Pwyllgor Newid Hinsawdd, yr Amgylchedd a Seilwaith /
Climate Change, Environment and Infrastructure Committee
Blaenoriaethau ar gyfer y Chweched Senedd / Priorities for the Sixth Senedd
PR64
Ymateb gan Joel James AS / Evidence from Joel James MS

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Llyr Gruffydd MS

Chair Climate Change,

Environment and Infrastructure Committee

9th September 2021

Dear Llyr

RE: Consultation of the Minister and Deputy Minister's priorities for the next 12-18 months

I have read the document which outlines the Minister for Climate Change and the Deputy Minister priorities with much interest and would like to make the following points for the committee to consider.

Under the section entitled **ENVIRONMENT**, the minister sets out that:

"Poor air quality contributes to poor health, with a pronounced impact on the most vulnerable. Maximising delivery of air quality objectives through behaviour change, for example active travel, is key".

Whilst behavioural change is certainly welcomed, I believe that relying on it as a major strategy to improve air quality is short sighted, given that the largest influencer of behavioural change is cost reduction.

I believe that a key component of improving air quality is the employment of new technologies that can help improve air quality alongside behaviour change. I consider this important because, not only will it help improve air quality much faster than behaviour change, but will also act as a tangible sign that we need to address air quality and will help encourage people to commit to long term behaviour change.

Whilst there are many innovative technologies being developed I believe that three are now trialled and tested and could serve immediately in helping tackle poor air quality.

The first is the use of filters retrofitted to buses that clean air as they travel. These have been successfully introduced in many parts of England and do not require any electricity input to run, they operate as the bus moves. I have included a link that discusses the technology[1].

The second is the use of 'SMOG Free Towers' a Dutch designed air purifying tower which sucks in pollution and expels clean air. The extracted pollution is turned into pieces of jewellery. The first tower has been installed in Rotterdam, and the designers claim that a single tower could clean 3.5 million cubic metres of air per day. These are operated using solar panels[2].

Thirdly, the use of comprehensive air quality measurement systems that would enable traffic calming in specific areas when air quality is poor[3].

Some of the key benefits would be accessible air pollution information via mobile Apps and web platforms which will help users to avoid areas/roads at times of high pollution concentration levels, thus helping to reduce congestions and enabling pollution to drop quicker.

Utilising consolidated data to drive decisions will, in turn, help support COVID-19 and Public-related strategies, including, supporting data-driven lockdown decisions and helping to relieve the NHS burden to provide drugs treatment for COPD sufferers.

I would also like to highlight that the Welsh Government should consider more carefully the problem concerning refrigerated trucks, which are found to emit 29 times more particulate matter and 6 times as much Nitrogen Oxide as a non-refrigerated vehicle. Whilst the vehicles are subject to emission standards the auxiliary engines needed to power the refrigeration unit are largely unregulated and highly polluting[4].

May I also mention that the priority list does not include any reference to peatlands. Peatland regeneration should be a key component of any strategy to reduce climate change. Many peatland bogs in Wales have suffered due to poor wetland management which has caused the sites to dry, and invasive plants to take over which crowd out important plants like sphagnum mosses, sundews and rare sedges.

Sphagnum forms are the building blocks of raised bogs and as it slowly decomposes under waterlogged conditions it forms dark brown peat soil. A diversity of sphagnum is a sign of a healthy bog, and the peat it creates naturally absorbs and stores tonnes of carbon from the atmosphere. Peatlands in good condition provide a range of critical ecosystem services, including biodiversity,

carbon storage and sequestration, regulation of stream base flows, water runoff and downstream flood peaks and nutrient regulation and retention.

Peatlands are also sinks and sources of several natural greenhouse gases, particularly carbon dioxide (CO_2) and methane (CH_4). More than 75% of deep peat soils in Wales are covered in semi-natural vegetation. Most of this is upland blanket bog, with significant amounts of fen and flush and, locally, lowland raised bog.

There are estimated to be 18,092 ha of woodlands established on deep peats in Wales. Of this area 11,232 ha remains under coniferous tree cover. The Welsh Government owns 11,038 ha of the afforested blanket bog and deep peat resource which are managed by Forestry Commission Wales (FCW).

In order to deliver the habitat restoration targets set out in the Wales Environment Strategy, there is a need to progressively restore semi-natural habitat on these areas. Therefore, I believe that it should be a priority for the Welsh Government to tackle.

I would like to thank you for your consideration in this matter.

Yours Sincerely,

Cllr Joel James MS
Member of the Senedd for South Wales Central
Shadow Minister for Social Partnership

1. **https://eandt.theiet.org/content/articles/2020/01/air-filtering-buses-to-be-deployed-in-english-towns-and-cities/**
2. **https://www.ens-cleanair.com/en/projects/smog-free-tower/**
3. **https://www.weforum.org/agenda/2021/04/air-pollution-cities-monitoring-technologies/**
4. https://airqualitynews.com/wp-content/uploads/2015/09/Liquid-Air-on-the-European-Highway.pdf