

Breathing Space: Mapping London's Air Quality Together

Activity: Designing a data-driven urban greening strategy for air quality

Objective: Use two complementary datasets: 1) London Air Quality Network (LAQN) and 2) London Green Cover Map to develop a strategic urban greening proposal that improves air quality while considering planning constraints.

Scenario

The borough has funding to expand its urban street tree cover, but resources are limited. Your task is to identify the locations where new green infrastructure would deliver the greatest benefit for improving air quality and reducing population exposure.

1. Explore the datasets (10 min)

Each participant (or team) opens online or receives:

- LAQN monitoring locations
- Air pollution concentrations
- London Green Cover Map
- Road network
- Schools, hospitals and residential areas
- Optional: cycling routes and pedestrian network

Task: Identify spatial relationships between:

- pollution hotspots
- existing vegetation
- sensitive populations/vulnerable population??

Questions

- Where do high pollution concentrations coincide with low tree canopy?
- Which pollution hotspots already have significant vegetation? What might explain this?

2. Prioritise interventions (10min)

Task: Selects three intervention sites. For every location participant must explain:

- Why was this location selected?
- What evidence supports your decision?
- Which type of green infrastructure is most appropriate?

3. Strategic Tree Planting Exercise (20 min)

Task: Ask participants to develop a Tree Planting Strategy. Each participant (or team) defines:

- Priority 1: Areas where trees would have the greatest public health benefit.
- Priority 2: Areas where trees would reduce pedestrian exposure.
- Priority 3: Areas where trees would strengthen existing green infrastructure connectivity.

4. Final Discussion (15min)

At the end of the activity ask to all the participants to discuss:

- Would you always plant trees where pollution is highest?
- Why or why not?

- Which environmental variables most strongly influence local air quality in this neighbourhood?
- Which interventions are likely to produce measurable improvements within 5–10 years?
- Where would additional monitoring be required before making investment decisions?
- What trade-offs exist between increasing tree cover and maintaining street ventilation?
- How should green infrastructure complement transport and emission reduction policies?