CUTS Project Brief

Assessing India's Sustainable Mobility Landscape: A Policy Framework Approach

Background

Transport is a critical pillar of the energy ecosystem and is undergoing a significant transformation toward sustainability — alongside sectors such as electricity, industry, habitats, and agriculture. In India, electric mobility has become a cornerstone of decarbonisation efforts, driven by a combination of national and state-level policies, as well as industry-led innovation. This policy momentum has driven rapid expansion in the electric vehicle (EV) market, which recorded a compound annual growth rate (CAGR) of over 60 percent between 2017-18 and 2023-24, culminating in 2-million-unit sales in 2024.

Despite this impressive growth, India's EV penetration remains relatively low compared to global benchmarks. In 2023, EVs accounted for 18 percent of all new car sales globally. In contrast, in India, EVs represented just over six percent of total vehicle sales —concentrated mainly in the two- and three-wheeler segments.

While current policies have significantly accelerated the adoption of EVs, several critical gaps remain — most notably in charging infrastructure, financing mechanisms, localised supply chains, and the socio-economic impacts of electrification. Traditionally, the success of EV policies has been gauged primarily through sales volumes or the achievement of numerical targets. However, a more comprehensive evaluation must move beyond these metrics to assess how effectively these policies advance broader objectives such as improving air quality, reducing dependence on fossil fuels, creating employment opportunities, and enhancing climate resilience and energy security.

Objectives

The overarching objective of this project is to inform the development of a comprehensive policy roadmap for sustainable mobility that builds on proven strategies while integrating socio-economic considerations such as livelihood generation, gender inclusivity, and regional disparities to advance a just transition in the Indian automotive sector.

Specific Objectives

- Review and comparative analysis of national and state policies for promoting EVs in India from 2015 to 2024, along with an assessment of their impact.
- Consultations with stakeholders (EV policy implementing agencies and industries) to develop an understanding of the on-ground policy implementation status and challenges.
- Analysis of successful EV transitions in other countries to identify policy innovations and implementation strategies that can be adapted to the Indian context for enhancing the effectiveness and scalability of the EV transition.

Activities

- **Policy Review and Comparative Analysis**
  The project will conduct a systematic review of national and state-level EV policies from 2015-2024, using government reports, policy documents, and legislative records to compare policy objectives, incentives, regulatory frameworks, and implementation mechanisms across states and periods

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while also assessing their impact on EV adoption, manufacturing, charging infrastructure, and key socio-economic indicators.

- **Stakeholder Consultations**
  Conduct structured interviews with key stakeholders, including government agencies (such as state departments implementing EV policies) and industry representatives (OEMs and charging infrastructure providers), to gather insights on policy implementation challenges, market barriers, and opportunities to enhance regulatory effectiveness.

- **Data Collection and Impact Assessment**
  Collect secondary data from government sources (e.g., Vahan Dashboard, FAME scheme reports), industry publications, and market surveys, and conduct a quantitative impact assessment using key indicators such as EV sales growth, charging infrastructure expansion, investment trends, and socio-economic outcomes, including employment generation and gender inclusivity.

- **Learning from International EV Transitions**
  Identify international case studies of successful EV transitions, such as those in Norway, China, and California, and extract key policy lessons to assess their relevance and adaptability to India's socio-economic and regulatory context.

- **Synthesis of Findings:**
  Compile insights from policy analysis, stakeholder consultations, data assessments, and international case studies to present key trends, challenges, and opportunities shaping EV adoption and sustainable mobility in India, providing an evidence-based overview to support informed decision-making by policymakers and stakeholders.

- **Dissemination Event**
  A webinar will be organised to share key findings from the study and engage stakeholders in discussing the way forward for electric mobility in India. The event will highlight policy insights, regional best practices, and actionable recommendations, providing a platform to discuss future priorities for policy, investment, and innovation that accelerate the shift to sustainable transport within a just transition framework.

Expected Outcomes

- **Improved Policy Effectiveness:** Insights from the review will contribute to refining National and state-level EV policies, making them more targeted, inclusive, and impactful in accelerating the transition to sustainable mobility.

- **Harmonised State-Level Approaches:** A comparative analysis of state policies will facilitate knowledge-sharing, helping states adopt best practices and address region-specific challenges more effectively.

- **Stronger Policy Framework for a Just Transition:** The findings will inform the development of a strategic roadmap that integrates socio-economic considerations such as livelihood opportunities, gender inclusivity, and regional equity, ensuring a fair and sustainable shift in India's automotive sector.

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