

Breathe, Breathe in the Air, Don't Be Afraid to Care

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In chairing the Air Quality News Northern Conference in Manchester last week the opening lines of the famous Pink Floyd song, 'Breathe' never seemed more apt.

During this event an important dialogue took place as government have been consulting on air quality targets since late March as part of the Environment Act 2021, with this consultation closing on 27th June this year.

The ambition is to clean up our air through clear targets aimed at reducing our exposure, in particular, to the most harmful air pollutant to human health, the toxic fine particulate matter PM2.5s by over a third compared to 2018 levels. As a result our government is targeting a reduction in average concentrations of particulate materials to 10 micrograms per cubic metre by 2040.

The importance of this subject has never been clearer with WHO citing air pollution as the biggest environmental health risk in the world and our own UK Clean Air Strategy acknowledging it as the largest environmental health risk facing the UK.

WHO state poor air quality is responsible for the annual loss of 7 million lives. In the UK, 64,000 premature deaths each year are associated each year with air pollution. The Environment Food and Rural Affairs Committee noted in February 2021 that health problems caused by air pollution was costing society up to £20bn a year.

In preparing for the conference last week I was fascinated in reading through the 10th Anniversary Air Quality News magazine to see reference to the website 'addresspollution.org'. After plugging in a few postcodes I was shocked and fascinated to see the results.

This website is promoted as a free public service from the Central Office of Public Interest (COPI). As it states, it provides every UK address with the most accurate air pollution data available, taken from a national 20m/sq resolution model created by Imperial College London (ICL). To provide accuracy COPI sourced and mapped real world pollution levels recorded at more than 19,500 council monitors in every major town and city across the UK, with scientists at ICL subsequently calibrating these to real world levels – resulting in the 'most detailed and accurate national model ever created'.

Pollution data provided is taken from annual average levels in 2019, the last 'normal' year of uninterrupted travel without lockdowns. Concentrations of three toxic pollutants are available for any address – PM2.5 (fine particles with a diameter of 2.5 microns or less), PM10 (particles with a diameter of 10 microns or less) and NO2 (Nitrogen Dioxide).

In reviewing a few postcodes I chose my own address to start with. I live in the countryside but it turned out my address exceeded WHO limits for PM2.5s by 30%, according to this website. Intrigued I looked at postcodes for addresses in Malvern, my closest town. There I found addresses on the main road into Malvern exceeding PM2.5s by 30% whilst also exceeding limits for both PM10s and NO2 by 20%.

Addresses in Worcester showed PM2.5s and NO2 at double recommended levels and when I looked at Aston, I found the readings for the Aston Tower Community Primary School showing PM2.5 levels were 2 and a half times higher than recommended levels with Nitrogen dioxide at three times recommended levels.

With transport contributing around one third of UK greenhouse gas emissions, I was interested to see on the UK100 website that local authority collective actions have resulted in just 3% reductions in transport emissions since 1990, compared to 59% reductions in energy emissions since 2012. Government, are, according to UK100 still planning to spend five times as much on our motorways as on clean transport, so changing our behaviours is very difficult!

One article by the editor of Air Quality News, Chloe Coules, in reviewing a decade of air quality, included some fascinating insights from interviews with Jo Churchill MP, Minister for Agri-Innovation and Climate Adaptation at DEFRA, and Rosamund Adoo Kissi-Debrah, mother of the little girl who so very sadly died at just 9 years old in 2013 and where exposure to air pollution was cited as a factor in her death.

The Minister, Jo Churchill understandably highlighted emissions reductions over the past decade noting:

- 44% reductions in Nitrogen dioxide

- 70% reductions in sulphur dioxide

10% reductions in PM2.5s.

But Rosamund Adoo Kissi-Debrah pointed out that air pollution is still at illegal levels across 70% of the UK. She also highlighted that whilst government is consulting on 'WHO10' targets (promoted by

WHO in 2005 targeting 10mcg/m³ emissions limits and since updated earlier in February 2021 to 5mcg/m³), government needs to be more ambitious, with Rosamund noting:

“The government have brought out this new consultation, which is not strong enough – the WHO targets they are talking about are the 2005 targets and they have said they will implement them by 2040, 35 years too late. In the meantime WHO came out with new guidelines ...They (government) can have interim targets, but they need to bin the 2005 targets and move onto the 2021 (WHO) targets, because ultimately that will save lives.”

Jo Churchill says government wants to see “half of all journeys in towns and cities to be cycled or walked by 2030 to help lower congestion as we aim to better air quality in urban areas more widely”.

Surely a step in the right direction....especially given findings from a recent article in Science Direct highlighting gains from greater active mobility on the environment and health delivering:

* €15 billion per year savings, for a 10% shift from car to active mobility

*Up to 40% improvements in Air Quality

*Thousands of jobs across Europe as cycling reached Copenhagen levels!

*62% reductions in CO₂ emissions for car trips avoided

In light of this, and whilst it was very good to see £42m awarded from the Air Quality Grant scheme since 2010, we will surely need to increase the amounts awarded under this or similar schemes as with this sum awarded over the decade to 500 projects, this averages just £84,000 per project. The Minister is keen to see closer working across tiers of local government and more effective communications ‘to ensure the public and vulnerable groups have the information they need to protect themselves’.

Rosamund Adoo Kissi-Debrah agrees. She wants to see this information in leaflets in GP waiting rooms and throughout hospitals too. Most of all Rosamund wants to see Clean Air becoming a human right. Something that, whilst many people care about, perhaps none more than her.

If we are to make this happen communication will be critical. Never has there been more scientific evidence of the harm to health from poor air quality and never has the need to align net zero, nature regeneration and air quality agendas.

I hope that following our discussion at the Air Quality News Annual Conference last week we aren't 'afraid to care'. And in doing so that we take the steps required so all our children and their children will have the right to breathe in clean air.