The Environment Bill (Report stage briefing) - a major opportunity to be world leaders on air pollution.

As leading health organisations, we know the devastating impact air pollution can have. Tiny toxic particles known as fine particulate matter ($PM_{2.5}$) are a major component of air pollution and are the most worrying pollutant for health. These small particles can penetrate deep into the lungs and can enter the bloodstream from where they may be harming every organ in our bodies.

We are currently meeting legal limits for $PM_{2.5}$, however this is only because our legal limit (currently set by the EU) is much more lenient than that recommended by global health experts at the World Health Organization (WHO). Government recognises that air pollution is the single biggest environmental threat to health in the UK and has pledged to establish a new, legally binding target for $PM_{2.5}$ within the Environment Bill.

By ensuring that the Bill commits us to reaching the stronger WHO guidelines for $PM_{2.5}$ by at least 2030, MPs have a major opportunity to show that the UK can be world leaders in tackling air pollution and capture the opportunity to build back better and healthier. The coronavirus pandemic has given us a glimpse of cleaner air, now it's our opportunity to cement this in law and protect people's health for years to come.

We hope that all MPs will vote in support of an amendment at report stage that commits us to reaching the WHO's guideline for $PM_{2.5}$ by 2030 at the latest.

Air pollution is damaging all our health

Air pollution is linked to a wide range of health problems, including lung and heart disease, stroke and cancer, and it can disproportionately affect the most vulnerable including: babies in the womb, children, people with existing lung or heart conditions and older people.

According to figures published by NHS England, an average of 5% of deaths in those aged over 30 can be attributed to $PM_{2.5}$ air pollution. In some local areas across the country this figure is higher, with parts of London as high as 7%.[1]

Analysis commissioned by Public Health England[2] estimated that a 1µg/m^3 reduction in $PM_{2.5}$ concentrations in 2017 could – by 2035 – prevent:

- over 50,000 new cases of coronary heart disease;
- over 40,000 new cases of chronic pulmonary disease;
- over 16,000 new cases of stroke
- over 9,000 new cases of asthma.

[1] https://fingertips.phe.org.uk/
[2] https://www.gov.uk/government/publications/air-pollution-a-tool-to-estimate-healthcare-costs

Air pollution and COVID-19

Some early studies have suggested that there is a link between long-term exposure to air pollution and worse outcomes from COVID-19, however, we need more research to be sure.

We do know that air pollution contributes to the development and exacerbation of long-term respiratory and heart and circulatory diseases, which can increase people's risk of severe outcomes from COVID-19, including potential hospitalisation and death. The COVID-19 pandemic has also likely resulted in a new cohort of people with ongoing breathing problems that may be more vulnerable to the harmful effects of air pollution.

We need to push air pollution levels down to help protect the population from the impacts of future pandemics, and to ensure the recovery of people with long-Covid isn't hampered by dirty air.

An opportunity to make a world-leading commitment to clean air

In 2008, the EU set legally binding limits for outdoor concentrations of major air pollutants, such as $PM_{2.5}$, that impact public health. However, the EU directive fell short of the WHO guidelines on air pollutants – in particular, the EU limit for $PM_{2.5}$ is two times higher than the WHO guideline.

Now we have left the EU, we have a major opportunity to set more ambitious targets and protect UK citizens from harm. However, the Environment Bill currently only commits us to setting a $PM_{2.5}$ target by 2022 and says nothing about the level of ambition this target will have, if it will be stronger than our previous target or provide adequate public health protection.

By amending the Environment Bill to enshrine a commitment to reaching the WHO's guideline target for $PM_{2.5}$ by 2030 at the latest into UK law, MPs would ensure that the UK has a world-leading legally binding target for tackling these tiny toxic particles.

When he was Environment Secretary, Michael Gove MP said that, "We have got to ensure our Environment Bill includes a legally binding commitment on particulate matter so that no part of the country exceeds the levels recommended by the WHO." **We agree.**

Let's build on the success of the ten-point plan for the Green Industrial Revolution

We welcome the recent announcement bringing forward the end of the sale of petrol and diesel cars to 2030, which will help to reduce transport-based $PM_{2.5}$ emissions. Further, we are encouraged by recent investments in walking and cycling, which are necessary to curb $PM_{2.5}$ emissions derived from vehicle tyre and brake wear, a source that is of increasing concern.

These actions will help us get towards cleaner air and can be built upon by a strong commitment to a new world leading $PM_{2.5}$ target which matches the ambition shown by the ten-point plan.

We need a strong target to drive action

$PM_{2.5}$ levels have decreased over recent years, but they haven't dropped fast enough and recently have plateaued. A commitment to WHO guideline levels will drive cross-government action and ensure that levels of this harmful pollutant are reduced.

Whilst the WHO acknowledges that current evidence suggests no safe level for $PM_{2.5}$, it proposes an annual mean concentration for $PM_{2.5}$ of 10 µg/m^3. which reflects the level at which increased mortality from exposure to $PM_{2.5}$ is likely.

Adopting WHO air quality guidelines into law was one of the key recommendations made in the 2018 Joint Select Committee report, "Improving Air Quality", published by the Environment, Food and Rural Affairs, Environmental Audit, Health and Transport Select Committees. Defra has published a technical analysis by two leading British universities that concluded that achieving WHO guideline levels across the country by 2030 is technically feasible, as 95% of the population will have air quality below the WHO's guideline for $PM_{2.5}$ by the end of the decade thanks to the measures in the Government's Clean Air Strategy, but there will be "localised areas, in particular in central London, where higher levels are likely to persist". Further analysis by Kings' College London has shown, however, that with the right policies in place, this target ***could*** be achieved in London, by 2030.[3]

The Chair of DEFRA's air quality expert group, Professor Lewis, also acknowledged during the Environment Bill's Committee Stage that there is "universal agreement that we want to head for a limit value of around 10" and that the majority of the UK can be brought within 10 µg/m^3, but determining how to assess progress is the issue.

With the above in mind, the opportunity to enact language on the face of the Environment Bill which will ensure the PM2.5 target will be *at least as* strict as the current WHO guideline of 10µg/m^3, with an attainment deadline of 2030 *at the latest,* must be seized.

Reaching WHO guidelines for $PM_{2.5}$ will be good for the economy

The Royal College of Physicians have estimated that the social cost of air pollution to individuals and society is over £20bn annually in the UK.

The Confederation of British Industry estimate that a £1.6bn annual economic benefit to the UK could be realised by meeting WHO guidelines.[4] 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.

As we look to recovery post-pandemic, action to reduce air pollution will be crucial to creating a healthy, resilient nation and will have added economic benefits, supporting increased productivity across all regions and nations. Strong, health-based targets to drive this action are therefore a necessary component of the Government's recovery plan and levelling-up agenda.

[3] https://www.london.gov.uk/sites/default/files/pm2.5_in_london_october19.pdf

[4] https://www.cbi.org.uk/articles/what-is-the-economic-potential-released-by-achieving-clean-air-in-the-uk-1/