

Stubble Burning & Delhi's Air Pollution

Why in news?

According to official sources stubble burning is only a partial reason for Air pollution in Delhi.

How stubble-burning accounts to Delhi's air pollution?

- Recently the AQI of Punjab's major cities were under 'poor', 'very poor' categories.
- According to the Central Pollution Control Board, AQI levels in Punjab's cities are between 250 - 430, where AQI in NCR is around 500.
- Stubble burning after paddy harvesting in Punjab has long been blamed for rising pollution levels in the national capital around this time every year.
- The stubble fire count in Haryana and Punjab has increased in recent times.
- Till November 2, a total 25,314 field fires have been recorded in Punjab.
- The share of stubble burning in Delhi's PM2.5 concentration is around 30% (Average).

What makes Punjab least responsible for Delhi's Air Quality?

- Punjab is located in the north-west side of the country, while Haryana is located south and southeast of Punjab, and north-west of the national capital, which is located east of Haryana.
- According to experts, at this time of the year, winds in Punjab generally blow from the north to the western side and as per the wind pattern; Haryana and Delhi are getting winds from Punjab, which is on the north-west side.
- Currently, winds in Punjab are blowing in a northwesterly direction and these are calm winds with a speed of less than 2 kmph, for the past several days.
- In several places, there is air locking too," adding that due to such slow wind speeds, not much polluted air from Punjab was moving to Haryana and Delhi.
- 'surface winds', which blow close to the Earth's surface at 10-15 mts above surface level, are the most effective in carrying polluted air from one place to another.
- However, in Punjab, there is hardly any wind 1-2 km above surface.

What are the other factors behind Delhi's Air pollution?

- Punjab alone cannot be blamed for pollution, but it is a coincidence that in North India, mainly Punjab and Haryana, paddy stubble is burned at the onset of the winter season, when there is a rise in air moisture and wind speeds are slow.
- Smoke from stubble burning, industrial/vehicular pollution further add to the process of 'air locking', which can be broken either through rain or fast winds.
- Absence of rain or fast winds had led to the accumulation of pollutants in the air and decreased visibility level even below 1000 mts during morning and evening.
- For polluted air to move, turbulence and vertical motion in the air is needed, which is not happening at present.
- Punjab's pollution is not travelling much, due to which AQI levels here are also 'poor', but not as severe as Delhi, if stubble burning was only to blame, then due to air locking,
- Punjab should be have more polluted than Delhi due to the high number of stubble fires.
- Thus stubble burning was partially responsible but added that industrial pollution, traffic congestion and excessive construction in Delhi was equally if not more, to blame.

Source: Indian Express