

Tackling Nitrogen Dioxide in our Towns and Cities

Comments by
Northern Ireland Environment Link

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Northern Ireland Environment Link (NIEL) is the networking and forum body for non-statutory organisations concerned with the environment of Northern Ireland. Its 70+ Full Members represent over 90,000 individuals, 262 subsidiary groups, have an annual turnover of £70 million and manage over 314,000 acres of land. Members are involved in environmental issues of all types and at all levels from the local community to the global environment. NIEL brings together a wide range of knowledge, experience and expertise which can be used to help develop policy, practice and implementation across a wide range of environmental fields.

These comments are made on behalf of Members, but some members may be providing independent comments as well. If you would like to discuss these comments further we would be delighted to do so.

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NIEL welcomes the opportunity to comment on the urgent need to tackle nitrogen dioxide pollution.

Clean air is a basic human requirement and air quality is a determinant of health and well-being. While some progress has been made to improve UK air quality, the pace of change has not been at the level required to adequately address the problem and the UK is failing to meet mandatory air pollution targets. Poor air quality is linked to illnesses such as cancer, stroke, asthma and heart disease and there are also strong associations with obesity, dementia and diabetes¹. The effects are especially evident in vulnerable people such as children, the elderly and those with existing cardiovascular and respiratory issues. This is compounded by the fact that poor air quality is higher in areas of deprivation², meaning poorer individuals are more at risk. Poor air quality results in approximately 40,000 premature deaths annually in the UK³. The cost of air pollution is not confined to public health; air pollution costs businesses and health care services in the UK over £20 billion per year⁴.

Nitrogen dioxide is part of a group of gaseous air pollutants produced as a result of fossil fuel combustion processes. It can irritate the lungs and lower resistance to respiratory infections such as influenza. While we support the intention to tackle nitrogen dioxide pollution, this consultation does not go far enough in providing the detail or solutions required to comprehensively address the air quality crisis. Some of the proposed measures, as they relate to Northern Ireland, are discussed below.

Effectively tackling nitrogen dioxide pollution requires a multitude of measures, including:

- A comprehensive, long-term, strategic and funded plan to improve air quality beyond the current legal limits. Nationally coordinated measures, such as a national network of charging Clean Air Zones and changes to the vehicle tax regime, will help send a clear signal to businesses, local authorities and the general public of what investments they should be making and help instil confidence in the market for low and zero emission vehicles.
- Regulatory measures to overhaul the existing diesel vehicle fleet and achieve a modal shift towards zero emission vehicles. This should involve the setting of national minimum standards for bus, truck and licensed taxi emissions and the introduction of scrappage and engine retrofitting schemes. The replacement of the bus and train fleet should be prioritised. No new diesel taxis should be licensed and an incentive scheme should be introduced to retrofit existing diesel taxis.

¹ Janghorbani, M., et al. (2014). Systematic review and meta-analysis of air pollution exposure and risk of diabetes. *European Journal of Epidemiology*: Apr; 29(4):231-42.

Raaschou-Nielsen, O., et al. (2013). Long term exposure to traffic-related air pollution and diabetes-associated mortality: a cohort study. *Diabetologia* 2013; 56:36-46.

Brook, R. D., et al. (2013). Long-term fine particulate matter exposure and mortality from diabetes in Canada. *Diabetes Care*: Oct 2013; 36(10): 3313-20.

² [https://uk-](https://uk-air.defra.gov.uk/assets/documents/reports/cat09/0701110944_AQinequalitiesFNL_AEAT_0506.pdf)

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³ Every breath we take: the lifelong impact of air pollution, Royal College of Physicians, Feb 2016

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- The technical report accompanying this consultation identifies charging Clean Air Zones, as the most effective way to reduce levels of nitrogen dioxide in the shortest time possible, yet the draft effectively says they are only to be considered as a last resort. It is difficult to see how a clean air zone will effectively reduce air pollution if the most polluting vehicles are not discouraged from driving into the most polluted parts of town. Where legal limits of air pollution are regularly exceeded and road transport is identified as a significant source, the UK government and devolved administrations should mandate charging Clean Air Zones in tandem with the other regulatory mechanisms proposed.
- It should be recognised that reducing air pollution by improving traffic flow through road improvements, represents a short-term fix. Investment in road infrastructure reinforces the dominance of the private car as the primary form of transport. As the Westlink extension in Northern Ireland shows, road improvements further encourage car usage. As a result, roads become quickly congested again and the root of the problem remains. Due to chronic under-investment and political circumstances, deficiencies in public transport and cycling infrastructure are more apparent in Northern Ireland with Belfast being the most congested city in the UK⁵. Additional investment is required to bring Northern Ireland into line with other UK regions in terms of public transport and active travel infrastructure.
- The role of local government in reducing road traffic congestion should be maximised in terms of their influence over parking zones, town centre development, public health etc. and councils should be sufficiently resourced to fulfil this role.
- UK towns and cities could learn from other global cities where effective measures have been taken. For example, cities such as Paris have resorted to banning cars from the city centre in order to address air quality. Authorities could also work with employers to incentivise working from home or flexible working hours to reduce car travel at peak times through public transport tariff incentives.
- National campaigns and advertising are required to encourage a modal shift from private transport to public transport, cycling and walking in congested areas.
- Road safety concern is a major barrier for cycling in urban areas – protected cycle lanes and cyclist / driver training etc. are required.
- Current information sharing via government and local authority websites is not user-friendly, lacks information and is often out of date. The government should facilitate a real time information and warning system that ensures transparency and allows local communities to directly access relevant and up to date information at a national and local level. The public should also receive alerts about high pollution levels when they are forecasted and as they happen, enabling people to protect their health and consider how they can reduce their contribution to the problem. The current system is based on thresholds that are too high and relies on individuals searching for the information online. An air pollution alert system could utilise existing heat wave and cold weather warning systems coordinated by local government and health agencies.

⁵ https://www.tomtom.com/en_gb/trafficindex/list?citySize=ALL&continent=ALL&country=GB

- The potential contribution of urban green infrastructure should be recognised. Vegetation, especially trees, can contribute to local air quality improvements by trapping ‘traditional’ particulate matter (PM) and absorbing gases such as nitrogen dioxide. Natural green barriers have been shown to be effective in urban streets and built-up areas – in one project, shown to reduce NO₂ by 15% and PM by 23%. The 2015 London i-Tree Eco Project, Valuing London’s Urban Forest found that London’s trees remove more than 2,000 tonnes of pollution every year, a tenth of the pollution emitted by road transport in London⁶. Investment in green infrastructure contributes to a range of other government policy objectives, namely carbon sequestration, temperature regulation and protecting wildlife.

Conclusion

Our sector is committed to working with government and relevant stakeholders to facilitate the delivery of improved air quality. A new Clean Air Act is required to provide a comprehensive framework, fit for the 21st Century, which can deliver substantive air quality improvements in the UK. It is important that air quality policy is not treated in isolation and that synergies with other UK policy objectives around climate change, health and the economy are fully maximised.

Finally, we are concerned that compared to other devolved regions the consultation document includes a dearth of information about how the proposals will be applied in Northern Ireland. The consultation states that the NI Executive will be charged with improving air quality. The draft NI programme for government recognises nitrogen dioxide pollution as a significant problem and commits to revised air quality legislation and policy and the development of an air quality action plan. However, without a functioning Executive there is a risk that the necessary policy and legislative changes will be delayed. Government should be bold and ambitious and legislative and policy changes should be introduced as a matter of urgency. Incremental changes are unlikely to achieve air quality improvements at the rate and scale required.

⁶ https://www.london.gov.uk/sites/default/files/green_capital.pdf