

RoSPA Response to "A Clean Air Strategy"

A DEFRA Consultation Paper

13 August 2018





Introduction

This is RoSPA's response to DEFRA's consultation paper, "A Clean Air Strategy". It has been produced following consultation with RoSPA's National Road Safety Committee.

Last summer, DEFRA published its plans for reducing roadside nitrogen dioxide concentrations in the UK, setting out our approach to meeting the statutory limits for NO2. The Government aims to halve the population living in areas with concentrations of fine particulate matter above World Health Organisation (WHO) guideline levels by 2025 and provide a personal air quality messaging system to inform the public, especially those who are vulnerable to air pollution, about the air quality forecast.

This draft Clean Air Strategy outlines the Government's ambitions to reduce air pollution and improve the quality of Britain's air. It sets the direction for future air quality policies and goals, and complements three other UK government strategies: the Industrial Strategy, the Clean Growth Strategy and the 25 Year Environment Plan.

The draft Clean Air Strategy developed sets out how the Government will work towards meeting the ambitious reductions in England (and where relevant across the UK). However, air quality is a devolved matter with responsibility also resting with the Scottish Government, Welsh Government and the Northern Ireland Executive. Securing the necessary improvements will require action in all parts of society and across the UK. Therefore, the strategy highlights the importance of effective co-operation with the devolved administrations and briefly sets out actions already underway in Scotland, Wales and Northern Ireland to cut air pollution right across the UK.

The Government is seeking views on the actions being proposed to tackle air pollution and reduce its impacts across a wide range of activities, including health, the environment, growth and innovation, transport, home, farming and industry.

The responses to the consultation will inform the final UK Clean Air Strategy and the National Air Pollution Control Programme to be published in March 2019.

RoSPA's responses to the consultation focus on relevant road and home safety issues. RoSPA strongly agrees that air pollution caused by motor vehicles, especially older diesel vehicles, is a serious risk to public health and must be reduced. We believe that the proposed Clean Air Strategy will play an important and effective role in achieving this.





RoSPA Responses to Questions in this Consultation

Question 1	Kevie Clister
what is your name?	Kevin Clinton
Question 2	
What is your email?	kclinton@rospa.com
Question 3	
Are you responding as an individual or on behalf of an organisation?	On behalf of an organisation, RoSPA
Question 4	
If you are responding on behalf of an organisation, please tell us the type of organisation.	
RoSPA's Response	RoSPA is an Accident Prevention Charity
Question 5	
What is the name of your organisation?	RoSPA, the Royal society for the Prevention of Accidents
Question 5	
Please tell us what your or your organisation's primary concern is in relation to clean air.	
RoSPA's Response	Health and the environment
Question 6	
Please let us know whether you are / your organisation is based in a rural or urban area	
RoSPA's Response	
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RoSPA's head office and training centre are based in an urban area, Birmingham, and our other offices (Cardiff and Edinburgh) are also based in urban areas.

Question 7

Would you like your response to be confidential? No





Understanding the problem

The UK has set targets to cut emissions in half by 2020 and 2030 to reduce the harm to human health. The Government is investing £10m to improve modelling, data and analytical tools to give a more precise picture of current air quality and the impact of policies on it in future. It will increase transparency by bringing local and national data into a single accessible portal for information on air quality monitoring and modelling.

Question 1

What do you think about the actions put forward in the understanding the problem chapter? Please provide evidence in support of your answer if possible.

Question 2

How can we improve the accessibility of evidence on air quality, so that it meets the wide-ranging needs of the public, the science community, and other interested parties?

RoSPA's Response

The draft strategy demonstrates a good understanding of the importance and nature of the evidence about poor air quality and measures to improve it. The Strategy is clear that to be effective, action cannot be restricted to particular sectors or parts of the UK.

Improving accessibility of the evidence about poor air quality and measures to improve it will need the active involvement and co-operation of many stakeholders, and clean air policies will need to be integrated into many existing policies, without sacrificing essential aspects of those policies. For example, road transport policies and in particular road safety policies (such as speed management and vehicle technology) need to incorporate policies to raise awareness of, and reduce, pollution caused by vehicles without weakening policies and measures (such as traffic calming) that are very effective in reducing road casualties, and which encourage active travel such as walking and cycling.

A more co-ordinated central government approach with a lead department for indoor pollution would significantly raise the profile and ensure clear leadership in tackling this issue. It should be noted that Department for Business Energy and Industrial Strategy (BEIS) has responsibility for consumer safety and household products that may have an impact on indoor air pollution

With regard to the home environment consideration should be given to including data and studies from Fire and Ambulance Services related to their attendance at incidents involving indoor air pollution and involvement in proactive education programmes.





Protecting the Nation's Health

The Government aims to cut public exposure to particulate matter pollution and halve the population living in areas with concentrations of fine particulate matter above WHO guideline levels by 2025. It will develop a personal air quality messaging system to inform the public, and work with media outlets to improve public access to the air quality forecast. It will work to improve air quality by helping individuals and organisations to understand how they could reduce their contribution to air pollution to help them protect their families, colleagues and neighbours. It will publish updated appraisal tools and guidance to enable the health impacts of air pollution to be considered in every relevant policy decision.

Question 3

What do you think of the package of actions put forward in the health chapter? Please provide evidence in support of your answer if possible.

Given the UKIEG report highlights that we spend 90% of our time indoors (see our response to question 15) RoSPA believes that the health chapter of the air quality strategy should include recommendations to improve indoor air quality

Question 4

How can we improve the way we communicate with the public about poor air quality and what people can do?

RoSPA's Response

The package of actions put forward in the health chapter seem to be sensible and achievable. The key to their success will be the public and organisations' awareness of them, and their ability to access, understand and use the personal air quality messaging system. Active involvement of a wide range of media outlets will be crucial. As media outlets will each have their own priorities and views on the level of harm being caused by air pollution and the measures being taken to improve air quality, achieving a consistent and coherent public messaging system may be a challenge.

Although online communication is obviously very popular now, there are still many people who do not access the internet, or who are not very proficient in using it. Therefore, communication methods should not be exclusively online. They should also convey information and advice in multiple languages, but always in clear and easy-to-understand language.





Protecting the environment

This strategy is a key part of delivering the Government's 25 Year Environment Plan. Cleaner air will directly benefit animals and habitats as well as creating a better environment for everyone to live, work and thrive in. The Government will monitor the impacts of air pollution on natural habitats and report annually and provide guidance for local authorities explaining how cumulative impacts of nitrogen deposition on natural habitats should be mitigated and assessed through the planning system.

Q5. What do you think of the actions put forward in the environment chapter? Please provide evidence in support of your answer if possible.

Q6. What further action do you think can be taken to reduce the impact of air pollution on the natural environment? Where possible, please include evidence of the potential effectiveness of suggestions.

RoSPA's Response

RoSPA supports the package of actions in the protecting the environment chapter. We have no specific comments to make.

Securing clean growth and innovation

The Government will seek ways to support further investment in Clean Air innovation to enable the development of novel technologies and solutions that tackle emissions from industry, vehicles, products, combustion and agriculture and support both improvements in air quality and decarbonisation. It will make the UK a world leader in goods and services focused on tackling air pollution. Future energy, heat and industrial policies (such as phasing out coal-fired power stations and improving energy efficiency) will improve air quality, reduce emissions and tackle climate change. The government will conduct a cross-departmental review into the role of biomass in future policy for low carbon electricity. It will minimise the air quality impacts of the Renewable Heat Incentive Scheme and consult on making coal to biomass conversions ineligible for future funding allocation rounds. The Government is seeking evidence on the uses of non-road diesel, mainly in urban areas, and will review how alternative fuel rates compare with rates of petrol and diesel. It will cut emissions from non-road mobile machinery and give local authorities tough new powers to control the use of such machinery where it is causing an air pollution problem. Green Great Britain Week in autumn 2018 will engage the public on air quality and climate change to highlight the economic opportunities it offers for the UK.

Question 7

What do you think of the package of actions put forward in the clean growth and innovation chapter? Please provide evidence in support of your answer if possible.

Question 8

In what areas of the air quality industry is there potential for UK leadership?





Question 9

In your view, what are the barriers to the take-up of existing technologies which can help tackle air pollution? How can these barriers be overcome?

RoSPA's Response

To make best use of online technology that enables home working and reduces the need for people to travel attend meetings, the Government needs to ensure that fibre broadband is available and affordable in both urban and rural areas. The Government also needs to ensure that GPS signals are improved in the more rural areas in order to address the fact that some consumers are unable to access new technology, for example smart meters.

We believe that achieving an effective clean air strategy will require reducing the amount of miles driven, not just an over-reliance on changing from diesel/petrol vehicles to electric vehicles. Research by Professor Frank Kelly has found that while electric vehicles emit no exhaust fumes they still produce large amounts of particulates from brake and tyre dust.¹

Question 10

In your view, are the priorities identified for innovation funding the right ones?

RoSPA's Response

RoSPA supports the package of actions in the clean growth and innovation chapter. We have no further comments to make.

Action to reduce emissions from transport

The immediate challenge is to reduce emissions of nitrogen oxides in areas where concentrations exceed legal limits. The government has committed £3.5bn to tackle poor air quality by cleaner road transport. It will end the sale of new conventional petrol and diesel cars and vans by 2040 and position the UK as the best place in the world to develop, manufacture and use zero exhaust emissions vehicles. It will work with international partners to research and develop new standards for tyres and brakes to address toxic non-exhaust emissions from vehicles. New legislation will compel manufacturers to recall vehicles and machinery for any failures in their emissions control system and make tampering with an emissions control system a legal offence.

Question 11

What do you think of the package of actions put forward in the transport chapter? Please provide evidence in support of your answer if possible.

Question 12

Do you feel that the approaches proposed for reducing emissions from Non-Road Mobile Machinery are appropriate or not? Why?





RoSPA's Response

RoSPA supports the package of actions in the clean transport chapter.

We strongly agree that air pollution caused by motor vehicles, especially older diesel vehicles, is a serious risk to public health and must be reduced. We believe that the proposed Clean Air Strategy will play an important and effective role in achieving this.

However, it is also crucial that measures to reduce air pollution do not inadvertently increase the risk of road deaths and injuries. Inappropriate speed is one of the most serious road safety problems on Britain's roads, and causes death and injury to thousands of people each year. Removing speed humps, which are proven to be an effective way of reducing road casualties, would increase risk to all road users, but especially to pedestrians, pedal cyclists and children. A considerable body of evidence over many years has proven that speed significantly increases the likelihood of collisions, the chances of those collisions causing injury and the severity of those injuries.^{2, 3, 4, 5}

Studies¹⁶ have also identified the risk to children being more exposed to car fumes than adults because they are smaller and so nearer to vehicle exhaust pipes and ingest more pollutants, such as particulates. They suggest that one in three youngsters might develop long-term health problems because of high pollution levels where they live.

They also found that children inside cars in traffic are exposed to twice the level of pollutants as those walking, even along busy roads. These findings emphasise the need to reduce air pollution, especially from traffic. Road engineering measures are an established and effective way of reducing road casualties, and are one of the key reasons why death and injury on our roads has fallen so substantially over the last few decades. The measures that are most effective are traffic calming schemes and 20 mph zones. They have been shown to reduce:

- Injury accidents by 60% and child injury accidents by 67%⁷
- Road accidents by 56% and fatal and serious injuries by 90%⁸
- Pedestrian casualties by 54%, child casualties by 54% and child pedestrian casualties by 74%^{vi}
- Injury accidents by about 42% and fatal or serious accidents by 53%⁹
- Road casualties by over 40% and fatal or serious injuries to children by 50¹⁰
- Injury accidents by about 15% on average¹¹

Evidence suggests that 20 mph limits, without traffic calming measures, reduce speeds and casualties, but not as much as 20 mph zones with traffic calming.^{12, 13} They are most appropriate for roads where average speeds are already low, below 24mph, and the layout and use of the road also gives the clear impression that a 20mph speed or below is the most appropriate. We are awaiting the publication of the Atkins report (due by the end of this year) to provide clearer evidence about the effectiveness of 20 mph limits.



20 mph zones are often located in the most deprived areas and there is a well established link between socioeconomic status and risk of being injured in road traffic accidents,^{14,15,16} so any increase in risk due to the removal of speed humps would disproportionately affect people in those areas.

We suggest that the Clean Air strategy includes measures that do not increase risk in other areas, such as:

- Reducing the number of diesel vehicles and encouraging ULEVs
- Improving the performance of diesel engines
- Improving road layouts, junctions and congestion bottlenecks
- Increasing walking and cycling
- Other measures to reduce motor vehicle use

Where local Clean Air Zones are introduced they are likely to increase congestion on the outskirts of the zones as motorists try to skirt around, rather than drive through, them. It seems likely that more vehicles using unfamiliar routes to avoid charges could create other problems. For example, we suspect parking along roads at the edge of the zones will become more problematic. There may also be an increase in pavement parking, especially near schools. Councils may need to monitor and take action on prevent these types of problems.

Clean Air Zones provide opportunities and incentives to promote safer routes for walking and cycling, particularly in areas where there will be a likely increase in congestion as drivers try to avoid chargeable zones. Employers will need to consider the advice they give to their staff and visitors about journey planning, routes and travelling on foot and bicycle.

RoSPA supports charging vehicles whose engines do not meet the specified emissions standards (ie, Euro 4 or better for petrol engines and Euro 6 or better for diesel engines), but owners of some vehicles, such as camper vans, may struggle to replace their vehicle with a newer version that meet the required standards due to a lack of availability and cost of replacement vehicles. These owners should be considered for additional support.

For people and organisations who live or operate in the Clean Air Zone areas, or who are disadvantaged because of their financial circumstances, should be considered for additional time before charges come into force or financial assistance.

We are not clear about the cost or availability of vehicles used to transport people with disabilities with Euro 4 or better for petrol engines and Euro 6 or better for diesel engines. This should be considered to ensure that these drivers are not unfairly disadvantaged. Parents and guardians of patients, as well as patients themselves at hospitals in Clean Air Zones should certainly not be disadvantaged by the location of the hospital.

RoSPA suggests that central and local government consider how it might reduce on-road parking and pavement parking, especially near schools during school run times, and seek to increase the number of safety cameras.

We think that Clean Air Zones will improve the health of people in towns and cities. However, increased congestion during construction and longer journey times as people seek to avoid entering the Zone may increase stress and frustration.





Action to reduce emissions at home

Many people are unaware that emissions in the home increase personal exposure to pollutants and contribute significantly to our overall national emissions. Burning solid fuel in open fires and stoves makes up 38% of the UK's primary emissions of fine particulate matter. Harmful sulphur dioxide (SO2) is emitted by coal burned in open fires. Non-methane volatile organic compounds (NMVOCs) from a wide variety of chemicals that are found in carpets, upholstery, paint, cleaning, fragrance, and personal care products are another significant source of pollution. The Government will legislate to prohibit the sale of the most polluting fuels and ensure only the cleanest stoves are available for sale by 2022. It will update outmoded legislation on 'dark smoke' from chimneys and underused provisions on Smoke Control Areas with more flexible, proportionate enforcement powers for local government. The government will work with industry, retailers, health experts and consumer groups to reduce emissions of NMVOCs from consumer products, develop options to promote product innovation and encourage the use of low emissions alternatives.

Q13. What do you think of the package of actions put forward to reduce the impact of domestic combustion? Please provide evidence in support of your answer if possible.

Q14. Which of the following measures to provide information on a product's non-methane volatile organic compound content would you find most helpful for informing your choice of household and personal care products, and please would you briefly explain your answer?

- A B C labels on product packaging similar to food traffic light labels
- information on manufacturer website
- leaflet at the point of sale
- inclusion in advertising campaigns
- other option

RoSPA's Response

RoSPA supports the package of actions in the Home chapter. Although RoSPA is not the best organisation to advise on this, we are aware of the following studies that may be helpful:

- Consumer research has shown that the target audience tends to experience the labels as overloaded, and so
 often ignore the information. A 2011 European Commission survey (Eurobarometer 360) found that only a
 quarter up to half of users always read safety instructions before using a hazardous product for the first time
 (e.g. from 26% for daily used detergents up to 50% for insecticides and pesticides). Instead, consumers prefer
 simpler labels that contain less text, and provide the essential safe use information in a more focused way.
 Safe use icons/precautionary pictograms are considered useful and found to be generally well understood.
- Several scientific studies have confirmed that graphical representations or pictograms can be recognized more quickly and have more intrinsic interest than written warnings (Dorris & Purswell, 1978). Boelhouwer (2013) concluded that *"inclusion of GHS hazard pictograms and precautionary pictograms to SDS and labels may benefit the user"*.





• An additional consideration is the literacy level. Globally about 14% of the world population cannot read (Unesco 2016). Several emerging economies in Africa have literacy rates below 50%. Also in Europe, 16.4% of people have literacy difficulties² (about 55 million adults). Similarly, in the USA around 14% of adults demonstrated a "below basic" literacy level in 2013 (US Department of Education 2013).

Q15. What further actions do you think can be taken to reduce human exposure from indoor air pollution?

RoSPA's Response

We strongly agree that air pollution caused by burning fossil fuels is a serious risk to public health and must be reduced. We believe that the proposed Clean Air Strategy will play an important and effective role in achieving this. However, the strategy highlights the concern about the impact on those in fuel poverty. RoSPA shares this concern and feels that it would have a marked effect on families who have been unable to modernise their homes. Adapting to new regulations would be difficult for many, more research is needed to clarify the impact.

RoSPA agrees with, and welcomes, the objective to raise awareness of the potential impacts of air pollution at home and ensure that consumers are armed with reliable information enabling them to make informed choices to protect themselves, their families and their neighbours. Clear recommendations on actions householders can take need to be included and disseminated. This should help inform consumers and encourage behaviour change. However, it may not help the many families, young and old, who are living in poor housing which fails to meet the current minimum standard of housing, which fails to meet the current minimum standard of Housing in England.

The strategy highlights that the government will give new powers to local authorities to take action in areas of high pollution, bringing legislation into the 21st century with more flexible, proportionate enforcement powers. However unless this also includes appropriate funding it has to be considered that this may not happen.

There needs to be a recognition that making homes more airtight, whilst important for fuel efficiency and effective heating, does have implications in ensuring adequate suitable ventilation required to reduce the impact of indoor air pollution, (specifically carbon monoxide)

There appears to have been no consideration given to the indoor air pollution caused by the acute malfunction of fuel appliances. Clear guidance in this respect both to consumers and to those organisations responsible for servicing and providing education and advice is critical to tackling this major issue, in particular the problem of carbon monoxide poisoning which claims 40-50 deaths every year. Guidance should also be given on the use of warning devices, such as carbon monoxide alarms which are effective in saving lives and, coupled with clear education campaigns, can help to significantly reduce the effects of this aspect of indoor air pollution.

² People with literacy difficulties can read at best simple texts, retrieve simple facts; they are not able to deal with longer or more complex texts - *such as a GHS label*- and interpret beyond what is explicitly stated (European Literacy Policy Network)





The UKIEG report on Healthy Indoor Environments, Challenges and Opportunities for Policymakers outlines that "We spend up to 90% of our lives indoors; ensuring that the indoor environment benefits our health and wellbeing is therefore important. Despite this, the damaging effects of the indoor environment are rarely fully acknowledged, nor are the necessary steps to reduce such effects being taken".

The report:

- Recognises the importance of having effective policies that address the indoor environment for the protection and promotion of public health,
- Looks at scientific research and occupant behavior
- Offers a set of recommendations

The strategy touches on some of the recommendations put forward by the <u>report</u>. However those not included should be taken into consideration.

Action to reduce emissions from farming

The agriculture sector accounts for 88% of UK emissions of ammonia and action by farmers can make a big difference to ammonia emissions. The government is already acting to help farmers by funding the necessary equipment and will provide a national code of good agricultural practice to control ammonia emissions. The Government will require and support farmers to make investments in the farm infrastructure and equipment that will reduce emissions. A future environmental land management system will fund targeted action to protect habitats impacted by ammonia. It will continue to work with the agriculture sector to ensure the ammonia inventory reflects existing farming practice and the latest evidence on emissions. The Government will regulate to reduce ammonia emissions from farming and is seeking views on approaches to regulation.

Q16. What do you think of the package of actions put forward in the farming chapter? Please provide evidence in support of your answer if possible.

Q17. What are your preferences in relation to the 3 regulatory approaches outlined and the timeframe for their implementation: (1) introduction of nitrogen (or fertiliser) limits; (2) extension of permitting to large dairy farms; (3) rules on specific emissions-reducing practices? Please provide evidence in support of your views if possible.

Q18. Should future anaerobic digestion (AD) supported by government schemes be required to use best practice low emissions spreading techniques through certification? If not, what other short-term strategies to reduce ammonia emissions from AD should be implemented? Please provide any evidence you have to support your suggestions.

RoSPA's Response

RoSPA supports the package of actions in the farming chapter. We have no specific comments to make.





Action to reduce emissions from industry

Industrial processes, including energy generation to power businesses and homes and manufacture goods and food, can all create pollution. The Government will continue to increase standards to reflect international best practice and maintain its longstanding policy of continuous improvement of industrial emissions to deliver a stable and predictable regulatory environment for business as part of a world-leading clean green economy. The Government will work with industrial sectors to review improvements to date and explore opportunities to go further with a series of sector roadmaps that set ambitious standards. It will close the regulatory gap between the current Ecodesign and medium combustion plant regulations to tackle emissions from plants in the 500kW to 1MW thermal input range. As legislation comes into force, it will consider the case for tighter emissions standards on this source of emissions.

Question 19

What do you think of the package of actions put forward in the industry chapter? Please provide evidence in support of your answer if possible.

Question 20

We have committed to applying Best Available Techniques to drive continuous improvement in reducing emissions from industrial sites. What other actions would be effective in promoting industrial emission reductions?

Question 21

Is there scope to strengthen the current regulatory framework in a proportionate manner for smaller industrial sites to further reduce emissions? If so, how?

Question 22

What further action, if any, should government take to tackle emissions from medium plants and generators? Please provide evidence in support of your suggestions where possible.

Question 23

How should we tackle emissions from combustion plants in the 500kW-1MW thermal input range? Please provide evidence you might have

Question 24

Do you agree or disagree with the proposal to exempt generators used for research and development from emission controls? Please provide evidence where possible.

RoSPA's Response

RoSPA supports the package of actions in the Industry chapter. We have no specific comments to make.





Leadership at all levels (local to international)

Emissions from abroad, across the UK and local sources all contribute to the pollution to which people and the environment are exposed. This strategy sets out the Government's commitment to cut national emissions to reduce population exposure and to continue to play an active, leading role in international action to improve air quality. It is consulting on a new, independent statutory body to hold government to account on environmental commitments following EU exit. Ensuring that there is transparency and accountability in how we achieve our clean air ambitions will be a priority in this work. It will bring forward new clean air legislation at the earliest opportunity. This will bring long-standing frameworks for local and national action on air pollution into the 21st century with stronger powers and clearer accountability to reduce air pollution. The Government will transform existing structures to increase transparency and support this with stronger statutory powers to tackle local air pollution. Air quality is a substantially devolved policy area. Scotland and Northern Ireland have both already produced their own Air Quality Strategies and Wales is currently in the process of producing one. The UK government will work in partnership with the governments of Scotland, Wales and Northern Ireland to develop a detailed National Air Pollution Control Programme as required under the National Emissions Ceilings Directive for publication in 2019.

Question 25

What do you think of the package of actions put forward in the leadership chapter? Please provide evidence in support of your answer if possible.

Question 26

What are your views on the Englandwide legislative package set out in section 9.2.2? Please explain, with evidence where possible.

Question 27

Are there gaps in the powers available to local government for tackling local air problems? If so, what are they?

Question 28

What are the benefits of making changes to the balance of responsibility for clean local air between lower and upper tier authorities? What are the risks?

Question 29

What improvements should be made to the Local Air Quality Management (LAQM) system? How can we minimise the bureaucracy and reporting burdens associated with LAQM?

RoSPA's Response

RoSPA supports the package of actions in the Leadership chapter. We have no specific comments to make.





Progress against targets

Q30. What do you think of the package of actions in the strategy as a whole?

Q31. Do you have any specific suggestions for additional or alternative actions that you think should be considered to achieve our objectives? Please outline briefly, providing evidence of potential effectiveness where possible.

Q32. If you have any further comments not covered elsewhere, please provide them here.

RoSPA's Response

RoSPA has no further comments to make

RoSPA thanks DEFRA for the opportunity to comment on the proposals. We have no objection to our response being reproduced or attributed.

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References

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