

4 If you are responding as an organisation please provide the name and nature of your organisation.

Name of organisation:

Air Quality Management Resource Centre, University of the West of England

Other public sector organisation

Other type of organisation:

University

5 Which region are you based in?

Location:

England

6 Would you like your response to be confidential?

No

If you answered YES to this question, please give your reason:

N/A

7 How satisfied are you that the proposed measures set out in this consultation will address the problem of nitrogen dioxide as quickly as possible?

Very dissatisfied

Please provide comments to explain your answer:

The government is responsible for the protection of public health at the national level. Defra has known since 2005, when the national air quality objectives were breached across the UK, that NO₂ was proving to be difficult to reduce. Instead, more than 11 years (and half a million air quality-related premature deaths) later we are still being asked to consult on vague measures which effectively disown responsibility, fail to recognise the urgency of the public health emergency or to acknowledge past policy failures.

The existing draft plan gives little or no confidence that the government have given the issue due consideration or fully accepted the significance of the problem and their vital role in reducing air pollution exposure. The additional measures proposed are weak, unambitious and lack certainty; many are little more than token gestures or suggestions of intent. Indeed, most of the measures proposed are already available to air quality managers. Furthermore, given the Prime Minister's acknowledgement of the negative impacts of fiscal incentivisation of diesel light duty vehicles, 'Exploring the appropriate tax treatment for diesel vehicles' should have already occurred so that a firm and clear policy change on the issue could have been included in the plan.

The delay in producing a workable and effective plan over the last few years, and the attempt to delay the publication of this version, highlights the lack of urgency that the government has afforded to the protection of public health.

The plan gives an overall impression of placing the onus on local authorities and relinquishing responsibilities at a national level. The responsibilities, such as they are, for addressing air quality at a local level have been set out in repeated national air quality strategies that have established the Local Air Quality Management Process. If the government is to attempt to reassign responsibilities for action, there is an essential need for the Local Air Quality Management framework to be reviewed and redrawn to ensure a clear framework for coordinating national and local responsibilities and actions.

We consider that the plan fails to demonstrate the level of urgency and sophistication required to address this public health emergency. We are disappointed that yet again a consultation on this important matter has failed to propose actions commensurate with the scale of the problem.

8 What do you consider to be the most appropriate way for local authorities in England to determine the arrangements for a Clean Air Zone, and the measures that should apply within it? What factors should local authorities consider when assessing impacts on businesses?

Please provide your views:

It is important to note that the origins and destinations of journeys are most often elsewhere and emissions in hotspots only caused by traffic passing through. In this regard, local authorities are not in a position to resolve this problem on their own. The solution must come from a combination of national action and local implementation recognising the specific circumstances of each locality.

According to the initial modelling presented in Table 1 of the plan, only 75 local authorities have exceedences of the NO₂ limit value in 2017, however, in September 2016 there were 613 Air Quality Management Areas (AQMAs) in 259 (67%) local authorities. It is unclear why the majority of exceeding local authorities have been omitted from this assessment, however it is clear that this plan (as previous plans) is significantly underestimating the extent, scale and degree of locally assessed exceedences and therefore the commensurate action necessary to address.

It should not be left for Local Authorities to develop the framework of Clean Air Zones. Ensuring compliance with EU limit values is a national responsibility and Clean Air Zones should be developed and financed by national government with significant local input. For example, local authorities would be in a position to identify locally suitable measures and the extent of the CAZ from local knowledge. Local authorities do not have suitable powers to restrict many vehicles at present and it is unlikely that CAZs will change this. Responsibility for providing the regulatory framework within which air pollution can be reduced must lie with national government.

In order to achieve the quickest and largest public health benefit we recommend that CAZs must be charging for entry and must include private cars.

Above all, local authorities should be directed to place the health and wellbeing of residents above any potential impact on business. The Supreme Court made it clear that financial considerations should not be a limiting factor in addressing air pollution in as short a time as possible.

Local authorities should consider the positive impacts on businesses as a result of the introduction of a CAZ. With a reduction in traffic as a result of the CAZ there will likely be an increase in patronage of public services, an increase in active transport measures such as walking and cycles and a decrease in the impact of congestion on the economy. Better air quality and greater physical activity leads to healthier workforce and therefore greater productivity.

Cities have experienced substantial increases in LGV traffic catering for people's desire for next day or even next hour deliveries. The government should assess the impact of these on air quality and the way in which a clean air zone may mitigate some of the air pollution associated with the increase in LDV traffic.

9 How can government best target any funding to support local communities to cut air pollution? What options should the Government consider further, and what criteria should it use to assess them? Are there other measures which could be implemented at a local level, represent value for money, and that could have a direct and rapid impact on air quality? Examples could include targeted investment in local infrastructure projects. How can government best target any funding to mitigate the impact of certain measures to improve air quality, on local businesses, residents and those travelling into towns and cities to work? Examples could include targeted scrappage schemes, for both cars and vans, as well as support for retrofitting initiatives. How could mitigation schemes be designed in order to maximise value for money, target support where it is most needed, reduce complexity and minimise scope for fraud?

Please provide your views:

Local actions to reduce air pollution will only successfully come about with the support of long term reliable funding to ensure that Local Authorities can develop strategic and comprehensive approaches to the development of integrated transport networks that prioritise public transport cycling and walking as opposed to the pervasive short term, pop-up funding through which air quality and sustainable transport measures have traditionally been funded.

Greater emphasis should be placed on raising awareness of the health impacts of air pollution and on how the public can change their own behaviour and that of their communities. However, as with many public health issues, it will be important not to move to placing blame on individuals (what has become termed 'victim blaming'). It is important that a wide variety of actors and agents (such as businesses, employers and service providers) are incorporated into developing and providing solutions, as it is their business models that often depend on the generation of excess urban traffic. Efforts must also be dedicated to promoting and facilitating the use of alternative modes particularly walking and cycling. Where additional funding is not, or cannot be made available, funds from existing lower priority funding streams should be used.

The government could support projects which discourage the need to travel by car and encourage alternative modes of transport. The government may also wish to support graduated tax relief/rebate programmes for businesses who aid staff in finding accommodation near to their workplace.

In order to support a transition to an active transport oriented future, scrappage schemes could be designed so that incremental increases in reimbursement could be made for different choices. For example, should someone wish to scrap a diesel car and replace with a petrol car, then they would receive £2000, if someone wished to replace a diesel car with an electric car then they would receive £4000 and if someone wanted to scrap their car and rely on public transport then they would receive £6000 etc (these numbers are for illustrative purposes only).

Para 27 states that "Local authorities know their areas best and are best placed to take the lead in rectifying the problem". However, it is probably more accurate to say that "local authorities are experts on the extent and degree of NO₂ exceedences through local monitoring, but are ill-equipped to undertake sufficient measures to tackle road traffic as the dominant source". Rather than basing the AQ plan assessment of exceedences on national monitoring and modelling, the government should utilise the extensive LAQM datasets to provide a more accurate local assessment. Then, having properly acknowledged the severity of the local air quality problem, the government should accept that what is required is a fundamental rethink of national transport and planning policy to achieve emission-free urban areas, pushing for 100% zero emission vehicles much sooner than the current proposal of 2050, and launching a national public awareness campaign, such as those used for smoking, alcohol and obesity, given there is almost 20 years of Action Planning evidence to demonstrate that piecemeal local action is insufficient to achieve the health-based standards. The urgency of the public health challenge requires new thinking and action by government. Sadly,

this is not present in the consultation draft.

The best way to ensure value for money would be to ensure that co-benefits to air quality from any instituted in measures are maximised. Therefore simply banning certain groups of vehicles, and encouraging a switch from diesel to petrol vehicles will not do this – in fact this is likely to have a negative impact on greenhouse gas emissions (due to the lower efficiency of petrol engines), whilst having none of the beneficial impacts on noise, physical activity and the urban public realm that might be achieved through the considered redesign and management of our inner city spaces in order to encourage walking, cycling and public transport usage

10 How best can governments work with local communities to monitor local interventions and evaluate their impact?

Please provide your views:

By funding local authorities properly so they can continue to do the excellent monitoring work they were doing before the cuts to the public sector brought about by the last two governments. Government can also consider giving a role to local community air quality champions to highlight best practice and avoidance strategies. In addition to this, working with local authorities to develop a network for sharing successful mitigation measures would also aid local communities.

Engaging communities with alert schemes through social media (schemes such as AirText and AirAlert) will allow citizens to make personalised behavioural choices based on readily available data.

11 Which vehicles should be prioritised for government-funded retrofit schemes?

Please provide your views:

Clearly, in any retrofitting scheme the most polluting vehicles would be the first to be assessed for retrofitting suitability. We would suggest diesel vehicles of EURO IV/4 (HDVs, LDVs and passenger cars) and older.

Fig 4 suggests that heavy-duty vehicles (HDVs) contribute much higher average NOx emissions than diesel cars and para 15 also states that there are higher average emissions per vehicle from older vehicles with lower Euro emission standards. Real-world NOx emissions from Euro 6 diesel cars are on average twice as high as Euro VI HDVs on a per vehicle kilometre basis and ten times higher per litre of fuel used (ICCT, 2016). On this basis it would be more effective to reduce use of Euro 6 diesel cars than to retrofit HDVs.

It is also worth noting that the total number of vehicles on the road also adds to pollution through increasing congestion. Therefore efforts should be made to reduce overall traffic levels rather than trying to micro-manage pollution emissions through emission standards (which to date has failed to work and is dependent on vehicles performing in line with the original emissions estimates. Proposals to extend the period between MOT vehicle inspections mean that it will take longer to identify vehicles with malfunctioning emissions control systems).

12 What type of environmental and other information should be made available to help consumers choose which cars to buy?

Please provide your views:

Firstly, incentivising consumers to purchase a car will add to problems of congestion and may well result in unintended consequences of new or different air pollution problems in the future. Although cars may be getting cleaner (despite manufacturers manipulating weak laboratory tests for financial gain) the increase in their numbers may result in a slower decrease in concentrations that may be expected (see the point about congestion above). In addition to this, many problem areas are not due simply to levels of emissions, but to street geography which means that even relatively small emissions can cause problems.

In considering environmental information that should be made available, we believe that emission assessment methods such as the recently developed EQUA Index should be a requirement.

Para 35 states that ".Vehicle manufacturers also have the opportunity to help consumers to understand how clean their vehicles are in terms of emissions of NOx, in the same way as they are required to do for emissions of carbon dioxide (CO2)". If the public health protection responsibility of government is being taken seriously then this should be a mandatory requirement rather than 'an opportunity'.

13 How could the Government further support innovative technological solutions and localised measures to improve air quality?

Please provide your views:

Air Quality Management areas within the UK are local manifestations of a national problem. There needs to be a change of tack in the policy and practice of air quality management so that the social practices and issues causing air pollution are identified. This in turn will support the process of change in the way that society organises itself by reducing the travel demand and associated air pollution. In doing so, this would allow citizens to experience sustainable lifestyles as a social norm. This requires action at a national level, covering travel in all towns and cities.

The government may also wish to assess multi-modal travel tickets to support easy travel across cities, utilise real world data to highlight air pollution problems at key areas and develop apps, allowing citizens to become more engaged and aware of the air quality problem. However, no matter what technology is thrown at this problem, it is unlikely that significant modal shift will be achieved until the fundamental basics of pricing are resolved so that it becomes the norm for trips by public transport to be cheaper (on a per journey/per mile basis) than the same journey by car.

Para 20 states the government's commitment to "ensuring that vehicle manufacturers play their part to improve the nation's air quality". In order to achieve the limit values in the shortest possible time this commitment must go further than the phased inclusion of RDE into type approval tests, which will continue to permit exceedence of emission standards beyond 2021. For the protection of public health the government must therefore apply greater pressure to all manufacturers to achieve and go beyond current emission standards (as has been shown to be achievable by some manufacturers in Europe, and through more stringent emissions testing in the US). The practice of garages removing emissions reduction technology needs to be more heavily regulated.

14 Do you have any other comments on the draft UK Air Quality Plan for tackling nitrogen dioxide?

Please provide your comments:

Whilst a plan is clearly necessary to address the problem quickly, the plan should acknowledge the problem is one caused by over dependence on unrestricted mobility through private car use and the long-term solution to the problem can only be one that moves the UK away from such an over dependence on private car use.

Para 36 states that "The UK Government is clear that any action to improve air quality must not be done at the expense of local businesses and residents", however its current inaction is already at their expense through health impacts and lost productivity. The negative stance that this statement reveals is problematic as it effectively indicates that the Treasury have not acknowledged the clear net benefit that reduction in air pollution, and associated traffic impacts, will have, not only for individuals and businesses, but for the national economy.

While it is acknowledged that this plan focuses on NO₂, it is remiss not to highlight that NO₂ is a proxy for other traffic-related pollutants and other impacts, and therefore the benefits of measures to reduce these will be much wider than suggested. By taking this narrow approach, outside of its broader context, the plan effectively plays down the significance of the problem and underplays the scale of action required to address what is effectively a road traffic problem first and foremost. In addition to achieving compliance with the Limit Values in "as short a time as possible" the plan also needs to ensure that it considers the extent to which rapid solutions are also long-term sustainable and durable solutions that maximise the many possible co-benefits between air quality and other domains of urban health risk (such as climate change, noise, public space, physical activity etc.)