

The case for more ambitious clean air targets to reduce PM_{2.5} pollution to 10 µg/m³ by 2030

Commons Briefing

- **The UK Government is currently consulting on targets to reduce fine particulate matter air pollution under the Environment Act.**
- **At present, the proposals are to set these targets for 2040.**
- **It is, however, achievable for these targets to be delivered by 2030, providing cleaner air and subsequent health and economic benefits faster.**
- **Please support us in calling for these targets to be accelerated by signing EDM 90 and sharing our online consultation tool with your constituents.**

The 2021 Environment Act provides an opportunity for the UK to become a world leader in the fight against air pollution, improving the lives of people across the country and promoting clean growth.

The Act requires the government to set two new legal targets for air quality. This provides **a once in a generation chance for the government to set an ambitious pathway towards cleaner air for all.** Government proposals for targets to reduce harmful fine particulate matter air pollution (known as “PM_{2.5}”) are currently being consulted on and must be laid before Parliament by 31 October 2022. These proposals include new targets to:

- reduce annual average PM_{2.5} concentrations to 10 µg/m³ (micrograms per cubic metre) by 2040; and
- reduce the national average population exposure to PM_{2.5} pollution by 35% by 2040, compared to 2018 levels.

The Healthy Air Campaign – a national coalition of health, transport and environmental NGOs – welcomes the government taking this critical step to strengthen our laws to better protect people’s health. **However, we remain extremely concerned that the proposed targets would leave another generation of children waiting for cleaner air.**

The government’s own analysis shows that reducing concentrations of PM_{2.5} to 10 µg/m³ is achievable long before 2040, with evidence to show that this could be delivered by 2030. Pushing back the deadline by a whole decade shows a lack of ambition to accelerate action to tackle this public health and environmental crisis.

We are therefore urging MPs to push for the targets adopted by government to level up much more rapid protections for everybody’s health across the country, by **including a commitment to reduce annual average PM_{2.5} concentrations to within 10µg /m³ by 2030 at the latest.** This should come with longer term ambition to achieve concentrations of this harmful pollutant that are within the latest 5 µg/m³ guideline level recommended by the World Health Organization (the “**WHO**”) in 2021.

We would really value your support in emphasising the need to reach this 10 $\mu\text{g}/\text{m}^3$ target by 2030. You can do this by:

1. **Signing up to this [Early Day Motion](#)**;
2. **Sharing this [online consultation tool](#) with your constituents** and asking them to take part – the tool helps people respond to the government’s consultation by providing them with background information, facts and figures.

The rest of this briefing provides more information to explain why urgent action to reduce concentrations of this toxic pollutant is essential to protect people’s health and the economy and summarises the evidence that is already there to show that the above level of ambition is achievable.

PM_{2.5} pollution damages people’s health and the economy

Air pollution is recognised by the UK Government to be the **single largest environmental risk to public health in the UK**. In 2019, the-then Health Secretary, Matt Hancock, warned of this growing national health emergency and said that: *“[w]e cannot underestimate the very real impact that dirty air – this slow and deadly poison – is having on our lives, our health and our NHS.”*

PM_{2.5} is the name given to **tiny particles of dust and dirt in the air that are small enough to pass through the lungs, into the bloodstream, and into your organs**. It is invisible to the human eye but is one of the most harmful air pollutants to human health in the UK and locks in devastating long-term damage and financial strain on the NHS. PM_{2.5} comes from a range of different sources, including road transport, domestic heating, agriculture and industry, and persists in areas across the country at levels well above current guidelines recommended by the WHO.

Current **legal limits for PM_{2.5} are four times higher than those current WHO guidelines** and are failing to drive reductions in this toxic pollutant.

Air pollution, including PM_{2.5}, affects all of us, from the time that we are in the womb through to old age. The biggest impact is through cardiovascular disease, where **breathing polluted air can increase your risk of developing heart and circulatory diseases and, for people with existing health problems such as coronary heart disease, increase the risk of a heart attack or stroke**. Toxic air also exacerbates respiratory illnesses, such as **COPD**, increases the risk that **asthma attacks** result in hospitalisation or worse, and can **stunt the lung growth of children** making them more susceptible to chronic illness as they grow up. It can cause cancer, increases risk of [developing dementia](#) and there is increasing evidence suggesting impacts on cognitive development, including impairing children’s ability to learn.

The inquest into the role that air pollution played in the death of nine-year-old Ella Adoo-Kissi-Debrah has further highlighted just how damaging toxic air is for individuals, their families and the communities in which they live. In April 2021, the coroner’s [Prevention of Future Deaths Report](#) said that to save lives, legal limits for PM_{2.5} pollution should be brought in line with the WHO guidelines, which were set at 10 $\mu\text{g}/\text{m}^3$ at that time. The Act provides the UK Government with the opportunity to implement the coroner’s recommendations and prevent more deaths.

Cleaning up our toxic air will not only protect the health of UK citizens but also makes sense for the financial health of the country too. The [Royal College of Physicians](#) has estimated that **the social cost of air pollution to individuals and the health service is over £20bn annually** in the UK. Similarly, the

[Confederation of British Industry](#) estimates that a **£1.6bn annual economic benefit to the UK could be realised by reducing PM_{2.5} concentrations to within 10 µg/m³**,¹ as three million working days are lost every year to air pollution. This is made up of £1bn per year from 40,000 additional ‘working years’, as the number of people retiring early due to ill-health decreases, and £600m per year from reduced sickness-related absences. By reducing premature deaths and sickness absence for workers and their children, and by increasing productivity, the UK could see an economic boost, magnified by the pressure taken off the NHS and social care, as businesses and workers benefit from healthier air.

Action taken today to reduce air pollution will be **crucial to ensuring a healthy, resilient nation that will have the additional economic benefits of increased productivity across our communities.**

Toxic air is also driving health inequalities, with the poorest communities often exposed to the highest levels whilst contributing less to the problem. They are also more likely to have a health condition that makes them highly susceptible to harm. For example, those in the most deprived communities are twice as likely to live with a lung condition than those in the least deprived. Air pollution also disproportionately affects people from ethnic minorities, and outdoor and transport workers.

A concentration target of 10 µg/m³ by 2030 is achievable

Whilst the government has proposed a deadline of 2040 for the new concentration target, it is clear from the consultation's supporting information that the pollution reductions necessary to reach 10 µg/m³ are achievable long before 2040.

The results of the government's modelling² that have been published so far suggest that:

- **Simply meeting legal emission reduction commitments that already exist under a separate regulatory framework means that it would be ‘possible’ to reduce PM_{2.5} concentrations to within 10 µg/m³ by 2030.** In other words, the policies necessary to meet existing legal commitments would do most of the work towards meeting the target much earlier than what the UK Government is currently proposing. Despite this, the government's analysis also suggests that the scenario it wants to aim for, in setting this new target, does not actually include compliance with existing legal commitments, which is extremely concerning. The government has recently said that Brexit is an opportunity to go further in areas like clean air, so these new targets should be driving *additional* ambition to tackle air pollution and protect people's health, rather than seemingly rowing back on those improvements that it has already made a legal commitment to deliver.
- **Even under the *less ambitious scenario for action that the government has chosen as ‘striking the right balance’ between ambition and achievability, 11 µg/m³ is ‘likely’ to be achieved by 2030.*** But the government is proposing to then delay meeting their ambition for another decade – giving itself ten more years to achieve an additional 1 µg/m³ reduction. The government's evidence provides no clear justification for this significant delay. We are concerned by the lack of urgency for action to protect people's health from toxic air.

¹ The report refers to 10 µg/m³ as the old WHO guideline, before it was then revised down to 5 µg/m³ in September 2021.

² The high-level results of the government's modelling have been published here: https://consult.defra.gov.uk/natural-environment-policy/consultation-on-environmental-targets/supporting_documents/Air%20quality%20targets%20%20Detailed%20Evidence%20report.pdf. The most useful visual summary is at page 106.

- **The government has been overly pessimistic when modelling into the future.** The Air Quality Expert Group, who helped to inform the government's process for setting these new target levels, noted that the government had generally taken a "pessimistic view" when interpreting how likely it was that different targets would be met under the different scenarios. In other words, when working out what would be possible, the government have looked to cap, rather than stretch, their ambition.

Recent [analysis](#) from Imperial College London commissioned by the Clean Air Fund has also shown that if the government implements planned and anticipated environmental, transport and clean air policies, air pollution could fall within 10 µg/m³ across 99.8% of the UK by 2030.

With the serious impacts that air pollution is continuing to have on people's health and the economy, we cannot wait until 2040 for this problem to be solved. It is essential that the government accelerates its ambition by setting a 2030 target date. Pulling the target forward by ten years would see an average of 388,000 fewer days of asthma symptoms flare ups a year in children; a fall in cases of coronary heart disease of over 3,000 cases per year, and a rise in average life expectancy of 9-10 weeks across those born in 2018. It would also deliver economic benefits to the tune of £380bn between 2018 and 2134.

This would also avoid the UK lagging behind other countries when it comes to PM_{2.5} legal protections. Since 2012, the USA has already had a stronger legal target for PM_{2.5} set at 12 µg/m³ and the US EPA is currently considering recommendations from its Independent Particulate Matter Review Panel to lower this further to between 8 and 10 µg/m³. In the European Union, parallel legal air quality limits are also in the process of being revised and improved with proposals expected later in 2022. This is the time for the UK to step up to become a leader on clean air, rather than risk getting left behind.

Compliance in only 3 out of every 4 years is unacceptable

Alongside the lack of ambition highlighted above, we are also extremely concerned to see that the government is proposing a major caveat to its legal duty to comply with the new PM_{2.5} concentration target.

The plans currently being consulted on include a proposal that **if the 10 µg/m³ target is exceeded, this will not be treated as a breach of the law if the target was met in three out of the four preceding years.**

The government's rationale for proposing this loophole is to account for the impact of bad weather-years and transient events such as Saharan dust on pollution levels. Whilst these factors can impact PM_{2.5} concentrations, **the government had already accounted for such uncontrollable events as part of its modelling to inform what it considered to be feasible.** It did so by including a 1 µg/m³ buffer in its modelling of future target scenarios. In other words, the government has already 'baked in' an assumption that such events will occur in the future when assessing the level of ambition that it considered to be achievable. It should not be able to also give itself a major future compliance loophole to account for such risks.

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