



Greener Urban Mobility in India

The potential for behaviour change and purchase of electric vehicles

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FIGURE 1: ELECTRIC VEHICLE CHARGING (Photo by Michael Fousert on Unsplash)

Executive Summary

Climate change demands the exploration of alternative forms of mobility to reduce the impact of the fossil fuel-dominated transportation sector on emissions. Electric vehicles (EVs) offer an optimal solution to this problem, as they produce zero tailpipe emissions. However, the successful transition to EVs largely depends on citizens' behavioural changes. In India, the uptake has remained low with only EVs accounting for only 5% of total vehicle sales between October 2022 and September 2023 (Seetharam et al., 2023). It is imperative to trigger a significant shift towards electric-powered vehicles by ensuring people understand that opting for cleaner transportation directly benefits the environment and the planet's future.

This study on EV purchase found that limited knowledge of EV technology, incentives, and long-term cost-savings, sparse tools for citizens to find credible information and charging infrastructure, as well as people's individual perceptions and biases, are the main barriers to uptake in India. On the other hand, pro-environmental beliefs, existing ownership of a private car (EV or ICE), test drives, knowledge of incentives and subsidies, and trusted, credible sources can help promote EV purchase. This brief presents the critical structural and behavioural barriers and enablers for EV purchase, along with suggested behavioural interventions and policy recommendations.

Section 01: The Project

Climate change, stemming primarily from the release of greenhouse gases (GHG) from human activities including the use of fossil fuels, is a dominant crisis of present times. The transportation sector, with its high proportion of fossil fuel-powered vehicles, contributes significantly to GHG emissions globally (United Nations, n.d.). One promising solution gaining traction among consumers is the shift from traditional internal combustion engines (ICE) to electric vehicles (EVs). EVs, which offer efficient and eco-friendly performance, are expected to become the future of transportation (Degirmenci & Breitner, 2017). In 2021, the global electric car fleet was over 6.6 million (IEA, 2022). Over the years, EVs have undergone significant technological developments lowering their environmental footprints and increasing their utility (UNEP, n.d.). Studies from other countries have shown that EVs have the potential to reduce carbon dioxide (CO₂) emissions by close to 30% (Mudaliar, 2021). Policy must push for the uptake of electric cars, hand in hand with educating the public on how EVs can reduce greenhouse gas (GHG) emissions.

The Low Carbon Lifestyles Project seeks to initiate behaviour change towards sustainable lifestyle choices, including low carbon transportation, in Indian cities. It aims to design interventions to redirect individual and household choices towards sustainable behaviours and technologies. The primary goal is to ensure that policy incorporates an understanding of the context of consumer choices and of local barriers to the uptake of low-carbon consumption, essential to devise levers for higher adoption.

In the domain of urban mobility, the project promotes the adoption of low carbon modes such as electric vehicles, public transportation, and non-motorised transportation. The project conducted two studies on the adoption of EVs – specifically, battery electric vehicles (BEVs) – by analysing related barriers and facilitators in Indian cities. One study is focused on the efficacy of sales agents and their ability to persuade consumers to purchase EVs, while this study explores the behavioural aspects of the purchase of EVs from the consumer's perspective. EVs are an emerging mobility technology available in India for private consumption as two-wheelers or four-wheelers. The project concentrates on passenger electric four-wheelers (hereafter referred to as EVs) rather than two-wheelers due to the limited adoption of the former despite available incentives.

This diagnostic brief on the barriers and facilitators in the purchase of EVs is based on fieldwork conducted among EV owners and potential buyers in the Delhi National Capital region (NCR) and Mumbai. What are the factors positively or negatively impacting citizens' behaviour in terms of the purchase of electric cars, and how can behaviour change towards EV purchase be achieved? Going into these aspects in great depth, this research has great potential to be leveraged in many Indian cities.

Project Objective:

A key objective of the Low Carbon Lifestyles Project is to advocate the adoption of low carbon mobility modes, like electric vehicles. It promotes the purchase of EVs, aiming for a switch from private internal combustion engine (ICE) cars to private electric cars for commuting.

- Target Behaviour: Switch to electric vehicles from motorised modes
- Target Population: Segment looking to purchase a private vehicle (four-wheeler)

Electric Vehicles' Purchase – The Indian Context

Road transport is responsible for 12% of the energy-related CO₂ emissions in India, and this proportion could double by 2050 (IEA, 2023). India's transport sector currently relies heavily on fossil fuels, and despite the transition towards sustainable transportation solutions, the uptake of EVs remains slow: less than 1% of the total automobile market in 2020–21.

There is cause for optimism, though: recent research highlights a remarkable surge of 230% in the usage of electric cars between 2019 and 2022 (SMEV, 2023). The states of Maharashtra, Delhi, Telangana, Karnataka, and Gujarat saw the highest sales of electric four-wheelers in the year 2021 (India Brand Equity Foundation, 2022). This trend can be attributed to well-established charging infrastructure in these regions (Livemint, 2022). With the government's support through policies and initiatives, there is great potential for EV adoption in India.

However, the Indian EV market offers limited options for consumers, with only 11 EV models available in the non-luxury segment in 2022, offered by the companies Tata Motors, Kia, Hyundai, Morris Garages (MG), Volvo, Mahindra, MINI Cooper, and BYD. The primary players in the electric car manufacturing market are currently TATA and MG, which collectively account for 98% of the EVs manufactured (Nagaraj, 2022).

A significant factor in purchase decisions is cost. A comparative study (Table 1) of the same model, Tata Nexon, as an EV and an ICE unveils the cost differential. The sales price difference between a petrol and an EV model of the Nexon is INR 5,69,100. While the EV model is almost 2.5 times more expensive than the petrol variant, a customer driving an average of 35 km per day can save INR 67,284 on fuel every year, resulting in significant savings over the years.

	TATA NEXON XM (PETROL)	TATA NEXON XM (EV)
Car Cost	INR 8,79,900	INR 14,49,000
Specs	Mileage: 16 km	Driving range: 400 km

Yearly commute	12,600 km (Daily: 35 km)	12,600 km (Daily: 35 km)
Running costs per kilometre	Fuel price in NCT of Delhi: INR 95 Running cost per km: INR 5.94	Total cost of charging: 30 units of electricity x electricity rate of INR 8 per unit = INR 240 Running cost per km: INR 0.6
The annual cost to the customer	INR 74,844	INR 7,560

TABLE 1: A COMPARISON OF TATA NEXON XM PETROL AND EV VARIANTS

To accelerate EV adoption in India's road transport sector, policymakers must address price differentials through favourable taxation and continue incentives. The EV landscape in India is complex, with interconnected responsibilities of multiple players, and is constantly evolving. The central government sets national-level policies and incentives for the manufacture and scale-up of charging infrastructure, and for EV purchase (subsidies, tax benefits, loan deductions) (Bhagat, 2021; MoHI, 2022). For instance, in all cities, a total tax exemption of up to INR 1.5 lakh is available for customers paying off an EV loan under section 80EEB of the Income Tax Act (Bhagat, 2021). The Government of India also devises regulatory incentives and frameworks, such as revised permit requirements and battery management rules, to promote EV uptake (Srivastava, 2020). Its flagship scheme in this domain is Faster Adoption and Manufacturing of (Hybrid & Electric Vehicles in India (FAME); it has allocated INR 51.72 billion in the 2023–24 Union Budget for Phase II of the scheme (MoF, 2023). Through these efforts, a significant section of the public transportation fleet has been electrified. The government aims to electrify 30% of private cars by 2030 (NITI Aayog, 2019). To raise awareness and provide accurate information about EVs, the central government’s NITI Aayog launched the e-Amrit web portal in 2021, though its popularity amongst users remains low.

Abiding by the central government’s set targets, the state governments form state policies and directives on tax incentives, stamp duty, land allocation, research and development, etc. People’s access to incentives and financial aid from the government depends on state policies. Studies show that 26 states have adopted EV policies that cover financial and regulatory incentives, and occasionally include urban planning instruments like development control regulations to guide investments in charging infrastructure (The Wire Staff, 2023). Certain states have also created awareness programmes to encourage the adoption of EVs (Government of Delhi, 2021). The urban local bodies (ULBs) provide infrastructure and regulations to support state EV policies.

Private sector actors also play a big role in promoting electric vehicles in India. The vehicle manufacturers and dealerships are responsible for the availability of EV options for the general public and influence the customers' purchase decisions. Associations such as the Society of Manufacturers of Electric Vehicles (SMEV) collaborate with central and state governments to help create policies and processes that support the EV ecosystem. Entities such as CHARGE+ZONE, goEgoNetwork, and ElectricPe are working towards making EV charging reliable and easy to locate. Platforms such as Ohm Mobility allow EV buyers to quickly secure the required financing through a user-friendly interface.

Finally, consumers – citizens who purchase EVs for personal usage, cost savings, and environmental sustainability – are an integral part of the EV landscape. The widespread adoption of electric cars depends on behaviour change among potential customers through acceptance of new technology, overcoming initial scepticism, embracing the innovative nature of EVs, and understanding their benefits. This requires a fundamental shift in environmental consciousness, which kindles the desire to reduce carbon footprints

Choice and Electric Vehicles Usage

Global and Indian studies have identified key behavioural and structural barriers in individual decisions related to the purchase of an electric car. On the demand side, there is, first, insufficient understanding and awareness about the benefits, costs, subsidies, charging methods, and maintenance of EVs, and a consequent lack of trust in the technology, which make people reluctant to purchase an EV (Aijaz, 2022; Krishna, 2021). Second, there is a perception that EVs have a low driving range, i.e. they cannot travel long distances per charge. Third, people tend to prioritise short-term savings over long-term benefits. The significant price difference between an EV and an ICE vehicle is a prime concern for people considering a switch to EVs, making them overlook the lower operating costs and long-term savings (Krishna, 2021; Woodward et al., 2020).

Fourth, some people are unconvinced about the eco-friendliness of an EV since it relies on electricity, which is still generated primarily from non-renewable sources in India (Mudaliar, 2021); this is because of a fundamental knowledge gap in understanding that EVs emit less GHGs than ICE vehicles, due to the higher efficiency of power plants in converting fossil fuels. Fifth, there is a status quo bias: people are conditioned to the sound and feel of ICE vehicles (Krishna, 2021), and often feel the driving experience of an EV compares unfavourably, making them reluctant to choose an EV.

Finally, supply-side barriers also limit the uptake of electric vehicles. These include inadequate charging stations in the public realm, difficulty in installing a charging station at home when people live in a housing complex, longer charging time for EVs depending on the charger and battery technology (the time taken to fully charge an

EV battery is about seven to eight hours), and the limited car models/options in the market (Lee & Brown, 2021; Mastoi et al., 2022; Aijaz, 2022).

Simultaneously, there are facilitators that have helped EV uptake. Studies show that customers trust credible sources of information about EVs, especially when they find the shared information benefits to be personal (Maxine, 2019); this works to debunk barriers around information gaps. Test drives also improve the likelihood of EV purchase: 70% of potential car buyers are more likely to buy an EV after familiarising themselves with it through a test drive than before the driving experience (Roberson & Helveston, 2020). Finally, communication about the environment, social justice, and health motivates consumers to switch to EVs (Debnath et al., 2021).

Project Methodology

While there have been some studies on the adoption of electric cars in Indian cities, the research is at a nascent stage. This study aims to go deeper into the behavioural and systemic factors that inhibit or stimulate the purchase of EVs in Indian cities. Accordingly, we devised and adopted a comprehensive methodology.

- The team began by conducting a wide-ranging literature review to identify cities in states with strong EV policies where government incentives (regulative and financial) are being implemented and which have an established infrastructure network, specifically the provision of public EV charging stations. We also wanted to ensure that EVs are already in use in the case cities to understand facilitators and EV users' motivations; hence, Delhi NCR and Mumbai, the cities with the highest sales, were chosen.
- Stakeholder mapping was conducted to understand the diversity of actors in the EV market, including the variety of dealerships that sell EVs and the number of showrooms.
- Next, the team conducted diagnostic fieldwork. We carried out semi-structured in-person and telephonic interviews with 16 respondents, in two categories:
 - Seven car owners who had purchased a four-wheeler EV within the last year were interviewed to understand the factors that influenced their decision to purchase an EV.
 - Nine potential car buyers who were interested in buying a new car (either an ICE or EV) from companies like Tata, Mahindra, MG, and Hyundai were surveyed to identify the factors that restrict/motivate people in choosing an EV.

The study adopted the following filtering criteria in choosing participants: gender balance, relatively younger cohort (aged 30–50 years), education, higher income level.

- We consolidated and analysed the insights from the fieldwork to identify behavioural and structural barriers and facilitators in the purchase of EVs.
- This was followed by ideation workshops to identify interventions to increase EV purchase.

Section 02: Insights from Fieldwork

Whether or not an individual consumer adopts a given sustainable behaviour depends on two sets of factors: (1) Demand side factors -- The preferences, needs, and beliefs of the individual can make her/him more likely to adopt that behaviour (such factors are demand-side facilitators of sustainable behaviour), or less likely to adopt the behaviour (demand-side barriers) and (2). Supply-side factors: The availability and accessibility of infrastructure and/or services at the systemic level make an individual more likely (supply-side facilitators) or less likely (supply-side barriers) to adopt the behaviour.

Our diagnostic fieldwork revealed 14 distinct barriers and facilitators in the purchase of electric vehicles in Delhi NCR and Mumbai.

Demand-Side Barriers

1. *Unwillingness to pay the high upfront cost of EVs:* Our research indicates that the higher upfront costs of electric cars limit the potential customer base. EVs are often perceived as luxury vehicles due to higher costs, which can discourage middle-income groups from considering them. The absence of nuanced information on EV subsidies and government incentives feeds this reluctance. Only one out of seven interviewees who were considering buying an electric car was aware of such benefits.
2. *Misconceptions around the availability of public charging infrastructure:* Our research found that people perceive EV public charging infrastructure to be limited, in contrast to the ready availability of petrol pumps, because they lack awareness of the locations of charging stations. Half of the respondents (eight out of 16) asserted that the government needs to invest more in public charging infrastructure. However, secondary data showed over 1,900 EV charging stations with nearly 2,500 docks available and widely distributed across Delhi, for example. One reason for the perception of limited availability is the low-key profile of the charging points; their visibility could be improved to make their physical location more evident.
3. *Perception of limited driving distance in a single charge:* Our research established that people have range anxiety, the fear that the car's range, even when fully charged, may not be enough to reach their desired destination. They fear getting stranded en route, especially when covering long distances; low awareness of locations of public charging spots fuels this fear.

Further, we discovered that individuals are interested in driving for outstation trips, especially those buying their first car. So, the unavailability of charging

stations on highways makes people nervous about using EV cars for such trips, impacting their purchase decisions. Even those who own an EV rely on 'other cars' for trips outside the city.

4. *Dependence on friends or family members as reliable sources of information:* The research showed that for car purchase decisions, especially EVs, people trust the opinions of friends and family more than sales agents or internet sources, which may lead them to discount credible information and refrain from EV purchase.
5. *Limited knowledge of EV technology:* The study revealed that people perceive EV technology as new and uncertain, making them hesitant to invest in these cars. Our interviews established that most people do not understand how an EV works. When asked 'How does the EV car operate?', 'What do you know about the warranty?', 'Do you know how to maintain the car?', etc., their answer was, 'I have no idea.' The knowledge of even for those who own an EV seems limited to: 'There is no maintenance', 'The battery can be replaced', and 'It runs on a battery making it cost-effective'. Hence, we found that despite having access to multiple sources of information on the internet or otherwise, an information gap restricts people from shifting to EVs.

Supply-Side Barriers

6. *Limited access to home EV charging infrastructure:* A key finding is that people are concerned about limited EV infrastructure within their residential complexes. Despite the availability of public charging stations in cities, the decision to buy an EV depends strongly on access to an EV charging spot at home. While people living in standalone houses have a personal parking space and can install a socket for charging, those who live in apartment complexes without designated parking feel there is no security of parking in the same spot every day/night and, thus, no guarantee that they can charge their cars when needed. EV charging time is another concern associated with lack of access to charging infrastructure at home, as respondents do not want to wait extra hours just to charge their cars while on the move.

Demand-Side Facilitators

1. *Shift to EVs because of their environmental benefits:* The urge to reduce individual carbon footprint has been found to be a primary reason for buying/considering an EV. All interviewees (those who purchased an EV and those considering buying a new car) were aware of the environmental benefits, and over 60% (nine out of 14) chose EVs because they are eco-friendly. Many declared they are concerned about the increasing pollution levels and genuinely want to change their ways rather than follow trends.

2. *Willingness to buy an EV as a second car:* Our research indicates that individuals who own an ICE vehicle are more likely to opt for an EV as their second car. This preference springs from their concern for the environment and their awareness of EVs' energy efficiency, with associated long-term cost savings. They are also influenced by the belief that EVs are the future.
3. *Influence of friends and family members who own an EV:* We discovered that individuals who know EV owners or users were more likely to consider buying an EV themselves. Many people felt more confident about purchasing an EV after hearing positive feedback from friends or relatives who use an EV and serve as credible sources of information. Our research also indicates that people who talk to friends and family members who are EV users tend to better understand how an EV works than those who rely on the internet for information.
4. *Experience of driving or sitting in an EV:* We found that actually experiencing an EV by test driving or borrowing a friend's EV helps alleviate concerns about comfort, driving experience, and operations. Of the 14 EV owners we spoke to, six stated that test-driving an EV before purchase was a deciding factor. Some also mentioned that using an electric taxi (either domestically or internationally) in the past made them more aware of and comfortable with EVs as a new technology.
5. *Perceived as the future/developed culture:* Our research found that while people perceive EVs as a new technology in India, they are aware of their extensive use and adoption abroad. The respondents said they expect the Indian car market to shift towards EVs soon. As a result, people who own an EV or are considering purchasing one feel that they are ahead of the curve.
6. *Awareness of government incentives:* The study found that the knowledge of government subsidies, tax savings, and running costs made it easier for customers to choose an EV. Many respondents stated that they chose a particular model because of the available government subsidy. Therefore, people who understand long-term cost savings are more likely to choose an EV.

Supply-Side Facilitators

7. *Designated parking spots:* The study uncovered that individuals with designated parking spots have better access to charging sockets to charge their EVs overnight and are accordingly less concerned about a drained EV battery.
8. *EV-specific digital applications:* Our research found that EV-related apps are regarded as extremely useful for obtaining information about charging stations, real-time battery updates, and related topics. However, many people are only introduced to these apps when they purchase an EV and are unaware of the existence and features of these digital applications beforehand.

Section 03: Recommendations and Interventions

This study has uncovered key behavioural and structural barriers that inhibit the purchase of EVs in India, and also factors that facilitate purchase. Utilisation of these insights is critical for policy, enabling governments, EV manufacturers, and dealerships to employ a powerful set of levers to spur EV adoption.

To activate the behavioural bridge to policy, this study employs the 4Es Model of the UK government's Department for Environment, Food and Rural Affairs (DEFRA), which aspires to enable, encourage, exemplify, and engage in moving individuals towards sustainable practices (Institute for Government, 2015). This model offers an approach to addressing behavioural and structural gaps in policy:

1. Enable focuses on providing the necessary infrastructure to make sustainable choices accessible and attractive.
2. Encourage delves into the realm of information dissemination and public awareness to motivate individuals.
3. Exemplify emphasises the importance of leading by example.
4. Engage encourages active participation and collaboration amongst stakeholders to influence policy.

Through a series of ideation workshops, this project identified 15 interventions that address the behavioural barriers to EV purchase, organised below in the 4Es framework:

Enable

It is crucial for policymakers and decision-makers to acknowledge that an individual's physical environment significantly influences their mobility preferences, such as opting for electric vehicles over traditional ones. To address contextual and structural impediments and enable people to adopt EVs, the project proposes the following interventions:

1. *Improve visibility of charging infrastructure*: One way to encourage more people to adopt EVs is to improve the visibility of charging infrastructure through the use of standardised colours and signage, similar to those used by petrol stations. Making their physical location more evident will help drivers easily identify charging stations and also change the public perception of how widespread the infrastructure is.
2. *Prioritise parking for EV charging*: One of the major challenges of EV adoption is the perceived lack of available infrastructure. By providing priority parking for EV charging and imposing fines for ICE vehicles parked in EV spots, EV ownership can be given primacy.

3. *Install EV charging stations in public spaces:* Installing electric vehicle charging stations in public spaces such as malls, theatres, and food courts allows drivers to utilise their time for shopping, dining, and entertainment while their EVs get charged. This would require amendments to development control regulations, such as building bye-laws, to ensure compliance. Provision of such convenient charging stations addresses the major barriers of the lack of access to home EV charging infrastructure and the perception of extended time spent on charging EVs.
4. *Introduce small battery packs or offer battery swaps:* One possible solution for the issue of range anxiety for EVs is the provision of small battery packs or chargers that can be conveniently carried in the car. These battery packs could have a capacity of over 20 km (5kW energy) with AC motors (Sharma et al., 2020), allowing drivers to rapidly top up their vehicle's charge on the go and cover a considerable distance to the nearest charging station. Another option is to offer battery swapping services for four-wheelers, which would enable drivers to quickly and easily replace their depleted battery with a fully charged one at a swapping station. These measures can help alleviate concerns about running out of power and make EVs a more viable and practical option for daily use.

Encourage

Information provision, regulations, incentives, and communication campaigns are traditional policy tools to encourage action. Bringing insights from behavioural research around EV purchase can only sharpen the efficacy of these tools, allowing them to directly cater to potential EV users' concerns. The project suggests the following behaviour change interventions:

5. *Increase perception of busyness of charging stations:* To encourage the adoption of EVs, it is crucial to address the misconceptions surrounding the availability of public charging infrastructure. One way to achieve this is by increasing the perceived busyness at charging stations by using real-time occupancy indicators such as digital displays that show charging spot availability, wait times, and station numbers. Further, strategically placing charging stations near high-traffic areas with visible signage can encourage more frequent use. Potential EV owners will then get a better understanding of the number of charging stations that are functional and in demand.
6. *Emphasise the low probability of getting stranded:* The fear of being stranded is a key barrier to the adoption of EVs. While EV-related apps and knowledge of all available charging spots on the way can help alleviate this, the low probability of being stranded needs to be made clear through awareness campaigns. These should highlight that EVs currently available in the Indian market take up to 90 minutes to charge, enough to give a range of

140–160 km (the time required for a full charge is substantially larger). This range of 140 km is believed to be enough for a whole day in a business-as-usual scenario (Patel & Saini, 2020), with the range expected to increase as EV technology advances.

7. *Introduce real-time mobile applications:* Customers' range anxiety is fuelled by many factors, such as battery percentage, available services, location of charging infrastructure, etc. Real-time apps can provide information about charging infrastructure (location, availability, time, and cost) and integrate it with route planning apps, track real-time battery life and percentage, furnish contact details and estimated time of arrival for on-call services, etc. When people become conscious of platforms such as EV-related apps that they can access to address most of their concerns, they become comfortable about switching to EVs.
8. *Frame messaging around EV performance:* Given that limited knowledge of EV technology acts as a significant barrier, messaging around EV performance can highlight its features such as acceleration, noiseless operation, theft-proof security, and high-tech design. EV-specific applications can also help bridge the information gap and disseminate more nuanced information.
9. *Highlight zero operating costs and ease of access to government subsidies and tax savings:* To address the barriers of high upfront cost and limited knowledge of EV technology, it is essential to increase people's awareness of the long-term benefits of EVs, including zero operating costs and cost savings as a result of using electricity to charge their car instead of petrol. Additionally, information on government incentives should be widely spread among the public through awareness campaigns, events, and social media platforms.
10. *Publicise a simple thumb rule to understand cost savings:* EVs offer tremendous cost-saving potential compared to conventional cars. A simple thumb rule of the 'Total Cost of Ownership', which factors in all costs associated with owning and operating a vehicle over its entire lifetime, including the initial purchase price, maintenance costs, fuel costs, and resale value, can help people make an informed decision and opt for an EV.
11. *Install EV simulators:* One way to address people's range anxiety is to install EV simulators in cars to help correct the overestimation of being stranded. A simulator is a digital display on a car's dashboard that provides information about the vehicle's electric performance, such as battery charge level, estimated range, and energy consumption. Sometimes it includes navigation to nearby charging stations. The information is displayed graphically or numerically, making it easy for the driver to understand and make informed

decisions. This will ease people's concerns about the distance covered in a single charge and make them more comfortable driving EVs.

12. *Provide digital calculators to explore long-term cost savings:* Car manufacturers can provide users with digital calculators that can help them explore the long-term cost savings of owning an EV. Using these, people can see how much money they can save over time by owning an EV, which may help to overcome the barrier of reluctance to pay the high upfront costs and encourage more widespread adoption.

Exemplify

The actions of high-profile figures in society, ranging from celebrities to entrepreneurs and government officials, send out implicit messages about desirable behaviours. In order to improve the user and status perception of EVs, the project suggests that aspirational figures lead the way:

13. *Use high upfront cost as a facilitator to signal high status:* Our research showed that many people hesitate to buy EVs due to their high upfront cost and the perception that they are only for the future/developed culture. This can be turned around by highlighting EV use by specific high-profile groups and projecting EVs as a signal of status because of their high initial cost.
14. *Organise messaging around virtue signalling/status:* EV uptake can be boosted by pro-environmental messaging around the benefits of EVs and campaigns where influencers and other aspirational personalities normalise the wider adoption of EVs, help present EVs as 'cool' or 'woke', and reframe the way people see EVs.

Engage

Promoting the purchase of electric cars requires cooperation from diverse actors. The project suggests the following multi-stakeholder intervention to improve EV uptake:

15. Collaborate with businesses and institutions to include EV charging spots in their parking spaces: Collaborating with businesses and institutions to install EV charging stations in their parking spaces can help address the misconceptions around the availability of public charging infrastructure. Encouraging institutions and corporations to install more EV charging stations will increase their visibility and eliminate the cognitive scarcity around charging that limits the adoption of EVs.

Towards Greener Urban Mobility Through Increased EV Purchase

This diagnostic brief highlights the urgency of incorporating behavioural insights in electric vehicle policy planning and promotion. Based on fieldwork in two cities with the highest EV sales in India, we probed the behavioural barriers and facilitators in the purchase of electric four-wheelers, deriving insights that are applicable across many Indian cities. This novel research has also yielded a set of suggestions for improving EV purchase. With the need to reduce fossil fuel use more acute than ever, and many cities in India implementing EV policies, there is great potential to boost EV usage and adoption using this research, paving the way for a greener urban future.



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