



# Nitrogen dioxide pollution in rural India

Slide by Neil Goalby. Available from [rsc.li/3jRQl1n](https://rsc.li/3jRQl1n)

NO<sub>2</sub> (nitrogen dioxide) is an atmospheric pollutant that causes respiratory illness in children. High NO<sub>2</sub> levels commonly occur in densely populated areas.

However, new research using satellite data shows that rural areas in India account for 41% of NO<sub>2</sub> pollution. With some rural cases nearly equal to levels seen in urban areas.

In rural India, road transport is the main source. In urban areas, the power sector was found to be the major source. The research shows that the lowest NO<sub>2</sub> levels were seen during the monsoon season and the highest were recorded during winter.



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*Is a walk in the countryside air really better than rush hour in the city?*

## Questions

1. Write a balanced equation for forming NO<sub>2</sub> from N<sub>2</sub> and O<sub>2</sub>.
2. Describe how NO<sub>2</sub> is formed in a car engine.
3. Suggest why the NO<sub>2</sub> levels are lower in the monsoon season.