Mumbai is one of the world’s most congested cities. What’s the economic and environmental toll of congestion? How does it impact the productivity of India’s financial capital? And what can policymakers do about it?

In IDFC Institute’s new working paper—supported by the Rockefeller Foundation—we analysed more than half a billion Uber Movement data points to answer these questions. Our new methodology quantifies the economic and environmental costs of Mumbai’s congestion and can be replicated for cities across India and the world.

Some of our findings:

- The average commute on Mumbai’s major routes is longer than an hour, more than double the averages of Singapore, Hong Kong and New York.
- An average Mumbaiker wastes 11 days a year stuck in traffic; that’s 11 days on top of the time they’d spend in the car if the roads were empty.
- On average, a 30-minute trip in free-flowing traffic takes around 66 minutes in peak-hour traffic in Mumbai.
- The additional fuel cost due to congestion is estimated to be as high as INR 265.

“Being able to move around a city quickly is key to ensuring that markets are dynamic and function smoothly,” Harsh Vardhan Pachisia and Kadambari Shah, who were part of the research team for this study, write in an opinion piece in the Hindustan Times. “However, congestion has reduced such mobility in Mumbai, resulting in inefficient labour markets and severe economic and environmental consequences.”

The paper—“Assessing Cities’ Labour Market Efficiencies Using Mumbai Commuting Data”—is available here alongside an interactive web tool that allows users to select locations in Mumbai and see the route between them, colour-coded by average speeds on it. On top of that, users are shown the cost of their trip — in terms of distance, opportunity cost, fuel and released carbon dioxide.

The team is available for comment and welcomes feedback: harsh.pachisia@idfcinstitute.org.