AIR Lecture 1

classmate
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AIR QUALITY MANAGEMENT:

→ To judge air quality, you have to look at the measurement of criteria pollutants

→ (Air pollutants for which ambient air quality standard has been set) are criteria pollutants

→ Ongoing and historical data, both need to be looked at to judge air quality.

→ Data has to be compared with national standards set by Central Pollution control Board (CPCB) which are called National Ambient Air Quality standards (NAAQS)

→ If criteria pollutant measurements are in compliance, look out to prevent any significant deterioration.

→ If not in compliance,

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Dispersion Modelling

takes the source of pollutant, uses meteorological data to account for how a source affects a region

INPUTS: meteorological data
Topography
Inventory of sources
- Point: Chimney
- Line: Moving car
- Area: Mining area

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- Gives results for various scenarios
- Helps look at influence of individual sources

- Model outcomes should be similar to real life measurements. Reasons for difference could be:
→ Are all sources accounted for?
→ Are industries emitting more than permitted values?
→ Carrying capacity: If the amount of pollutants released into air is more than the amount being flushed out by wind conditions, carrying capacity is exceeded.

AQM Processes:

A. Air quality is routinely measured by:
measurement of criteria pollutants in National Air Monitoring Program (NAMP) network of stations
B Recently, using Continuously Ambient Air Monitoring stations (CAAMP)

AIR Lecture 3:

How to Manage Air Quality?

- At the source
  - Industry (employ best tech to minimise pollutants)
  - Vehicles (change engine design or fuel)
  - Dust (no clear way of controlling dust)
  - Cooking at home (design with stove or fuel change)

- After the source (
  - Dispersion and mixing