Friends of the Earth Scotland welcomes the opportunity to feed into this consultation. We have been campaigning for a number of years for Scotland to comply with Scottish and European air quality safety standards as soon as possible. We co-represent Scottish Environment LINK on the Scottish Government’s Cleaner Air for Scotland Governance Group, and gave oral evidence to your Committee on air quality in May 2017.

Summary

Air Pollution is one of the biggest environmental health threats facing us: it causes over 2500 early deaths in Scotland each year\(^1\), and has been linked with respiratory and cardiovascular illnesses, stunted foetal development and children’s lung growth\(^2\) as well as dementia and diabetes. It has disproportionate impacts on children, the elderly, and those living in poverty, and so worsens injustice in our society. The Scottish Government must come into compliance with both European and Scottish air quality standards as soon as possible.

Because traffic is the key culprit for elevated air pollution concentrations\(^3\), the Scottish Government must adopt transport policies which will (a) reduce the volume of motorised transport on our roads and (b) improve the emissions standards of motorised transport. The Scottish Government should:

- Announce the key details of the 2018 LEZ including the location of the LEZ and funding arrangements as a matter of urgency
- Support and fund local authorities to create Low Emission Zones in every major city with an AQMA, i.e. Edinburgh, Glasgow, Dundee, Aberdeen, and Perth.
- Invest 10% of its transport budget in walking and cycling infrastructure
- Introduce a Bus Act to give local authorities greater powers over bus services
- Make 20mph the default speed limit in cities
- Make a public commitment that it will meet European legal limits and its own, stricter, Scottish air quality standards as quickly as possible

Legal context: Frameworks regulating air quality in Scotland

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\(^1\) 2014 research by Public Health England found that 2094 equivalent deaths per year in Scotland are attributable to just one individual pollutant, fine particles (PM2.5), with 29,000 equivalent deaths UK-wide (PHE Report, “Estimating local mortality burdens associated with particulate air pollution” April 2014). Research published by the Royal College of Physicians in 2016 found that when pollution from both PM2.5 and NO\(_2\) are taken into account, 40,000 deaths UK-wide per year are attributable to air pollution, equating to 2500-3500 annual deaths from air pollution in Scotland, based on a conservative reading of that research (RCP Report, “Every breath we take: the lifelong impact of air pollution” Feb 2016)

\(^2\) “Ambient air pollution and low birthweight: a European cohort study (ESCAPE)” The Lancet Respiratory Medicine, Volume 1, Issue 9, Pages 695 - 704, (Nov 2013), British Medical Journal, “Long term exposure to ambient air pollution and incidence of acute coronary events: prospective cohort study and meta-analysis in 11 European cohorts from the ESCAPE Project” (Jan 2014)

\(^3\) Road traffic is responsible for 80% of NO\(_x\) concentrations at roadside: Defra, “UK plan for tackling roadside nitrogen dioxide concentrations: Detailed Plan,” July 2017, p 5
Before answering this inquiry’s questions, we set out information about how air quality is regulated in Scotland for context. Scotland’s air quality is regulated by two main statutory frameworks - European and Scottish - and we are in breach of both.

(a) European law

European Law, through the Ambient Air Quality Directive, places a legally binding obligation on all Member States to comply with concentration thresholds for a range of pollutants by stated deadlines. Because air quality is devolved, the Scottish Government is obliged to ensure compliance with the Directive in Scotland. The part of the Directive which is being broken across the UK and in Scotland is that which sets the annual threshold for nitrogen dioxide (NO₂) with a required compliance date of 1 January 2010.

For the purposes of EU law, the UK is divided into 43 “zones and agglomerations”, and 37 zones are currently in breach of the NO₂ annual legal limit.

Scotland is divided into 6 zones, of which 4 are non-compliant: North East Scotland, Glasgow Urban Area, Edinburgh Urban Area, Central Scotland, (Southern Scotland and the Highlands are in compliance).

The European Commission did grant a 5-year extension of the deadline for North East Scotland, Edinburgh Urban Area, and Central Scotland (which was why Glasgow was originally the only Scottish city named in the press and in court actions), but that extension period has now lapsed so all four areas are in non-compliance.

As a result of non-compliance across the UK, for which Defra was taken to court, the UK Government was forced by the UK Supreme Court to produce revised air quality plans which would show how the NO₂ legal limits were going to be met as quickly as possible. However, the plans which the UK Government produced were deemed illegal in a subsequent court action for failing to be ambitious enough and using poor modelling scenarios, so the Government was forced to produce fresh set of air quality plans, which it published in July 2017.

This is relevant to Scotland because the Plans specify that it is the responsibility of the devolved administrations to ensure compliance in their areas, and there is a Scottish chapter in the new plan (Chapter 7.5). In our view, the policies included in that chapter, which refer to the Scottish Cleaner Air for Scotland (CAFS) plan and to a proposed LEZ by 2018 are not sufficiently ambitious.

Summary table with respect to breach of European Ambient Air Quality Directive:

<table>
<thead>
<tr>
<th>Pollutant</th>
<th>Limit</th>
<th>Deadline</th>
<th>Where</th>
<th>What sort of Consequence?</th>
</tr>
</thead>
</table>

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4 Directive 2008/50/EC  
5 See Article 13 and Annex XI  
6 Defra, “UK Plan for tackling roadside nitrogen dioxide concentrations Technical Report,” July 2017, Figure 2.3 on p 28  
7 Supreme Court Ruling in ClientEarth v SSEFRA [2015] UKSC 28  
8 High Court Ruling in ClientEarth (2) v Defra [2016] EWHC 2740  
9 Defra, “UK plan for tackling roadside nitrogen dioxide concentrations: Detailed plan” July 2017, paragraph 273
in respect of which Scotland is non-compliant being broken broken? obligation?


(b) Scottish Local Air Quality Management standards

The second regulatory framework is set out by the Scottish regulatory air quality standards, which also set pollution threshold standards with relevant compliance dates but place the burden of tackling pollution on local authorities.\(^\text{10}\)

However, unlike European law, which places a mandatory obligation to comply with the limit by the deadline on the Scottish Government, the Scottish standards do not oblige local authorities to ensure compliance with the standards by the deadlines. Local authorities are obliged to monitor air quality, declare Air Quality Management Areas (hereinafter AQMAs) where levels of air pollution are projected to exceed the standards, and produce Air Quality Action Plans (AQAPs) with a view to achieving the standards, but there is no actual obligation to achieve the standards.

At present, there are 38 AQMAs where standards are either not being met or expected to not be met – this is up from 32 in 2015.\(^\text{11}\)

One the one hand, is seems fair that local authorities should not be burdened with an obligation to achieve the standards because local authorities cannot control

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\(^{10}\) See Environment Act 1995, Part IV – for a list of the Scottish standards, see http://www.scottishairquality.co.uk/air-quality/standards

\(^{11}\) For an indicative list, see http://www.scottishairquality.co.uk/laqm/aqma
decisions by other bodies, e.g. Transport Scotland or neighbouring local authorities, which worsen their local air quality.

But on the other hand, this lack of a binding obligation on local councils presents a regulatory gap and goes some way to explaining how it is that despite over ten years of lapsed deadlines, there are still so many AQMAs, and why so few have ever been revoked.

The standards regulate a range of pollutants, and those which are being broken are in respect of NO$_2$, small particles (PM$_{10}$), and sulphur dioxide (SO$_2$) across Scotland, summarised in the table below:

<table>
<thead>
<tr>
<th>Pollutants whose standards are being broken in Scotland</th>
<th>Limit</th>
<th>Deadline</th>
<th>Where currently broken?</th>
<th>What sort of obligation?</th>
<th>Consequence?</th>
</tr>
</thead>
<tbody>
<tr>
<td>Nitrogen Dioxide (NO$_2$)</td>
<td>Annual mean: 40 μg m$^{-3}$</td>
<td>31 Dec 2005</td>
<td>There are currently 38 AQMAs in a total of 14 local authority areas. 23 have been declared for breaches of PM$_{10}$ standards, 27 for NO$_2$ standards (with some overlap), and 1 for SO$_2$.</td>
<td>Councils must monitor, report, declare Air Quality Management Areas, and produce Air Quality Action Plans</td>
<td>Councils produce Air quality action plans and keep them under regular review. Scottish Government aimed for “Significant progress towards revocation of all Air Quality Management Areas” by 2020 as part of CAFS. When CAFS was launched there were only 32 AQMAs. Only 4 AQMAs have ever been revoked</td>
</tr>
<tr>
<td>Nitrogen Dioxide (NO$_2$)</td>
<td>Hourly mean: 200 μg m$^{-3}$, not to be exceeded for more than 18 hours in a year</td>
<td>31 Dec 2005</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Particulate Matter (PM$_{10}$)</td>
<td>Annual mean: 18 μg m$^{-3}$</td>
<td>31 Dec 2010</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Particulate Matter (PM$_{10}$)</td>
<td>Daily mean: 50 μg m$^{-3}$, not to be exceeded more than 7 times a year</td>
<td>31 Dec 2010</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
### Inquiry Questions

**Does Scotland have the right policies (Clean Air for Scotland Strategy), support and incentives in place to adequately tackle air pollution & are the policies sufficiently ambitious?**

No, Scotland does not yet have the right policies, support and incentives in place and they are not sufficiently ambitious. Most high air pollution concentrations are due to traffic and therefore Scotland needs to make transport cleaner. This means a suite of policies to encourage walking, cycling, and public transport usage, discourage unnecessary car usage, and improve vehicle emissions standards.

In respect of NOx emissions, across the UK on average, according to Defra, “road transport is responsible for some 80% of NOx concentrations at roadside, with diesel Vehicles the largest source in these local areas of greatest concern”, illustrated by the following figure\(^\text{12}\):

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\(^{12}\) Defra, “UK plan for tackling roadside nitrogen dioxide concentrations: Detailed plan” (July 2017), Figure 3, p 7
Figure 3: UK national average NO$_2$ roadside concentration apportioned by source of NO$_2$ emissions, 2015

Source: PCM modelling provided by Ricardo Energy & Environment (2017)
Note: ‘Local road traffic’ in the large pie chart is the estimate of the proportion of local NO$_x$ roadside concentrations contributed by traffic on that road and is shown in greater detail in the smaller pie chart.
‘Road traffic background’ is the estimate of NO$_x$ concentrations contributed by traffic on other roads.
* Other (petrol) is made up of petrol vans and motorcycles.
HGVs = Heavy Goods Vehicles.

(a) Policies

(i) CAFS

The ongoing breaches of European annual legal limit for NO$_2$, and the Scottish standards for NO$_2$, PM$_{10}$ and SO$_2$ triggered the “Cleaner Air for Scotland” Strategy which was published in 2015. However, when that Strategy was launched, there were 32 Air Quality Management Areas - there are now 38. CAFS has some good parts to it, including a commitment to regulate fine particles (PM$_{2.5}$) which has now been implemented, but also contains a number of specific policy failings, including:

- CAFS did not introduce enough concrete actions to reduce traffic volumes in cities, or improve vehicle emissions standards. Air pollution is by and large caused by local traffic, and therefore the Scottish Government missed an opportunity to introduce, via CAFS, new policies which would have reduced the volume of motorised traffic on our roads and which would have improved vehicle emissions standards. The transport actions in CAFS were mainly restatements of existing policy.

- There has, since 2015, been a lack of certainty over what the often-cited three centrepieces of CAFS (the National Modelling Framework, the National Low Emissions Strategy, and the Communications Strategy) will actually achieve in terms of action on transport.
• CAFS did not aim for full compliance with the Scottish Local Air Quality standards, showing a lack of ambition from the outset to provide people in Scotland with the clean air to which we are entitled.\(^{13}\)

• CAFS demonstrated a limited degree of ambition by only aiming for compliance with European legal limits by 2020. One of the grounds for which the UK Government’s Air Quality Plan of 2015 was deemed illegal by the High Court in *ClientEarth v Defra* (2) was because Defra chose 2020 as a target date for compliance with the Directive, which, in the Court’s judgment, was underambitious. The Court criticised the choice of 2020 for being a “matter of routine” and a “pragmatic approach” which was “inconsistent with the need to achieve compliance in the shortest time possible”. Although CAFS was not the specific subject matter in the case, the Scottish Government could have used the High Court’s findings on the UK-wide plans as an opportunity to revise and strengthen CAFS.

(ii) The 2018 Low Emission Zone

The Scottish Government committed last year through its Programme for Government that “with the help of local authorities, we will identify and put in place the first low emission zone by 2018, creating a legacy on which other areas can build.”\(^{14}\) We are very supportive of this. However, a year on from announcing its LEZ promise, the Government has yet to provide basic details about the zone. A communication strategy around the 2018 rollout has been lacking, there is an urgent need to confirm the location of the Zone, what standards will be set, and how it will be funded. **The Zone will be deliverable on time only if the Government sets out these crucial details immediately.**

We also note that there is a need for more than one LEZ, given that there are a number of cities with illegal levels of air pollution, and Aberdeen, Glasgow, and Edinburgh Councils have all expressed a willingness to introduce LEZs.\(^{15}\)

(b) Support and incentives

Scotland does not have the right support and incentives in place to effectively tackle air pollution. In fact, the Scottish Government’s allocation of its transport budget is worsening rather than improving the problem.

In this year’s budget, the Scottish Government allocated £967 million of its transport budget to new roads and motorways, compared with around £4.15 million specifically on air quality.\(^{16}\) Whilst the air quality budget has increased by £1m from 2016/2017, and whilst we recognise that other aspects of the transport budget may help air quality (e.g. the active travel budget), transport budgetary priorities clearly favour road building.

\(^{13}\) It instead only aimed for “Significant progress towards revocation of all Air Quality Management Areas” by 2020 – Scottish Government, “Cleaner Air For Scotland The Road To A Healthier Future,”, Nov 2015, p 5

\(^{14}\) Scottish Government, “Plan For Scotland: The Scottish Government’s Programme For Scotland 2016-17”

\(^{15}\) Edinburgh Evening News, “Edinburgh and Glasgow square up over first Low Emission Zone” 23 May 2017, Aberdeen Evening Express, “Plan for low-emission zone hailed by environmental groups across Aberdeen” 28 Feb 2017

\(^{16}\) Scotland’s Budget: Draft Budget 2017-18, Air quality budgetary breakdown obtained via email to Scottish Government, July 2017
It has long been established that new roads create new traffic, usually far more than forecast through traditional transport models in an effect known as “induced traffic”\textsuperscript{17}. Short term quick fixes to easing congestion such as creating more lanes of traffic or bypasses only exacerbate the volume of motorised transport on our roads.

As mentioned above, despite the Government’s commitment to introduce a LEZ, it has yet to commit to funding the zone, which we estimate may cost in the region of £0.5 - £1.5 million to set up – a mere fraction of the Government’s overall transport budget. The Scottish Government should fund the Zone rather than passing the buck to cash-strapped Councils.

Active travel infrastructure is also under-invested, with just £39 million of the budget allocated to walking and cycling paths. For years now, Scotland’s cycling rates have been stalled at around 1%. According to Transport Scotland statistics, many of the barriers to cycling are to do with concerns about traffic, safety, and infrastructure.\textsuperscript{18} Cycling has a potentially transformative role to play in tackling air pollution. It would be an especially viable mode of transport in urban centres where journey distances are often short and air pollution is at its worst. In Seville, for example, cycling infrastructure was rapidly rolled out (about 110km from 2007-2012) leading to an increase in modal share of cycling in the city from 0.5% in 2006 to 7% in 2013. NO\textsubscript{2} mean concentrations more than halved in the period between 2000 and 2012 (from 52 \(\mu\)g/m\textsuperscript{3} to 25 \(\mu\)g/m\textsuperscript{3}). Cycling was one of a set of measures introduced to reduce traffic volumes by promoting non-motorised transport.\textsuperscript{19} We, along with Stop Climate Chaos Scotland, and We Walk, We Cycle, We Vote, are urging the Scottish Government to allocate 10% of its transport budget to active travel.

The bus sector is also not properly supported or incentivised. With the exception of Lothian Buses in Edinburgh, the bus sector in Scotland is in rapid decline, at the expense of people who do not have access to a car or viable walking and cycling options. Support for buses is ongoing but inadequate, with, with a 5% reduction in bus patronage in the last 5 years.\textsuperscript{20} The bus sector is understandably concerned over how it will be assisted to either purchase clean buses or retrofit older buses in order to comply with LEZs. The Green Bus Fund will be available to assist the transition, but the sector needs to be properly engaged with and supported to make the transition.

\textbf{Recommendations:}

The Scottish Government must build on its promise to introduce a Low Emission Zone by 2018. Much more is needed to make our air safe to breathe everywhere in Scotland. The Scottish Government must:

\textsuperscript{17} In 1988, for example, the M25 exceeded its long term forecast traffic growth within months of opening. For research on induced traffic, see, Department of Transport, Standing Advisory Committee on Trunk Road Assessment, “Trunk Roads and the Generation of Traffic“ (1994).
\textsuperscript{18} Transport Scotland, “Transport and Travel in Scotland 2015,” 27 September 2016, Table 26
\textsuperscript{19} ECF, “Cycling And Urban Air Quality: A study of European Experiences”, 2016
\textsuperscript{20} Transport Scotland: “Scottish Transport Statistics No 35: 2016 Edition”
1. Finalise the details of the first LEZ as a matter of urgency.

The Scottish Government must draw on the existing SEPA National Emissions Framework Model to design fit for purpose LEZs. It must outline where the first LEZ will be - Glasgow is the obvious choice - and must publicly commit to help fund it. It our view an effective LEZ would initially apply Euro VI standards to buses, lorries and large vans in a major urban area with an existing Air Quality Management Area, would use automatic numberplate recognition for comprehensive enforcement and would, at some point in the future, be extended to taxis and cars.

2. Support and fund local authorities to create Low Emission Zones in every major city with AQMAs

In addition to supporting and funding the first Low Emission Zone in 2018 the Government should support the rapid roll out of Low Emission Zones in at least Glasgow, Edinburgh, Dundee, Perth and Aberdeen. Using Automatic Number Plate Recognition technology for enforcement, these Zones would initially apply Euro VI emissions standards to buses, lorries, and vans, with the dirtiest taxis and cars included in a later phase. As well as contributing to cleaner air, Low Emission Zones would have a beneficial impact on local economies, and would speed up the transition to electric vehicles on our roads.

3. Invest 10% of its transport budget in walking and cycling infrastructure.

For the last decade, cycle rates have been stalled at about 1% of all trips, despite the Scottish Government’s stated ambition for cycle rates to reach 10% of all trips by 2020. Transport Scotland statistics reveal that a key barrier to cycling is lack of safe infrastructure and people fearing cars. The Scottish Government must invest 10% of the transport budget in safe, dedicated active travel infrastructure in order to tackle this barrier.

4. Use the forthcoming Transport Bill to give local authorities greater powers over bus services.

The Scottish Government must re-regulate the buses to give local authorities more control over bus services so that they operate in the public interest rather than at the whim of different private operators. Local councils should be enabled to regulate fares, plan routes, introduce integrated ticketing systems, and operate entire networks rather than attempting to join up piecemeal services in an incredibly challenging financial climate.

5. Make 20mph the default speed limit in cities

20mph zones have been proven to make streets safer and reduce traffic, thereby improving air quality and encouraging people to walk and cycle. The Scottish Government should legislate to reduce the default speed limit in urban areas from 30mph to 20mph to support clean air, safe streets and help social cohesion.

6. Commit to meeting the Scottish air quality standards everywhere as quickly as possible
How does the Scottish policy fit with the UK and EU policy on air quality?

a. European Law

Much of this has been set out above - EU law sets binding obligations on Member States, the UK has been found twice to be in breach of European Law. Actions to tackle exceedances of European law in Scotland, Wales and Northern Ireland are the responsibilities of the relevant devolved administrations. As a result of the earlier illegal plans, new plans were launched in July 2017 and the Scottish Government’s input is at Chapter 7.5. Its input was almost the same as its input into the 2015 Plans, with a key difference being the LEZ commitment.

Key comments on Defra’s newly launched Air Quality Plans are as follows:

- **Implementation Fund**: Defra launched a £255 million implementation fund to support local authorities to come up with new air quality action plans and deliver them. From what we understand the Scottish Government will have a share of this fund, to be calculated via the Barnett formula, but we are seeking clarification over this.

- **Charging Clean Air Zones**: A Technical Report which accompanied Defra’s new Air Quality Plan identified Charging Clean Air Zones as the single most effective method of improving air quality, and assessed how they would work in practice. Charging CAZs may be similar to LEZs, and although, unfortunately, Defra did not commit to introducing Charging CAZs, the work in the Technical Report could be useful to the Scottish Government in developing future LEZs.

- **The diesel and petrol phase out announcement**: The part of the UK’s plans which made headlines was its decision to phase out the sale of petrol and diesel vehicles by 2040. We note that EU law and relevant case law requires air quality limits to be met as soon as feasibly possible and not in 23 years’ time. We also believe that 2040 is underambitious and simply leaves it to the market take care of the transition to Electric Vehicles. We think that Scotland can do better and should announce a phase out for 2030 at the very latest. Finally, whilst EVs are part of the solution to cleaning up our transport, they do nothing to tackle congestion or support those who cannot afford cars to get from A to B so are just one of a suite of solutions required.21

(b) Local Air Quality Standards

It is worth noting that Scotland has a more ambitious standard on PM\(_{10}\) than the rest of the UK, and that it also now has a standard on PM\(_{2.5}\). As yet, PM\(_{2.5}\) is monitored at 25 locations across Scotland.

**Are the policies sufficiently ambitious?**

No - See our answer above

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21 Friends of the Earth Scotland Blog, “Come on Scotland, time to step on it with transport!” 28 July 2017
Are the powers and resources of Local Authorities and SEPA to address air pollution adequate?

As mentioned above, the 38 AQMAs that exist after lapsed deadlines indicate that the power and resources of Local Authorities are not adequate to tackle air pollution.

This year, the total air quality budget for 2017/18 is £4,150,000. £2 million of this directly supports local authorities through three grant schemes:

- £500,000 for monitoring and modelling work
- £1 million for action plan measures
- £500,000 for vehicle emissions testing and idling enforcement.

In our view this spreads very thinly across the local authorities and in particular, will need to be increased in order to support local councils to deliver LEZs. For many years, Councillors have raised concern that local authorities need financial support to be able to implement and maintain a LEZ.

Are the policies and delivery mechanisms (support and incentives) being effectively implemented and successful in addressing the issues?

Not always, but sometimes. One area where there is a lot of inconsistency is with planning decisions: in some instances, planning applications have been turned down where approving the development would worsen air pollution, and in others, they have been approved. For example, permission for a supermarket with large car park in Edinburgh’s St John’s Road AQMA was turned down and the planning officer cited air pollution associated with the car park as a key concern, yet permission for a car park with a 1600-car capacity was approved as part of the St James Centre redevelopment in Edinburgh’s city centre AQMA. Planning policy needs to be clearer and more directive to protect against developments being granted permission where they would deteriorate air pollution: at the moment, Scottish Planning Policy requires that air quality be “considered” as part of planning decisions, which can lead to varying and unhelpful interpretations.

Another area where there is poor implementation is with vehicle idling - many councils have the power to fine motorists for idling, but often do not make use of these powers as much as they could do.

Is Scotland on target to have a pilot low emission zone (LEZ) in place by 2018 and should there be more than one LEZ pilot?

See our comments above - the Scottish Government needs to announce the details around the 2018 LEZ as a matter of urgency, and yes, it needs to introduce LEZs in every major city with AQMAs.

How should the improvement of air quality be prioritised in areas where there have been persistent breaches of NO2 limit values?

The most effective interventions should be implemented, but there needs to be an acknowledgment that there is no one single fix to tackle air pollution immediately,
and a range of measures need to be introduced which lead to cleaner and fairer transport systems. Our roadscapes are dominated by cars and there needs to be better support and physical space allocated for walking, cycling and public transport.

SEPA’s National Modelling Framework has been developed to model how different traffic interventions would impact on air quality. This could be used to prioritise the most effective measures and implement them. Defra’s Technical Report accompanying its recently launched air quality plan should also be considered.

Is adequate consideration given to air pollution from agriculture?
We do not have expertise on the contribution to air pollution from agriculture, but focus on transport solutions because the vast majority of roadside air pollution is from traffic (see above).

Are there conflicts in policies or barriers to successful delivery of the air quality objectives?
There are conflicts within Transport Scotland’s priorities, namely, the continued prioritisation of road building over investing in sustainable transport infrastructure.

However, there are many co-benefits of implementing the measures that we have recommended which would complement other areas of Scottish Policy if implemented, including:

- **Climate action:** Transport is now Scotland’s biggest contributor to climate emissions. All the measures we have identified and recommended on page 9 will help cut carbon from the transport sector and help Scotland do its fair share in delivering on the Paris Agreement.

- **Social justice:** Our roads are dominated by cars, yet 30% of households in Scotland, and 50% of households in Glasgow, do not have access to cars. Measures to promote alternative sustainable, accessible forms of transport such as walking, cycling, and bus use, will help those who cannot afford to drive, as well as those wanting to make environmentally friendly transport choices more easily to get from a to b.

- **Physical activity:** Physical inactivity costs the NHS in Scotland £94 million annually. Investment in safe infrastructure will allow more people to commute to work and school by active travel, enabling them to build physical activity into their daily lives.

- **Reduced congestion (and therefore, economic savings):** 12.5% of all journeys were delayed by traffic congestion in 2015. This causes a significant loss to the economy, and also impacts on people with mobility disabilities who have to rely on cars or public transport to travel. Reversing the

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23 Sustrans, “Physical activity and health - facts and figures”
decline in the bus sector could help cut congestion, as one full double decker bus can displace 75 cars on the road.

- **A boost to the economy**: Spending on active travel is highly cost effective. In assessing a sample of Community Links schemes, Sustrans Scotland found that for each £1 spent, between £18.6 and £90.5 was delivered in benefits over 30 years. Sustrans Scotland also estimated that health benefits of walking and cycling on the National Cycle Network were £229 million and £92 million respectively in 2015 (estimated using the World Health Organisation’s Health Economic Assessment Tool). A UK Government Department of Transport review of active travel schemes found a ‘highly significant’ mean benefit to cost ratio of £6.28 to £1.

**References**:

- *ClientEarth v SSEFRA* [2015] UKSC 28
- *ClientEarth (2) v Defra* [2016] EWHC 2740
- Defra, “UK plan for tackling roadside nitrogen dioxide concentrations: Detailed plan” July 2017
- Environment Act 1995, Part IV
- Department of Transport, Standing Advisory Committee on Trunk Road Assessment, “Trunk Roads and the Generation of Traffic” (1994).
- European Ambient Air Quality Directive 2008/50/EC
- Friends of the Earth Scotland Blog, “Come on Scotland, time to step on it with transport!” 28 July 2017
- Royal College of Physicians, “Every breath we take: the lifelong impact of air pollution” Feb 2016
- Scottish Air Quality Website: [www.scottishairquality.co.uk](http://www.scottishairquality.co.uk)

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26 Department for Transport, “Claiming the Health Dividend: A summary and discussion of value for money estimates from studies of investment in walking and cycling” (2014)
• Scottish Government, “Cleaner Air For Scotland The Road To A Healthier Future,” Nov 2015
