

The Glasgow Centre for Population Health's response to the Cleaner Air for Scotland 2 strategy

January 2021

Introduction

In October 2020 the Scottish Government launched a consultation on a draft new air quality strategy for Scotland, Cleaner Air for Scotland 2¹. On 22 March 2021 the Scottish Government published an analysis of responses to the consultation² and set out the Government's response to the consultation and the next steps for finalising the strategy³. The final strategy will be published later in 2021.

The Glasgow Centre for Population Health responded to this consultation on 22 January 2021. We gave responses to some, but not all, of the consultation questions. We have included our responses where we provided detailed comments below.

The consultation themes, action and questions are in black font. The GCPH responses and comments are provided in blue.

Health Actions

We will:

- Assess the evidence on health impacts of low level pollution in countries with levels of ambient air pollution comparable to Scotland.
- Commission population research on the long term effects of air pollution using cohort methods to aid further understanding of health impacts and explain the apparently different epidemiology in Scotland.
- Convene a task group to identify what, if any, actions might best be undertaken at Scottish level to address the issues associated with indoor air pollution.
- Commission an assessment of actual exposures experienced by a representative sample of the Scottish population, assessing pollution exposures over a realistic activity range during a normal time period.
- Contribute to research on in-vehicle air quality measurement methodology, the use of recirculation mode for long-distance journeys related to CO₂ and in-vehicle air pollution related to occupational health.

Questions on Health

1. Do you agree with the package of actions put forward in the health chapter?

A) Yes

In addition, we believe there would be merit in publishing evidence-based advice for the public on how to reduce an individual's exposure to air pollution in different outdoor and indoor environments.

Within this advice and specific to travel-related exposure, it would be helpful to have a clear interpretation of relative exposure risks by travel mode and by location, with practical comparisons.

¹ sometimes referred to as CAFS 2

For example, likely levels of relative exposure while walking beside a busy road, cycling on busy road, travelling by bus or by car, and, additionally, comparing exposure levels while making a similar trip walking or cycling through a park or off-road. If clear evidence cannot be called upon, then there would be a case to commission research to generate such evidence.

There would be merit in commissioning research to assess the relationship between Covid-related hospitalisation and mortality in Scotland and known pre-existing levels of air pollution across the country. This, alongside existing international studies, would help provide a better understanding of the links between Covid-19, ill-health and air pollution. It would also – we assume – strengthen the existing case for reducing levels of air pollution across Scotland even more.

Exposure to poor quality air is a matter of environmental injustice. There is a case for air pollution research in Scotland that has a focus on inequalities; that aims to assess levels of exposure to air pollution for people with protected characteristics (i.e. are certain population groups more at risk of exposure to poor quality air?) and across different deprivation quintiles.

This strategy should aim to highlight areas where the population are unfairly being exposed to poor quality air from external sources. These findings should be used as evidence for advocating mitigating actions (e.g. greening measures, re-routing, introducing low emission zones in neighbourhoods for people travelling from out-with the area).

Integration

Actions

We will:

- Work with local authorities to ensure that noise action plans are closely aligned with air quality action plans to deliver co-benefits. Guidance will be produced to facilitate this.
- Ensure that all actions taken by the Scottish Government to address air quality maximise the potential for co-benefits with climate change mitigation and adaptation. The 50 recommendations for maximising co-benefits set out in the CAFS Governance Group climate change report will be used to guide this process. We will work with local authorities to ensure that a similar approach is taken at local level.
- Ensure that actions in the Scottish Government's Climate Change Plan maximise co-benefits for air quality.

Questions on integrated policy:

2. Do you agree with the package of actions put forward in the integrated policy chapter?

A) Yes

Additional comments in support of your answer

The introduction to the transport section recommendations in the CAFS Governance Group climate change report referred to above makes the following important point:

“It is important to be clear that no single approach is appropriate and, indeed, there should be commitment to multiple, concurrent approaches that taken together will have a positive and synergistic impact on both climate change emissions and air quality. Underlying the specific findings listed below is the presumption that increased investment in more sustainable forms of

active and public transport should be matched by more focused evaluation of less sustainable development.”

We support an integrated approach to tackling climate change emissions and creating safer, more liveable communities, while also reducing air pollution. To do so, as the excerpt above indicates, will need multiple concurrent approaches and transport investment to shift away from roads towards sustainable transport. We would also urge for a greater pace of change in making the switch to an active and sustainable transport system. Covid-19, and COP26 locally in Glasgow, have slowed the pace of progress, but we are facing a climate emergency and need to act much more swiftly.

The commitment in the most recent Climate Change Plan to a 20% reduction in car kilometres driven in Scotland is welcome, and is a clear example of where a coordinated, multi-faceted approach will be required to achieve this target and accompanying co-benefits, including improvements to air quality.

Placemaking

Actions

We will:

- Ensure that NPF4 has regard to CAFS 2 in its preparation.
- Continue to promote the use and role of the Place Standard tool(s) in place-based approaches, enabling delivery of air quality improvement as a co-benefit of delivering high quality sustainable places that support health & wellbeing and reduce health inequalities.
- Work with local authorities who wish to develop a targeted approach where appropriate for utilising the Place Standard tool with an air quality focus.
- Undertake a review of nature based and green infrastructure interventions which can benefit air quality, using the outcomes to develop a database of potential solutions.
- Work with local authorities to assess how effectively air quality is embedded in plans, policies, City Deals and other initiatives, and more generally in cross- departmental working, identifying and addressing evidence, skills, awareness and operational gaps.

Questions on placemaking:

4. Do you agree with the package of actions put forward in the placemaking chapter?

A) Yes

Additional comments in support of your answer

In ensuring that “NPF4 has regard to CAFS 2”, we would hope that some environmental principles would be built into the new planning framework. For example, that new developments, land uses and infrastructure should be designed to reduce air pollution, improve population health, contribute to climate resilience and reduce carbon emissions. NPF4 needs to provide much better guidance on avoiding detrimental impacts on local air quality than existing policy. A set of clear environmental principles would help to achieve this.

In undertaking a review of nature based and green infrastructure interventions which can benefit air quality, we suggest that it would be useful to also identify wider co-benefits for human health and communities of such interventions.

The Place Standard is a useful tool for identifying community priorities and issues, including streets with high traffic volumes. Currently, it does not allow users to identify air quality in different locations, but there may be scope to develop a version of the Place Standard tool that can be used in conjunction with portable air quality monitors to identify pollution “hotspots”. As the tool is in continuous development, there is scope to include more specific air quality considerations.

While the aspirations of these actions are commendable, in order for spatial planners to act, a requirement for Local Authorities to consider air quality needs to be enacted through legislation in order to avoid legal challenges. Guidance on how to implement such legislation needs to also be provided.

5. Do you have any suggestions on the role of place-based approaches in delivering targeted air quality improvements?

Capturing air quality data can align well with community projects. For example, in the South of Glasgow, five young people were given bike mounted air quality monitors and encouraged to cycle around to monitor PM2.5 levels. This highlighted pollution hotspots (i.e. areas where levels exceed the WHO recommended levels) where action may be needed to protect public health⁴.

In relation to nature based and green infrastructure interventions, where relevant, it would be useful to monitor air quality before and afterwards to demonstrate public health value.

Place-based approaches can provide the opportunity for developing targeted interventions in air pollution “hotspots” that combine a mix of various measures incorporating structural changes, vehicular management and behaviour.

Data

Actions

We will:

Commission a review of air quality data collection and reporting in Scotland. The review will identify any notable gaps in data provision, with recommendations on how to fill these. The review will also provide recommendations on how current air quality data and methodologies can be more effectively integrated with other datasets, particularly those relating to transport and human health.

Commission research to explore the potential of utilising satellite data to complement air quality monitoring.

Develop an approach for standardised annual collection and storage of traffic data which can be used for multiple purposes, including air quality management.

Undertake a review of road transport data capture and associated gaps with relevance to air quality.

Collect transport data within Air Quality Management Areas and beyond to support air pollution mitigation planning, following the good practice established by SEPA’s National Modelling Framework (NMF)

Explore options for transport, air quality and health data-sharing between relevant public bodies.

Provide guidance to local authorities on how best to always commission traffic

data collection in a way that supports local air quality objectives.

Establish a comprehensive network of cutting-edge remote sensing air quality monitors on local and trunk roads in the early 2020s.

Questions on data

6. Do you agree with the package of actions put forward in the data chapter?

A) Yes

7. Do you have any suggestions on the approach for annual collection of traffic data for air quality management purposes?

We would suggest that rather than annual collection of traffic data, it should be possible to collect real-time data from existing traffic cameras, on-road monitors in cities and possibly through travel apps. We would also urge the collection of traffic and transport data to include pedestrians, cyclists and wheelchair users in order to not only understand levels of exposure to air pollution but to better understand modal shares and modal switching to more sustainable transport. There are increasing numbers of automatic monitors in our cities and more innovative approaches to capturing travel movements are developing. The Urban Big Data Centre (University of Glasgow) has alongside Glasgow City Council and the Glasgow Centre for Population Health been pioneering the use of spare CCTV capacity to capture still images and via an AI algorithm to count different types of vehicles and pedestrians on streets in Glasgow⁵. These data are held on an open data platform and making traffic and transport data readily available in this way will maximise its utility for monitoring, evaluation and research.

LEZs may lead to displacement of dirty vehicles to other areas. Monitoring data will be needed to assess this potential impact.

Public Engagement and Behaviour Change

Actions

We will:

- Develop a public engagement strategy on air quality in Scotland, taking into account the recommendations from the evidence review.
- Undertake a baseline survey of current awareness amongst the Scottish public of air pollution health effects and source contributors.

Question on public engagement and behaviour change

8. Do you agree with the package of measures put forward in the public engagement and behaviour change chapter?

A) Yes

We are very supportive of the recommendation, as part of developing a public engagement strategy on air pollution in Scotland, to “support citizen-led engagement events and activities”. A recent example of such a project was one focussed on collecting air quality data from monitors carried by cyclists which was undertaken by South Seeds in the southside of Glasgow⁴.

There is a case for adding questions on awareness of or concerns about air pollution to the Scottish Household Survey, which already has a question on public attitudes to climate change.

Covid-19 and the subsequent lockdowns has resulted in a drastic reduction in the use of public transport. A major campaign will be required to get people back on public transport.

Transport

Actions (see range of actions in consultation document - <https://www.gov.scot/publications/cleaner-air-scotland-2-draft-air-quality-strategy-consultation/pages/13/>)

17. Do you agree with the actions put forward in the transport chapter?

A) Yes

Additional comments in support of your answer

We support the overarching objectives of the Scottish Government's transport policy which seeks to create a sustainable, inclusive, safe and accessible transport system.

As we transition from the current pandemic restrictions into a 'new normality', focussed efforts will be needed to regain people's confidence that public transport is safe and to attract them back onto public transport.

Alongside, cleaner buses, electrification of trains and expanding bus prioritisation, other approaches will be needed. Integrating ticketing across public transport and active travel (e.g. bike hire) services would help. The provision of free bus use to under 19s should help encourage greater bus use and consideration should be given to expanding this offer to include all young people under 26, people on Universal Credit and parents over the period of their pregnancy, to address transport inequality and need and to encourage greater bus patronage.

In terms of vehicle speed and air pollution, we would urge reconsideration of a shift to a default 20 mph speed limit in built-up areas across Scotland. At a minimum we would suggest that the most recent evidence of the impact of 20 mph limits is assessed taking account of evidence from newer schemes - such as in Edinburgh, in the Borders and drawing on the proposals for a national 20mph limit in built up areas in Wales - and the most effective way to introduce them. The impacts of 20mph speed limits, if implemented and policed effectively, potentially include multiple co-benefits of reduced casualties (particularly pedestrians and cyclists) and severity of injury, improvements to air quality and increases in walking and cycling – also leading to lower carbon emissions.

Existing walking/wheeling/cycling infrastructure can get overcrowded and there is a need for segregating cyclists and pedestrians. Only the successful and effective active travel measures introduced during the Covid pandemic to ensure social distancing should be made permanent.

In addition to the current actions suggested under active travel, we would encourage a strategic approach to be taken to the creation of an integrated bike hire network across Scotland. Bike share schemes have the potential to increase cycling inclusiveness in terms of who has access to cycling and who cycles.

We would also suggest a strategic assessment is needed of where progress is being made in creating active travel infrastructure and achieving behaviour change and where little progress is being made. Active travel developments are patchy across Scotland and not happening at the same pace everywhere. A better understanding of this is needed to enable action to be taken to

ensure that the benefits of safe inclusive active travel networks are experienced across all of Scotland.

In the interests of public health, there is strong precedent to improve air quality in areas of high footfall and where cycle routes run alongside traffic. Decision-making should more strategically align with identified public health risks. Measures might include the decarbonisation of bus fleets, greening measures or re-routing. Many urban arterial routes pass through deprived areas where local people are less likely to drive and are therefore more exposed to external pollutants.

Some additional points:

A commitment to expanding high speed broadband across the country to better enable home working may be an additional mechanism to decrease car use.

Support could be put into place to repurpose empty buildings into local working hubs which could reduce the need to commute but still provide social interaction.

There needs to be guidance on EV charging points so that a strategic approach can be taken. Consideration needs to be given to areas where there is a high density of tenements without drives. Fiscal initiatives could encourage EV usage.

References

¹ Scottish Government. *Cleaner Air for Scotland 2: consultation*. October 2020. Available at: <https://www.gov.scot/publications/cleaner-air-scotland-2-draft-air-quality-strategy-consultation/>

² Scottish Government. *Cleaner air for Scotland review: consultation analysis*. March 2021. Available at: <https://www.gov.scot/publications/cleaner-air-scotland-review-analysis-consultation-responses/pages/2/>

³ Scottish Government. *Feedback updated 22 Mar 2021*. March 2021. Available at: <https://consult.gov.scot/environmental-quality/cleaner-air-for-scotland-2/>

⁴ South Seeds. *Glasgow Evening Fumes*. Available at: <https://southseeds.org/category/resources/>

⁵ UBDC. *Creating open data counts of pedestrians and vehicles using CCTV cameras*. Available at: <http://www.ubdc.ac.uk/news-media/2020/july/creating-open-data-counts-of-pedestrians-and-vehicles-using-cctv-cameras/>