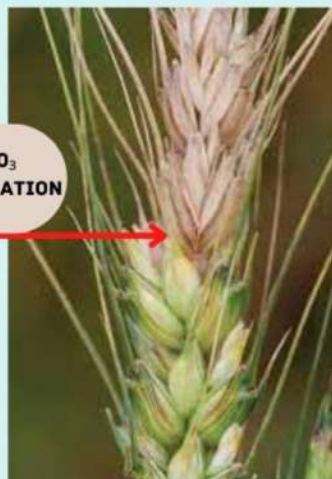


GROUND LEVEL OZONE

CAUSAL EFFECT ON AGRICULTURE SECTOR



HIGH O₃
CONCENTRATION



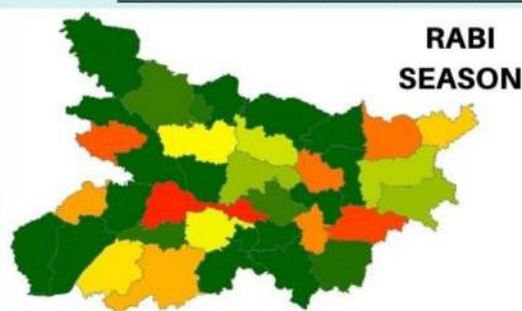
Source- www.reuters.com

Source- www.intechopen.com

Ozone is a colorless and highly irritating gas that forms just above the earth's surface. It is a harmful **air pollutant**, as it adversely effects human, environment, due to harmful **SMOG**.

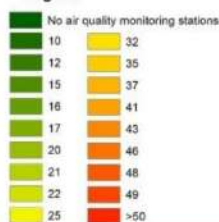
Wheat and rice are the most sensitive to ground level ozone as photosynthesis and shoot biomass of the crops are significantly reduced under elevated O₃. Its increasing concentration in India particularly in the Indo-Gangetic plains is a major concern as it is posing a threat to pertaining sectors like agriculture.

LEVEL OF OZONE CONCENTRATION IN DIFFERENT DISTRICTS OF BIHAR



RABI
SEASON

Legend



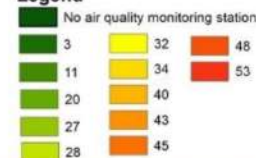
Data Source- Author Analysis

↑
INCREASING
OZONE LEVEL
means
↓
DECREASING
CROP YIELD



KHARIF
SEASON

Legend

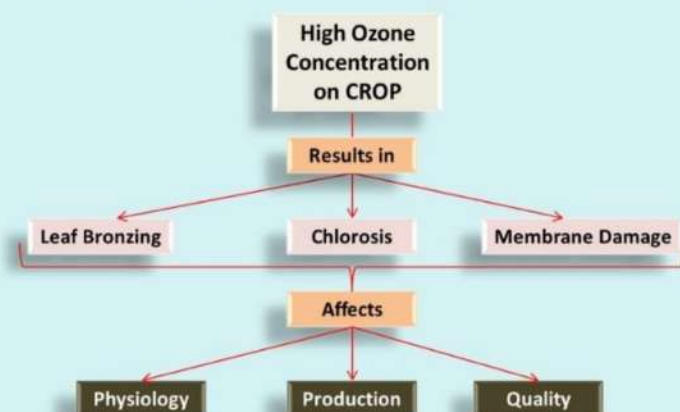


Data Source- Author Analysis

During **Rabi season**, the state generally experiences elevated levels of ozone (40–60 μm^3) due to high pollution concentration, intense solar radiation and less precipitation affecting production of wheat.

During **Kharif season**, the state generally experiences lower levels of ozone as compared to rabi season (40–50 μm^3) due to less intense solar radiation, and more precipitation, affecting production of rice.

Rice and Wheat are dominant crop of the country cultivated during Kharif and Rabi season respectively. Surface Ozone concentration is generally higher over Indo-Gangetic plains, due to anthropogenic activities and has been classified as a "**hot spot**" for air pollution.



MEASURES



Transition to clean and improved engine for transportation and freight.



Encouraging clean cooking fuel as replacement.



Avoiding burning waste openly.



Improving air quality and reducing emission of pollutants such as carbon, ozone and methane to save lives and help reduce global warming by 0.5° C.