Air pollution in Delhi drops 25% in four years

Why in News?

Chief Minister of Delhi recently said that pollution levels in Delhi have reduced by 25% over a period of four years.

What did WHO's study reveal?

- In 2014, a global study on air quality trends by the World Health Organisation had declared Delhi the most polluted city in the world.
- Since then, the Centre, states and courts have taken several steps to arrest pollution in the city.

What do the data show about Delhi air pollution?

- Delhi, through its pollution control committee, started monitoring air quality in real time only in 2010.
- It started out with only 4 stations and was increased to 26 in 2018.
- It was in 2012 that Delhi saw its worst air quality. The full force of crop-residue burning was felt that year, especially in October and November.
- It was the first time that this burning was seriously flagged. It was realised, this was a big reason for the sudden dip in air quality in Delhi.
- But since 2012, the average annual concentration of Particulate Matter (PM), the primary cause of pollution in the city has been falling.
- Gradual in the beginning, the dip has been sharper between 2015 and2018.
- PM is a mixture of solid particles and liquid droplets in air. Some particles can be seen with the naked eye and others only detected under a microscope.
- In Delhi's air, the primary pollutants are PM2.5 (particles of diameter 2.5 micrometres and smaller) and PM10 (10 micrometres and smaller).

What are the data on PM2.5?

- DPCC data from 2012 to 2019 show 2018 saw the lowest average concentration of PM2.5
- In 2012, the annual average was 160 micrograms/cubic metre; it **came down 20%** to 128 micrograms/cubic m in 2018.
- Despite a tough first three months, owing primarily to adverse weather, air

quality improved consistently for the rest of the year.

- It is in November that the highest volume of crop residue is burnt in Haryana, Punjab and UP.
- It is also when temperatures fall and humidity rises, aiding the increase in concentration of pollutants in the air. Locally, the burning of leaves picks up in November.
- However, PM2.5 concentrations have fallen over the years, in November as well as in the 'cleaner' months of July, August and September.

What are the data on PM10?

- Between 2012 and 2018, the concentration of PM10 **reduced by 21%** from an average 351 micrograms/cubic m to 277 micrograms/cubic m.
- PM10 is more prominent in the air in winter, primarily because of open burning and road and construction dust.
- Until August 2019, Delhi's performance in terms of PM10 concentration has been encouraging.
- In August, the average concentration fell to double digits for the first time since 2012; in 2013, this figure was as high as 288 micrograms/cubic m.

What are the determinants of Delhi's weather news?

- Over the past five years, several studies said that weather and seasons are among the biggest determinants of Delhi's air quality.
- No matter how much we try, air quality in winter will be worse than in summer.
- Localised weather conditions are also the reason why winters are more polluted than summers.
- Wind blowing from the direction of a major pollution event such as crop burning or dust storms, will pollute the city as well.
- The results of the efforts borne over the past few years show that if we work on fixing what we can, things will improve.

What has worked in Delhi?

- In 2014, lawyer Vardhaman Kaushik approached the National Green Tribunal (NGT) against pollution levels.
- His petition became the basis of several NGT orders, upheld by the Supreme Court, including the ban on old diesel and petrol vehicles.
- Between 2014 and 2017, the Delhi government, Central Pollution Control Board, and Environment Pollution (Prevention and Control) Authority carried out drives, issued orders, and implemented orders passed by NGT to curb air pollution.

- The biggest push came in 2017, when the Centre notified the Graded Response Action Plan (GRAP), which provided state governments in Delhi and the NCR with a roadmap for action.
- Shutting of the two thermal power plants in Delhi, completion of the eastern and western peripheral expressways for vehicles not destined for Delhi, a ban on PET Coke as industrial fuel, and the introduction of BS VI fuel have made a big difference.
- However, there are two things that have been done completely locally that have made a big difference.
    1. Open burning has been largely curtailed in the city by stringent fines, have made the practice almost to disappear now.
    2. The regulation of construction activity. Regular enforcement drives have meant that whenever a ban is ordered, it is largely followed.

Source: The Indian Express