

NAVIGATING PARKING CHAOS

**Aiming Towards a Sustainable
Parking Policy for Kolkata**





Founded in 2008, the **Environment Conservation Society** (ECS), also known as SwitchON Foundation, is a nonprofit organization dedicated to fostering equitable and sustainable development in India. Our vision is to build a sustainable and equitable India, focusing on Clean Energy, Clean Air, **Sustainable Mobility**, Climate-smart Agriculture, Conservation and Integrated Management of Natural Resources, Just Transition, Skilling, and **Sustainable Cities**. Our mission is to promote sustainable livelihoods and address environmental challenges through innovative business models and technologies, aiming to create opportunities for 10 million people at the bottom of the pyramid by 2030.

The research report, **Navigating Parking Chaos**, aims to promote sustainable mobility in Kolkata, the "City of Joy." This **perception-based study** critically examines the advantages and challenges of on-street parking in the city. By shedding light on these issues, the study underscores ECS's ongoing efforts to improve sustainable mobility management in urban areas, aligning with the broader objectives of **Sustainable Development Goal (SDG) 11: Sustainable Cities and Communities**.



• Project Team

Vinay Jaju, Founder and Managing Director
Soma Chakraborty, Senior Project Manager



• Research Team

Mainak Das, Research Associate
Pradip Rout, Senior Project Coordinator
Dr. Aditi Kundu, Research Manager



• Communications Team

Anirban Dey, Assistant Manager Graphic Design
Debojyoti Das, Communication Manager



Executive Summary

Traffic congestion is a significant issue in Kolkata, with on-street parking being a major contributor to obstructing traffic flow. The problem is particularly acute in developing nations like India, where urban planning has not kept pace with vehicular growth. In 2022, Kolkata registered 34,963 new cars, marking the highest-ever vehicular growth in the city (Bandyopadhyay, 2023). However, only 6% of Kolkata's land is allocated for roads, compared to 23% in Delhi and 18% in Mumbai, exacerbating the parking and traffic woes (JICA, n.d.). Uncompromising policy implementation is essential to address this parking chaos.

The Kolkata Municipal Corporation (KMC) is responsible for managing the city's parking policies, which include fee structures for both day and night parking and the allocation of designated parking spots. However, despite these regulations, the city faces a shortage of adequate off-street parking facilities, leading to increased demand for on-street parking, particularly in commercial and institutional areas. While KMC conducts periodic inspections of parking lots to address concerns such as unauthorized agents and disorganized parking, the current policies require further strengthening to effectively manage the rising pressure from the growing number of vehicles. Enhanced measures are needed to address these challenges and ensure more efficient parking management across the city.

The study employed a deductive approach with surveys conducted across ten strategic locations in Kolkata. A sample size of 450 respondents, including private vehicle users, public transport users, cyclists, and pedestrians, provided insights into the parking issues. The survey targeted diverse demographics, primarily focusing on long-term residents to capture a comprehensive understanding of the local parking scenario.

Findings

1. Present Parking Scenario :

- Public transport vehicles and personal four-wheelers are predominantly parked on streets.
- Issues like double-lane parking (89.8%), haphazard parking (80.3%), and unauthorized parking (52.9%) are prevalent.

2. Inadequate Parking Space :

- 55% of respondents agree that parking space in Kolkata needs to be increased, with temporal encroachments and dumping of materials being major reasons for the shrinkage of parking space.

3. Disturbances Due to Irregular Parking :

- Private vehicle users face prolonged waiting and navigation issues, while public transport users experience frequent obstructions.
- Pedestrians and cyclists report blocked footpaths and cycle lanes, along with damaged infrastructure.

4. Awareness and Effectiveness of Parking Policy :

- 48.6% of respondents are aware of the parking policy, but many remain sceptical or uninformed.
- 80% of those aware of the policy find it adequate, but enforcement and public compliance are critical concerns.

5. Suggestions for Future Parking Policy :

- Respondents stressed the need for designated parking spaces for different vehicle types, enhanced safety, law enforcement, and technological aids for real-time updates.

Key Observations

Increase in Private Cars : The significant rise in car registrations necessitates proper planning for vehicle registration and parking infrastructure.

Informal Economic Space : The spillover of markets onto sidewalks affects road usage and parking.

Mismanagement in Public Transport : Irregular parking of public transport vehicles contributes to traffic congestion.

Obstruction in Normal Movement : Irregular parking practices cause delays and infrastructural damage.

Recommendations

Optimum Use of On-Road Parking : Enhance visibility and enforcement of designated parking spots.

Vehicle-Specific Parking : Implement area-based parking to avoid collisions between different vehicle types.

Increase Off-Road Parking Facilities : Incentivize underground and multistoried parking, especially in marketplaces.

24x7 Monitoring : Utilize real-time data for personalised parking rules and enforcement.

Strict Penalties : Impose high fines for illegal parking to deter violations.

Encourage Limited-Time Parking : Implement a fee structure that discourages long-term on-street parking.

Awareness and Education : Conduct campaigns to inform the public about parking rules and the benefits of organised parking.

Parking Within Metro Premises : Adopt Delhi Metro's parking model to reduce roadside parking.

Kolkata's current parking scenario requires immediate attention to address traffic congestion, safety hazards, and accessibility issues. A comprehensive and forward-looking parking policy, integrating designated parking spaces, stringent enforcement, and real-time data systems, is essential to improve urban mobility and ensure smoother traffic flow in Kolkata.



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1. Introduction

Traffic congestion is a significant issue in Kolkata (Sarkar & Sarkar, 2023), with on-street parking being a major contributor to the obstruction of traffic flow (Haque, Mehta & Kumar, 2019). Cities in developing nations, particularly in the Indian subcontinent, face similar challenges. While these nations grapple with managing car parking, developed countries have either planned their cities with parking needs in mind or are actively modifying their plans to address these issues (Kirschner & Lanzendorf, 2020).

In a single-year span of 2022, Kolkata has experienced 34,963 new car registrations which was the highest-ever vehicular growth for the city (Bandyopadhyay, 2023). The proportion of road surface within Kolkata constitutes a mere 6% of its total area, a notably smaller percentage when compared with other prominent Indian cities such as Delhi, where roads cover 23% of the urban expanse, and Mumbai, where they span 18% (JICA, n.d.).

Therefore, the land use share in the transportation of Kolkata is not satisfactory to support car parking by the side of the roads. Government agencies and the citizens of Kolkata need to work hand-in-hand and follow an uncompromising parking policy in Kolkata to attain fruitful and desired solutions for parking chaos and congestion of traffic in the city (Beevi & Kumar, 2020).

This report presents **people's perception** of the existing parking policy of the city, problems encountered due to problematic car parking, and its solutions.



2. Background Scenario

2.1 Parking Rules and Regulations in the City

In the fast-moving world, the roads are like the arteries and veins of a city. City administrations all over the globe follow multiple models to counter the complex scenario of transport blockage due to on-street car parking. In the global south the government-centred model, the government-market co-governance model, and multi-centric governance model are some of the widely followed policies in this regard (Tang, 2023).

The regulation of car parking in Kolkata falls under the jurisdiction of the Kolkata Municipal Corporation (KMC). The KMC along with the discussion with Kolkata Police determines the location and layout of parking lots in specific areas, identify possible parking zones, and implement relevant policies, and also imposes parking fees. In collaboration with the Kolkata Police, KMC oversees the enforcement of these policies to ensure smooth and organised parking across the city. For on-ground management, KMC relies on registered agents to handle the day-to-day operations and supervision of cars within the designated parking lots (KMC Car Parking, 2023). Insights from the present parking regulations in the city are as follows.

- a. KMC acknowledges the parking challenges in the city and has implemented policies to address them. The key objectives include reducing roadway obstructions, easing vehicle pressure in commercial areas, and providing sufficient parking spaces. To manage parking demand, KMC focuses on minimising traffic disruptions, optimising parking pricing, and prioritising street parking in high-demand areas, especially along major roads (KMC Car Parking Policy, 2017).
- b. The fees for day parking (7 am to 10 pm) and night parking (10 pm to 7 am) vary, with night parking fees being twice as high for motorised two-wheelers and three times higher for other motorised vehicles (KMC Car Parking Rate, 2023). These fees are not based on the duration of parking; instead, a uniform fee is charged, regardless of how long a vehicle remains parked.
- c. The Kolkata Municipal Corporation is considering to increase the night parking fees in several areas of the city (KMC Portal, 2018). The collection of parking fees is applicable to vehicles parked in designated, licensed areas, ensuring they are at least 50 feet away from junctions and parked in a manner that does not obstruct roads, garages, or entrances (KMC Car Parking, 2023).
- d. Throughout the city, parallel parking patterns are followed, with specific areas designated for parking in each ward to ensure order and efficiency.
- e. The existing parking policy in Kolkata designates specific areas for different vehicles, such as yellow-marked taxi spaces across 553 lots and separate provisions for vehicles in seven "phal patty" areas. This strategy discourages parking during peak hours and encourages it during lean times, and help to maintain order and reduce congestion. Differential parking for specific vehicles further streamlines the system, minimising chaos.
- f. KMC also inspects parking lots regularly to monitor demand and increase capacity as needed. To ensure transparency, only authorised agents with official ID cards are allowed to collect parking fees. Recent initiatives like the multi-storey parking facility in Sector V and promoting off-street parking aim to improve the city's parking infrastructure and manage congestion effectively.



Image 1 :

Double-lane parking on the footpath and road in front of Nehru Children's Museum, Chowringhee Road, Kolkata

(Image is clicked during the primary survey by SwitchON Foundation)

2.2 Problems due to car parking in Kolkata

Researchers have highlighted parking challenges in several intersections and market areas of Kolkata, particularly in regions such as New Market, B.B.D. Bagh, and Khidirpur, where issues like multiple-row parking, intrusion into public spaces, and disorganised parking are common (Rome & Mukherjee, 2015; Chowdhury, 2016). According to Chowdhury (2016), on-street parking in the B.B.D. Bagh-Esplanade area has reduced available road space by 34.5%, contributing significantly to congestion. Similarly, the Park Street area faces a critical situation with a 27.5% reduction in road space, while Dalhousie experiences a 38.4% reduction. Commercial areas see high parking accumulation, with 80% of parking spaces occupied most of the time. Additionally, 70-80% of vehicles contributing to road encroachment are two-wheelers, adding to the congestion in these areas.



Image 2 :

Two-wheeler parking at municipality-designated spots and outside while people are walking along the roads as well in front of Telephone Bhavan, at Red Cross PI

(Image is clicked during the primary survey by SwitchON Foundation)

Researchers have identified that parking-related interference in Kolkata is among the highest compared to other metropolitan cities in the country. KMC has also highlighted challenges such as footpath parking, parking by house dwellers on footpaths, and parking in front of shops, schools, colleges, apartments, and business establishments (KMC Car Parking Policy, 2017). In areas with limited on-street parking, there is also a noticeable issue of two-wheelers occupying spaces designated for four-wheelers, further reducing available parking. With approximately one-fourth of the road surface in Kolkata used for on-street parking, congestion is common, leading to slower vehicle movement and reduced traffic efficiency.

2.3 Comparison with Delhi

While the parking policy of Kolkata is compared with other metropolitan cities, particularly Delhi, approach of both the policies are noticed to be critically different. In Delhi, despite having more roads and better connectivity through flyovers and metros, parking remains a significant challenge (Chitlangia, 2015). The current government has responded by increasing parking fees and limiting available parking spaces. Additionally, efforts have been made to encourage a shift from private vehicles to public transportation, emphasizing the responsibility of car owners to manage their parking needs. The government has also introduced high fines for illegal parking since 2019 (Anirudh, 2019).

In contrast, Kolkata has focused on expanding parking lots to accommodate increasing demand. While no drastic policies like significant fee hikes or parking space limitations have been introduced, the state government has placed importance on enhancing public transport, which has helped ease the pressure on parking facilities. These efforts aim to balance parking demand while promoting more sustainable transport options.



3. Aim & Objectives

The study aims to comprehend the problems related to car parking in the streets of Kolkata as perceived by the general populace. The report outlines the following objectives.

- a. To capture people's perception of parking policy in Kolkata
- b. To highlight the problems faced by commuters due to the present parking practice
- c. To investigate people's requirements for a parking policy for the city

4. Methodology

The study aims to comprehend the problems related to car parking in the streets of Kolkata as perceived by the general populace. The report outlines the following objectives.

4.1 Research Setting :

Documentation of people's perception of the complex and unorganised context of the existence and effects of the parking policy in the city of Kolkata poses a significant challenge. Recent insights into these perceptions are also limited. The study is based on a primary survey at several locations (see Table 1).

4.2 Research Logic and Approach :

The study has employed a deductive approach, utilising surveys targeting individuals involved in Kolkata's transportation scene to gain insights into the current realities. Emphasising quantitative methods, the study has established a broad understanding of public perception regarding parking policies.

4.3 Study Location :

For the primary survey, strategic locations in Kolkata have been selected based on high foot traffic areas such as offices, courts, markets, and recreational spots. These locations were chosen to ensure a diverse representation of the city's population and activities. Ten places have been identified as the parking hotspots of Kolkata and the surveys have been conducted there.

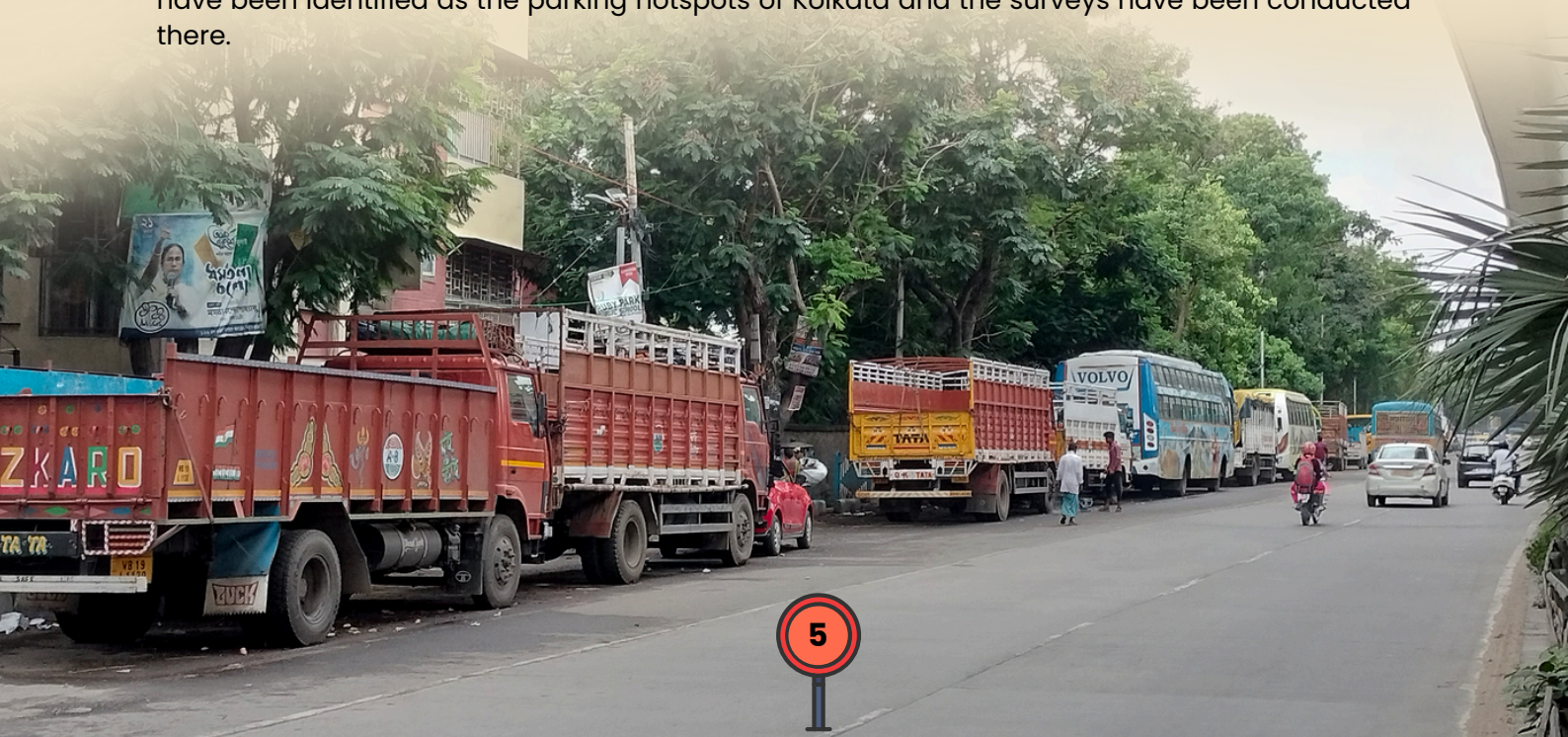


Table 1: Survey Locations

SI No	Location	Ward No
1	BBD Bag-Dalhousie	KMC Ward- 45
2	The Bengal Chamber of Commerce to Central Metro	KMC Ward- 44, 45
3	Burrabazar	KMC Ward- 42
4	College Street-Bowbazar	KMC Ward- 40, 44
5	Sealdah (Rajabazar)	KMC Ward- 49
6	Khidirpore dock	KMC Ward- 76
7	Behala Sakher Bazar	KMC Ward- 126
8	Garia More-Nazrul Metro	KMC Ward- 110
9	Rashbehari Avenue- Lake Market	KMC Ward- 87, 86
10	Salt Lake- Karunamoyee	Bidhannagar Municipality Ward- 30, 31

4.4 Sample size and sampling technique :

The study on car parking issues extends beyond just car drivers. It encompasses various commuters sharing the same roads. To ensure a comprehensive understanding, individuals from diverse backgrounds were surveyed. These included private four-wheeler users, private two-wheeler users, taxi cab users, bus auto users, cyclists, and pedestrians across different locations. Each survey location gathered responses from 45 individuals, resulting in a total of **450 participants**. This sample size surpasses the threshold of 385 samples required for a 95% confidence level, allowing for a margin of error within $\pm 5\%$ of the measured or surveyed value. The use of a stratified purposive sampling method ensures a representative selection of the surveyed population, contributing to a higher confidence level in the study's findings.

Table 2: Types of Respondents

Private 4 wheeler	Private 2 wheeler	Public transport driver (Taxi, Cab)	Public transport user (Bus, Auto)	Cyclists	Pedestrians	Total
6	9	6	9	6	9	45

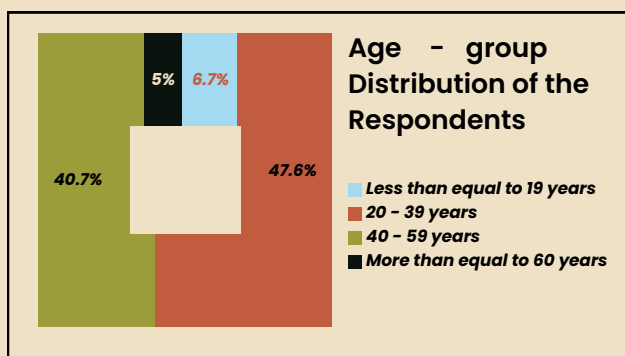
4.5 Tools used :

Survey data is collected with the help of a structured questionnaire in the Kobo Toolbox. This application enables the surveyors to use it in challenging situations like the unavailability of an internet connection. The submitted dataset was downloaded in Microsoft Excel. The downloaded data is cleaned, analysed, and descriptive statistics were used to visualise the data. The major findings from the study are highlighted, and the study also aims to explain the results accumulated from the primary survey.

5. Type of Respondents

Figure 1: Age-group Distribution of the Respondents

Source : Primary Survey

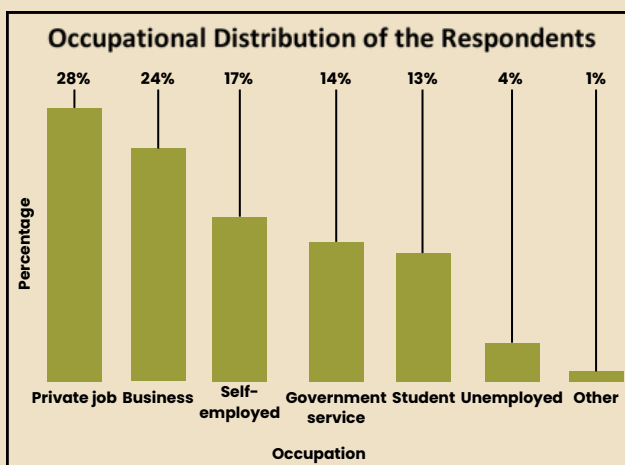


- The field survey in Kolkata was predominantly engaged with individuals aged between 20 and 59 years, with a significant focus on the 20 to 39 age bracket, comprising 47.6% of the surveyed population.
- Additionally, the 40 to 59 age group contributed substantially, constituting 40.7% of respondents.

- It suggests a targeted approach toward age groups typically associated with daily commuting, such as professionals and students attending offices and colleges.

Figure 2: Occupational Distribution of the Respondent

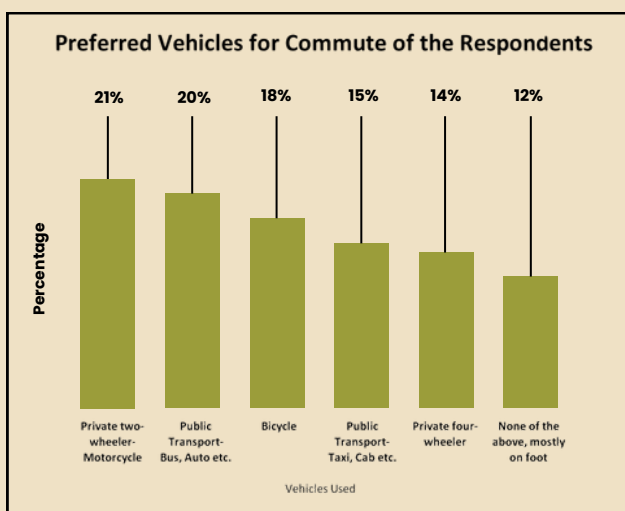
Source : Primary Survey



- The occupational distribution of the surveyed respondents confirms the focus on working individuals, notably with a high proportion engaged in private jobs at 27.6%.
- Additionally, a notable portion, comprising 13%, represents students.
- These findings underscore the emphasis on engaging with demographics typically associated with daily commuting, reinforcing the survey's focus on office-goers and college students.

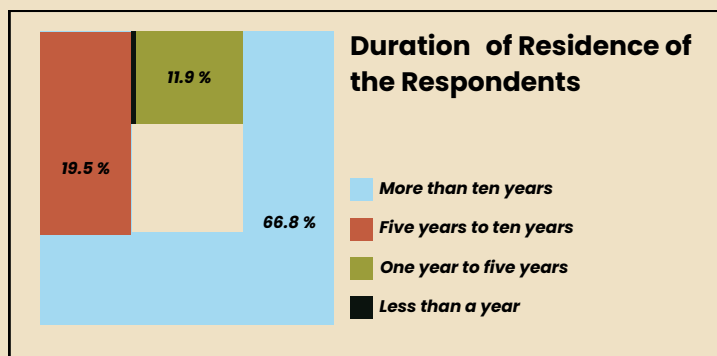
Figure 3: Preferred Vehicles for Commute of the Respondents

Source : Primary Survey



- The diverse transportation preferences of the respondents are key for looking at the magnitude of problems faced due to parking on the road.
- Private motorcycles lead at 21.0%, followed closely by public transport (19.7%) and bicycles (17.6%).
- Taxis/cabs (15.2%) and private cars (14.3%) also feature whereas 12.1% prefer walking.

Figure 4 : Duration of Residence of the Respondents
Source : Primary Survey

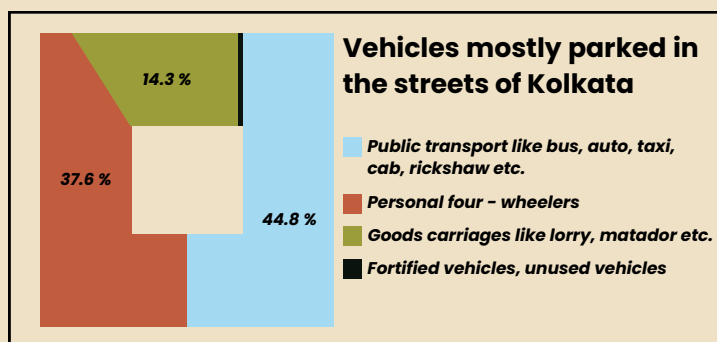


- The survey primarily targeted Kolkata residents with over 10 years of residency, constituting over 66% of respondents.
- Additionally, 19.5% of surveyed individuals had lived in the city for five to ten years.
- This indicates a focus on long-term residents for data collection, likely providing insights into the parking-related problems within the local community.

6. Findings

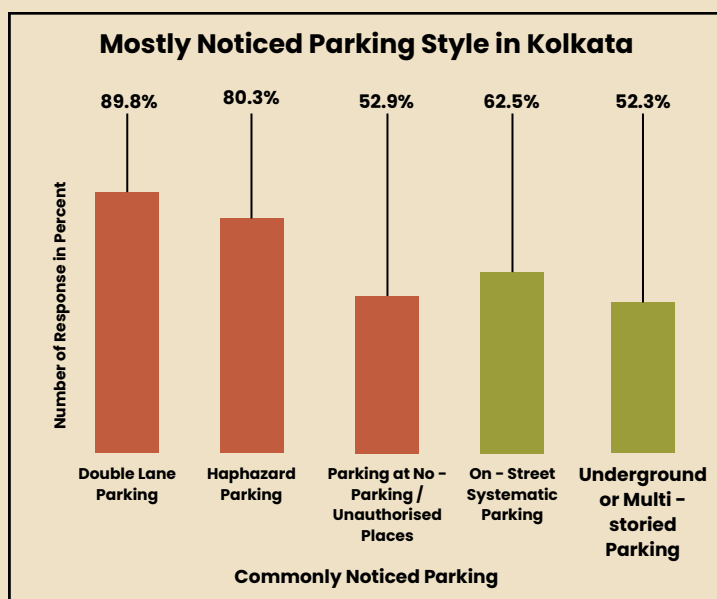
6.1 Present scenario of parking

Figure 5 : Mostly parked vehicles in the streets of Kolkata
Source : Primary Survey



- In Kolkata, public transport vehicles (44.8%) are predominantly perceived to be parked on the roadside, followed closely by personal four-wheelers (37.6%), according to the respondents.

Figure 6 : Mostly noticed parking vehicles in the streets of Kolkata
Source : Primary Survey



- However, respondents have reported inconsistencies in parking practices, notably with a **high prevalence of double-lane parking (89.8%)**, haphazard parking (80.3%), and unauthorised parking (52.9%).
- Despite these challenges, the survey indicates the presence of both on-street systematic parking and off-street parking in various locations throughout Kolkata.



Image 3 :

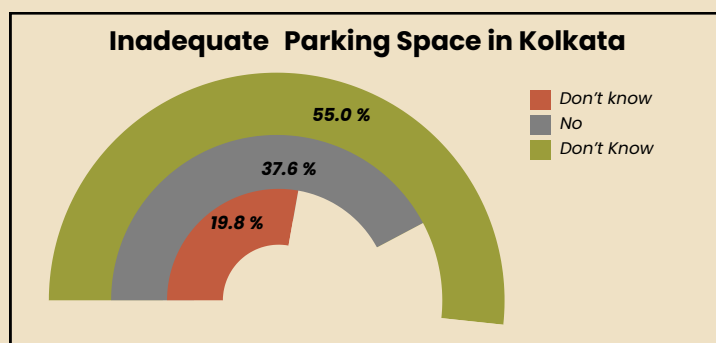
Haphazard Bike Parking at Larkin Ln, B.B.D. Bagh

(Image is clicked during the primary survey by SwitchON Foundation)

6.2 Inadequate parking space in Kolkata

Figure 7 : Parking Inadequacy in Kolkata

Source : Primary Survey

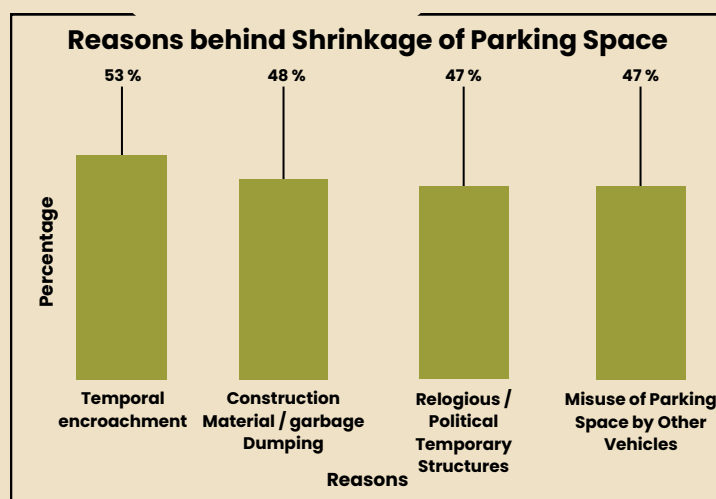


- The survey findings indicate that **55% of respondents agree that parking space in Kolkata needs to be increased.**

- Among them, **52.9% attribute the shrinkage of parking space to temporal encroachments.**

Figure 8 : Reasons behind Shrinkage of Parking Space

Source : Primary Survey



- This highlights a significant concern regarding the availability of parking facilities in the city, with 53% of respondents identifying temporal encroachments as a major contributing factor.

- Simultaneously, the dumping of construction materials and garbage on the street is chosen by the respondents (48%) as the second-most important reason behind the shrinkage of parking space.

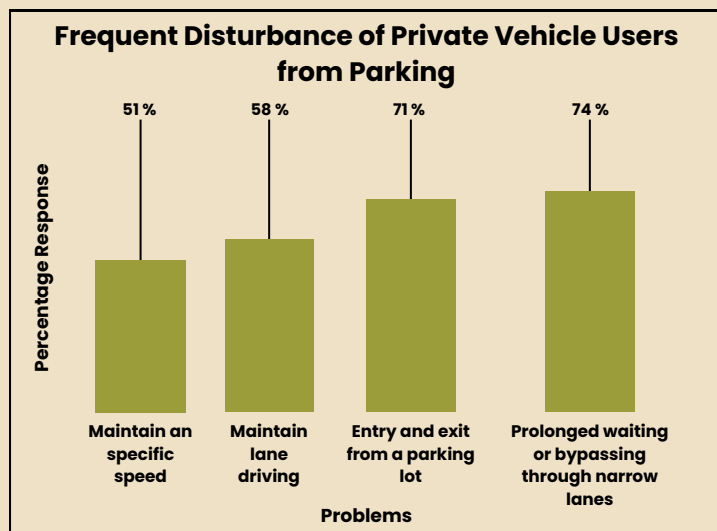
6.3 Frequent disturbances due to irregular parking in Kolkata

The data provides insights into the major problems associated with on-road parking, categorized by different types of vehicle users:

a. For private vehicle users :

Figure 9 : Problems of Parking faced by private vehicle users

Source : Primary Survey



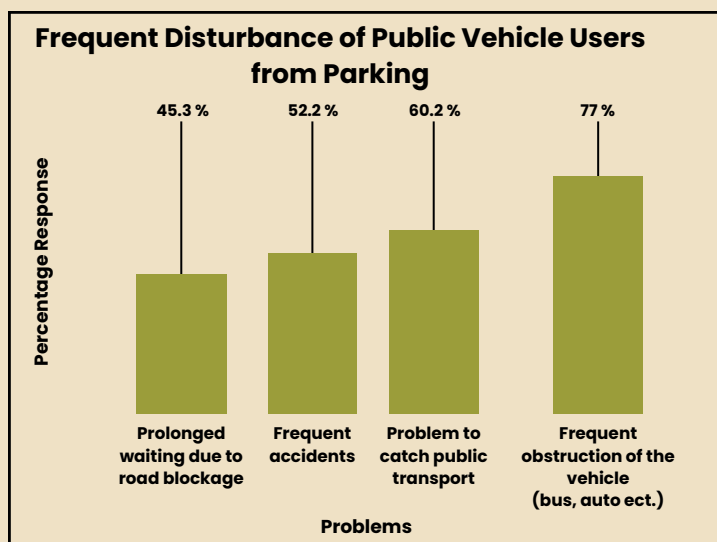
- The most prevalent issue reported is **prolonged waiting** or **navigating through narrow lanes**, with a response rate of 73.6%.

- Entry and exit from parking lots pose a significant challenge, as reported by 71.2% of respondents.

b. Public transport users face the following problems :

Figure 10 : Problems of Parking faced by public vehicle users

Source : Primary Survey



- **Frequent obstruction of public transport vehicles**, such as buses and autos, is a prominent issue, with 77.0% of respondents indicating this problem.

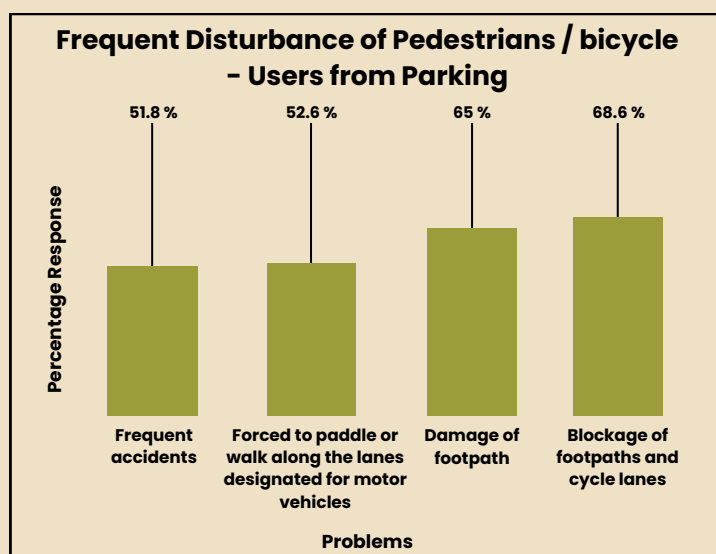
- Additionally, 60.2% of respondents reported **difficulties in catching public transport** due to on-road parking.

c. Bicycle users and pedestrians encounter the following issues :

- On-road parking often leads to **blockage of footpaths and cycle lanes**, affecting pedestrian and cyclist safety, as reported by 68.6% of respondents.
- Furthermore, 65% of respondents highlighted **damage to footpaths** caused by parking on footpaths as a significant concern.

Figure 11 : Problems of Parking faced by pedestrians/bicycle-users

Source : Primary Survey

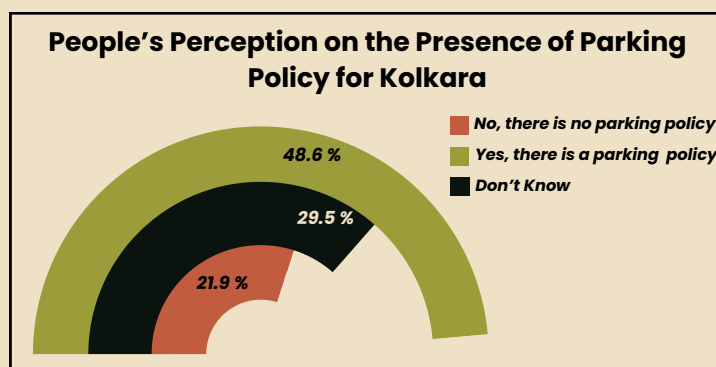


- Overall, the data illustrates the diverse challenges posed by on-road parking, impacting various types of road users. These problems include traffic congestion, accessibility issues, and safety hazards, emphasising the need for effective parking management strategies to address these issues and improve overall urban mobility.

6.4 Presence of Parking Policy in Kolkata

Figure 12 : People's Awareness of the Existence of Parking Policy

Source : Primary Survey

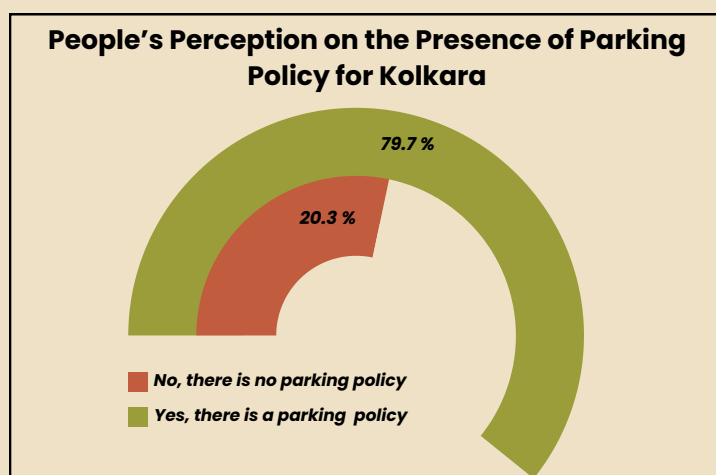


- Despite nearly half (48.6%) of respondents being aware of the parking policy in Kolkata, a larger portion (57.4%) remains sceptical or uninformed.
- Approximately 21.9% of respondents refuse the existence of such a policy due to observed irregularities in parking, while 29.5% are unaware of the existence of a proper parking policy.

- Among those acknowledging the policy's presence, the majority express the necessity for such regulations to ensure smooth city commuting. However, the effectiveness of policy enforcement, both by the public and administration, remains a critical concern.

Figure 13 : People's Awareness of the Adequacy of the Parking Policy

Source : Primary Survey



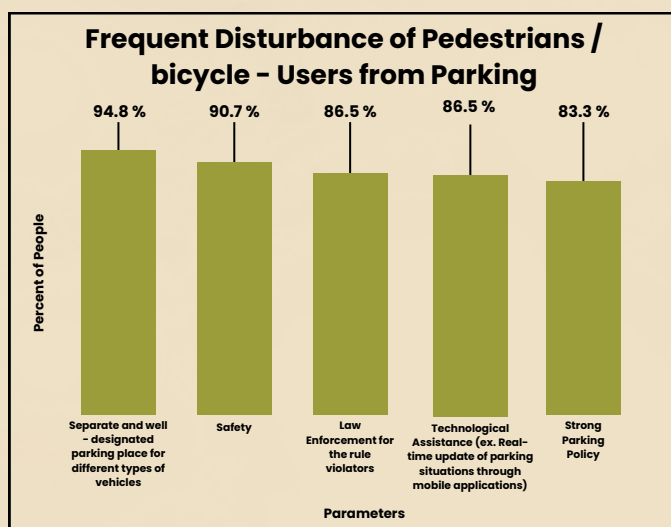
- Interestingly, **80% of respondents who support the parking policy believe it to be adequate, preventing the city from becoming overwhelmed with vehicles.**
- This suggests that while there may be challenges in implementation and awareness, the existing policy plays a crucial role in managing urban congestion effectively.



6.5 People's Suggestions for a Proper Parking Policy in Kolkata

Figure 14 : People's Suggestions on Future Parking Policy

Source : Primary Survey



- The primary data reveals key parameters deemed essential for Kolkata's future parking policy.
- Overwhelmingly, 94.8% stress the necessity of well-designated parking for diverse vehicle types, indicating a demand for organised solutions.
- Safety is a priority for 90.7% of respondents, while 86.5% emphasise law enforcement and technological aids for real-time updates.

- Additionally, 83.3% advocate for a robust parking policy, highlighting a consensus on the need for comprehensive regulations. Overall, the data underscores the importance of integrating these parameters to manage parking in Kolkata's urban landscape effectively.

7. Key observations

7.1 An increasing number of private cars

In 2022, Kolkata experienced a notable increase in car registrations, with 34,963 new vehicles added to its streets, representing the highest vehicular growth in the city's history (Bandyopadhyay, 2023). However, this rapid expansion is compounded by the fact that only 6% of the city's land is allocated for transportation, limiting both on-street parking and vehicle movement.

Kolkata's compact urban layout further intensifies these challenges, leaving minimal space for vehicles to navigate. As the number of vehicles continues to grow, the demand for parking space becomes increasingly critical, contributing to widespread on-road parking issues. This situation presents a significant challenge to ensuring smooth transportation and mobility within the city, underscoring the need for thoughtful planning regarding vehicle registration and space management.

7.2 Significant Issue of Informal Economic Space

Kolkata's vibrant street life reflects its rich cultural diversity and entrepreneurial spirit, with local markets like Hatibagan, Burrabazar, and Sealdah serving as key hubs of activity. However, due to the city's limited space and high population density, many of these markets have expanded onto sidewalks, where hawkers and vendors provide essential goods and services. As formal market spaces are often unavailable, many vendors operate on pedestrian pathways, which can result in congestion and force pedestrians onto the roads. This, in turn, increases the risk of accidents and affects the safety of both vendors and commuters (Dhar, Sen, Patnaik, 2023).

Mobile vendors in areas such as Gariahat also contribute to the dynamic street economy. Given the importance of these vendors to Kolkata's social and economic landscape, it is crucial to incorporate their needs into urban planning. Creating designated business zones alongside roads could improve road safety and enhance transportation efficiency, while potentially providing better parking solutions.

7.3 Mismanagement in public transport

The findings reflect public concerns regarding the improper parking of public transport vehicles, such as buses and taxis, alongside the irregular parking of private four-wheelers. In busy areas of the city, haphazard parking, particularly double-lane parking, has been frequently observed by respondents. This practice significantly reduces available road space, with double-lane parking often encroaching on motorable paths and, in some cases, footpaths as well.

However, it is important to note that the data does not suggest the complete absence of well-maintained parking facilities in the city. On-street systematic parking, as well as underground and multistoried parking solutions, have been recognized by respondents, indicating that proper parking infrastructure does exist in certain areas.

7.4 Obstruction in normal movement

Irregular parking practices in Kolkata contribute significantly to the challenges faced by daily commuters. These practices are a key factor behind traffic delays, as cars are often unable to reach optimal speeds due to road congestion. In some cases, drivers are forced to take alternative routes to bypass bottlenecks caused by unauthorised parking. Double-lane parking further complicates entry and exit from parking areas, leading to vehicles getting stuck. Public transport users have also expressed frustration, noting that frequent obstructions from parked vehicles and long queues delay their ability to catch buses or other forms of transport.

Additionally, parking on footpaths—a common occurrence in Kolkata—blocks pathways and cycle lanes (where available), forcing pedestrians and cyclists to use motor roads, compromising their safety. Beyond the temporary disruptions, both groups have highlighted the long-term impact on infrastructure, with damaged footpaths being a noticeable consequence of irregular parking. Addressing these issues through better regulation and enforcement can help improve the overall commuting experience in the city.

7.5 Scepticism about the presence of a parking policy in the city

In light of the current parking challenges in Kolkata, it appears that many residents are unaware of an existing parking policy in the city. This perception aligns with current parking practices, as daily commuters frequently find additional parking outside designated areas, often in unauthorised spaces. Awareness regarding designated parking spots and their real-time availability remains limited.

Furthermore, concerns have been raised about differential pricing and the presence of unauthorised parking operations (Anandabazar Patrika, 2024), as reflected in public perception. Consequently, more than half of the respondents expressed uncertainty or lack of knowledge about any parking policy in the city. Among those who acknowledged the existence of such a policy, a significant portion felt that it was outdated and unable to address the city's present parking challenges.

7.6 Demand for vehicle-specific and futuristic parking policy

In discussions regarding the future parking policy for Kolkata, the top priorities expressed by respondents were the need for designated parking spaces for different types of vehicles and the availability of safe parking areas. Given the current challenges related to parking, the largely positive response to these key parameters highlights the public's desire for a well-structured parking policy. A comprehensive parking policy for the city would benefit from a foundation built on effective law enforcement, real-time management of parking availability, and clear, enforceable regulations to address present and future needs.



8. How other cities have curbed their parking problems?

8.1 London

- London's car parking policy serves multiple purposes, aiming to manage traffic flow, ensure public safety, and protect valuable public spaces.
- It encourages responsible parking behaviour by providing clear guidelines and enforcement mechanisms.
- Key aspects of the policy include the regulation of parking in various zones, such as permit holder bays and payment bays, as well as provisions for alternative payment methods like mobile phone parking.
- The policy also addresses specific issues such as bus lane and cycle lane parking, and it imposes penalties for violations, including fines and potential vehicle towing or clamping.
- Overall, the intention is to maintain order on London's streets, support sustainable transport options, and enhance the overall quality of urban life.

8.2 New York

- In New York City, where parking challenges rank among the worst in the country (Myers, 2024), the approach to car parking is geared towards sustainable transport management.
- The city's parking policy is designed to ensure safety, alleviate congestion, and optimize space utilization.
- It covers key areas such as double parking, fire hydrant proximity, time limits on parking, and regulations for commercial vehicles, as well as specific guidelines for motorcycles, RVs, and school buses.
- Through clear rules and effective enforcement, the aim is to uphold street order, ensure equitable access to parking, and promote public safety and smooth traffic flow.

8.3 What Kolkata can do following other cities?

To alleviate car parking issues in Kolkata, the city can adopt strategies similar to those implemented in other cities like London and New York.

- Establish Parking Controls:** Implement regulations to manage traffic flow and preserve public spaces, enforced by designated personnel or CCTV
- Designate Parking Bays:** Allocate specific areas for different user groups with clear signage and road markings.
- Provide Payment Options:** Offer diverse payment methods including meters, pay & display, mobile, and voucher parking, with immediate payment required.
- Enforce Penalties:** Impose fines, clamping, and towing for violations, with discounts for early payment and an appeals process.

- e. **Regulate Bus and Cycle Lanes:** Prohibit parking during certain times to ensure traffic efficiency, utilizing surveillance for enforcement.
- f. **Educate and Raise Awareness:** Inform motorists about avoiding penalties and promote compliance through signage and public campaigns.



9. Recommendation

- i. **Optimum use of on-road car parking** is essential for the management of parking-related problems. Kolkata Corporation's designated parking plots need to be more visible and the only space for on-street parking in the city.
- ii. **Area-based vehicle-specific parking** is essential for the city so that the collision of different types of vehicles can be avoided.
- iii. **More off-road parking facilities** need to be introduced in the city. Underground parking and multistoried parking facilities need to come up with more frequency in the city. The government needs to incentivize the construction of such parking infrastructure buildings, especially in the marketplaces. Simultaneously people's awareness in this regard needs to be increased.
- iv. **24x7 monitoring of the parking behaviour** of the people is recommended, so that the behavioural analysis comes up with the time-specific parking rules in the city and the people can be encouraged in a personalised manner to park their vehicles responsibly.
- v. **Compulsory and high fines for illegal parking** need to be done to avoid the choking of the normal flow of vehicles.
- vi. **Encouraging limited-time parking** with a proportional increase of parking fare with lengthy waiting time. Especially for the on-road parking this needs to be done so that more numbers of cars can be parked within a specific time. This type of parking needs to be restricted for a couple of minutes waiting exclusively. This will increase people's reliance on off-street parking and the visible area of the road will increase.
- vii. **Real-time parking data for people with proper coordination between police, and municipality** is one of the prime recommendations of this report. This futuristic measure will drastically reduce the problem of illegal parking in the city. This service should include a) the locations and availability of parking areas in the city for the people who are willing to park vehicles, b) the duration of parking for the already parked vehicles, c) assessment of real-time parking status for administration and online measures for the rule breakers.
- viii. **Parking-related rules, norms and penalties need to be well-informed through advertisements on-road at parking spaces and other print and digital media** so that people can be mindful of the parking-related problems and benefits of organised parking.
- ix. **Awareness programs** need to be frequently run by the administration over the parking rules and regulations.
- x. **Parking within metro premises:** The Delhi Metro's parking setup, with designated space for long-term parking, presents a compelling model for Kolkata. By providing parking within metro premises, Kolkata can curb roadside parking, easing congestion and enhancing commuter convenience. This move not only improves urban mobility but also stimulates economic growth, positioning the metro as a driver of sustainable development. Embracing similar initiatives could propel Kolkata towards a more efficient and environmentally friendly transportation system.

10. Conclusion

The traffic congestion and parking problems in Kolkata have reached a critical point, contributing to increased delays, reduced road efficiency, and significant urban mobility challenges. With the city experiencing high vehicle growth the situation is worsening, particularly due to the lack of adequate road infrastructure, especially limited road surface compared to Delhi and Mumbai. This limited road availability hinders both the smooth movement of vehicles and the feasibility of effective on-street parking, necessitating immediate action.

Despite the presence of regulations laid down by KMC, the enforcement of parking rules is inconsistent, resulting in problematic parking practices that aggravate traffic congestion. KMC, in collaboration with the Kolkata Police, is responsible for regulating parking through policies such as designated parking lots, fee structures for day and night parking, and the implementation of fines for illegal parking. However, footpath encroachments, double-lane parking, and unauthorised parking are rampant throughout the city. The Park Street and B.B.D. Bagh-Esplanade areas have reported significant reductions in available road space due to disorganised on-street parking, further highlighting the inefficiency of the existing parking management systems.

Survey data reveals a strong demand for reforms in parking policy, with respondents pointing to the need for more organised parking solutions, especially for different types of vehicles. Public transport users and pedestrians are particularly affected, as on-street parking often obstructs bus stops, footpaths, and cycle lanes, diminishing the city's overall safety and accessibility. While awareness of parking regulations exists among some citizens, a substantial portion remains uninformed or sceptical of their enforcement, resulting in continued non-compliance.

In comparison to cities like Delhi, London, and New York, Kolkata's parking management lags in both technological advancement and policy stringency. For instance, Delhi has implemented high fines for illegal parking and limited parking space to promote a shift towards public transportation. London and New York have integrated parking zones with clear rules and penalties to maintain order, encourage sustainable transportation, and optimise road usage. These cities also utilise technology for real-time parking management, offering mobile payment options and surveillance systems to enforce parking laws.

To mitigate Kolkata's parking crisis, the city can adopt several strategies, drawing lessons from global counterparts. Establishing designated parking zones for different vehicle types, introducing more off-road parking facilities such as underground and multistorey lots, and imposing stringent fines for illegal parking are key recommendations. Additionally, real-time parking data integration, coordinated between the police and KMC, would allow for efficient management of parking spaces and reduce unauthorised parking. These measures, along with awareness campaigns and clear on-road signage, can encourage responsible parking behaviour among the citizens of Kolkata.

Finally, the promotion of parking within metro premises, akin to the Delhi Metro system, offers a promising solution to reduce roadside parking. This approach would not only ease congestion but also align with Kolkata's broader goals of promoting sustainable urban mobility. By implementing these targeted reforms, Kolkata can significantly improve its traffic flow, reduce congestion, and ensure a safer, more efficient transportation system for its citizens.

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12. Annexure

12.1 Questionnaire for the primary survey

Parking Policy in Kolkata

Questionnaire on problems due to parking on roads and footpaths (রাস্তা ও ফুটপাতে পার্কিংয়ের কারণে সমস্যা নিয়ে প্রশ্নপত্র)

DEMOGRAPHICS/GENERAL INFORMATION	
1. Gender (লিঙ্গ) Male (পুরুষ) Female (নারী) Others (অন্যান্য)	2. Age group (বয়সের কোঠা) Less than equal to 19 years (১৯ বছর বা তার থেকে কম) 20-39 years (২০-৩৯ বছর) 40-59 years (৪০-৫৯ বছর) More than equal to 60 years (৬০ বছর বা তার থেকে বেশি)
3. What is your occupation? (আপনার পেশা কী?) Business (ব্যবসা) Government service (সরকারী চাকরি) Private job (বেসরকারী চাকরি) Self-employed (স্বনিযুক্ত কর্মচারী) Student (ছাত্র) Unemployed (বে-রোজগার) Other (অন্যান্য)	4. Which of the following do you own? (নীচেরগুলির মধ্যে কোনটি আপনার আছে?) Private four-wheeler (ব্যক্তিগত চার চাকার গাড়ি) Two-wheeler (দুই চাকার গাড়ি) Cab (Yellow Taxi/Uber/Ola/Similar) (ক্যাব (হলুদ ট্যাক্সি/উবার/ওলা/অনুরূপ) Bus (বাস) Bicycle (বাইসাইকেল) None of the above (ওপরের কোনোটিই নয়)

1. PRELIMINARY QUESTIONS FOR ALL THE RESPONDENTS	
1.1. Which type of vehicle parking is mostly noticed in Kolkata? (কলকাতায় কোন ধরনের গাড়ি পার্কিং বেশি লক্ষ্য করা যায়?)	Parking of personal four-wheelers (ব্যক্তিগত চার চাকার পার্কিং) Parking of public transport like buses, taxis etc. (পাবলিক ট্রান্সপোর্টের পার্কিং যেমন বাস, ট্যাক্সি ইত্যাদি) Parking of forfeited vehicles, unused vehicles (বাজেয়াপ্ত যানবাহন, অব্যবহৃত যানবাহন পার্কিং) Others (অন্যান্য)
1.2. What are the most common type of irregular parking in the city? (শহরের কোন ধরনের অনিয়মিত পার্কিং সাধারণত দেখা যায়?)	4. Double lane parking (ডবল লেন পার্কিং) Haphazard parking (এলোমেলা পার্কিং) Parking on footpaths (ফুটপাতে পার্কিং) Parking on bus lanes or taxi bay (বাস লেন বা ট্যাক্সি পার্কিং) Unauthorised parking (অননুমোদিত পার্কিং)
1.3. Which are the most important parking parameters? (গাড়ি পার্কিং-এর সবচেয়ে গুরুত্বপূর্ণ পরিমাপকগুলি কী কী?)	Well-designed parking facility (পার্কিং-এর সুবন্দোবস্ত) Safety angle (সুরক্ষা ব্যবস্থাপনা) Strong parking policy (সুনির্দিষ্ট পার্কিং নীতি) Law enforcement for rule breakers (নিয়ম অমান্যকারীদের জন্য আইনের প্রয়োগ) Technological assistance like parking apps (পার্কিং অ্যাপের মতো প্রযুক্তিগত সহায়তা)

2. QUESTIONS FOR FOUR-WHEELER PRIVATE CAR OWNERS AND DRIVERS (INCLUDING MOTORCYCLES)	
2.1. What are the major problems you face due to irregular parking? (অনিয়মিত পার্কিংয়ের কারণে আপনি কী কী সমস্যার মুখোমুখি হন?)	Maintain speed (একই গতিতে যাওয়া) Maintain lane driving (লেন ড্রাইভিং মানা) Prolonged waiting for road blockages (সড়ক অবরোধের জন্য দীর্ঘক্ষণ অপেক্ষা) Bypassing the car through narrow lanes (সরু গলি দিয়ে গাড়ি বাইপাস) Car Parking (গাড়ী পার্কিং) Exit a car from the parking lot (পার্কিং লট থেকে গাড়ি বের করা)
2.2. Parking lots are mostly shrunk due to which of the following factors? (নিচের কোন কারণের কারণে পার্কিং লটগুলি বেশিরভাগ সঙ্কুচিত হয়?)	Temporal encroachment by marketplaces, hawkers (মার্কেটপ্লেস, হকারদের দ্বারা অস্থায়ী দখল) Public transport using parking places as a halt (পাবলিক ট্রান্সপোর্ট দ্বারা পার্কিং এর জায়গাগুলির ব্যবহার) Dumping of construction materials, garbage and others (নির্মাণ সামগ্রী, আবর্জনা এবং অন্যান্য ডাম্পিং) Construction of temporary structures for religious, and political reasons (ধর্মীয় এবং রাজনৈতিক কারণে অস্থায়ী কাঠামো নির্মাণ)

2. QUESTIONS FOR PUBLIC TRANSPORT (BUSES, YELLOW TAXIS, APP CABS & AUTO DRIVERS)

2.1. How frequently do cars take away the designated lanes for public transport like buses and taxis? (বাস এবং ট্যাক্সির মতো পাবলিক ট্রান্সপোর্টের জন্য নির্ধারিত রাস্তাগুলি কিরকম ব্যবহার করে?)	Most of the time (অধিকাংশ সময়) Sometimes (কখনও কখনও) Hardly (খুব কমই) Never (কখনও না)	
2.2. Do you find irregular parking at the following places? (আপনি কি নিম্নলিখিত জায়গায় অনিয়মিত পার্কিং খুঁজে পান?)	Bus stops (বাস স্টপেজ)	Yes (হ্যাঁ) No (না)
	Taxi booths (ট্যাক্সি বুথ)	Yes (হ্যাঁ) No (না)
	Auto stops (অটো স্টপ)	Yes (হ্যাঁ) No (না)
	Cab pick-up points (ক্যাব পিক আপ পয়েন্ট)	Yes (হ্যাঁ) No (না)

2. QUESTIONS FOR MOTORCYCLES, BICYCLES & PEDESTRIANS

2.1. What is the mostly parked vehicle on the footpaths and cycle lanes? (ফুটপাথ এবং সাইকেল লেনগুলিতে সর্বাধিক কোন গাড়ি পার্ক করা হয়?)	Private four-wheeler (ব্যক্তিগত চার চাকার গাড়ি) Motorcycles (মোটরসাইকেল) Taxi/cab (ট্যাক্সি/ক্যাব) Buses (বাস) Goods vehicles like lorry, matador (লরি, ম্যাটাডোরের মতো পণ্যবাহী যান)
2.2. How does parking on footpaths affect pedestrians? (ফুটপাথে পার্কিং কিভাবে পথচারীদের চলাচলে বাধা দেয়?)	Entire blockade (পুরো অবরোধ) Partial blockade (আংশিক অবরোধ)
2.3. How frequently do you find blockages on footpaths and cycle lanes? (আপনি কত ঘন ঘন ফুটপাথ এবং সাইকেল লেনগুলিতে অবরোধ খুঁজে পান?)	All time (সবসময়) Sometimes (কখনও কখনও) Never (কখনও না)
2.4. Are you forced to walk along the main roads due to these blockages? (এসব অবরোধের কারণে প্রধান সড়ক ধরে হাঁটতে বাধ্য হন?)	Yes (হ্যাঁ) No (না)
2.5. Due to parking on the footpaths, does the footpaths get damaged? (ফুটপাথে পার্কিংয়ের কারণে ফুটপাথ কি নষ্ট হয়?)	Yes (হ্যাঁ) No (না) Don't know (জানিনা)
2.6. How frequently do you counter the possibility of an accident due to irregular parking? (অনিয়মিত পার্কিংয়ের কারণে আপনি কত ঘন ঘন দুর্ঘটনার সম্মুখীন হন?)	Frequently (বারংবার) Sometimes (কখনও কখনও) Never (কখনও না)

3. QUESTIONS FOR THE RESIDENTS

3.1. Does parking obstruct the entrance of your shop or residence? (পার্কিং কি আপনার দোকান বা বাসস্থানের প্রবেশপথে বাধা সৃষ্টি করে?)	Frequently (বারংবার) Sometimes (কখনও কখনও) Never (কখনও না)
3.2. Does parking obstruct the view of your shop or residence? (পার্কিং কি আপনার দোকান বা বাসস্থানের ভিউকে আটকে দেয়?)	Entire blockade (পুরো অবরোধ) Partial blockade (আংশিক অবরোধ)
3.3. Is the parking in front of your residence/shop chaotic? (আপনার বাসস্থানের/দোকানের সামনে পার্কিং কি বিশৃঙ্খল?)	All time (সবসময়) Sometimes (কখনও কখনও) Never (কখনও না)
3.3.1. If 'yes' what are the major chaos you face? (যদি 'হ্যাঁ' তাহলে আপনি কোন প্রধান বিশৃঙ্খলার সম্মুখীন হন?)	Intolerable honking of cars (গাড়ির অসহনীয় আওয়াজ) Accidents between vehicles (যানবাহনের মধ্যে দুর্ঘটনা) Accidents of vehicles with pedestrians (পথচারীদের সঙ্গে যানবাহনের দুর্ঘটনা) Hitting built-up structures like walls, lamp posts etc. (দেয়াল, ল্যাম্পপোস্ট ইত্যাদির মতো বিল্ট-আপ কাঠামোতে আঘাত)

QUESTIONS FOR ALL THE RESPONDENTS

3.4. Do you find separate bicycling parking facilities at the major intersections of the city? (আপনি কি শহরের প্রধান মোড়ে আলাদা সাইকেল পার্কিং সুবিধা পান?)	Yes (হ্যাঁ) No (না) Don't know (জানিনা)
3.5. What is the status of the present cycle parking facilities in the city? (বর্তমানে শহরের সাইকেল পার্কিং-এর অবস্থা কী?)	Less number of parking (পার্কিংয়ের সংখ্যা কম) Backdated infrastructure (ব্যাকডেটেড অবকাঠামো) Improper locations of cycle stands (সাইকেল স্ট্যান্ডের অনুপযুক্ত অবস্থান) Safety issue (নিরাপত্তা সমস্যা)
3.6. What is the major reason behind parking-related issues in the city? (শহরে পার্কিং-সম্পর্কিত সমস্যার পেছনে বড় কারণ কী?)	Low parking fee (কম পার্কিং ফি) No limit to parking time (পার্কিংয়ের সময়সীমা নেই) Negligible observation from the administration (প্রশাসনের কাছ থেকে নগণ্য পর্যবেক্ষণ) Corruption by the parking agents (পার্কিং এজেন্টদের দুর্নীতি) Absence of proper parking policy (যথাযথ পার্কিং নীতির অনুপস্থিতি) Backdated infrastructure (ব্যাকডেটেড অবকাঠামো)
3.7. What do police do when they find illegal parking? (পুলিশ বেআইনি পার্কিং পেলে কী করে?)	Verbal solution for the issue (সমস্যার জন্য মৌখিক সমাধান) Complaint lodged (অভিযোগ দায়ের) Fine (জরিমানা) Forfeiting the car (গাড়ি বাজেয়াপ্ত করা) No step as such (তেমন কোনো পদক্ষেপ করে না)
3.8. Do you know if the city administration follow a parking policy? (আপনি কি জানেন যে নগর প্রশাসন কোনো পার্কিং নীতি অনুসরণ করে কিনা?)	Yes (হ্যাঁ) No (না) Don't know (জানিনা)
3.9. What are the major perspectives that should be incorporated into the future parking policy of Kolkata? (কলকাতার ভবিষ্যত পার্কিং নীতিতে কোন প্রধান দৃষ্টিভঙ্গিগুলি অন্তর্ভুক্ত করা উচিত?)	Increase the capacity of on-street parking (অন-স্ট্রিট পার্কিংয়ের ক্ষমতা বাড়ান) Yes (হ্যাঁ) No (না) Don't know (জানিনা)
	Separate parking facility for different types of vehicles (বিভিন্ন ধরনের গাড়ির জন্য আলাদা পার্কিং সুবিধা) Yes (হ্যাঁ) No (না) Don't know (জানিনা)
	Increase the capacity of off-street parking (অফ-স্ট্রিট পার্কিংয়ের ক্ষমতা বাড়ান) Yes (হ্যাঁ) No (না) Don't know (জানিনা)
	Real-time parking availability data through an app-based system (একটি অ্যাপ-ভিত্তিক সিস্টেমের মাধ্যমে রিয়েল-টাইম পার্কিং ডেটা) Yes (হ্যাঁ) No (না) Don't know (জানিনা)

DETAILS OF SURVEY

Name of surveyor (সার্ভেয়ারের নাম)	
Location of survey (সার্ভের স্থান)	
Date of survey (সার্ভের তারিখ)	









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SwitchON Foundation, established in 2008, is a leading non-profit organisation focusing on Environment Sustainability and Equal Opportunities. Operating in 10 Indian states. It leads initiatives in Clean Energy Access, Sustainable Agriculture, Skilling, Clean Air and Sustainable Cities. Key strengths encompass innovative project implementation, capacity building, field support, awareness and advocacy.

