
General Studies – 1; Topic: Urbanization – problems and remedies**Long-term solution for Air Pollution****1) The world's poorest air?**

- India in general and New Delhi in particular, have struggled with air quality issues for some time now.
- Three years ago, the capital was named as the most polluted city in the world, while Indian cities regularly dominate the top 20.
- Diwali festival of lights led to elevated levels of pollution across the city for almost two weeks.
- Statistics showed that concentrations of particulate matter 2.5 (PM2.5) reached levels of 900µg/m³. That's 15 times the average levels for India and a 36 times the level deemed as "safe" by WHO.
- Hundreds of cities in the country are as badly or worse polluted than Delhi.

2) Long term approach

- **Public transportation has to improve**
 - a) Integrated intelligent transport systems have to be introduced
 - b) Incentives and discounts have to be provided for long-term passes
 - c) Aggressive campaign needs to be launched to get people away from personal vehicles
- **Improve garbage collection**
 - a) Increase the number of garbage pickup trucks, integrate the collection and segregation process
 - b) legalise and provide benefits to rag pickers, and set up a system where every kilogram of waste is picked up
- **Delhi needs heating solutions**
 - a) During winter months the need for heat is the highest among those living in the open, including workers at construction sites, markets, small kiosks, guards and people living in slums.
 - b) This needs immediate attention.
- **Adoption of cleaner technology for industries**
 - a) These industries include food processing, textiles, leather works, wood processing, pharmaceuticals, plastics and paints and metal processing
- **A no-cracker Diwali**
 - a) A campaign to ban the burning of crackers need to happen all year long and needs to be well-planned.
 - b) Raise awareness about the health impacts of burning crackers
 - c) Political will to ban the sale of crackers everywhere in the state and apprehend any illegal importers from other states.
- **Find a solution for stubble burning**
 - a) Incentive program for farmers that addresses their concerns and reasons for stubble burning
 - b) Incentive program and technical support for the industries that can collect the stubble and burn it in a controlled environment.
- **Address governance issues.**
 - a) Needs parties and governments to work together and is not something that one party, one agency or one civil-society group can achieve in isolation.
 - b) It has to be a joint effort to improve the life of every person.
 - c) For this, we need an independent body with teeth to clamp down on offending actors across states.

- **Use of Renewable Energy**

- a) Opting for alternative or renewable energy sources to produce power presents a practical solution to air pollution.
- b) Natural gas, fuel cells, and batteries can as well substitute the use of fossil fuels as cleaner energy sources.
- c) Investing more in renewable and sustainable energy sources reduces pollution at the same time protects the future.

3) **Flaws in the Present Policy**

- Closure of hazardous industries, temporary use of the odd-even scheme, closing schools, factories, construction activities, etc are not going to solve the problem for citizens of India.
- closure of hazardous industries lead to the unemployment of over a million people directly or indirectly and banning non-destined trucks would become difficult for goods and food to reach
- Forcing disruptive policies on citizens that affect livelihoods but don't ensure progressive improvements is bad for governance and makes people more cynical.
- CNG engines produce more NOx than petrol engines and higher densities of smog are also the result of greater amounts of NOx in the air.
- Both the Indian people and the government only recognise that air pollution is a problem on extreme days, when it should be being addressed all of the time.
- Resistance to recognition of the problem was widespread from the outset and is still ongoing.

4) **Need of the Hour**

- Approach the problem in a more comprehensive manner and set in motion procedures and methods that ensure sensible policymaking over the next five to 10 years for all the cities in the country.
- Set up multidisciplinary centres for data gathering, research and policymaking in academic institutions with assured funding
- Their job would be to get reliable information about the sources of pollutants and their amounts in the air on a continuing basis
- The only way to control emissions is to set emission standards that debar unwanted vehicles automatically irrespective of the fuel used.
- Government of India has mandated Euro 6 norms for vehicle emissions starting in 2020. That will do more for reducing emissions
- Making car use more expensive, parking impossible at destinations and bus travel faster than cars.
- According to researchers in Europe, pollution is proportional to the amount of road space in a city and walking is preferred when it is safe, accompanied by social activity on streets.
- We could start with an annual pollution tax of Rs 10 per cc of engine size for all vehicles, a parking fee of Rs 100 per day in all offices and banning free parking on government property.
- We will also have to redesign signal-free roads and blocked right turns
- We will have to think of the role of shopping malls versus neighbourhood shops as the former encourage car use, resulting in more pollution and accidents.
- Allow a great deal of social activity along our urban streets to make walking a preferred option.

5) **Conclusion**

- All these changes will take time, but are the only ways forward that ensure a cleaner future for all times to come.
- It is a basic human right to breathe clean air

- We need a proactive policy spanning multiple years, and we need to act fast, local and through multiple agencies across multiple political parties to take the long view on air pollution.

