

# IISc study finds K'taka among pollution giants

## CO<sub>2</sub> emissions by major cities

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CHENNAI  
13.5 pc

BANGALORE  
12.4 pc

KOLKATA  
8.7 pc

NEW DELHI  
8 pc

Chennai, Bangalore, Kolkata, New Delhi and Mumbai have **1.02 crore** vehicles

As India forges ahead with fast paced economic reforms Karnataka is now part of a list that shows up the flip side of development — it is among the top six air polluters in the country. Bangalore comes second only to Chennai in the blacklist of major cities responsible for air pollution.

A study conducted at the Indian Institute of Science (IISc) in Bangalore shows that 50 per cent of the country's CO<sub>2</sub> emissions come from the six big states of Maharashtra (11.8%), Tamil Nadu (10.8%) Gujarat (9.6%), UP (7.1%), Rajasthan (6.22%), and Karnataka (6.19%).

## GREENHOUSE GASES INCREASE

Acceleration in economic activities

and greater industrialisation has meant a larger dependence on fossil fuel, and this in turn has led to a rapid increase in green house gas emissions in India in recent years. The research paper 'Emissions from India's Transport Sector: State-wise Synthesis' by TV Ramachandra and Shwet Mala establishes not only a state-wise split-up of air pollution, but also a break-up of transport pollution according to type of transport and type of vehicles.

## SHIPS AND TRAINS GREENER THAN THE REST

Emission of gases by transport vehicles, whether on land, air or water, is responsible for most of India's air pollution. Although emissions vary with the type of fuel used, it seems road and avia-

tion beats shipping and railways as the major culprits of air pollution.

The study estimates that vehicles on the road account for 94.5 per cent of the CO<sub>2</sub> and 53.3 per cent of the total emission due to transport. The aviation industry comes second with flying accounting for almost 45.1 per cent of the total emission.

The surprise result of the study is that shipping is the most environment friendly mode of transport, with a contribution of only 0.6 per cent to CO<sub>2</sub> emission. And contrary to its reputation, the diesel burners on rail make for only 2 per cent of CO<sub>2</sub> transport emission.

The study directly links air pollution to industrialisation as economically advanced states like Maharashtra, Gujarat, and Tamil Nadu contribute much more than other states.