APPENDIX:
Summary Results & Methodology

Under the commitments made by Paris in the Green & Healthy Streets Declaration, the city of Paris will be closed to fossil fuel vehicles by 2030 and will only procure electric buses by 2025. C40's calculations suggest this has the potential to reduce PM2.5 levels in the city of Paris by approximately 1.3 micrograms per metre cubed.

- This will avoid an estimated 400 air quality related deaths per year and add 21 days to life expectancy on average for every resident in the city of Paris
- This will prevent an estimated 1,280 respiratory hospital admissions and 6,350 cardiovascular hospital admissions annually triggered by air pollution
- This analysis only looked at the residential population of the city of Paris, there are an additional 1 million people living outside the city of Paris but working in the city of Paris who will also benefit from air quality improvements.
- This only accounts for tailpipe emissions. The air pollution created by the wear on breaks tyres can only be tackled by reducing the number of vehicles

Improving air quality, in particular reducing the amount of very small particulate matter (PM2.5) reduces the risk of mortality. If all C40 cities reduced PM2.5 by 2.5 micrograms per metre cubed - by for example meeting the commitments of the Green & Healthy Streets Declaration and encouraging more people out of their cars - it would potentially prevent more than 45,000 premature deaths each year.

- For a city like Paris, and many other across Europe and North America, reducing PM2.5 levels by 2.5 µg/m³, is a tough but realistic goal. This represents a significant portion of non-background PM2.5 pollution and an ambitious but achievable first step on the road to tackling poor air quality.
- For many cities in India and China, efforts to tackle air pollution will bring PM2.5 levels down much further, thereby preventing many more premature deaths, so this 45,000 figure is certainly a low estimate of what can be achieved through decisive climate action.

(Switching from driving to) an active commute to could lead to:

23% reduced risk of heart disease,

23% reduced risk of stroke,

15% reduced risk of type 2 diabetes,

14% reduced risk of depression,

12% reduced risk of breast cancer

11% reduced risk of dementia, and

8% reduced risk of colon cancer

- This is based on a 15 minute active commute to and from work, 30 minutes in total per day, 5 days a week, 150 minutes per week.

- Walking at a brisk pace or cycling achieve these health benefits

- The health benefits of this increase in physical activity were calculated by drawing on a wide range of peer-reviewed medical research. We worked with Dr James Woodcock from the University of Cambridge to identify the most robust evidence.

- This evidence is taken from an overview of systematic reviews including over 100 cohort studies and collectively involving over 2 million people, covering research undertaken by a range of universities (including Cambridge University, University College London, Harvard School of Public Health, Stanford University School of Medicine)

An active commute also saves carbon, we estimated that if 10% people in North American C40 Cities switch from driving to cycling that would save 1.6 million tonnes CO2 each year.

MORE DETAILS:

Members of the C40 Research Team are available for comment on the findings, the methodology and the sources used.

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