

# On Expansion Track, Hyd Metro Boosts Air Quality

Emerges As Key Weapon Against Urban Pollution

Sribala.Vadlapatia  
@timesofindia.com

**Hyderabad:** The city's expanding metro system now stands among the country's largest and underlines how urban rail can play a decisive role in cutting pollution and curbing emissions in rapidly growing cities.

## 5th largest Metro network

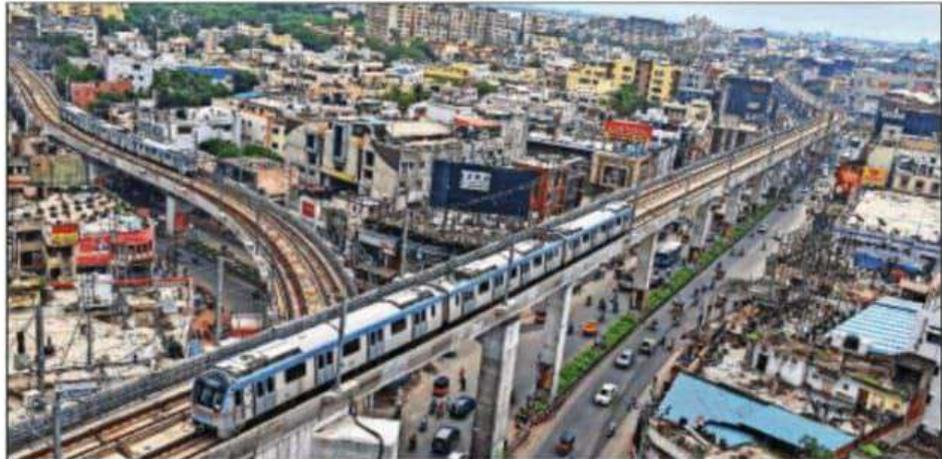
These findings are part of the study titled 'Golden Decade of Infrastructure Development in India with Special Reference to Metro Rail Network,' conducted by the economic advisory council to the PM. The study notes that Hyderabad has the fifth largest metro network in India, and places this growth within a broader discussion on the environmental benefits of metro systems. The report highlights how metro can reduce pollution by lowering dependence on road transport.

It refers to a major study on the Delhi metro that assessed changes in transport-related pollutants during its early years of operation. That analysis found a 34% reduction in carbon monoxide levels at a major traffic intersection, pointing to a tangible decline in emissions from road vehicles.

## Reducing CO<sub>2</sub> emissions

Placing these findings in a global context, the document cites World Bank observations that urban areas account for 70% of global CO<sub>2</sub> emissions. Public policy experts have argued that investments in low-carbon mass transit are among the most effective responses, particularly for fast-urbanising developing countries. Research reviewed in the study shows that metro networks can deliver substantial air-quality gains, especially in cities that start with high pollution levels.

Estimates indicate that the opening of a subway system can reduce particulate matter by around 4% in areas



## TOP METRO NETWORKS ACROSS INDIA



## Metro connectivity quietly reshaping household finances

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The study links the improved repayment patterns to lower dependence on private vehicles and a corresponding reduction in everyday transport expenses.

With Metro access replacing private commutes, households were able to cut spending on fuel, vehicle maintenance, insurance and loan repayments for bikes and cars. By easing these recurring costs, Metro connectivity appeared to stabilise household cash flows, enabling borrowers to meet EMIs consistently and, in many cases, repay loans ahead of schedule.

To arrive at these conclusions, researchers compared the financial behaviour of home loan borrowers living in Metro-connected and non-connected areas of Hyderabad and Bengaluru. In Hyderabad,

data from 1.36 lakh borrowers across both categories was analysed. The impact was even sharper in Bengaluru, where loan delinquency dropped by 2.4% and prepayment rates climbed by 3.5%.

For this analysis, the study combined loan repayment records with data on Metro line openings and vehicle registrations. However, in Hyderabad, transport registration records were excluded because registrations had not been migrated to the Vahan portal.

**Financial ripple effect**  
The study said: "By demonstrating that Metro expansions lead to lower mortgage delinquency and higher prepayment rates, our analysis emphasises that urban transport infrastructure creates significant financial ripple effects at the household level, which are often overlooked in conventional project appraisal frameworks. These results indicate that Metro systems should not only be seen as mobility or environmental interventions, but also as stabilisers for household balance sheets." The research also underlined that both Hyderabad and Bengaluru have historically depended heavily on private transport, making commute a recurring drain on household budgets.

In Hyderabad's case, the study highlighted the completion of the Metro red line from Miyapur to LB Nagar in 2018 as a pivotal infrastructure milestone. The corridor links densely populated residential neighbourhoods with major employment centres, educational and commercial hubs — a connectivity shift that, the study suggests, has quietly reshaped how households manage their finances.

reduction in global CO<sub>2</sub> emissions. The study points out that metro systems improve local air quality primarily by reducing vehicle emissions.

surrounding city centres. According to World Bank research from 2024, there are 192 urban areas with subway systems, and analysis of these cities showed that metro networks helped cut CO<sub>2</sub> emissions by about 50% within those urban areas. Collectively, this translated into an 11%

reduction in global CO<sub>2</sub> emissions. The study points out that metro systems improve local air quality primarily by reducing vehicle emissions.