RURAL ECONOMY AND CONNECTIVITY COMMITTEE

RESTRICTED ROADS (20 MPH SPEED LIMIT) (SCOTLAND) BILL

SUBMISSION FROM FRIENDS OF THE EARTH SCOTLAND

INTRODUCTION

Friends of the Earth Scotland fully supports the proposal to replace the current 30mph default speed limit on restricted roads with a 20mph limit. This Bill will help to improve air quality in Scotland.

Scotland has been breaching air quality legal limits since 2010. Air pollution causes 2,500 early deaths a year in Scotland[1]. Breathing in toxic fumes increases the risk of having a heart attack, stroke, or cancer. Vulnerable groups, such as children and the elderly, are at higher risk. Studies have shown a link between exposure to nitrogen dioxide and children's lung development. Air pollution can also cause developing foetuses to fail to grow to their full potential.

Reducing the speed limit would improve the flow of traffic, reduce congestion and emissions, and encourage more active, healthier, travel. All of these would contribute to reducing pollution and improve air quality.

BENEFITS

While there are many benefits of this proposal, it is worth highlighting three.

- Increasing safety in the quickest, fairest, and most cost-effective way

This Bill will remove the need for Councils to introduce street-by-street TROs, which is a lengthy, time-consuming process. In Edinburgh, for example, the initial pilot was launched in 2012, and the final rollout took place in 2018[2][3].
A nationwide introduction of 20mph-as-default will save Council resources, allow the changes to be made quicker, and ensure no family has to wait many years longer for their street to be made safer.

- Reducing vehicle emissions

Imperial College London explored the relationship between speed limits and emissions. They found that vehicles flow more smoothly in 20mph areas than in 30mph areas. Not only did this lead to less congestion, but also, as a result of reduced acceleration and braking, vehicles in 20mph areas on the whole used less fuel than vehicles in 30mph areas, meaning cost savings for the driver and reduced air pollution emissions. They found that petrol cars polluted more NOx and CO2, and less PM10, at 20mph compared with 30mph. Diesel cars on the other hand, polluted less NOx, less CO2, and less PM10[4].

According to Transport for London, over 75% of road transport particulate emissions come from tyre wear and brake wear. This means that driving conditions and driver behaviour are crucial determinants of air pollution. The more accelerations and

[1] https://foe.scot/press-release/new-research-means-2500-deaths-a-year-in-scotland-are-from-air-pollution/
[2] https://www.edinburgh.gov.uk/news/article/1743/busting_the_myths_around_edinburghs_20mph_roll-out
[3] http://www.edinburgh.gov.uk/info/20243/20mph_for_edinburgh/1481/20mph_in_my_area
[4] https://www.cityoflondon.gov.uk/business/environmental-health/environmental-protection/air-quality/Documents/speed-restriction-air-quality-report-2013-for-web.pdf

decelerations that occurs, the more a car is emitting harmful pollutants. “In 20 mph zones vehicles moved more smoothly, with fewer accelerations and decelerations, than in 30mph zones”[5].

- Encouraging walking and cycling.

When people are asked why they don’t walk or cycle more often, or why they don’t feel comfortable with their children walking or cycling to school, safety is a perennial concern and the speed of traffic is central to this concern[6].

The introduction of 20mph limits has led to an increase in walking and cycling, and we can expect that to continue as lower speed limits are more widespread and normalised[7].

To improve air quality, and reduce carbon emissions from the transport, it is essential that people chose to walk or cycle rather than use motorised transport.

Compliance

Evidence is mixed on the extent to which 20mph limits are observed. For example, there have been reports that the 20mph limits in Edinburgh were not observed by a majority of residents, but these reports came out before the roll out was complete.

A study by Imperial College London found that in London, speed limits did generally work. It found, “Mean cruise speeds were 14.9mph on 20mph segments and 19.2mph on 30mph segments”[8]. Evidence shows that the larger the 20mph area, the higher the level of compliance[9].

We therefore take the view that the longer the speed limits exist, and the more widespread they are, the higher compliance

[5] http://content.tfl.gov.uk/speed-emissions-and-health.pdf
[6] https://www.gcph.co.uk/assets/0000/6007/Active_travel_synthesis_final.pdf
[7] https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/757307/20mph-headline-report.pdf
[8] https://www.cityoflondon.gov.uk/business/environmental-health/environmental-protection/air-quality/Documents/speed-restriction-air-quality-report-2013-for-web.pdf
[9] https://www.brighton-hove.gov.uk/sites/brighton-hove.gov.uk/files/downloads/democracy/Microsoft_Word_-_Item_8_Speed_Reduction_Review.pdf