



ICE London

UN Climate Change Conference (COP26)

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Air pollution – then and now




- 1952 Respiratory effects from short term exposure to visible smoke from coal and wood burning
- 1995 Cardiovascular effects from long-term exposure to invisible particles. The ‘Six Cities Study’
- 2021 Air pollution is the world’s largest environmental health risk killing an estimated seven million people every year. Probably affecting every organ of your body at every stage of your life

Clean Air in London's mission

Full compliance with WHO air quality guidelines

	Air pollution	Greenhouse gases
London or any city	Air pollution, cities, health and justice	
Rest of world		

Clean Air in London's mission for COP26 and beyond

	Air pollution	Greenhouse gases
London or any city	Air pollution, cities, health and justice	 COP26
Rest of world	 COP26	 COP26

What is air pollution?

- Local air pollution and greenhouse gases
- Local air pollution comprises particles and gas
- Particles regulated as a lump for health and legal purposes e.g. $\text{PM}_{2.5}$ and PM_{10} . Typically, particle mass or number concentrations
- Cloud of gases can include carbon monoxide (CO), nitrogen dioxide (NO_2), ozone (O_3) and many others
- Pathogens e.g. COVID-19

What is the health advice?

The more scientists look the more they find

- WHO Air Quality Guidelines 2005 (published 2006)
- Inquest into death of Ella Roberta Adoo Kissi-Debrah found air pollution ‘significantly caused’ and ‘significantly contributed’ to her death
- WHO Housing and health guidelines (2018)

<https://www.who.int/publications/i/item/9789241550376>

“In the absence of updated or indoor-specific guideline values, the air quality guidelines are considered applicable for indoor exposure as well. An update of these guidelines is under way.” Section 8.2, Page 95

- New WHO Air Quality Guidelines are expected in 2021

Where can I find information about outdoor air pollution?

- Monitoring – real time, scientific monitoring
 - Global <https://aqicn.org/map/world/>
 - Defra's national and locally managed monitors
<https://uk-air.defra.gov.uk/networks/network-info?view=nondefraaqmon>
 - London Air Quality Network
 - Air Quality England
- Defra and other alert forecasts but 'maps' look 'Green' 330 days of the year
- Modelling – 20 metre to one kilometre grids
- Other sources e.g. addresspollution.org
- Your own monitoring e.g. NO₂ diffusion tubes

What is 'climate change'?

- Greenhouse gases trap more energy and increase the planet's temperature
- Conflates many issues e.g. emissions, global warming and changes in climate
- Short, medium and long-term effects. Temperature multiplier in polar regions
- ST: warmer, drier summers, wetter winters, acidification of oceans, biodiversity loss, bush/wildfires, droughts, flooding, heatwaves and disease vectors, landslides and stronger storms/cyclones. Air pollution episodes – dust and ozone.
- MT: crop failure, desertification, disasters, loss of Hindu Kush glaciers, migration
- LT: sea level rise and other 'lagged' effects
- Many justice issues including inter-generational

UN Climate Change Conference (COP26)

Who? What? Where? When? Why?

- Paris Agreement adopted by 196 parties at COP21 in December 2015
- UNCCC (COP26) in Glasgow 1-12 November 2021
- UK and Italy will lead COP26. Alok Sharma is COP26 President Designate
- Build up includes: UK hosting G7 in June and Italy hosting G20 in October
- US has re-joined the Paris Agreement

What did the Paris Agreement do in 2015?

- Goal to limit global warming to “well below” 2 degrees, preferably 1.5 degrees, celcius compared to pre-industrial levels
- Countries aim to reach global peaking of greenhouse gas emissions ‘as soon as possible’ to achieve a climate neutral world by mid-century
- Countries supporting one another on finance, technology and capacity-building
- Review progress every five years [2020->2021]
- Developed countries agreed to provide \$100 billion a year in climate finance to help poorer countries by 2020 with a commitment to further finance in future

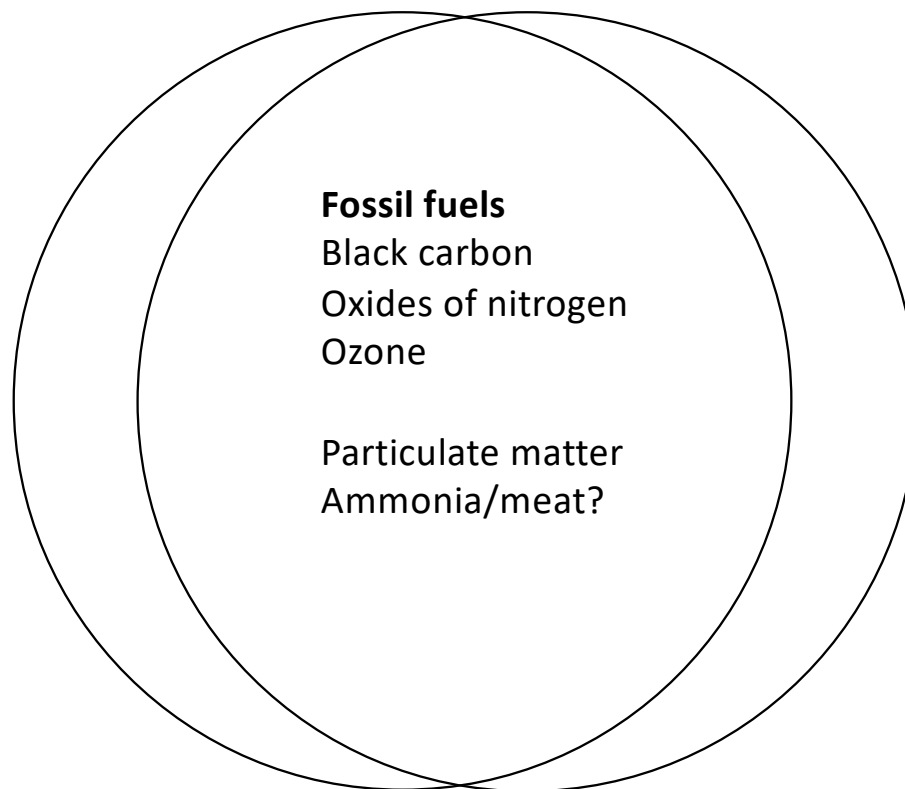
What did the Paris Agreement leave to COP26?

- Countries to submit their plans for climate actions to reduce GHG emissions known as nationally determined concentrations (NDCs) by [2020]
- Countries invited to submit long-term low GHG development strategies by [2020]
- Wealthy nations due to deliver \$100bn pa climate finance
- Sticking points from 2015 carried forward e.g. Paris Rule Book

Fossil fuels accounted for 78% of total UK gases in 2019 (and buildings generate 78% of greenhouse gases in cities)

Local air pollution

Airborne metals
Particulate matter
VOCs



Greenhouse gases

Carbon dioxide
Methane/meat?

But discussion around COP26 is still focused on generalisations

Air pollution

4.1m tweets. 15.2 m engagements

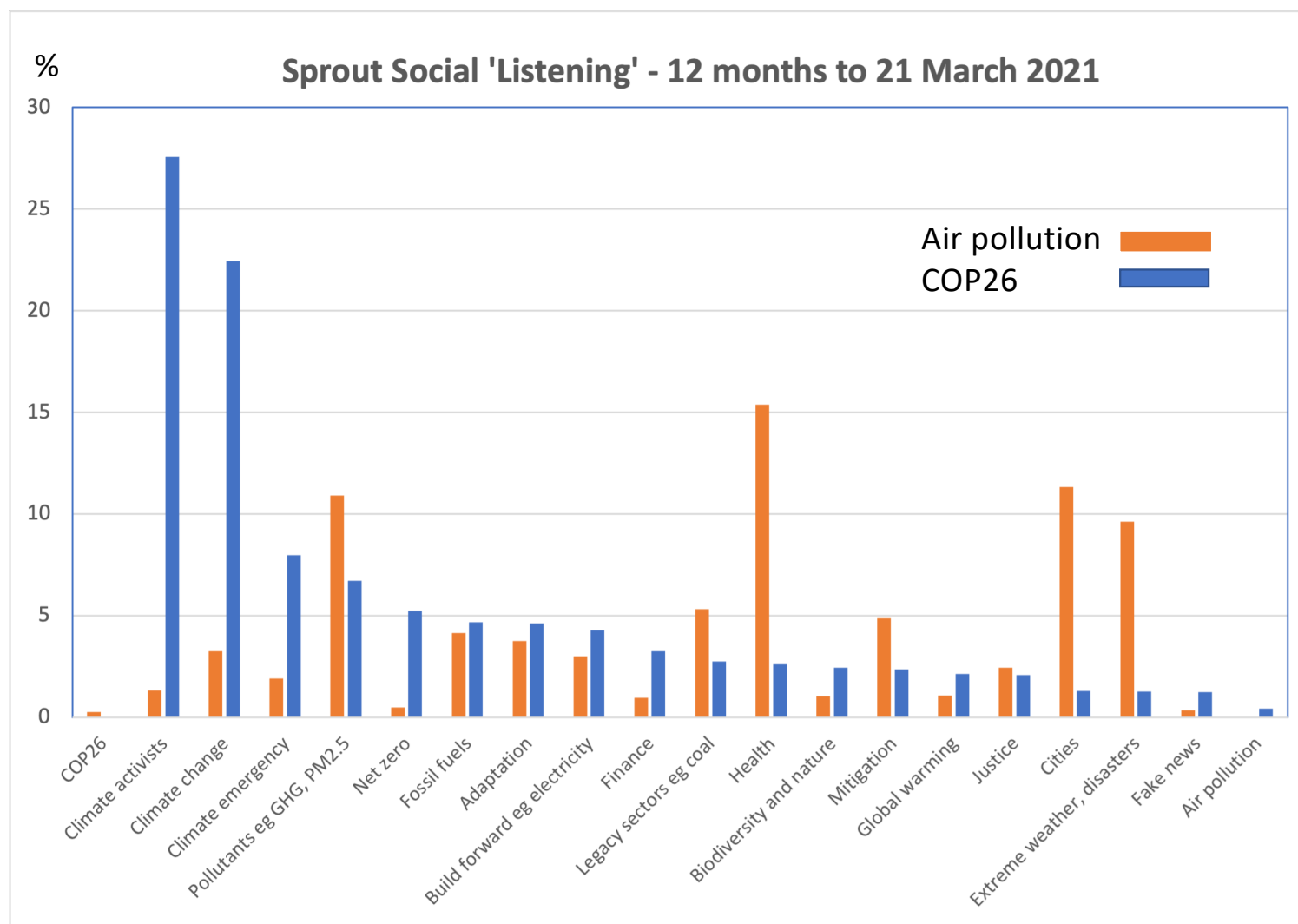


COP26

2.5m tweets. 10.7m engagements



CAL analysis of over 6m tweets and 26m engagements using Sprout Social 'Listening'



Does the UK have the right goals for COP26?

**Patricia Espinosa to LSE
(26 February 2021)**

1. Strong NDCs
2. Wrap up negotiation items e.g. Article 6
3. Raise ambition on adaptation and finance
4. Bring state and non-state voices together

**Alok Sharma to UN Member States
(8 February 2021)**

1. Step change in emission reductions
2. Strengthen adaptation
3. Get finance flowing
4. Enhance international cooperation

Mood music – COP26 was always going to be a difficult meeting...

- No global net zero deadline. Global temperatures heading to 3.5c rise
- NDCs from 75 of 194 parties
- Finance – \$67bn at last count
- Boost from President Biden/US re-joining the Paris Agreement
- India 'reluctant' to set a net zero deadline citing failures of developed countries to deliver on their commitments e.g. finance
- Australia aiming for net zero asap and 'preferably' before 2050...
- Developed countries are accused of 'protectionism' and 'hypocrisy'

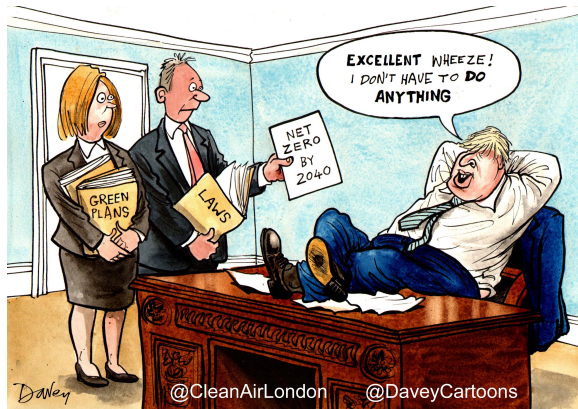
What we need at COP26?

1. Outcome that will limit global warming to 1.5c-2.0c. Is 2050 too late?
2. NDCs, long term plans, global net zero deadlines with progress by 2030
3. Deliver financial and other pre-2020 commitments
4. Paris Rule Book agreed
5. Adaptation plans
6. Build engagement and momentum among state and non-state actors

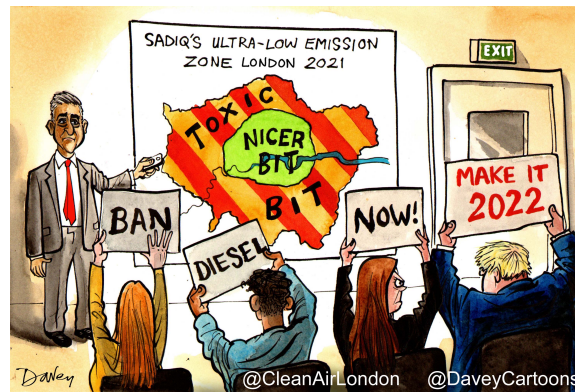
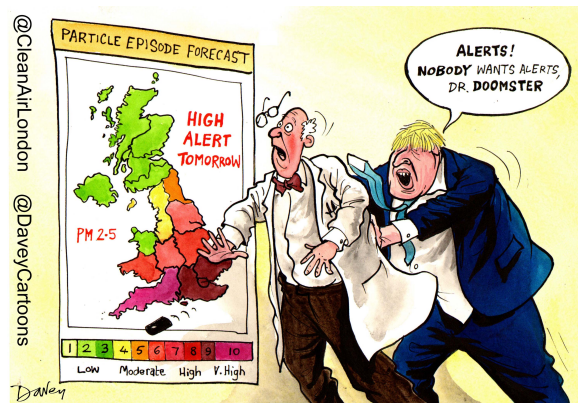
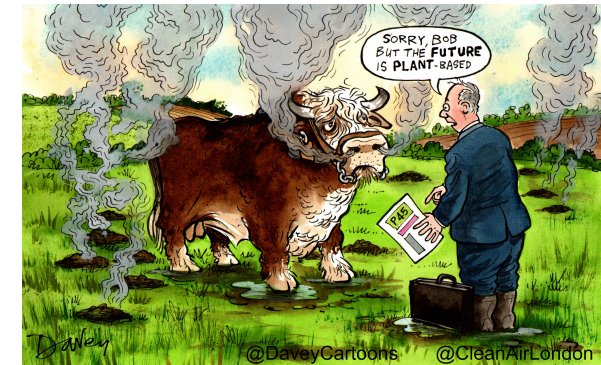
UK must put its own house in order e.g. comply with existing air pollution laws and publish plans and legislation to deliver net zero by 2050

Solutions – Mitigation and adaptation. Opportunities

- Urgency. One atmosphere not air pollution vs GHG. Includes lifestyle changes. Governance
- Zero air emissions – a unifying theory for air quality and climate change
- Zero air emissions is not 'net zero' or 'carbon neutral'. 'Net' is a fudge. 'Carbon neutral' can mean 'no change' rather than 'zero'
- Political leadership, technology and lifestyle change
- Lifestyle change measures:
 - Bans, charges, public understanding campaigns, incentives and adoption
- Campaigners and others can make political costs of inaction exceed action e.g. making it easy to 'ban' diesel in London
- Remove subsidies. Ban solid fuels. New Clean Air Act
- Beware biomass and blue hydrogen
- Mobilise everyone everywhere: health, cities, justice, nature etc.
- Opportunities – cleaner, healthier cities and towns



Scoring of Mayoral manifestos London 2021



Opportunities

- New WHO Air Quality Guidelines in 2021
- Possible UN right to a safe, clean, healthy and sustainable environment
- New Clean Air Act to decarbonise buildings. Voted 2nd at Tory conference
- Legal action e.g. Climate case Urgenda. Supreme Court in Netherlands
- Science Based Targets needed for biodiversity, land, fresh water and oceans i.e. similar to WHO air quality guidelines and 1.5-2.0c
- UN Climate Change Conference (COP26)
- Healthy people, healthy planet.

“In nature there are neither rewards nor punishments;
there are consequences.”

Robert G. Ingersoll (1833-1899)