Urbanisation - Pollution and related issues

Urbanisation: It refers to a <u>demographic shift</u> caused by movement of <u>population from rural to urban areas</u>.

<u>Causes of Urban Pollution</u>:

- **The Expansion of 'Grey' Infrastructure:** Grey infrastructure, which includes <u>urban drainage and pluvial flood prevention measures</u>, has expanded but it has <u>not been integrated with green infrastructure,</u> i.e. networks of natural lands, working landscapes, and other open spaces to conserve ecosystem values, to complement it .
- **Trajectory of Urban Development:** The focus is more on <u>real estate development, a widening of roads, reducing the space meant for pedestrians, and redevelopment</u>.
- **Vehicular Pollution:** <u>Widening roads, in turn inducing people to buy more cars</u>, while ignoring the fact that traffic snarls are increasing each day, thus <u>leading to more pollution levels</u>.
- **Particulate Matter Sources:** <u>Road dust, concrete batching, polluting industrial units</u> and their extension in the cities are key sources of particulate matter created pollution in Indian cities.
- **Construction activities,** which are on the rise in almost every Indian city, contribute to roughly <u>10% of air pollution in the National Capital Region</u> region.
- **Pollution Escalating Events in Periphery of Cities:** Events like <u>paddy straw burning in North India</u> leads to escalation of pollution levels in cities during winters.

<u>Impacts of Pollution on life of individuals</u>:

- **Inequitable impacts on marginalised sections:** The poor and the marginalised are the <u>least contributors to pollution</u> but are the segment who are <u>most exposed to it and who pay a heavy price</u>.
- **Reduced lifespan:** Air pollution is taking away over <u>10% of our life expectancy</u>. An average Indian <u>loses 5.3 years of his life expectancy</u> due to this.
- **Health issues:** Pollution results in <u>burning eyes, irritation of the nose and throat, coughing, choked breath, and asthma</u> apart from causing <u>cardiovascular diseases</u>.

<u>Solution to the issues</u>:

- **Transport sector paradigm shift:**
  - **Road Infrastructure:** Creating <u>secure pedestrian paths and bicycle lanes</u> with the creation of a post of '<u>bicycle officers</u>', instead of widening of roads for motor vehicles.
  - **Public Transport:** There needs to be good public transport, with investment in buses for towns and cities. It must be <u>accessible and affordable to daily travellers</u>.
  - **Congestion Tax:** A congestion tax being <u>levied on private car owners driving during peak hours</u> can be thought of as a step to promote public transport use.
  - **'No Car Day' promotion:** <u>City leaders, the elite as well State Chief Ministers should use public transport</u> at least once a day as an example of token motivation. It can help making the <u>'No Car Day' a people's movement</u>.
  - **Green Vehicles:** Transitioning to green vehicles is <u>important for reducing the vehicular emissions.</u>
- **Decentralise Effective Power:** Power needs to devolved to the lowest levels for <u>effective supervision of traffic norms</u>. There must be <u>street supervision by residents</u> instead of waiting for the statutory bodies to react, which urban local bodies can ensure.
- **'Green Infrastructure' under community protection:** There shall be an <u>integrated green and grey infrastructure development</u>. Urban communities must protect, nurture and expand the green infrastructure around them.
- **Ecological Urbanisation: Ian McHarg's** influential book, written in the 1960s, '*Designing with Nature'*, synthesised and generalised <u>ecological wisdom shaping landscape planning and design</u> as a way to build our cities. It refers to integration of <u>ecological concerns in urban planning</u>.

- **Standard Operating Procedures:** There must be a <u>strong standard operating procedure</u> for all the major cities to <u>combat situation of air pollution</u>. Delhi's *Graded Response Action Plan*, or GRAP (a set of anti air pollution measures), can serve as an example.