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Bengaluru fifth most polluted metro: IISc study

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City may top list if govt fails to act now, says expert

A study by the Indian Institute of Science (IISc) shows that Bengaluru ranks fifth in the list of 10 most polluted major cities in the country and is climbing up the ladder.

As per the report, Delhi is the most polluted city and next in line are Greater Mumbai, Kolkata, Chennai and Greater Bengaluru in the same order. The report titled 'Renewable and Sustainable Energy' was prepared by a team of researchers and students headed by Prof T V Ramachandra, from Energy and Wetlands Research Group, Centre for Ecological Sciences and associate faculty at the Centre for Infrastructure, Sustainable Transportation and Urban Planning (CiSTUP), IISc. The team studied the cities of Delhi, Greater Mumbai, Kolkata, Greater Bengaluru, Hyderabad, Ahmedabad, Coimbatore, Bhopal, Pune and Kochi.

The study estimates GHG (greenhouse gases) footprint of GHG emissions (in terms of CO_2 equivalent) for these cities and explores the linkages with the population and GDP. GHG footprint (aggregation of carbon dioxide equivalent emissions of GHG) of Delhi, Greater Mumbai, Kolkata, Chennai, Greater Bengaluru, Hyderabad and Ahmedabad are found to be 38,633.2 Gg, 22,783.08 Gg, 14,812.10 Gg, 22,090.55 Gg, 19,796.5 Gg, 13,734.59 Gg and 9,124.45 Gg CO_2, respectively.

The major contributor sectors are transportation (contributing 32 pc, 17.4 pc, 13.3 pc, 19.5 pc, 43.5 pc, 56.86 pc and 25 pc), domestic sector (contributing 30.26 pc, 37.2 pc, 42.78 pc 39 pc, 21.6 pc, 17.05 pc and 27.9 pc) and industrial sector (contributing 7.9 pc ,7.9 pc, 17.66 pc, 20.25 pc, 12.31 pc, 11.38 pc and 22.41 pc) of the total emissions in Delhi, Greater Mumbai, Kolkata, Chennai, Greater Bengaluru, Hyderabad and Ahmedabad, respectively. Chennai emits 4.79 tonnes (t) of CO_2 equivalent emissions per capita, the highest among all the cities followed by Kolkata which emits 3.29t of CO_2 equivalent emissions per capita. Also Chennai emits the highest CO_2 equivalent emissions per GDP (2.55t CO_2 eq/lakh Rs) followed by Greater Bengaluru which emits 2.18t CO_2 eq/lakh Rs.

Explaining the report, which will soon be published and submitted to the government, Ramachandra told Deccan Herald, "The study included analysing industrial pollution, fossil fuel, electrical energy, waste generated and managed, human and vehicular population.

We studied the growth pattern of cities in the last five years (2009-14) and current developing trends. We found that Bengaluru was following in the footsteps of Beijing, which is the highest polluter in the world and if the government does not plan carefully, Bengaluru will top the charts.

He said: Another major problem in Bengaluru, like other cities, is mismanagement of solid and liquid waste. Methane emission has increased in cities Sewage is also found lying in open vacant sites for longer time and is adding to global warming. There is a need for true implementation of the Swachch Bharat campaign and control the GHG emission from vehicles. The aggregation of GHG emissions of all sectors reveal that GHG emissions in major cities in India ranges from 38,633.20 Gg/year (Delhi) to 22783.08 (Greater Mumbai), 22,090.55 (Chennai), 19,796.60 (Greater Bengaluru), 14,812.10 (Kolkata) and 13,734.59 (Hyderabad).