



MAKING CYCLING PART OF URBAN FABRIC

A speed mapping study of motorised and non-motorised transportation | Kolkata



In 2008, traffic regulations classified bicycles as 'slow moving transport', prohibiting cycles on 38 major roads in Kolkata. While this number went up to 174 roads in 2013, 112 roads were re-opened the same year. However, **62 roads still remain banned**. Reasons like traffic congestion, safety hazards, violating traffic rules, have been cited time and again for this ban.



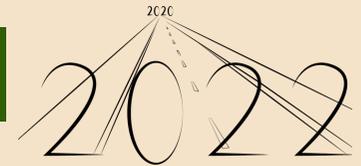
DATA COLLECTION

Comparison between motorised vehicles like auto, bus, taxi, motorcycle and non motorised modes of commute - walking and cycling.

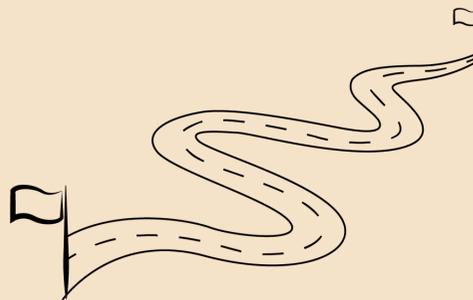


Comparison in terms of average speed and variation from average speed

For each mode and each route, Points A & B were identified, distance travelled (A to B), up & down travel time collected.



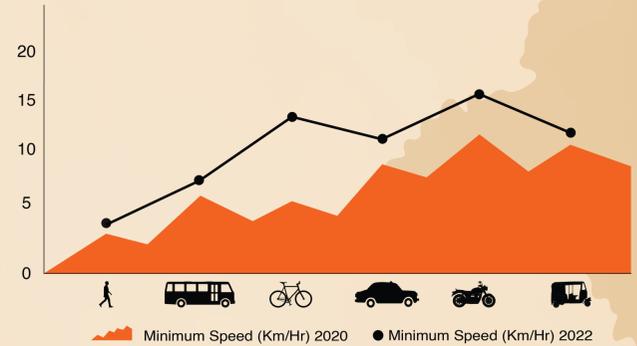
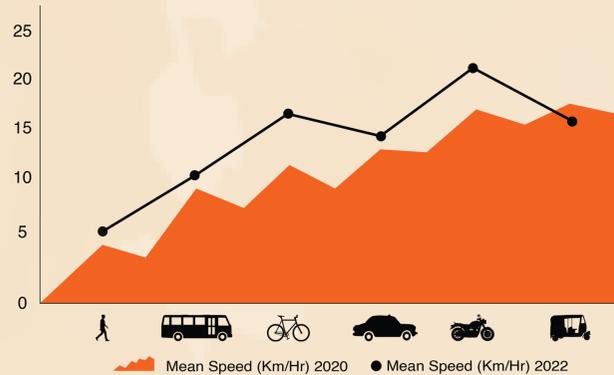
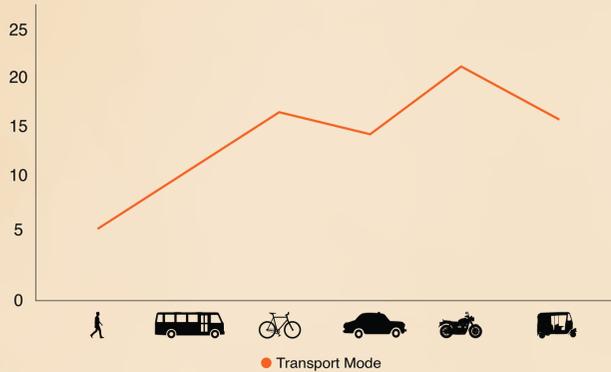
Data collected from 11 routes spread across the city for the years 2020 and 2022



SwitchON Foundation conducted a speed mapping exercise between July and August 2022, to gauge the average speeds of different types of vehicles, including non-motorised modes of commute - walking and cycling.



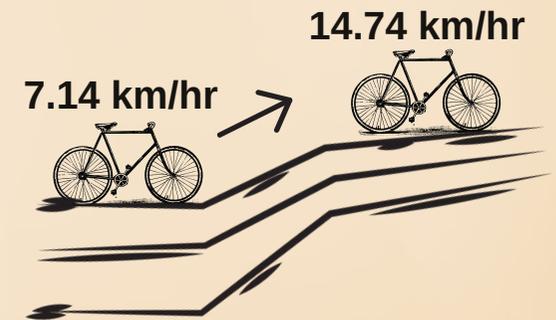
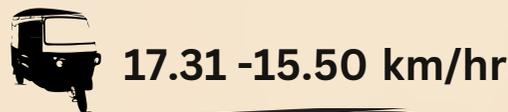
STUDY FINDINGS



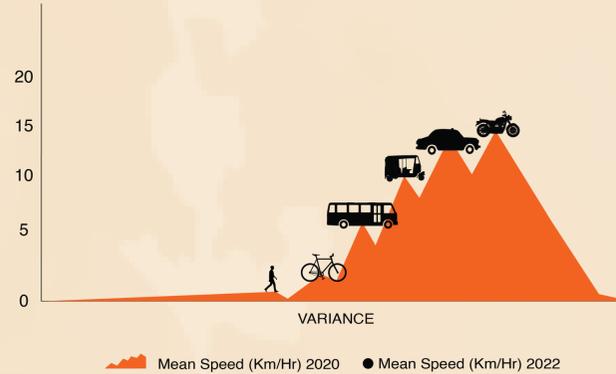
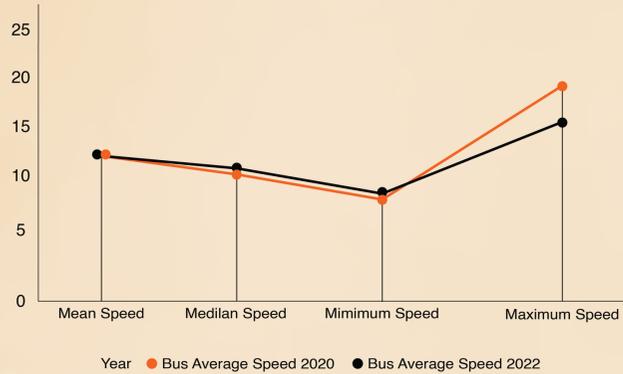
- In 2022, the **average speed of cycle** was found to be 17 km/hr, **more than that of car & bus.**

- The **average speed of cycles has risen** from 12.45 km/hr in 2020 to 16.62 km/hr in 2022, while that of **autos has seen a decline** from 17.31 km/hr to 15.50 km/hr.

- The **minimum speed of cycle has almost doubled**, from 7.14 km/hr in 2020 to 14.74 km/hr in 2022.



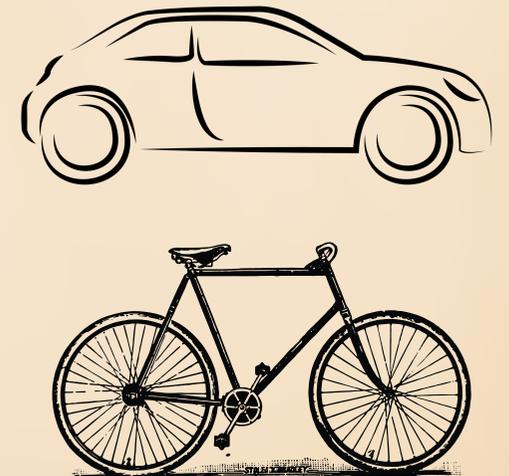
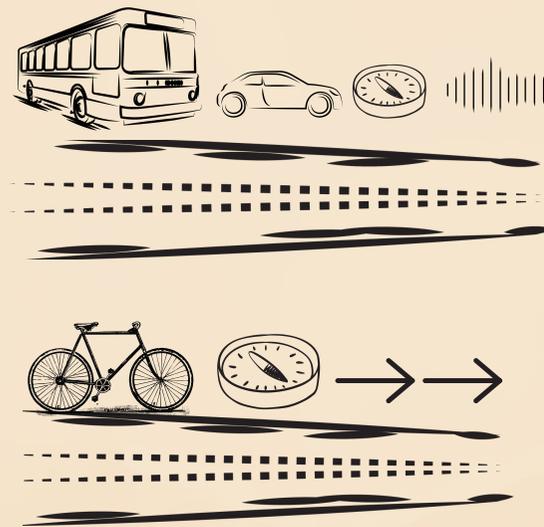
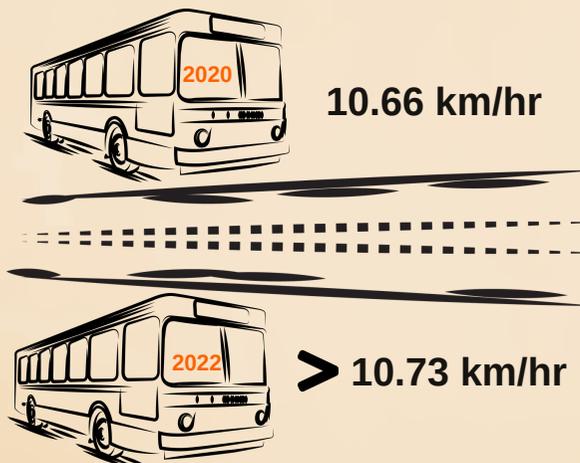
STUDY FINDINGS



- Buses have shown the least amount of increase in average speed, from 10.66 km/hr in 2020, to 10.73 km/hr in 2022.

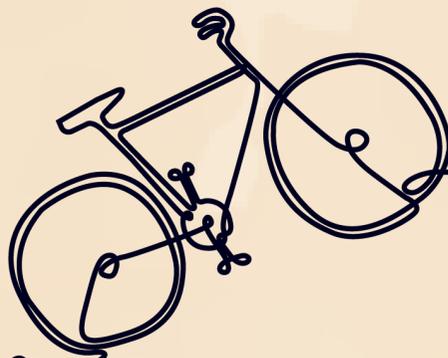
- Cycles show the least deviation from the average speed in contrast to motorised vehicles

- An average trip length of 3 kms is covered within 15 minutes by cycles and is the same as that of cars



OBSERVATIONS

- The above findings clearly reveal that **cycles are the most consistent mode of transport** when compared to non-motorised vehicles, especially buses and cars.
- With the average speed showing an increase, the **cycle can be considered a faster mode of transport** in addition to it being a **sustainable and cleaner** form of commute.



WAY FORWARD

- There is a **need to lift the cycle ban** on prevailing routes and to build **safe infrastructure for riders**
- To make **cycles more affordable**, GST should be further reduced.
- Effective implementation of **free cycle distribution schemes**
- Employee benefits to professionals to **encourage cycling to work**
- Regular **awareness campaigns** on the economic and environmental benefits of cycles
- **Public bicycle sharing schemes** with stronger implementation



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SwitchON Foundation is a leading, award-winning not-for-profit, established in 2008 with a focus on Environment Sustainability and Equal Opportunities. Presently working in 10 states across India, the organisation spearheads and supports interventions on Clean Energy Access, Sustainable Agriculture, Skilling - Education, and Wellbeing. SwitchON's core competencies lie in testing innovative technologies and business models, communication for advocacy and awareness, capacity building through skilling and training, and implementing / supporting field operations.

