



Mains Practice Question

Q. In recent times, there has been a growing trend towards the use of electric vehicles. What obstacles are currently present in the Indian market, and what measures have the Indian government implemented to address them? (250 Words)

25 Oct, 2023 GS Paper 3 Economy

Approach

- Give a general introduction briefing on why there is a surge in demand for electrical wheels.
- Mention the obstacles present in the Indian market.
- Mention the steps taken by the Government to address the challenges.
- Conclude on a positive note.

Introduction

The surge in the adoption of electric vehicles (EVs) is a global phenomenon, driven by environmental concerns and technological advancements. In India, this trend is no exception. The Indian government has set a target to achieve 30 percent electrification of the country's vehicle fleet by 2030. However, the Indian EV market faces several obstacles that impede its rapid growth, requiring strategic interventions from the government.

Body

Obstacles in the Indian EV Market

- **High Initial Costs:** EVs tend to have a higher upfront cost than traditional vehicles due to the cost of batteries. This deters price-sensitive Indian consumers.
- **Charging Infrastructure:** Inadequate charging infrastructure is a significant challenge. Range anxiety is a real concern, as people fear running out of charge without a nearby charging point.
- **Battery Technology:** The battery technology used in EVs needs improvement in terms of range, charging speed, and longevity.
- **Supply Chain:** The production of lithium-ion batteries, which are a key component of EVs, requires specific minerals and rare earth elements.
 - India currently relies heavily on imports from China for battery manufacturing, leading to supply chain challenges.

Government Measures

- **FAME Scheme:** The government has implemented the FAME scheme to provide incentives for the adoption of electric and hybrid vehicles, aiming to reduce the upfront cost for consumers.
- **Charging Infrastructure:** Schemes like 'Charging Infrastructure for Electric Vehicles' and 'Go Electric' have been launched to bolster charging infrastructure, encouraging states to develop public charging points.
 - Delhi government's 'Switch Delhi' campaign aims to install 100 charging stations in the city, but more such initiatives are needed.
- **GST Reduction:** The reduction in the Goods and Services Tax (GST) rate on EVs from 12% to 5%

has made them more affordable.

- **The Production Linked Incentive (PLI) scheme:** It provides incentives for the manufacturing of electric vehicles and components.

Conclusion

The Indian government is taking steps to overcome the obstacles in the EV market, recognizing the importance of sustainable transportation for the nation's future. By addressing cost concerns, improving infrastructure, and supporting research and development, India is making progress towards a cleaner, more sustainable transportation sector, which will in turn help India achieve its 'Nationally Determined Contributions' for climate action.

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