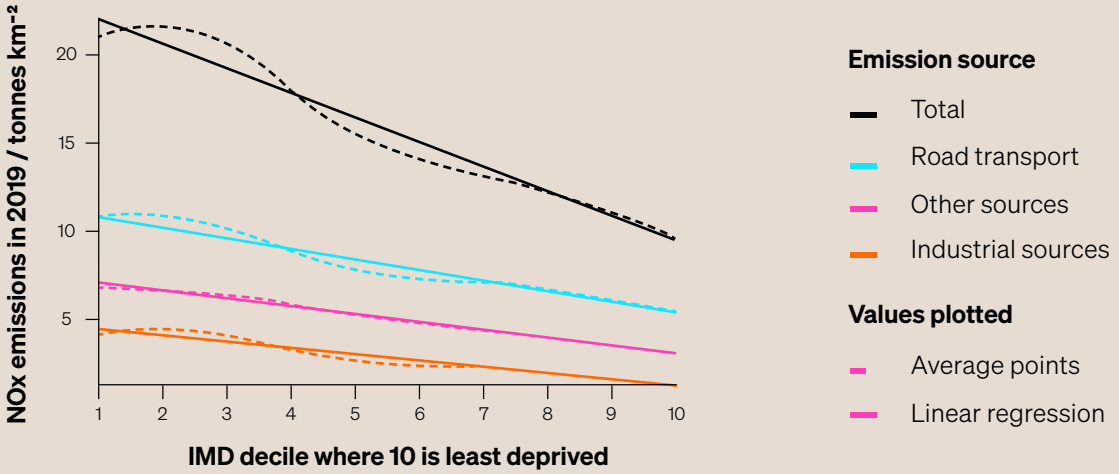
The effects of breathing in polluted air reach us in the womb and continue throughout our lives, and the outcomes are often a result of the cumulative impacts of chronic exposure. However, short-term exposure can have a range of more immediate health impacts. For people with lung conditions, poor air quality can worsen their symptoms, leading to asthma attacks and COPD flare-ups.[6] In our 2025 Life with a Lung Condition survey, 79% of respondents told us that air pollution makes their health worse. Over three quarters of respondents told us that air pollution has an impact on their lifestyle, including avoiding going outside.[7] There is a close relationship between lung conditions and health inequality.[8] The most socially deprived 10% of the population are two and a half times more likely to have COPD and nearly twice as likely to develop lung cancer compared with someone from the least deprived group in society.[9] For those experiencing severe material deprivation, 27% of our survey respondents reported that air pollution makes them feel low or depressed.[10]

79%

of the Life with a Lung Condition Survey respondents told us that air pollution makes their health worse.

What are the links between air pollution and health inequalities?

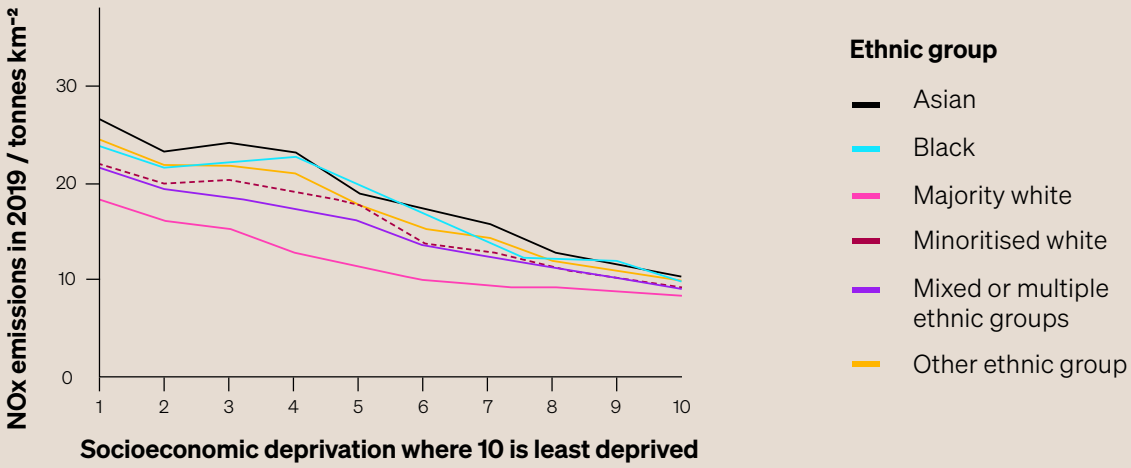
People from lower socioeconomic and ethnically minoritised backgrounds are likely to experience disproportionately high exposure to environmental hazards compared to higher socioeconomic and majority white people. These individuals are already more likely to be living in poorer health as a result of other social determinants of health, i.e. the conditions in which they live, work and play. The result of these disparities is widening inequality.



* The data for the above chart is adapted from "Deprivation based inequality in NOx emissions in England," by N. Gray, A. Lewis, and S. Moller, 2023.

As the graph shows, when tracked against Indices of Multiple Deprivation (IMD), all major emission sources of nitrogen oxides (NOx) increase with the level of deprivation (where 10 is the least deprived).[11]

Ethnically minoritised communities are exposed to higher levels of air pollution on average compared to white communities.



* The data for the above chart is adapted from "Evaluating disparities in air pollution as a function of ethnicity, deprivation and sectoral emissions in England." by N. Gray, 2024

As the graph shows, ethnically minoritised communities experience higher emissions than majority white communities, regardless of deprivation level.[12]

The relationship between air pollution exposure and minoritised communities is clear. The health effects of deprivation and disproportionate air pollution exposure, when combined, compound to create even greater health impacts.[13] For example, living in areas of high air pollution doubles the likelihood of experiencing still birth, and Black Londoners are three times more likely to breathe in illegal levels of air pollution.[14]

Clean air policy must seek to address inequalities

The impact of air pollution falls heavier on some groups, as we have seen, so policy needs to be developed to target groups that are bearing the worst health burden.

According to a 2024 AQEG policy analysis, when looking at the design and implementation of air pollution policy: 'It seems there is often relatively poor understanding of how policies, activities and projects will affect different groups, which limits the extent to which informed decisions can be made.'[15]

Not accounting for these disparities will lead to inefficiency in tackling air pollution's dire consequences, and will not alleviate health inequality.[16] Systemic health inequity is not just unfair, it has an enormous cyclical impact on society and the economy. For example, the RCP have estimated that in 2019, air pollution cost £27 billion in healthcare and productivity losses across the UK – this is not including the cost of wider impacts, such as dementia, which may take the total to as much as £50 billion.[17]

Participants engaging in an activity to link the causes and effects of air pollution.

OUR AIR, OUR VOICES

Rebuilding trust through inclusive policy development

It is vital that the government change the tide on the injustice of air pollution. But they must do so in a way that involves the public in making decisions, ensuring that those most affected by the injustice are actively sought out to participate in these vital conversations.

In recent years, negative press and poor communication of policy goals have opened up space for misinformation and the erosion of trust in government, meaning that media and political coverage of air pollution has occasionally been a toxic debate.

Change is possible. Effective air quality action needs public buy-in. Involving communities, especially those disproportionately affected by poor air quality, to inform policy development can mitigate feelings of disenfranchisement and lead to better outcomes.[18] We want fairer and healthier air to be a reality, and through our influencing activity we'll work hard to make this happen. But we have to practice what we preach. This is why we developed our project, OAOV to build Asthma + Lung UK's capacity to conduct inclusive policy development.

OAOV is our participatory policy research project designed to engage young people aged 16-24 in London, especially those disproportionately impacted by air pollution, in the co-creation of fair and effective clean air policies. Our project is grounded in the belief that communities, particularly those typically underrepresented in public policy and most affected by air pollution, should be involved in shaping clean air policies. We therefore focused on engaging young people aged 16-24, recognising that young people's voices are often excluded from decision-making. This age group is already growing up breathing dirty air as a result of successive government inaction, and many of them will be eligible to vote for the first time in the next general election.

In line with the project's aim to promote inclusive policy development, the participant group is not intended to represent the full diversity of views across the UK. The participants' distinct perspectives shaped the direction of this project, while Asthma + Lung UK's clean air policy team added the additional research, evidence and alignment with government priorities for strategic campaigning.

In August 2025, OAOV kicked off with two days of creative air pollution workshops to explore solutions to achieve clean air equitably. Since then, we've been working with the same group of young people to develop this report and our recommendations to the UK government. As the government will seek to develop a new AQS by August 2028, our aim is to influence the design and results, ensuring the strategy is created with and for communities most affected by the scourge of poor air quality.

How we developed this report

'Inclusive policy development' is a broad term often used alongside concepts like co-design and co-production to describe a process of participation in policy-making. At its core, inclusive policy development views the public's ideas, knowledge and lived experiences as essential to shaping policy decisions.[19]

While traditional models of consultation tend to simply inform or consult citizens after key decisions have already been made, inclusive approaches move towards partnership with citizens throughout the process and shared decision-making. In other words, partnering with communities throughout the process of identifying problems, developing alternatives and selecting preferred solutions.

The overall aim should be to match policy to the needs of the public, preventing ineffective, assumption-based policies with unintended negative consequences.[20]

The OAOV project applies this approach to air pollution, a policy area where inequality is stark. While air pollution affects everyone, it disproportionately harms people in deprived and ethnically minoritised communities, who are more exposed to poor air quality and are often directly or indirectly excluded from influencing decisions that could protect them. This power imbalance is reflected in a wider hierarchy of knowledge within the environmental movement, where institutional and technical expertise are often valued over lived experience.

This section captures a summary of our approach. For more information about our methodology, recruitment, and learnings, please read our technical report, *Involving communities in clean air policy development*.

1. Literature review

We first carried out a literature review, including academic works and sector reports covering the theory and practice of inclusive policy development. The aim was to learn from existing approaches – understanding what has worked, what pitfalls to avoid and how to adapt these lessons for the context of air pollution.

Our literature review cautioned that participatory research should not be viewed as the silver bullet to exclusion. Genuine inclusion requires both accessibility and sustained support. Within participatory spaces, inequalities in socioeconomic status, communication skills and confidence can lead some people to silence themselves.[21] Without deliberate effort to counter these dynamics, participation risks reinforcing inequities rather than reducing them.

2. Guiding principles

Following the literature review, we developed four guiding principles based on our learnings:

- First, communication will be an ongoing two way-process rather than a one-off consultation.
- Second, we commit to empowering people from underrepresented and disproportionately affected communities, by providing the support they need to contribute confidently and meaningfully to the process.
- Third, transparency will underpin the process, we will clearly explain how decisions are made and how participant views will be taken into account.
- Finally, we aim to build trust by sharing progress through regular feedback loops, to ensure that the outcomes remain grounded in participants' experiences and priorities.

These principles underpinned the project design and delivery.

3. Creative practice

Traditional policymaking has long privileged institutionalised forms of knowledge such as academic research, policy briefs and formal consultations. These formats often rely on knowledge of technical language from professional experts, which can silence people outside of institutions. In contrast, non-institutionalised forms of knowledge like storytelling, art, poetry and everyday conversation are frequently undervalued, despite offering equally valid insights. Over time, this imbalance can lead people outside of institutions to start to doubt the knowledge they hold.

The OAOV project deliberately sought to redress this imbalance by giving greater weight to non-institutionalised knowledge in the initial production of policy ideas. Widely used in work with young people and marginalised communities, creative practice methods allow people to explore complex issues, like air pollution, on their own terms. Through being able to share insights that are often missed in traditional consultations, creative practice can create more equitable, less extractive relationships between participants and researchers.

4. Co-creating air quality policy

Following a period of direct recruitment in partnership with not-for-profit organisations and community groups, who had pre-established relationships with our target age group, 19 participants came together in August 2025 for two days of creative and conversation workshops.

To understand how effectively our principles and intentions were applied in practice, participants completed surveys and provided feedback on the process, offering insight into what worked well and where future practice can be strengthened.

Capturing participant insights

Following the August 2025 workshops, ideas shared by participants were systematically reviewed and categorised. These insights guided the development of this report. The report and its recommendations were drafted by Asthma + Lung UK's policy team and reviewed by the participants in several stages between September 2025 and February 2026.

Over the course of our work together, many other ideas and points were raised as areas that could form part of Asthma + Lung UK's clean air campaigning, but it was important to be realistic about the range and number of issues Asthma + Lung UK could actively work on, and it was also essential to prioritise and align to the political landscape. Participants were informed from the start that while all ideas were welcome, where suggestions can't be taken forward, the reasons why will be communicated.

At the start of the process, participants raised early their concerns that the project would not lead to any action, citing mistrust of institutions (including charities), and discontent with government inaction on key issues. Participants wanted to see systemic change on issues that are important to them, rather than tokenistic involvement or piecemeal reforms. **These insights led to the development of Recommendation 1B.**

When learning about the sources and impacts of air pollution, participants were shocked to learn about the extent of the health impacts, and the interactions between poor air quality and inequality. While participants were more aware of outdoor sources, the breadth of indoor sources was surprising. Participants expressed anger about a lack of climate and health education in school, work and health settings. They felt that education on air pollution could instil positive action, especially when started at a young age. They felt that employers should do more to make their workers aware of the risks to their health from working in certain settings. Finally, they called for a public awareness campaign initiated by government, as this could change behaviour and rebuild public support for policies. **These insights led to the development of Recommendations 1A, 2A, 2B and 3C.**

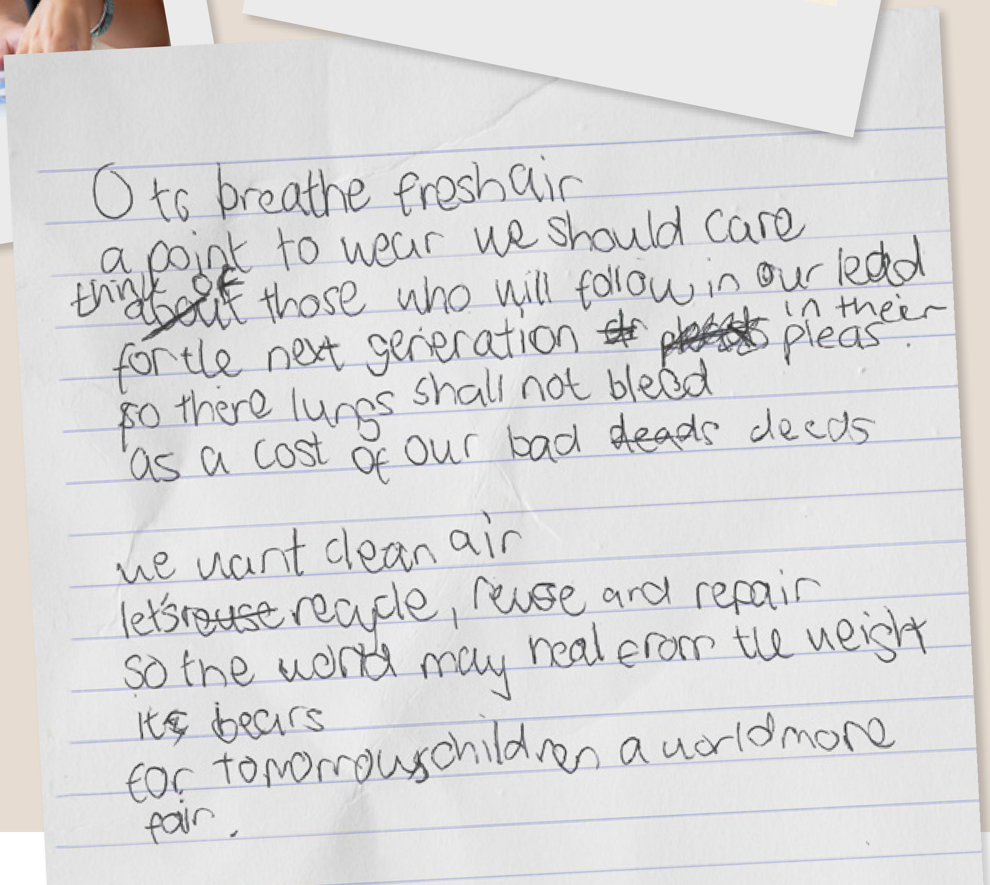
Participants saw safe walking and cycling as central to a clean air future, but felt that current infrastructure was inadequate and often unsafe. They called for cycling infrastructure modelled on the Netherlands, subsidised bike rental schemes across the country, and more space for bikes on public transport, so active travel can be combined with longer journeys. They felt that public transport provision was too expensive and driven by profits, keeping cleaner choices unaffordable. They recognised the Ultra Low Emission Zone (ULEZ) and other clean air zones (CAZs) as one of few visible government actions on air pollution, and agreed it had clear benefits. They felt CAZs should be accompanied by better public transport options so that people can switch their travel behaviour and reduce cars on the road, as well as transparency on the planning of Low Traffic Neighbourhoods (LTNs) and investing CAZ fines back into the community. They felt the government could do more to accelerate the transition away from petrol and diesel vehicles, by investing more in infrastructure and subsidies. **These insights led to the development of Recommendation 3A.**

Participants felt that access to high quality, safe green space was unequal across communities. They highlighted the importance of green space to absorb pollution, provide areas for socialising and sport, and improve mental health. They felt that integrating green space into new build properties and surrounding communities, and incorporating local food production into green space would build community care and reduce isolation. **These insights led to the development of Recommendation 3D.**

Regarding the creation of policy to address air pollution, decisions were being made by the powerful, without involving those really impacted by the issues. Participants remarked that traditional consultations present a lot of barriers for people sharing their opinions, and that they don't influence policy decisions. **These insights led to the development of Recommendation 1A and 1B.**

The government's focus on economic growth, rather than the environment, caused fear when considering the future. To create a more health and environmentally conscious future, participants suggested that government provide a framework for businesses to receive incentives for sustainable practices that lower their emissions and improve the health of their employees and local community. They felt that, to increase the public's acceptance of clean air policy, it must be demonstrated that the government is willing to crack down on large polluters who act with a substandard or bare minimum regard to air quality. This is especially true for traffic reduction policies and restrictions on solid fuel burning, which mainly impact individuals rather than polluting industries. In a similar vein, participants supported approaches that would lead to the termination of non-renewable sources of energy. **These insights led to the development of Recommendations 3B and 3E.**

OUR ↓ RECOMMENDATIONS IN DETAIL


O to breathe fresh air
a point to wear we should care
think of those who will follow in our lead
for the next generation in their pleas.
so there lungs shall not bleed
as a cost of our bad deeds

we want clean air
let's recycle, reuse and repair
so the world may heal from the weight
its bears
for tomorrows children a world more
fair.

An inclusive approach to clean air policy development

Recommendation 1A:
Across government, consider air quality as a driver of injustice and inequity.

Government should:

1. Introduce a statutory requirement for national and local policy to assess air pollution inequalities and identify where targeted interventions would deliver the greatest benefit.
2. Improve integration of data which links air quality, health, and socioeconomic datasets to support more equitable policy decisions.
3. Strengthen cross-departmental coordination on air quality, recognising that the drivers of unequal exposure span multiple departments, for example by revising the scope of the recently disbanded JAQU.

Air pollution in the UK is not experienced equally. People living in deprived areas and ethnically minoritised communities are disproportionately impacted by higher emissions, which participants noted reflect structural inequalities and also reinforce cycles of disadvantage.

Environmental justice provides a useful framework for understanding these dynamics, defined through three interlinked dimensions:

- Distributive justice: how air quality is distributed across different groups, and whether this is equitable.
- Procedural justice: who has the resources and power to influence decisions about air pollution.
- Policy justice: how air pollution policies themselves affect different groups.[23]

A key challenge in understanding air pollution inequalities is determining whether higher exposure among minoritised groups is driven by socioeconomic deprivation, ethnicity, or both. Recent analyses using granular census data has helped separate these factors more clearly.[24] While pollution sources are much more likely to be located in areas with higher deprivation levels across England, this alone does not explain exposure patterns. All 24 minoritised ethnic groups studied are exposed to higher average local emissions of NOx and $PM_{2.5}$ than white British populations, regardless of socioeconomic status.[25]

These findings illustrate the distributive dimension of environmental justice, showing how exposure to harmful pollutants is unevenly distributed across communities. The causes are complex, but the core finding is important – it highlights the need for clean air policies that explicitly address differences in exposure.

UK air quality policy has traditionally prioritised meeting emissions reduction targets and concentration standards, with limited attention given to addressing unequal exposure. This reflects a wider policy tendency to focus on equal treatment, rather than the targeted action needed to achieve equal outcomes – which risks undermining policy justice.[26] For example, the Statutory LAQM regime has historically assessed air pollution in isolation from health inequalities. Decisions made on incomplete information risk inefficiency, as each additional unit of pollution causes greater harm in more deprived communities.[27,28] Failing to account for where public need is greatest may inadvertently widen existing inequalities.

This tradition contrasts with the UK's stated commitments to environmental justice. As a ratifying party to the Aarhus Convention, the UK must uphold its three pillars: access to environmental information, public participation, and access to justice in environmental matters.[29] In addition, the 25 Year Environment Plan commits the government 'to improve social justice by tackling the pollution suffered by those living in less favourable areas'.[30]

"I fully agree that air quality should be treated as a driver of injustice as poorer and marginalised communities are more likely to live near busy roads or pollution hotspots and suffer worse health outcomes."

"Address inequality: monitor and reduce higher exposure levels in low-income and global majority communities."

To tackle air pollution equitably, policy decisions must consider the broader social context in which emissions occur. Linking air quality data with indicators of deprivation, health data and demographic vulnerability would allow local authorities to identify places where these factors combine to create the greatest risk, and act. This aligns with the principle of proportionate universalism, whereby support is provided universally but at a scale and intensity proportionate to need.[31] In practice, this means combining population-wide policies (such as concentration targets) with targeted action in communities facing the highest exposures and greatest vulnerabilities to health harms.

This quantitative analysis should be complemented by structured community engagement. Incorporating lived experience helps ensure that targeted action builds trust and delivers more durable outcomes. This approach is explored further in Recommendation 1B.

The EIP25 commits to improving access to data, so that local interventions can be better targeted in places where communities are exposed to higher levels of air pollution, particularly where high pollution is linked to deprivation.[32] While we welcome this focus, further detail is needed to ensure that interventions also address disparities faced by ethnically minoritised communities, who experience disproportionate exposure regardless of economic deprivation. Without a clearer commitment to reflect the full range of inequalities that shape exposure, new measures risk embedding the same blind spots that have long characterised air quality policy.

While Defra holds the policy area, a joined-up approach across government is essential, as the drivers of air pollution sources and inequity span multiple departments and cannot be tackled through Defra alone. This could be achieved by reforming the scope of the recently disbanded JAQU, with Defra and the DHSC jointly responsible for reporting on progress to protect communities most affected by air pollution.

* *All quotes on this page are from participants in the 'OUR AIR, OUR VOICES' project.*

Recommendation 1B: Improve policy development to rebuild public trust and make better decisions.

Government should:

1. Establish minimum standards for community involvement across all levels of government, backed by ring-fenced resources and funding.
2. Proactively involve communities most affected by poor air quality, including by providing remuneration.

Strengthening procedural justice is essential for delivering clean air policies that are effective, equitable, and trusted by the communities they affect. While Recommendation 1A set out the importance of distributive justice, procedural justice is the dimension where current UK practice falls furthest short. Too often, the communities most affected by poor air quality have limited opportunity to shape decisions about air quality policy.

Meaningful political engagement can strengthen decision-making by surfacing citizens' knowledge, values, and concerns, and increasing the legitimacy of environmental policy.[33] Traditional consultation-led approaches leave communities frustrated, because the key policy decisions have been effectively made before the consultation begins. This important shortcoming reinforces the perception that public involvement is merely a tick-box exercise.[33,34] Truly participatory processes must be ongoing and iterative – requiring a power shift that embeds communities in decision-making from the outset.

Public appetite for involvement in decision-making is strong, yet public confidence that participation will matter remains weak. Demos found that while 63% of people would accept an invitation to take part in a government participation exercise, 41% said they would be less likely to do so because they do not believe government would listen to what they had to say.[37] This gap highlights the need to rebuild trust in politics and institutions by showing visible responsiveness to public input.

In the context of clean air policy, where misinformation and polarised debate have already undermined public confidence, strengthening engagement is essential. Air quality policies require public buy-in. Debates around measures like the London ULEZ illustrate how quickly concerns about disproportionate impacts can escalate when decision-making processes are not clearly communicated – regardless of communication about public health benefits.[38] While additional effort is required in taking on board lived experience to inform policy development, this work can help mitigate feelings of disenfranchisement that have been worsening under successive governments.

However, current structures were never designed to support meaningful involvement. Public input is routinely treated as an afterthought within the UK's air quality management framework.[39] Under the Environment Act 1995, public engagement typically occurs once pollutant exceedances have already been recorded, and an Air Quality Action Plan is being drafted. Although some councils have piloted participatory approaches like citizens' assemblies, these initiatives operate within a context that many councillors describe as constrained. Local authorities face barriers like limited funding, resources and political support – with over 70% of councillors feeling they received inadequate support from national government to tackle air pollution effectively.[40] Councils are best placed to lead engagement locally, but national direction and funding is needed to ensure a consistent approach.

"This approach requires significant and sustained funding, and there is a risk that engagement could become tokenistic if not implemented genuinely, potentially slowing down urgent policy action without delivering meaningful change."

The government's commitment to co-design its forthcoming AQS, expected in 2028, presents an important opportunity to embed more inclusive approaches. This requires involving communities from the outset, being transparent about how their input will shape decisions, and actively seeking participation from groups disproportionately exposed to air pollution. Participants emphasised that remuneration not only recognises citizens' time and expertise, but also enables those facing financial pressure to take part. In addition, communities with health conditions, language barriers, or specific cultural needs may need additional support to participate meaningfully. To make an equitable approach consistent across levels of government, minimum standards for community involvement should be established, backed by ring-fenced resources and funding.

"If you are asking people to give feedback and help ... then they need to be supported in the right way."

If clean air policy is to achieve effectiveness, communities cannot be treated as consultees at the end of the decision-making process. They must be partners from the outset.

"We all have certain experiences; we can all make a difference."

* *All quotes on this page are from participants in the 'OUR AIR, OUR VOICES' project.*

Air quality as a public health issue

Recommendation 2A:
Set ambitious targets, informed by the latest evidence, and aligned with WHO Air quality guidelines set in 2021.

Defra should:

1. Commit to aligning long-term air quality targets with the 2021 WHO Air quality guidelines.
2. Be required by law to set a plan – including interim milestones and exposure-reduction commitments – to meet full compliance with the 2021 WHO Air quality guidelines as soon as possible.

Current legal limits for air pollutants in the UK do not reflect the latest health evidence, as reported by both the OEP and the Coroner's inquest into the tragic death of nine-year-old Ella Adoo-Kissi-Debrah.[41,42] Harmful effects continue at concentrations well below these limits.

Given the technical nature of emission-reduction targets, the specifics of aligning with WHO guidelines were not discussed in detail during the workshops. However, participants consistently reflected on the broader implications, noting that clear legal milestones are essential to hold government accountable.

The government should be required by law to set a plan to meet to meet full compliance with WHO guidelines as soon as possible. While ambitious, aligning the UK's air quality targets with the WHO 2021 guidelines is essential for protecting public health and driving continuous, long-term improvement in air quality nationwide. The WHO's 2021 guidelines reflect the latest scientific understanding that there is no safe level of exposure to $PM_{2.5}$ or NO_2. This disparity leaves the population – particularly children, older adults, and marginalised communities – insufficiently protected.

Pollutant type	Legislation	Current limit value	2021 WHO guidelines
Fine particulate matter ($PM_{2.5}$)	Air Quality Standards Regulations 2010; Environmental Targets (Fine Particulate Matter) (England) Regulations 2023 [Environment Act 2021]	20 $\mu g/m^3$	5 $\mu g/m^3$
Nitrogen dioxide (NO_2)	Air Quality Standards Regulations 2010	40 $\mu g/m^3$	10 $\mu g/m^3$

A growing body of evidence shows that adopting the 2021 WHO Air quality guidelines in the UK is achievable.[44,45] Rapid improvements are possible when decisive policies are implemented. Defra data confirms that in 2024, London met the UK's annual legal limit for NO_2 for the first time – nearly 200 years earlier than originally predicted.[46]

While it has been positive to see reductions in air pollution in areas across the country, once an area meets the legal limit, momentum can be lost, even though the population continues to experience significant exposure that harms health. This stagnation weakens incentives for further improvement. To sustain progress, improvements in legally binding standards should be paired with PERTs aligned with the latest WHO member commitment of a 50% reduction in pollution-related health impacts by 2040 (compared to 2015 levels).[47] PERTs ensure improvements reach all communities, rather than only areas currently exceeding UK limits.

Photo: Ella Roberta Foundation/Adam Isfendiyar

Recommendation 2B: Raise awareness of the health harms of air pollution

Defra, DHSC, DfE and DWP should:

1. Fund a multi-year, co-produced public awareness campaign across a range of digital and in-person platforms, delivered with trusted messengers and targeting the communities most severely impacted.
2. To support a public awareness drive, revise the DAQI forecast thresholds to align more closely with the latest health evidence, and expand the air pollution alert system.
3. Work with professional bodies to introduce mandatory training for healthcare professionals on recognising and communicating the impact of air pollution.
4. In implementing the Curriculum and Assessment Review, the Department for Education (DfE) should ensure that explicit examples of air pollution and its societal and health impacts are incorporated in the new Citizenship curriculum.
5. Increase awareness and responsibilities of employers to recognise air pollution as an occupational health issue, including by instructing the HSE to include particulate matter in workplace exposure limits.
6. Develop mechanisms and targets for measuring engagement with public awareness messaging and revised air quality information systems.

The coroner's inquest into the tragic death of nine-year-old Ella Adoo-Kissi-Debra stated as a matter of concern that there is a low level of public awareness about air pollution and its impacts on health, and that the adverse effects are not being sufficiently communicated to patients and carers.[48]

During a workshop mapping activity which explored links between sources of air pollution, health and sociological impacts, many participants noted that they didn't know pollution was linked to illnesses beyond asthma. Across the UK, public awareness is growing, but progress is slow and awareness about the sources of pollution remain disconnected to beliefs about individual impacts on health. The RCP found that 33% of adults believe air pollution does not pose a risk to their health.[49] In 2025, our Life with a Lung Condition survey found that while 80% of people with lung conditions reported that air pollution worsened their health, only 5.8% identified domestic wood burning as a concern, compared with 56.1% who highlighted road traffic.[50]

In response to the coroner's report, Defra and the UKHA set up the AQIS review. Asthma + Lung UK sat on the steering group as a representative for people most at risk of health impacts. The review was published in March 2025 and provides a strong basis of evidence and recommendations for government to pursue to improve the provision of information on air pollution.

Government departments must work together to urgently implement the recommendations of the AQIS review on raising awareness. In the EIP25, the government committed to launch a new air quality alert system, update the health advice they issue on UK-AIR (the government's central air pollution information resource), publish information on the long-term impacts of air pollution exposure, and work with professional bodies to upskill healthcare professionals on air quality.

The EIP25 also committed to 'ensure that...vulnerable groups in particular have the information they need to protect their health, reduce their exposure, and demand improvements'. However, missing from this commitment was the AQIS review recommendation to inform the public on 'actions the government and other public bodies are taking, and the actions individuals can take to...reduce their contributions.'[51]

Implementing an awareness campaign with aims to both protect vulnerable groups and reduce emissions is foundational to reducing air pollution equitably, because those at risk of health harms shouldn't be subjected to the burden and unfairness of restricting their lives in order to avoid pollution.

"We were thinking of ways to prevent, rather than dealing with the circumstances."

The campaign should be co-designed with communities, and include input from a wide range of stakeholders informed by modern behavioural science.

"Targeted campaigns in high pollution areas, simple real-time air quality data for the public and stronger links between awareness and practical solutions."

Public awareness initiatives must complement, not replace, structural action to reduce emissions at source. A campaign on the dangers of air pollution must include the actions being taken to address it, in order to encourage greater engagement with individual behaviour change policies and strengthen support for clean air policy.

"Make sure information leads to practical support, not just awareness."

"This is a good initiative however awareness may overtake more solid action. Being aware of the health impacts may encourage people to act however I believe this approach puts more pressure on people rather than corporations."

Education is also an important channel for air pollution awareness, and was spoken about passionately by the participants. The AQIS review suggested that air quality education should be embedded into a variety of subject areas, starting in early education, to make conversations about air pollution part of everyday thinking.[52] The Curriculum and Assessment Review 2025 recommended access to enriching activities around nature and civil engagement, and will make citizenship lessons mandatory for primary school pupils.[53] Adding more explicit examples relating to air pollution and respiratory health in the revised Citizenship programme of study fits naturally under existing themes such as environmental responsibility, community action and democratic participation. In designing the new curriculum, the DfE should work with pupils and third sector organisations who are already delivering classroom resources (like Asthma + Lung UK's Clean Air Champions schools programme) to develop enriching air pollution activities across subject areas.[54]

"Mandatory curriculum inclusion. Pollution is something we rarely bring ourselves to the attention of, until it becomes a problem. Teach the effects and run a wider discourse."

"Start awareness at an early stage."

* *All quotes on this page are from participants in the 'OUR AIR, OUR VOICES' project.*


Under the current system, air pollution levels can breach legal limits and still be considered a low level of pollution.

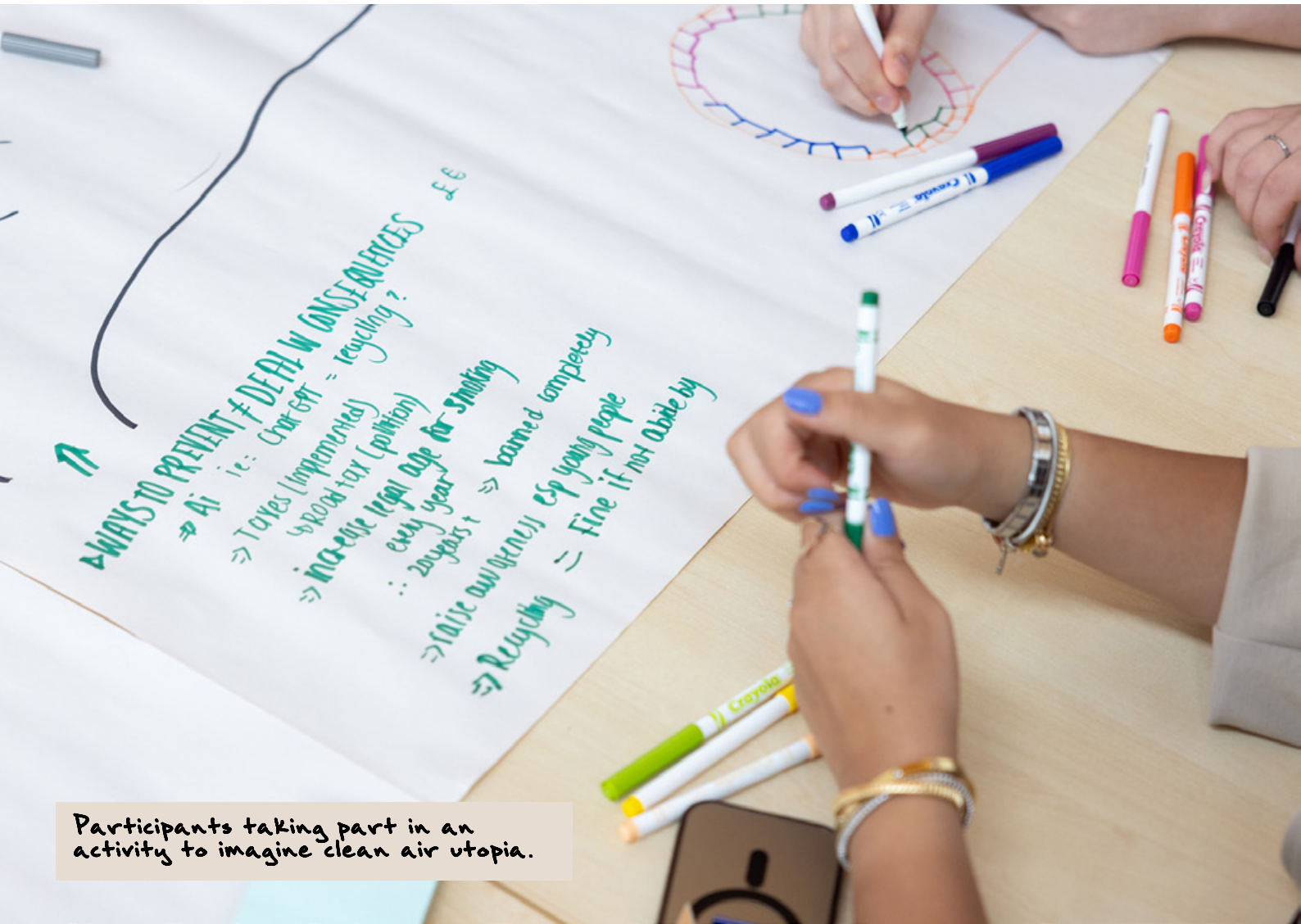
MAX

Participant case study

“I’ve grown up in South East London and it does worry me about how all of this air pollution could be affecting the health of me and my family. I’ve done a lot of athletics, but when I’m running and breathing in all of this dirty air I don’t know how that’s going to affect my lungs in the long-term.

I thought the workshop was amazing – seeing so many young people coming together, opening up about our personal experiences of air pollution and how we’re trying to make the world a better place. The activity I liked the most was the poetry, because I enjoy writing poems and music lyrics in my own time. I think it’s a powerful way to deliver important messages like this.

I learnt about how badly air pollution impacts people with breathing problems and how much it would help our communities to have cleaner air. Hearing everyone’s opinions really made me think about how I could do more myself to reduce air pollution – I’m trying to walk and cycle more now.”



Participants taking part in an activity to imagine clean air utopia.

Ensuring air pollution forecasts are fit for purpose.

Public awareness measures are well placed to fit alongside the government's EIP25 commitment to revise the government's primary air quality information system – the DAQI. The DAQI provides forecasting, an opt-in alerts system, and health advice. However, the banding thresholds are currently set too high to communicate the health impacts of air pollution exposure. The bands that determine whether a forecast is deemed low, moderate, high or very high were developed in 2011, and were last updated in 2013. They are outdated and out of step with the latest health evidence, which has moved on considerably after more than a decade, as has technology and behavioural science.

As highlighted by the tables below, the DAQI bands for 'low' pollution levels are significantly higher than both the UK legal limits and the latest WHO guidelines.

UK legal limits/WHO Guidelines for NO_2			**DAQI banding for NO_2[55]**	
Annual or 24 hour or 1 hour	**UK legal limit (µg/m³)**	**2021 WHO Guidelines (µg/m³)**	**Hourly mean concentration (µg/m³)**	**Index/Band**
Annual	40	10	0-67	1 (Low)
24 hour	-	25	68-134	2 (Low)
1 hour	200	-	135-200	3 (Low)
			201-267	4 (Moderate)
			268-334	5 (Moderate)
			335-400	6 (Moderate)
			401-467	7 (High)
			468-534	8 (High)
			535-600	9 (High)
			601 or more	10 (Very High)

UK legal limits/WHO Guidelines for $PM_{2.5}$			**DAQI banding for $PM2_{2.5}$[56]**	
Annual or 24 hour or 1 hour	**UK legal limit (µg/m³)**	**2021 WHO Guidelines (µg/m³)**	**Hourly mean concentration (µg/m³)**	**Index/Band**
Annual	20	5	0-11	1 (Low)
24 hour	-	15	12-23	2 (Low)
			24-35	3 (Low)
			36-41	4 (Moderate)
			42-47	5 (Moderate)
			48-53	6 (Moderate)
			54-58	7 (High)
			59-64	8 (High)
			65-70	9 (High)
			71 or more	10 (Very High)

Under the current system, air pollution levels can breach legal limits and still be considered safe.

The information provided to the public is counterproductive to educating the public on the harms of chronic exposure to air pollution. It provides a falsely positive picture and does not equip people to take protective action. Maintaining the current system would have major unintended consequences for the success of any drive in air pollution awareness, as it is already weaponised by those who seek to discredit the presence and impact of air pollution.

Targeted action to support groups most at risk of health impacts

Some groups are significantly more vulnerable to the health impacts of air pollution. These groups include children, older people, pregnant women, disabled people, and those with long-term physical and mental health conditions, including lung conditions.[57] Inequalities in exposure, as well as an increased likelihood of health risk behaviours in more deprived areas, can overlap with increased susceptibility and increase health harms.[58]

The measures on awareness in the EIP25 are welcome. However, additional measures are needed to monitor progress. Despite the evidence about the links between awareness and behaviour change, there are no publicly reported measures or targets in relation to engagement with new information systems. This is vital to address given that the RCP recently reported that 33% of UK adults believe air pollution does not pose a risk to health.[59]

A parliamentary question in May 2025 revealed that only 450 people are signed up to receive alerts from UK-AIR.[60] Even if alerts were used by more people, the threshold triggers are out of date when compared to the short-term legal limits for various pollutants. For example, in order to trigger an alert, NO_2 levels must reach 400 µg/m³ for three consecutive hours. This is twice the UK legal limit for one hour, which is set at 200 µg/m³.

These alerts are being sent out too late to have the impact they need. There is also no formal legal alert threshold for $PM_{2.5}$ (which is the most harmful pollutant to human health) or PM_{10}. Air pollution alerts must encapsulate a broader range of pollutants as they are a significant health risk for people with lung conditions.

Alerts are especially important for groups most at risk of health impacts of air pollution. Moderate and high air pollution episodes are closely linked with spikes in hospital admissions, particularly for respiratory issues.[61,62]

Policies developed to tackle poor air quality should recognise and actively consider where interventions are most needed, including how policies can be targeted and evaluated to support those most at risk of health impacts. The government have committed in the EIP25 to give enhanced data access to local authorities with the highest exposure linked to deprivation, in order to support targeted interventions. As part of this, they could take steps to measure the success of interventions, for example through tracking engagement with information systems, measuring behaviour change, and tracking respiratory hospital admissions during high air pollution episodes.

"Target support to vulnerable groups: children, older people, people with respiratory conditions. Address inequality: monitor and reduce higher exposure levels in low-income and ethnically minoritised communities. Public awareness campaigns: educate people on how to reduce pollution and protect themselves."

* *All quotes on this page are from participants in the 'OUR AIR, OUR VOICES' project.*


Together
we fight for
lung health

Tackling air pollution at the source

Recommendation 3A:
Enable the public to make cleaner transport choices.

DfT should:

1. Invest in making active travel safer and more interconnected with other forms of transport.
2. Invest to make public transport an attractive alternative to private travel – affordable, reliable and accessible.
3. Prioritise equitable and transparent traffic reduction measures through inclusive policy development and community engagement.
4. Ensure adequate financial incentives and support are in place to make the transition to cleaner transport fairer – targeted scrappage schemes, expanded cycle to work schemes, and more support for individual transitions away from vehicles powered by petrol and diesel.

Road transport is the leading source of NO_2 and $PM_{2.5}$ emissions. Most cars on UK roads still run solely on petrol and diesel. Until the government decide to take bold action to support behaviour change, journeys by car will continue to dominate UK transport statistics.

Positively, the government have committed to phasing out the sale of new petrol and diesel vehicles by 2035. The transition to EVs is a step towards cleaner air, though there are drawbacks. It is important to factor in that while EVs reduce local air pollution and reduce point-of-use emissions, they are not devoid of impact on air quality. As well as the minerals required for battery manufacture and the production of the electricity which charges them, EVs do produce non-exhaust emissions from brake/tyre wear and road-surface abrasions.

"For the point on electric vehicles – more research is needed because I know there are still a lot of social and environmental consequences."

One fifth of the car market is now made up of EVs.[63] While the cost of new EVs on the whole remain high and often prohibitive, the second-hand EV market is growing, and prices are reaching parity with comparable second-hand petrol and diesel vehicles.[64]

* *All quotes on this page are from participants in the 'OUR AIR, OUR VOICES' project.*

What makes you angry? (a workshop prompt)

"Government are reducing petrol and diesel but it's the bare minimum, they could be doing more."

"Having the option to walk or cycle, but still driving."

"Not being comfortable running around my area. The air can get quite suffocating...Trying to get healthy feels futile."

"Government processes take so long, but they're not ambitious enough."

On the whole, CAZs have been successful in bringing real world benefits to health. In Bradford, one year after the CAZ was launched, on average each month there were 598 fewer GP visits for respiratory health and 134 fewer visits for cardiovascular health.[65] Comparing the lung growth trajectories for children living in London (inside the ULEZ) and in Luton (outside the ULEZ), a study found that children in London had significantly lower lung function before ULEZ implementation, but experienced faster growth than those in Luton, achieving similar lung function after four years.[66]

In our 2023 policy report, Putting the Brakes on Toxic Air, we outlined how CAZs could be made more equitable by being paired with a scrappage scheme for a fair transition to cleaner travel. In our research, we found that for every £1 invested in our policy – the Cleaner Travel Access Fund – a return of £2.50 could be made in health and economic returns.[67,68] We analysed the scrappage schemes in place at the time and found that while several schemes had been launched alongside CAZs, only 20% of funding was going towards private individuals. A government JAQU review of Local NO_2 Plans in 2023 (several of which included CAZs) found that there was a lack of awareness regarding support that was available to residents, particularly affecting more vulnerable groups.[69]

In addition, more transparency is needed on how charges for violations of CAZs are used, as this area can draw public criticism. The Transport Act 2000 does require local authorities in England to reinvest earnings from CAZs into local transport plans. Sharing clearer information with the public on how CAZs improve community health and infrastructure could improve perceptions of CAZs.

"Decisions are being made by the most powerful. Consultations do happen, but co-production is better. Get those affected together to make better decisions."

LTNs have generated controversy outside and among those campaigning for clean air, which we believe could have been avoided through inclusive policy development. Community engagement, not only with residents of streets proposed to become LTNs, but also the surrounding streets which could be negatively impacted, could have helped achieve buy-in and sought mitigations for unintended consequences.[70]

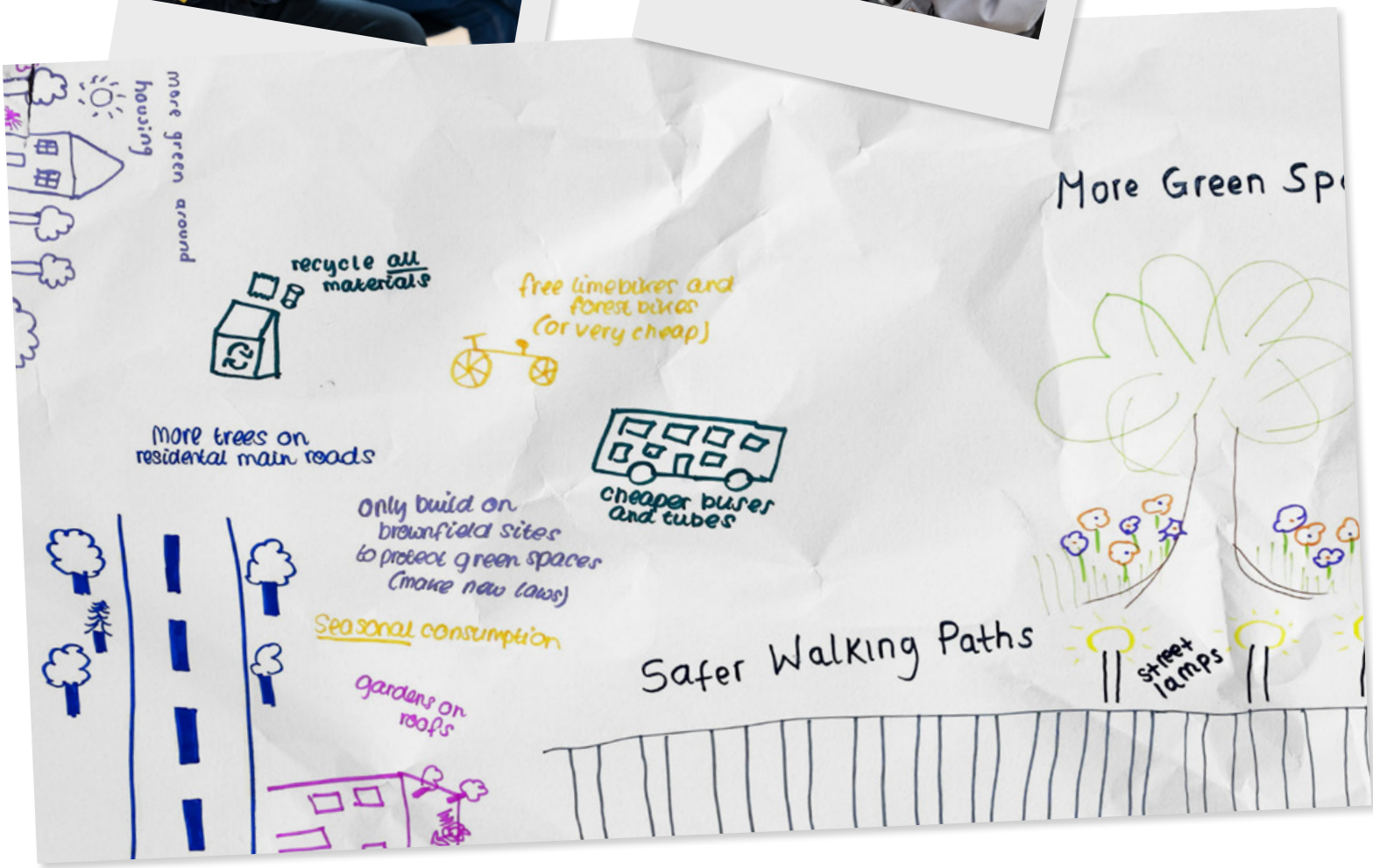
* *All quotes on this page are from participants in the 'OUR AIR, OUR VOICES' project.*

Summarised group discussion on LTNs

A **“LTNs, we want to remove them.”**

B **“It (LTN) herds the traffic onto main roads. It’s a money-making system. I feel like it’s the main thing that needs to be abolished. It’s not beneficial, pushing traffic away.”**

C **“I do agree, but there are a lot of proven benefits. There are a lot of negative perceptions, but research shows that actually the disadvantages of traffic are short-term, and long-term it reduces car reliance. The way it is planned and executed does matter.”**



* *All quotes on this page are from participants in the ‘OUR AIR, OUR VOICES’ project.*

In our 2023 report, our findings showed that the public recognised the need for cleaner transport measures, and said they were willing to change their own behaviour and reduce private car use if cleaner transport is made more accessible, affordable and reliable. A holistic set of measures to reduce emissions from road transport is required to make a strong and equitable impact. A 2023 JAQU report shared this view, with evidence showing that integrated measures such as combining CAZs with education/awareness raising, scrappage schemes and infrastructure investment were successful in achieving cumulative impact.[71]

"I agree [with the recommendation] but only if cleaner transport is affordable. Not everyone can just stop using cars without good public transport options. The government need to make buses and trains reliable and cheaper."

Increased access to active travel and public transport was identified by several participants as their key priority for government action.

The government's consultation as part of the third Cycling and Walking Investment Strategy outlines the many co-benefits of increasing active travel, including for physical and mental health.[72] Prioritising areas where inactivity is highest will help tackle wider inequalities, and making sure options are low-cost, appealing and safe will help increase uptake.

However, active travel is not suitable for all journeys and is not accessible for all, including those with a severe lung condition or those whose health is impacted by exposure to air pollution. So, it's also important to invest in improving and widening access to public transport. There are stark regional variations in cost and provision, which are a main driver of regional inequalities.[73]

"We need to look at why everyone is opting to use cars and private transport in the first place and tackle those reasons first to give them enough reason to change as I feel like everybody would want to tackle the air pollution climate issue but due to circumstances, access needs and money etc. find themselves having to do what is more convenient."

"I think investing to also make our current public transport better. The current pollution levels on the tube are outrageous and many of these levels can be reduced by filters and machines, which require funding in itself. Before expanding and making bigger systems, make the ones we already rely on better."

Reducing our reliance on private cars is critical to reducing air pollution, and achieving this through a range of coordinated approaches has significant co-benefits for building overall healthier communities.

* *All quotes on this page are from participants in the 'OUR AIR, OUR VOICES' project.*

ABDUL

Participant case study

“When I call my little brother and hear him coughing and wheezing, it really makes me worry about the harmful effects that air pollution could be having on my family.”

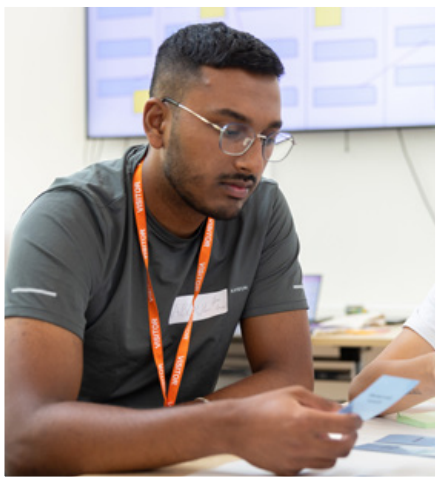
“My little brother is only eight years old, but he has had respiratory problems for a few years now. He lives with my family in a quite deprived area of Hull city centre, which is well known for having heavy traffic congestion. I grew up there and played out all the time, but I never really noticed the air pollution then. You don’t notice something when it’s the same every day and you can’t see it.

I don’t think a lot of people realise the real risks of air pollution until it directly affects them or their own family.

Neither of my parents can drive. That’s the reason why we stayed living in the city centre - because we had access to everything we needed there like the shops, the bank and the mosque nearby. People who are less fortunate, who maybe can’t afford a car, are more likely to need to live in areas like these where there are higher levels of air pollution.

Taking part in this project has really made me think about the social injustice of exposure to air pollution. It’s made me reflect on the fact that I’ve been more exposed to higher levels of toxic air than other young people just because of where I grew up.

I moved to London four years ago to go to university and living in different areas of the city has made me really aware of the inequalities caused by toxic air. For a while, I lived in Peckham right next to the Old Kent Road which has four lanes of traffic and is constantly busy. It reminded me a lot of Hull where I grew up. When I cycled from Peckham into central London to go to university, I had to ride right next to the buses and cars most of the way and was exposed to all of their fumes.



But I’ve moved further out to a wealthier area of West London recently and there’s a stark contrast. My journey into university is much nicer now. The roads are quieter, there seems to be more electric vehicles and I can ride on completely separate cycle lanes most of the way.

“It’s not fair that people living in poorer areas are more exposed to air pollution and at greater risk of developing respiratory problems. Everyone has the right to breathe clean air.”

> Taking part in this project has really made me think about the social injustice of exposure to air pollution.

Recommendation 3B: Enable the public to make cleaner heating choices.

Defra and MHCLG should:

1. Phase out the installation and use of wood burning stoves and open fires wherever alternative low-emission heating is available.
2. Update regulations to ban the installation of new wood and solid fuel stoves in new build homes.
3. Strengthen and update SCAs to reflect the latest health evidence.
4. Provide financial support for households to transition away from domestic burning, including grants or subsidies to enable equitable access to cleaner heating options such as heat pumps.

Despite common public perception, domestic burning has a significant impact on health and the environment. Although only a small proportion of households use wood burners, domestic burning is one of the largest contributors to $PM_{2.5,}$ contributing 20% of overall emissions in 2023.[74]

Only 1% of burners rely on domestic burning as their primary source of heating. This small proportion of households burn out of necessity rather than choice, often because they live in rural or off-grid areas. Domestic burning has been rising in popularity for the last few years, with 12% of homes now using an appliance or an open fire. The result is avoidable pollution exposure for users, and their local community.

The majority of those burning are not aware of the health-related harms, with research showing that only 19% of stove users were aware of the negative health impacts.[75]

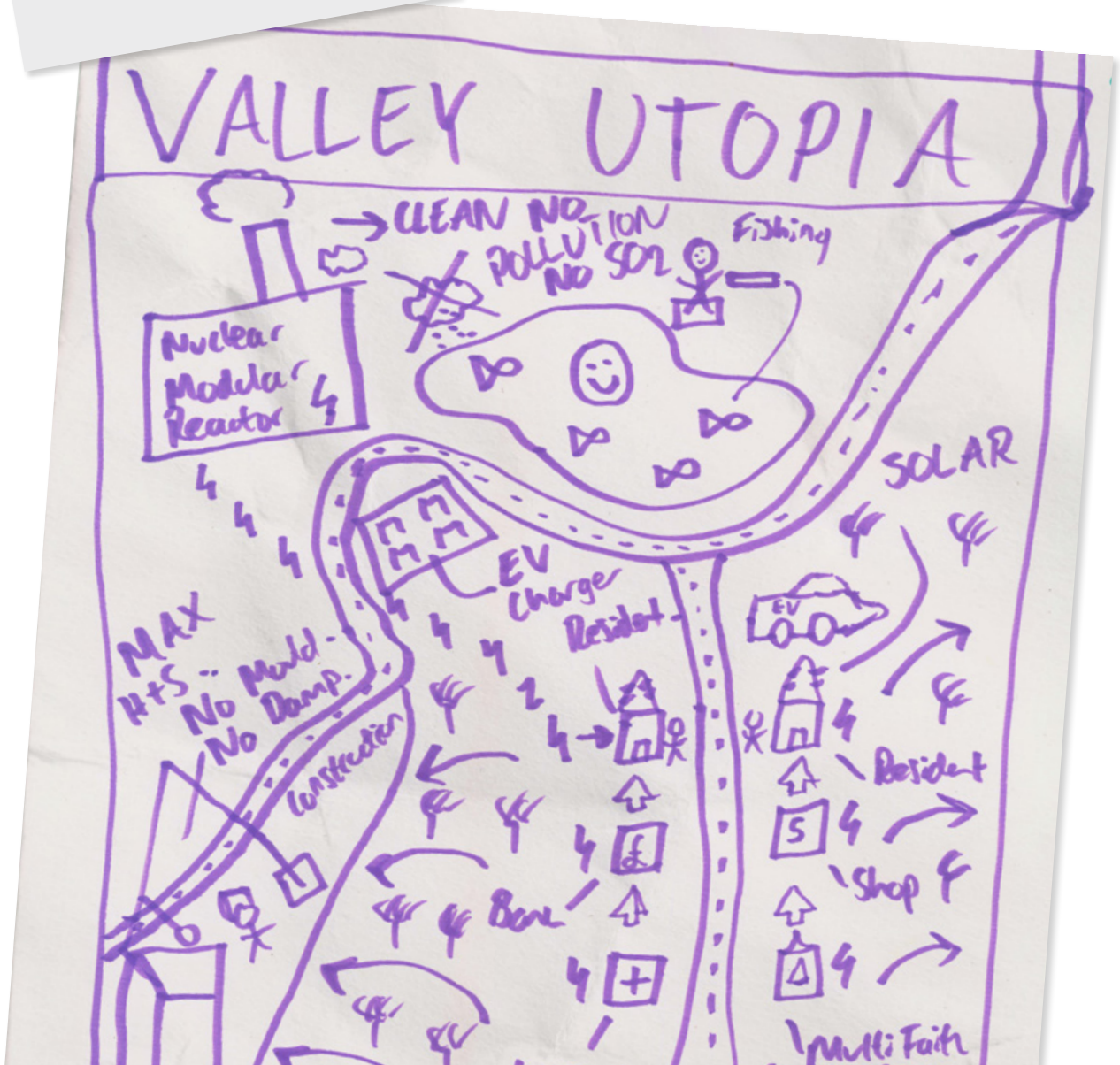
SCAs provide some protection, but they still allow non-essential domestic burning as long as permitted appliances and fuels are used. In practice, SCAs are very challenging to enforce, requiring more investment to increase local authority capacity. Between September 2024 and August 2025, 9,274 complaints for illegal domestic burning were made in SCAs across England. However, just 24 fines were issued, and not one prosecution was made.[76]

Moves to phase out domestic burning should include exemption for off-grid homes, ensuring energy security for this small number of households while reducing the overwhelmingly urban, non-essential domestic burning that drives these high emissions.

As participants explored clean heating choices, the discussion often turned to the need for financial support and clear information to help households transition. The Warm Homes Plan is designed to decarbonise the UK's housing stock and tackle fuel poverty, providing targeted support for those on low-incomes.[77] Under the plan, grants and subsidies enable households to install heat pumps and other low-carbon heating systems instead of polluting, high-emission heating. However, many households in fuel poverty are renters living in poorly insulated homes that are expensive to heat. These households have little control over energy-efficiency improvements, depending on their landlord to make the decision to invest. The success of the plan will depend not only on how many homes are upgraded, but whose homes are upgraded.

While the newly published Future Homes Standard aims to reduce greenhouse gas emissions from home heating, it continues to permit wood burning stoves as secondary heating sources in new build homes. Since many households supplement their heating with solid fuel, allowing the continued use of wood burners in new houses risks undermining the Warm Homes Plan and perpetuating avoidable $PM_{2.5}$ exposure.

Comprehensive and joined-up policy to reduce harmful pollution from domestic wood burning is urgently needed, alongside adequate support to alleviate fuel poverty and prevent ill-health caused by cold homes. Coordinated government action that combines regulation, financial incentives and public information will ensure a fair transition to cleaner, healthier home heating.



Recommendation 3C: Address indoor air pollution.

Defra and MHCLG should:

1. Develop a cross-government indoor air quality strategy across health, housing and energy policy. This includes the introduction of indoor air quality standards or limit values, starting with public buildings.
2. Update the HHSRS to recognise indoor air quality as a standalone housing hazard.
3. Provide additional funding for research and monitoring.
4. Ensure that interventions are targeted towards communities in the greatest need, particularly those experiencing fuel poverty.

On average, people spend around 80-90% of their time indoors, with around two-thirds of this time at home, making buildings a substantial source of air pollution exposure.[78] Indoor air pollution comes from a range of sources: pollutants entering from outside, combustion processes like cooking and heating, and occupant activities like cleaning and drying clothes indoors. These variables mean that there is not yet a detailed understanding of indoor air pollutants and their distribution.[79]

Measuring exposure to indoor air quality poses practical challenges, as large-scale monitoring in private homes is difficult. However, emerging environmental justice research shows that poor indoor environments disproportionately affect lower-income and ethnically minoritised households, who often have the least agency to substantially improve their living conditions – as explored in Recommendation 3B.[80]

Our 2025 Life with a Lung Condition survey found that around a third of respondents experienced damp, mould or condensation in their home, with winter being the most challenging season for over 90% of those affected.[81] Renters were twice as likely as homeowners to report that their home was harming their lung health.[82] National estimates reinforce the scale of the problem, with damp and mould linked to around 5,000 cases of asthma and 8,500 respiratory infections each year.[83] These conditions contribute to seasonal surges in respiratory illness, increasing incidents of preventable disease and adding to NHS winter pressures.

Recent events have intensified public and political attention on indoor air quality. Two-year old Awaab Ishak tragically died in December 2022 following prolonged exposure to mould in his family's council flat. The Housing Ombudsman investigation revealed failures to address structural issues such as ineffective ventilation, alongside patterns of marginalisation that meant his parents' concerns were repeatedly dismissed. [84]

The introduction of Awaab's Law, which came into force for the socially rented sector in October 2025, requires social landlords to investigate and remedy hazards within strict timeframes. Its success depends on strong enforcement and adequate resourcing for local authorities. However, Awaab's Law alone cannot close the wider regulatory gaps in housing. The HHSRS, which underpins action on hazards across the social and private rented sectors, still uses Category 1 and 2 hazard definitions set in 2004. It does not treat indoor air pollution as a standalone hazard, despite the clear health implications. Since the Decent Homes Standard depends on the interpretation and implementation of the HHSRS, outdated criteria risks preventing the necessary reduction in home health hazards.

Improving housing standards must include action on ventilation. The COVID-19 pandemic brought attention to the importance of ventilation in creating healthy indoor environments, yet many buildings continue to have insufficient provision. While more tightly sealed buildings can improve energy efficiency, poor ventilation design risks unintended consequences for indoor air quality. When considering practical solutions at home, participants pointed out that simple ventilation measures such as opening windows are not always feasible given concerns about bringing in outdoor pollutants, heat loss and increasing energy costs. For the 6.1 million households living in fuel poverty in the UK, financial difficulties mean many live in cold homes prone to mould and damp. Some researchers refer to this tension as the 'indoor air quality trilemma' that will only worsen if energy efficiency improvements continue without equal consideration for indoor air quality.[86]

There is currently no overarching legislation covering indoor air quality. Instead, the regulatory framework is fragmented across different policy areas like health, housing and energy. This disjointed approach leaves significant gaps. While everyday household activities can influence indoor pollutant levels, placing responsibility solely on individuals is neither fair nor effective. Limited awareness of indoor pollution sources and poor access to air quality information make it difficult for people to recognise that air quality may be poor or when action is needed. One study found that access to air quality information channels to inform behaviour change are also 'sociodemographically stratified', meaning minoritised groups are least likely to receive the guidance needed to reduce emissions and exposure.[87]

Behaviour change requires combining regulation with public awareness. Introducing regulations that set indoor air quality limit values, as is already done for outdoors, is the most direct way of legislating exposure. The development of such regulations is certainly more challenging in homes, where monitoring and enforcement are infeasible, but these challenges can be overcome in the case of public buildings like schools and hospitals, where protecting children's health and clinically at-risk patients provide a strong case for action. [88]

"Legally binding targets with clear timelines, stronger monitoring, and recognition of indoor air pollution alongside outdoor emission."

"Address pollution inside homes, schools and workplaces."

* *All quotes on this page are from participants in the 'OUR AIR, OUR VOICES' project.*

Recommendation 3D: Close the green space gap.

Defra and MHCLG should:

1. Work to achieve the EIP25 target of access to green or blue space within a 15-minute walk from home.
2. Include green infrastructure in the planning of all new developments.
3. Provide sustained capital funding to prioritise park upgrades in deprived areas.
4. Ensure communities are involved in the design of local green spaces.
5. Monitor and evaluate measures to improve access to green space, including health and air pollution co-benefits.

Multiple participants referenced the importance of well-designed green infrastructure, including parks, street trees, green corridors and wetlands. Evidence shows that living near green space is linked to lower rates of respiratory illness and premature mortality, and increasing access to these spaces helps narrow life expectancy gaps between richer and poorer communities.[89,90] Healthy communities are built when neighbourhood planning includes action to reduce air pollution, create safe green spaces, and strengthen climate resilience. Green space is not a luxury, but essential infrastructure for public health. It can also build social cohesion, especially where local residents are meaningfully involved in shaping and maintaining spaces.[91]

"Green spaces improve health, reduce inequalities, and support climate resilience. I'd add stronger protections, community involvement, and investment where access is poorest."

"Yes, protection of existing green spaces, focus on biodiversity, inclusive design for all ages and abilities, and community-led projects to shape and maintain green spaces."

"Green space is essential for improved health, however it is only beneficial if people feel safe enough to use them. Parks can feel unsafe, especially at night, for many people – particularly women."

Despite the clear benefits, access to green space in England remains deeply unequal. Lower-income communities and ethnically minoritised communities are more likely to lack nearby high-quality green spaces, and are more likely to be living near busy roads and experiencing higher pollution levels.[92] Two-thirds of traffic-related carcinogenic emissions occur in England's most deprived neighbourhoods, where residents often have the least access to green space and fewer alternatives for active travel.[93] Children and people living with lung conditions are particularly affected. Studies show that children with asthma living closer to green space experience fewer symptoms than those without nearby access.[94]

* *All quotes on this page are from participants in the 'OUR AIR, OUR VOICES' project.*

"The rising urban density makes this extremely not feasible. There aren't much green spaces within 15 minutes walk."

There is also strong economic and health evidence for investment. A Public Health England review estimated that if everyone in England had access to good-quality green space, around £2.1 billion per year could be saved in health costs.[95] Yet, funding for parks and green infrastructure has been steadily eroded. As of 2025, local authority parks budgets have faced significant real-terms cuts, with overall core spending power for councils remaining approximately 9% lower than 2010 levels.[96]

The government should adopt a cross-departmental 'health in all policies' approach, setting binding targets and resources for equitable access to low-pollution green space. This will deliver co-benefits: greener neighbourhoods with cleaner air will improve lung and overall health, reduce NHS burdens, and strengthen climate resilience. By prioritising inclusive, community-driven policies that link environment and health, government can tackle climate change and air pollution in tandem, while narrowing the health gap for ethnically minoritised and lower-income communities.

"Building community in the cleaner air cause is really important as the cause is to look after one another. Not only could this initiative bring communities closer, it will reflect that cleaner air is a team effort and every little does help."

* *All quotes on this page are from participants in the 'OUR AIR, OUR VOICES' project.*

Recommendation 3E: Ensure industry plays its part in a clean air future

Government should:

1. Use their powers to force vehicle manufacturers to recall any cars or vans found to have been fitted with illegal defeat devices and compensate consumers.
2. Introduce a moratorium on all new incineration capacity.
3. Strengthen regulations on biomass energy production and waste incineration to ensure the sector takes responsibility for reducing its emissions.
4. Achieve their obligations in the EIP25 to support the agriculture industry to reduce ammonia emissions.
5. Strengthen regulations in the construction sector and fund capacity for local authorities to enforce compliance.
6. Provide construction companies with resources and a clear regulatory roadmap to drive investment in less polluting technologies.

Industry is a leading contributor to air pollution. Although participants discussed many high-pollution industries during the workshop, this section focuses on those Asthma + Lung UK is most able to campaign on. Activities including energy production, manufacturing, agriculture, construction and transportation all release pollutants into the air. These activities contribute to the health effects of air pollution in the area where they take place – affecting workers and the local community - as well as creating polluting consumer products.

As the government seeks to work with business to reach net zero, it is vital to consider the impact of net zero policy on air quality. For example, drives towards the transition to zero exhaust emission vehicles without an overall consideration for reducing the number of vehicles on the road can hinder efforts to reduce particulate matter. Business and government can work together in this area by developing and applying new standards, innovations and technologies.

As employers, businesses have a duty of care toward the health and safety of their employees while at work – this includes the air they breathe. As well as reducing polluting practices, employers should contribute to raising awareness of the sources and health effects of air pollution that their staff may be exposed to at work.

"Everyone's exposure is different given where they live but also occupation. Making it clear for employers to know about their risks would enable them to feel like taking more precautions and safer choices. If people don't want to do a job because of high levels of air pollution, then it's a business need to rectify it."

"[In certain sectors] health and safety needs...can be completely ignored...where it becomes normal to be relaxed about those laws."

* *All quotes on this page are from participants in the 'OUR AIR, OUR VOICES' project.*

Government should put more pressure on businesses contributing to air pollution and climate change to improve their practices and contribute to a cleaner future. In the Environment Act 2021, Parliament agreed five environmental principles to guide ministers in the formulation of environmental policies – one of these is the polluter pays principle. This principle requires polluters to bear the financial cost of their actions. This has clearly applied to individuals through the introduction of CAZs, but participants voiced concern that heavily polluting private companies have not borne enough responsibility.

"I think [there needs to be] a real crack down on companies skirting by. This might be an independent review of every company above £100million in revenue and ascribing them a pollutant level, enforcing regulatory action if they go above and [positive action for] going below, i.e. tax incentives. Ascribe a duty for directors so that they are personally liable, not just companies. This is quite ambitious, but I don't think it should be seen as a fiction-like future."

"This is my utopia. Industry should coexist with people and not impact the local community – there is huge industry close to homes, rules need to tighten so industry doesn't abuse the environment."

"I don't think citizens should be pursued more than industries/big corporations."

To make the business case for clean air, government could also explore incentives for positive reinforcement of good practice, making clear the benefits of clean air on workforce wellness and productivity, improving the image of the company on sustainability factors, and potential cost savings of cleaner practices.

"It seems that directors of companies are only under a duty to simply consider the environment during their decision-making. I feel that if they had an additional positive duty to actively mitigate against a pollution level that they create then it will force change."

* *All quotes on this page are from participants in the 'OUR AIR, OUR VOICES' project.*

The ongoing impact of Dieselgate

In the 1990s, diesel vehicles boomed, and the scientific consensus at the time was that diesel emitted less CO_2 than petrol. This 'boom' has had major consequences for human health. Across the UK, excess emissions from diesel vehicles have caused around 16,000 early deaths and 30,000 cases of childhood asthma.[97]

The Dieselgate scandal was back in the High Court in 2025, in the largest class action in UK legal history. When the scandal first broke in 2015, manufacturers had been found to have used illegal defeat devices – software which skews emissions testing – in 11 million diesel vehicles. At the time, large fines and mandatory recalls were issued in the US, but the UK has lagged behind. The public do not trust car manufacturers to tell the truth about the health and environmental impact of their cars.[98]

Under the Environment Act 2021, the government has the power to force manufacturers to recall their vehicles on environmental grounds, but this power has not yet been used. Manufacturers should be burdened with the consequences of their actions on health and the environment – not the public.

Asthma + Lung UK joins Mums for Lungs action on Dieselgate.

Photo: Crispin Hughes

Energy production and climate change

Air pollution and climate change are inextricably linked. NOx, black carbon, and carbon monoxide are co-emitted with carbon dioxide during fossil fuel combustion. Current air pollution levels pose a dangerous risk to health and are likely to worsen as temperatures rise.

Despite the evidence, risk, and increasingly visible impact, fossil fuel consumption continues to rise globally. The fossil fuel industry has huge influence – at COP30 in Belem, more than 1,600 fossil fuel lobbyists were granted access, significantly outnumbering every single country's delegation apart from the host nation.[99] The Centre for International Environmental Law said COP represents "corporate capture, not climate governance".[100] The government has introduced the North Sea Future Plan, which confirms that no more licences for new oil and gas will be issued. Alternatives to fossil fuels must grow in supply through a fair transition to clean energy.

> **"Terminate all non-renewable sources of energy."**

However, while often referred to as renewable energy, the biomass industry is not the answer. Drax Power Station in North Yorkshire produces as much PM_{10} as three million diesel cars every year. [101] Using incineration to produce energy is the dirtiest way that the UK generates power.[102]

Waste incineration

Between 2019-2023, the number of waste incineration sites soared and their overall $PM_{2.5}$ outlay rose by 59%.[103] In December 2024, the government committed to cracking down on waste incineration. This action is urgently needed for those living near incinerator sites, which are disproportionately located in more deprived and ethnically diverse communities.[104]

Cleaner practice in construction

Construction is important for the growth and development of our cities and towns, as well as for the economy, but there are significant environmental challenges, which have had limited attention from industry and policy-makers. Emissions from dust, non-road mobile machinery, and transportation of construction materials are a major source of air pollution in urban areas.

Air pollution from construction can be reduced by ensuring construction sites comply with existing regulations and by encouraging the industry to adopt less polluting practices. The construction industry has also called for additional regulation that would provide clarity and stimulate the adoption of clean technologies and working practices.[105]

Cleaner practice in agriculture

Agriculture is the leading source of ammonia pollution in the UK. Ammonia causes adverse health effects on its own, but it often combines with other gases to form secondary $PM_{2.5}$. It is commonly thought that agriculture pollution only impacts rural areas, but a study from University College London found that between 25-28% of secondary $PM_{2.5}$ in London, Birmingham and Leicester came from agriculture.[106]

Currently, the UK is projected to miss its 2030 emission reduction target for ammonia. Cutting ammonia is an effective way to cut $PM_{2.5}$, which the government have recently brought forward its targets on. The government must use incentives, regulation and awareness to ensure that the agriculture industry contributes to reducing air pollution.

* *All quotes on this page are from participants in the 'OUR AIR, OUR VOICES' project.*

MAME

Participant case study

“It’s not fair that the people who contribute the least to air pollution are often the ones most exposed to its harmful effects.”

I work as a teaching assistant at a special needs school. I try to do my bit to reduce airpollution. I always walk when I can, so that means walking 45 minutes to work and back again. I know that individuals making small changes does matter, but when you look at the statistics it’s the big corporations that could really make a difference to our air quality.

These companies need to reduce their harmful emissions. They need to look at how they manufacture their products and how they transport them. They need to stop trying to cut corners and putting profit before people. They need to really think about how their actions are going to affect our health and our planet in the long run. The government needs to stand up to big corporations. They can’t let these people who have not been democratically elected run our country and dictate our futures.

It’s really important for more young people to get involved in campaigning for clean air because it’s going to affect us the most. We’ve inherited a world that we did not ask for, but we’re here now and we have a choice to try to make it better for future generations.

I took part in this project because I wanted to learn more about air pollution and the causes of it. I thought toxic air was a slow, silent killer, something that would take years to affect your health, so I was shocked when I found out about nine-year-old Ella Adoo-Kissi-Debrah’s fatal asthma attack. She was from South London, like me, and was the first person in the UK to have air pollution recognised as a cause of her death. This is the only documented case, but there must be many more.

It’s 13 years since Ella died, but some of the streets in South London are still so congested. It does make me think about how all of this toxic air might impact my family and other people living here, especially those on low incomes who can’t afford to move away from the traffic.

"I took part in this project because I wanted to learn more about air pollution and the causes of it."

OUR AIR, OUR VOICES...

has been a project to change the way that Asthma + Lung UK conduct clean air policy development, and influence the government to make better policy decisions by involving the communities most impacted. We've brought together the voices of 19 young people affected by high levels of air pollution and, like millions across the UK, whose voices are often shut out from the decisions that could seriously affect their health and future.

Across national and local governments, efforts are underway to devolve and share power with communities, through citizens' assemblies and co-design projects. Air pollution must be part of this growing movement. Poor air quality is a scourge on healthy lives and equal opportunities, and it's also an issue that desperately needs consensus for effective action.

Through the Air Quality Strategy, the government has a crucial opportunity to change the tide on the country's biggest environmental threat to public health, prevent unnecessary disease, and also start to rebuild public trust in policy-making. They must not waste it by delivering engagement via meaningless consultations and superficial involvement.

After all, air pollution is a social justice issue. People on lower-incomes and minoritised ethnic groups are exposed to disproportionately high levels of air pollution. They also tend to contribute the least to the problem, and are more likely to have poorer health generally. If the government doesn't rapidly clean up the air, the gap between those that have the most and those that have the least will widen further. So far, the government has not shown the political will to tackle this crisis. As this report has shown, there are many opportunities for government to act now, decisively, to protect the health of future generations. **Clean air policy must rise to meet the scale of the injustice it seeks to address.**

WILL YOU JOIN US?

A careless walk outside, not thinking of the consequences. The consequences that are hidden, concealed. ~~[illegible]~~ To know your doorstep is poisoned by the actions of others. ~~[illegible]~~ Their constant greed ~~and [illegible]~~ intricating the purity of others. ~~The impact of the actions~~

We're running out of precious time:

Sadiq Khan;
My roads are choked in smoke,
These lime bikes are making me broke,
This air is making my lungs a joke.
The skyline fades beneath the grime,
Each breath feels like a stolen crime,
We're running out of precious time.

He vouched to clear the choking skies,
No more deceit, no more disguise.
We ALL see through your lies.
As children die and the rivers dry.
The future dreads in the mutes skies,
We're running out of precious time.
For cleaner air, where hope still lies,
We're running out of precious time.

~~The future pleads~~
In

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OUR AIR, OUR VOICES

Asthma + Lung UK
The White Chapel Building
10 Whitechapel High Street
London E1 8QS

0300 222 5800
info@asthmaandlung.org.uk
AsthmaAndLung.org.uk