

Crops destroyed by ozone pollution could have fed millions

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NEW DELHI: In one year, India's ozone pollution has damaged millions of tons of the country's major crops, causing losses of over a billion dollars and destroying enough food to feed tens of millions of people living below the poverty line, says a new international study.

The study was done jointly by the Indian Institute of Tropical Meteorology (IITM) in Pune, Scripps Institute of Oceanography and the National



Center of Atmospheric Research, both in the US.

The research looked at the agricultural effects in 2005 of

high concentrations of ground-level ozone, a plant-damaging pollutant formed by emissions from vehicles, cooking stoves

and other sources.

According to the new study published in *Geophysical Research Letters*, the *American Geophysical Union* journal, surface ozone pollution damaged 6 million metric tons of India's wheat, rice, soybean and cotton crops in 2005.

Dr Sachin Ghude, an atmospheric scientist at IITM and lead author of the study told HT: "Plants start to exhibit damage when they are exposed to ozone levels that reach 40 parts per billion or above, according to previous research. We ran a chemistry

version of the Weather Research and Forecasting (WRF) model to calculate ozone levels during crop growing seasons that were more than 40 to 50 parts per billion over most of the country. We ran the model with different emissions estimates to come up with an average amount of each crop that was lost due to ozone pollution."

India's ozone problems are likely to get worse with climate change, he added.

Wheat – one of the country's major food sources – saw the largest loss followed by rice, cotton and soybean.

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