PROJECT IMPLEMENTATION REPORT

Project ID:	10276
Project Name:	Electrifying Mobility in Cities: Investing in the Transformation to Electric Mobility in India
Countr(ies):	India
Implementing Agency:	UNEP

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I. Overview

A. Description

Project name
Electrifying Mobility in Cities: Investing in the Transformation to Electric Mobility in India

Country
India

GEF ID	Implementing Agency
10276	UNEP

Executing Entity
Energy Efficiency Services Ltd. (EESL), National Institution for Transforming India (NITI) Aayog

Trust Fund	Project Type
GET	FSP

PIR Submission	Fiscal Year , PIR Number
9/15/2025	FY 2025 , 2nd PIR

Objective
To enable the GoI and relevant stakeholders to make the transformative shift to de-carbonize transport systems, catalyse access to finance for a large-scale adoption of EV across vehicle segments and reduce air pollution in cities by promoting scale-up of electric mobility(1) in India. 1- Electric Mobility (e-Mobility) / Electro mobility (or e-Mobility) represents the concept of using electric powertrain technologies, in-vehicle information, and communication technologies and connected infrastructures to enable the electric propulsion of vehicles and fleets. Here the electric powertrain replaces the conventional Internal Combustion Engine and transmission with a battery powered electric motor. Conventional gasoline fuel is replaced by battery packs and electricity stored in it.

B. Ratings and Disbursements

Implementation Progress	Development Objective
Satisfactory	Satisfactory

Overall risk
Low Risk

Project Financing	Cumulative Disbursement
5,850,004.00	1,000,000.00

C. Key Dates

CEO Endorsement/Approval 6/3/2021	Agency Approval 9/21/2021
Implementation Start 11/30/2021	First Disbursement 4/18/2022
Expected MTR 12/9/2024	Actual MTR
Expected Completion 6/30/2028	Actual Completion

II. PROGRESS STATUS AND ISSUES

A. Progress: Information on progress and outcomes of project implementation activities

The Asian Development Bank (ADB) and United Nations Environment Project (UNEP) has secured a grant from the Global Environment Facility (GEF) for India electric mobility (e-mobility) project to enable the Government of India and relevant stakeholders to make the transformative shift to de-carbonize transport systems, catalyze access to finance for a large-scale adoption of EV across vehicle segments and reduce air pollution in cities by promoting scale-up of electric mobility in India.

The GEF-7 funded India e-mobility project has 4 components.

UNEP administered Component 1,2 and 4
UNEP is administering Components 1, 2 and 4, the activities of which are being executed by WRI India under the guidance of **NITI Aayog**. After securing the necessary government clearances, UNEP and WRI entered into a project cooperation agreement in June 2024, and the work eventually started under these components in July 2024. The project would be implemented over a period of 4 years from July 2024 to June 2028. Due to dynamic changes in the EV ecosystem in India, a mid-term review (MTR) of the project was commissioned by ADB in July-August 2024 to analyze persistent gaps in ongoing initiatives in the electric vehicle (EV) sector. These gaps were further
discussed with EV industry stakeholders at the UNEP-led project's inception workshop on 11th September 2024, held in Delhi. Based on stakeholder consensus, the following activities will be undertaken under the components administered by UNEP.

Component 1:
• Developing Financing/Business Models for Accelerating the Adoption of Zero-Emission Trucks (ZETs - e LCVs and e-MHDVs) in India.
• Accelerating the widespread adoption of ZETs by addressing two major roadblocks in the adoption of ZETs: the lack of finance and insufficient charging infrastructure.

Component 2:
• Building a Sustainable Battery Ecosystem: Enabling a Resource-Efficient Transition.
• Development and operationalization of a policy framework and implementation strategy to optimize the viability of the reuse and recycling ecosystem for lithium-ion batteries (LIBs) in India.

Component 4:
• Development of Pathways for a Just, Equitable and Inclusive Transition of the Automotive sector to Electric Mobility.
• Developing a framework for policies and mechanisms to ensure gender inclusion in e-mobility, enhancing the capacities of government and industry stakeholders for its implementation. It also includes upskilling workers (with a focus on women and informal workers) for e-mobility jobs and designing/supporting infrastructural and financial mechanisms to enable a just and inclusive EV transition for micro, small and medium enterprises (MSMEs) in the automotive sector.

ADB-administered Component 3:
For Component 3, which is administered by ADB, **Energy Efficiency Services Limited (EESL)** is the Executing Agency (EA) and Convergence Energy Services Limited (CESL), a wholly owned subsidiary of EESL is the Implementing partner. ADB appointed a consulting firm (EY LLP) to work in conjunction with CESL/ EESL to implement and deliver TA outputs under Component 3. The project inception meeting was held on 18th January 2023 for Component 3.
The component covers the following outputs:

- Develop business models for scaling up electric mobility pilot initiatives
- Develop charging infrastructure plans at city level for 5 cities across the country

Provide recommendations that would improve and enhance market conditions for e-mobility investments in the country

Component 3:

• Enabling scale-up of e-vehicle markets through pilot demonstrations
• Enabling conditions for e-mobility investments created, new business models and charging infrastructure plans developed at city level

B. Challenges: Information on challenges of project implementation activities

Included in the section above

C. Stakeholder Engagement

As part of the new workplan for the UNEP-led components, a revised Stakeholder Engagement Plan (SEP) has been developed to engage effectively with key stakeholders, including policymakers, the private sector, and civil society.

For UNEP led components, below are the details of the stakeholder engagement during the reporting period:

Component 1: The project team is conducting structured and semi-structured one-on-one consultations with key stakeholders including electric truck OEMs, financiers, and logistics service providers (LSPs) to better understand financing barriers to e-freight adoption and explore potential solutions. These discussions are helping validate and
refine findings from secondary research. Stakeholders engaged so far include Eqaro Guarantees, HDFC Bank, SBI, cKers Finance, IEEFA, Vaultus Green Funding, etc. A roundtable discussion was conducted on ‘Financing of e-trucks in India’ on 23rd May 2025. The discussion was attended by 25+ stakeholders including NITI Aayog, OEMs, LSPs, financiers and transport associations. Only two women attended the discussion, even though the invite was sent to about ten women stakeholders. The component team has also

launched a pilot for e-SCV and e-LCVs in Surat (Gujarat) in collaboration with Surat Municipal Corporation (SMC) and Federation of Surat Trade and Textile
Associations (FOSTTA). As the component transitions to solution design and pilot implementation, the team will continue to co-develop context-specific financing/business models. There are no major challenges experienced so far.

Component 2: During the reporting period, the project team has engaged with various government, industry, and academic stakeholders for successful execution of project activities which included development of battery data framework and successfully conducting Battery Summit 2025. From the government, project team has engaged in
one-on-one discussions with the Ministry of Science and Technology (MST), Department of Science and Technology (DST), the Ministry of Environment, Forest and Climate Change (MoEFCC), NITI Aayog, Automotive Research Association of India (ARAI), Ministry of New and Renewable Energy (MNRE) and Anusandhan National Research
Foundation (ANRF). The team also organized a roundtable discussion on Battery Data Management in December 2024, which saw participation from the DST, MoEFCC, and over 25 other industry stakeholders. Subsequently, the Battery Summit 2025 was held on 28th May 2025 in collaboration with NITI Aayog, DST, and ARAI. The event featured over 30 speakers from industry, academia, and government, who contributed to panel and roundtable discussions. Government participation included delegates from MST, MNRE, ANRF, and the Council of Scientific & Industrial Research (CSIR) - Central Electrochemical Research Institute (CECRI). Academic institutions such as IIT Hyderabad, IIT Tirupati, and IIT Bombay were also actively involved in the discussions. The Battery Technologies Showcase featured participation from 26 stakeholders, including government research organizations like the International Advanced Research Centre for Powder Metallurgy and New Materials (ARCI) and CSIR – Advanced Materials and Processes Research Institute (AMPRI), alongside four academic institutions that presented their research initiatives. Battery Summit 2025 witnessed an overall attendance of over 450 participants.

Component 4: The project team has engaged with select stakeholders from the electric vehicle manufacturing sector during the initial phase of the reporting period to understand their workforce development needs and skill requirements for the transition to electric mobility. A specific focus has been on understanding current practices
regarding gender mainstreaming. As the project advances, more extensive stakeholder engagement is planned, including broader consultations with industry representatives, associations, and government skilling agencies. As part of these engagement efforts, a successful panel discussion on 'Towards a gender-inclusive electric vehicle (EV) transition for the automotive workforce in India' was conducted in March 2025. The event included representation from the government, industry, and the skilling ecosystem.

For ADB led components, below are the details of the stakeholder engagement during the reporting period:

Component 3: Output 3.1 - To identify suitable cities for electric vehicle (EV) demand assessment and charging infrastructure planning, detailed consultations were held with stakeholders such as UNEP, ADB, EA, and relevant national and local agencies. These discussions helped to refine the activity components and define expected
outcomes. Initially, five cities—Varanasi, Shimla, Pune, Panaji, and Chennai—were shortlisted. However, despite several rounds of discussions and follow-ups, limited traction was observed in Pune, Panaji, and Chennai. Consequently, additional cities such as Guwahati, Shillong, Bengaluru, Mysuru, Kochi, Trivandrum, Puducherry,
Gurugram, and Jaipur were explored as alternatives. Based on a comprehensive assessment of readiness, stakeholder engagement, and city-level interest, the final five

cities selected for the project were Varanasi, Shimla, Shillong, Trivandrum, and Kochi. These cities were chosen considering their strategic importance, willingness of local stakeholders, and alignment with national EV ambitions.

Work in Varanasi and Shimla has already been completed. In Varanasi, extensive consultations were held with agencies including the Smart City Mission, DISCOM, Urban Local Bodies (ULBs), and the Energy Department. The EV demand assessment and EVCI planning report was submitted following the workshop conducted in July 2024 and has been formally adopted by the Municipal Commissioner. In Shimla, the city-level workshop was conducted in September 2024. The report, adopted by the Transport Department, included recommendations not only on EV demand and infrastructure planning but also detailed potential business models around electric bicycles, retrofitting
of three-wheelers, battery swapping, battery leasing, solar carports integrated with battery energy storage systems (BESS), and EV charging as a service. It also provided a go-to-market strategy for scaling up deployment of e-2Ws, e-3Ws, and e-4Ws in India. The Shimla reports have been acknowledged by city authorities as a strategic enabler for expanding EV initiatives.

In Shillong, the city-level EV charging infrastructure report has been finalized through extensive consultations with key stakeholders including OEMs, CPOs, Transport Department, Urban Affairs Department, Tourism Department, and the Shillong Municipal Board. The location assessment for EV charging has been completed, and around 22 strategic locations have been finalized for setting up Electric Vehicle Charging Infrastructure (EVCI). Based on these findings and stakeholder inputs, the final report has been submitted to the Secretary, Transport Department, Government of Meghalaya. A city-level workshop is being planned in coordination with the Transport Department to present key findings from the policy advocacy efforts, location assessment, and business models to enable the scale-up of electric mobility.

In Trivandrum, the draft report is at finalization stage. The project team is actively engaging with government departments, local CPOs, battery swapping players, and OEMs. A comprehensive location assessment is currently underway to identify optimal sites for public charging infrastructure. The report has made substantial progress and is
expected to be finalized by the end of September 2025. A city-level workshop will be planned thereafter based on the availability and confirmation from city-level stakeholders. In Kochi, work will be initiated soon to develop the EV demand assessment and EVCI Action Plan 2025-35.

For reference, the final city reports for Varanasi and Shimla can be accessed at the following links:
(i) Varanasi: convergence.co.in/public/images/electric_bus/Varanasi-EV-demand-assessment-&-EVCI-network-planning.pdf
(ii) Shimla: convergence.co.in/public/images/electric_bus/Shimla city wide EV Demand Planning and EVCI Netwo_250602_113722.pdf

Component 3: Output 3.2- A comprehensive stakeholder analysis was undertaken during the preparatory phase of the TA related activities focusing on potential pilots for 3-Wheeler Retrofit, Solar Carport with Battery Energy Storage System, Electric bicycles to promote micromobility and a potential pilot on electric trucks. The project team interacted with the below mentioned stakeholders and discussions were held on the proposed activities for the project including pilot programs. Their valuable suggestions for implementation of the project activities have been duly incorporated in designing the technical specifications, business models and related documentation including bid documents.

Pilot Program	Stakeholders Consulted		
	Government	Private	Associations
3-Wheeler retrofit	· State Transport Departments · RTOs	OEMs · Zero 21 · Konvert Motors · Omega Seci Mobility · Volta EV · Enviro Smart · Piaggio · E-blu Financial Institutions and NBFCs · HDFC, · State Bank of India · PFC · ICICI etc Battery Swapping Players · Sun Mobility · Battery Smart	· Automotive Research Association of India (ARAI) · International Centre for Automotive Technology (ICAT).
Solar carport with BESS	· State Governments	OEMs · JBM · Servotech Battery Players · Lohum, · Sun Mobility EV Charger manufacturer · Exicom	· Automotive Research Association of India (ARAI) · International Centre for Automotive Technology (ICAT)

Pilot Program	Stakeholders Consulted		
	Government	Private	Associations
		· Delta · Magenta	
Electric Bicycles	· Ministry of Road Transport and Highways · Ministry of Heavy Industry and Public Enterprises · NITI Aayog · Ministry of Housing and Urban Affairs, · Ministry of Women and Child Development · Ministry of Rural Development · National Rural Livelihood Mission · State Rural Livelihood Mission · Bureau of Energy Efficiency · Department of Posts	OEMs · Hero Cycles · Motovolt · Aurita · E-Motorad · Geekay Bikes · Nexzu · Yulu · Zypp Battery Players · Lohum,	· All India Cycle Manufacturers Association · Automotive Research Association of India (ARAI) · International Centre for Automotive Technology (ICAT).

Pilot Program	Stakeholders Consulted		
	Government	Private	Associations
	· Power Finance Commission (PFC), · NTPC, · PowerGrid Corporation of India Limited (PGCIL)		
Electric Trucks	· Ministry of Heavy Industry and Public Enterprises · Container Corporation of India	OEMs · Ashok Leyland · Tata Motors · Volvo Eicher · IPL Tech · iBoard	· Automotive Research Association of India (ARAI) · International Centre for Automotive Technology (ICAT)

D. Gender Equality

For the UNEP-led components, i.e. component 1,2 and 4, an updated **Gender Action Plan (GAP)** was prepared to ensure significant gender representation across all activities under the three UNEP components. The plan mandates that all events (e.g., workshops, roundtables, panel discussions) conducted under this project achieve at
least 40% representation of women. The project GAP also includes actions such as inclusion of gender perspective in capacity building sessions with stakeholders, collecting and maintaining gender-disaggregated data for all project's activities, and developing a state-level gender inclusive skilling framework. It also ensures that policies
developed at the national and subnational levels incorporate a gender perspective from the planning stage of policy development. Gender sensitive capacity development and awareness raising for scaling up e-mobility is covered under Component 4 of the project.

In addition to the dedicated Gender Action Plan, all UNEP-led components incorporate a broader social inclusion lens by systematically embedding considerations for the Elderly, Women, Children, and Persons with Disabilities (EWCD) across their activities. Below is the summary of progress on EWCD aspects across components:

- **Inception Workshop:** The UNEP project's inception workshop was convened on 11 September 2024 in New Delhi, with participation from over 40 stakeholders, including policymakers, original equipment manufacturers (OEMs), battery recyclers, fleet operators, and think tanks. As part of the project's

commitment to gender inclusivity, invitations were extended to more than 35 women representatives, of whom 15 attended the workshop. In addition, 11 women participants from WRI India were present.

- **Component 1**: A roundtable discussion was held on 23rd of May 2025 to discuss the financing of e-trucks in India. Out of the 20 attendees at the event, 2 were women. The freight segment in India is a male dominated space. To overcome this issue, the project team is developing a database of women

representatives in the freight segment. This database will be leveraged to reach larger number of women for participation in events. In addition, the project is connecting with women stakeholders to examine barriers to e-LCV financing for female borrowers, women-led shipping companies, and women-led vehicle manufacturers.

- **Component 2**: For the Battery Data workshop in December 2024, invitations were sent to 50 stakeholders, including 11 women representatives. Five women participated in the roundtable (excluding WRI India) out of the 25 participants. Including WRI India representatives, women constituted 25% of the

total event participants. For the Battery Summit in May 2025, invitations were sent to around 95 stakeholders, including 16 women representatives as speakers in panel and roundtable discussions. Six women participated as speakers across all the discussions. Out of the total 450+ attendees 30% women representation was witnessed during the Summit.
Component 4: Component 4 of the project focuses on developing pathways for a Just equitable, and inclusive transition of the automobile sector to electric mobility. This includes developing framework for policies and mechanisms for gender responsiveness in e-mobility and upskilling workers (with a focus on women and informal workers) for e-mobility jobs. The component team organized a panel discussion on 'Towards a gender-inclusive electric vehicle (EV) transition for the automotive workforce in India' in March 2025. The panel had 3 women representatives as speakers, representing industry and ecosystem enabling initiatives. The event had 235 participants with 57% female participation.

For the ADB-led components, i.e. **Component 3** the project promotes women's economic empowerment through the S.T.R.E.E. (Sustainable Transport and Rural Empowerment through E-Mobility) pilot, which targets rural women entrepreneurs. Under this initiative, approximately 1,800 electric bicycles are being deployed to Self-Help Group (SHG) women across Bihar, Andhra Pradesh, Kerala, and Madhya Pradesh, with the rollout beginning in January 2025. The electric bicycles are being used for transporting agricultural produce, handicrafts, and managing delivery and logistics services—thus improving income opportunities and market access for rural women. Alongside the distribution of bicycles, comprehensive training programs have been conducted to familiarize beneficiaries with e-bicycle operation and benefits. The initiative has also fostered the development of 'energy champions' among SHG members to support demand aggregation and long-term adoption beyond the pilot. Anchored through an MoU with the Ministry of Rural Development (MoRD) and supported by state-level partnerships, the pilot demonstrates a scalable and sustainable rural mobility model to accelerate the uptake of electric bicycles by women.

Further, gender mainstreaming efforts have been undertaken through ADB loan, scaling up demand side energy efficiency sector project, which is aligned with this GEF grant, through provisioning of training for women commercial drivers to expand their existing businesses or start new businesses besides sensitizing EESL project

staff on gender issues. As on date, 228 women drivers were enrolled for training, out of which 206 women drivers have successfully completed the training.

In addition, all ADB-led components emphasize gender and social inclusion by embedding considerations for the Elderly, Women, Children, and Persons with Disabilities (EWCD) across their activities. Below is the summary of progress on EWCD aspects across components: City-level reports developed under the project explicitly focus on promoting gender equality within urban transport planning. The reports provide tailored recommendations for incorporating EWCD-friendly features in electric vehicle (EV) charging infrastructure and broader urban mobility frameworks. An illustration of this commitment is the Solar Carport pilot at the Statue of Unity in Kevadia, Gujarat, which has been designed with an EWCD lens to enhance accessibility, safety, and convenience for vulnerable user groups.

E. Knowledge Management

While the execution of activities under Components 1, 2, and 4 remains in its initial phase, with extensive research underway across all components, the key modalities for achieving effective knowledge dissemination will be social media campaigns, blogs/articles, research publications, capacity building workshops and stakeholder consultations. Below are the details of knowledge dissemination activities undertaken during the reporting period of this report: activities undertaken during the reporting period of this report:

- **Social Media Campaigns:** The project will leverage social media platforms (such as LinkedIn and X) to provide regular updates on the project's progress and activities. A detailed communication plan has been developed to schedule posts highlighting key developments across UNEP's project components. Below are

the links to some of the recent social media activities for the project:
- Roundtable discussion on 'Data Frameworks for Battery Circularity in India' (Component 2)
- #batterycircularity #wastemanagement #emobility | WRI India
-Panel discussion on 'Towards a Gender-Inclusive Transition for India's E-Mobility Workforce' (Component 4) - How to make India's e-mobility sector inclusive for women | WRI India posted on the topic | LinkedIn
- Roundtable discussion on 'Financing of e-trucks in India' (Component 1) - Roundtable on financing e-trucks in India | WRI India posted on the topic | LinkedIn
- Battery Summit 2025 (Component 2) -Battery Summit 2025: Shaping India's Battery Ecosystem | WRI India posted on the topic | LinkedIn
- Surat e-SCV/LCV pilot (Component 1) - #update #sustainablemobility #pilots #evtransition #unep #emobilityindia #evmatters #freightelectrification #acaas #cleanairforall | WRI India

- **Stakeholder Convenings:** Stakeholder convenings, such as panel discussions and roundtables, will be organized and the findings from some of these will be published as conference proceedings. Below are the details of stakeholder convenings held during the first year of the project:

- **Data Frameworks for Battery Circularity:** The roundtable discussion brought together 25 stakeholders across government, industry, academia to discuss the policy, regulations, and best practices for battery data management, enabling battery circularity in India. A conference proceeding was published to disseminate the findings from the discussion - Development of data frameworks for battery circularity in India | WRI India

- Panel discussion held as a part of Uddeshya 2025: The panel titled 'Towards a Gender-Inclusive Transition for India's E-Mobility Workforce' discussed the challenges and opportunities for women in the traditionally male dominated automotive industry, particularly in the context of e-mobility's growth. It also addressed the necessary industry and policy guidelines to create a more conducive work environment for current women workers and attract new female talent to the sector.
- Roundtable discussion on financing of e-trucks in India: The roundtable brought together 25+ experts to discuss the challenges in financing of e-trucks, feasible business and financing models for e-trucks, and potential states and corridors for e-truck pilots.
- Battery Summit 2025: The summit hosted over 450 stakeholders from across the battery value chain, featuring panel discussions and roundtables on India's pathway towards localization, research commercialization, and circularity, while also showcasing battery innovations through the Battery Technologies Showcase.

ADB led **Component 3** focuses on the generation and dissemination of key knowledge products to support electric vehicle (EV) infrastructure planning and business model development across India. These outputs aim to inform city authorities, private stakeholders, and policymakers on pathways for effective EV deployment.

- As part of **Outputs 3.1 and 3.2**, detailed city-specific reports assessing EV charging infrastructure needs and identifying optimal charging locations have been prepared. Reports have already been completed and launched in Varanasi and Shimla, while the report for Shillong has been finalized through extensive

consultations with key stakeholders including OEMs, CPOs, Transport Department, Urban Affairs Department, Tourism Department, and the Shillong Municipal Board and has been submitted to the Secretary, Transport Department, Government of Meghalaya. Activities in Trivandrum and Kochi are currently underway, with completion expected by September and October 2025 respectively.
Another key deliverable under **Component 3 Output 4.1** is a comprehensive report analyzing scalable business models for electric two-, three-, and four-wheelers. Approved by the Executing Agency (EA) and the Asian Development Bank (ADB) in June 2024, the report explores innovative approaches such as electric bicycle adoption, three-wheeler retrofitting, battery swapping and leasing, solar carports with Battery Energy Storage Systems (BESS), and EV Charging-as-a-Service. The report offers go-to-market strategies and practical business proposals for mass-scale implementation. This document has been formally acknowledged by city officials in Shimla and has also been shared and discussed with stakeholders from the Shillong Transport Department. The report can be accessed via the following link:
Potential_business.pdf

Dissemination of these knowledge products has been a key priority to promote awareness and uptake. Reports have been actively shared through targeted media coverage, professional forums, and stakeholder workshops.In Varanasi, a dedicated workshop held on 19th July 2024, facilitated the formal adoption of the city-level EV readiness report by the Municipal Commissioner. In Shimla, a significant move towards promoting sustainable transportation, a diverse group of stakeholders convened on 20th September 2024 for a workshop aimed at accelerating electric mobility (E-Mobility). In Shillong, the workshop is being planned which will bring together a diverse set of participants including government departments, OEMs, charge point operators (CPOs), last-mile service providers, and think tanks to deliberate on EV adoption pathways. The finalized city reports can be accessed via the following links:

- Varanasi: Varanasi-EV-demand-assessment-&-EVCI-network-planning.pdf

- Shimla: Shimla city wide EV Demand Planning and EVCI Netwo_250602_113722.pdf
- The city-level workshops conducted under Component 3 brought together more than 40 stakeholders at each event, drawing participation from both public and private sectors. These included electric vehicle (EV) manufacturers, charge point operators (CPOs), financial institutions, policymakers, and environmental experts. The workshops served as platforms for in-depth discussions on developing a comprehensive roadmap for electrifying transportation systems at both the city and state levels.

- The workshops primarily focused on the formulation of a state-level roadmap for E-Mobility in the cities outlining strategies for the large-scale deployment of electric vehicles (EVs), while also highlighting the importance of developing city-specific action plans beyond the focused cities. The objective was to create a coordinated and scalable approach to EV adoption that would address the unique geographical, economic, and social challenges of the cities.

- Key areas covered during the workshops included the establishment of citywide EV charging networks based on location assessments presented in the reports, development of policy incentives for electric public transport systems, and integration of e-mobility into key local sectors such as tourism and municipal operations. The city reports and technical findings have been well received by local authorities, who acknowledged them as practical tools for guiding future investments and actions toward scaling up electric mobility initiatives.

Further, under **Output 3.2,** the Executing Agency (EA) is planning to organize a dedicated workshop around December 2025 to disseminate the results of the electric bicycle pilot demonstration. The primary objective of the workshop is to facilitate stakeholder interaction and encourage brainstorming on strategies to scale up the adoption of electric bicycles across India. Key discussion points will include improving affordability through demand-side incentives, innovative financing mechanisms, and integrating e-bicycles into broader urban and rural mobility ecosystems. The event is expected to witness participation from a diverse group of stakeholders, including
representatives from Central and State Government departments, Public Sector Undertakings (PSUs), financial institutions, original equipment manufacturers (OEMs), think tanks, and other relevant partners engaged in advancing clean mobility solutions.

The Government of India may consider designing a dedicated policy framework for e-bicycles, akin to the FAME scheme managed by the Department of Heavy Industries. This proposed pilot can serve as a proof of concept, demonstrating the socio-economic benefits of e-bicycles in rural areas—particularly in enhancing access, mobility,
and livelihoods. It could also act as a catalyst for a national scheme focusing on affordable and sustainable mobility solutions tailored to rural needs.

At the state level, similar initiatives could be integrated into existing or upcoming schemes that prioritize sustainability in sectors such as health, education, and livelihoods. Several state governments have previously launched welfare schemes targeting these sectors, and the inclusion of e-bicycles would further reinforce their
objectives.

Additionally, financial inclusion schemes like ‘Swayam Siddha Loan’, which empowers women by providing personal loans up to ₹5 lakhs for members of Self-Help Groups (SHGs), can be leveraged. The e-bicycle pilot has the potential to stimulate demand among rural women, enabling them to access these vehicles through such
financing mechanisms, thereby enhancing mobility, reducing drudgery, and supporting income-generating activities.

III: Minor Amendments

CONTEXT	
Result Framework	Based on the MTR findings, updates have been made for both ADB and UNEP components
Components and Cost	Based on the MTR findings, updates have been made for both ADB and UNEP components
Institutional And Implementation Arrangements	
Financial Management	
Implementation Schedule	
Executing Entity	
Executing Entity Category	
Minor Project Objective Change	
Safeguards	
Risk Analysis	
Increase of GEF Financing up to 5%	
Co-Financing	
Location of Project Activity	3 To identify suitable cities for electric vehicle (EV) demand assessment and charging infrastructure planning, detailed consultations were held with stakeholders such as UNEP, ADB, EA, and relevant national and local agencies. These discussions helped to refine the activity components and define expected outcomes. Initially, five cities—Varanasi, Shimla, Pune, Panaji, and Chennai—were shortlisted. However, despite several rounds of discussions and follow-ups, limited traction was observed in Pune, Panaji, and Chennai. Consequently, additional cities such as Guwahati, Shillong, Bengaluru, Mysuru, Kochi, Trivandrum, Puducherry, Gurugram, and Jaipur were explored as alternatives. Based on a comprehensive assessment of readiness, stakeholder engagement, and city-level interest, the final five cities selected for the project were Varanasi, Shimla, Shillong, Trivandrum, and Kochi. These cities were chosen considering their strategic importance, willingness of local stakeholders, and alignment with national EV ambitions.

others	

IV: Geographic Coordinates of Project Activities

Location Name	Latitude	Longitude	GeoName ID
Statue of Unity, Kevadia	21.838	73.7191	

Location Description:

Location for Solar Carport

Activity Description:

Location for Solar Carport

Location Name	Latitude	Longitude	GeoName ID
Varanasi	25.344026	83.012695	

Location Description:

Area under municipal city limit respective

Activity Description:

City Level Assessment for EV demand and network plan for Charging infrastructure

Location Name	Latitude	Longitude	GeoName ID
Shimla	31.081165	77.200928	

Location Description:

Activity Description:

Location Name	Latitude	Longitude	GeoName ID
Shillong	25.562265	91.881409	

Location Description:

Area under municipal city limit respective

Activity Description:

City Level Assessment for EV demand and network plan for Charging infrastructure

Location Name	Latitude	Longitude	GeoName ID
Vaishali	25.733333	85.416667	

Location Description:

Activity Description:

Location Name	Latitude	Longitude	GeoName ID
Muzaffarpur	26.1225	85.390556	

Location Description:

Activity Description:

Location Name	Latitude	Longitude	GeoName ID
Trivandrum	8.4852	76.9491	

Location Description:

Area under municipal city limit respective

Activity Description:

City Level Assessment for EV demand and network plan for Charging infrastructure

Location Name	Latitude	Longitude	GeoName ID
Kochi	9.939	76.2600	

Location Description:

Area under municipal city limit respective

Activity Description:

City Level Assessment for EV demand and network plan for Charging infrastructure

Location Name	Latitude	Longitude	GeoName ID
Patna	25.5938	85.1355	

Location Description:

Districts in states such as Kerala, Madhya Pradesh, Andhra Pradesh and Bihar

Activity Description:

Deployment of Electric Bicycles in various districts in India

Location Name	Latitude	Longitude	GeoName ID
Pallakad	10.7730	76.6536	

Location Description:

Districts in states such as Kerala, Madhya Pradesh, Andhra Pradesh and Bihar

Activity Description:

Deployment of Electric Bicycles in various districts in India

Location Name	Latitude	Longitude	GeoName ID
Kannur	11.8675	75.3575	

Location Description:

Districts in states such as Kerala, Madhya Pradesh, Andhra Pradesh and Bihar

Activity Description:

Deployment of Electric Bicycles in various districts in India

Location Name	Latitude	Longitude	GeoName ID
Vidisha	21.5258	77.8108	

Location Description:

Districts in states such as Kerala, Madhya Pradesh, Andhra Pradesh and Bihar

Activity Description:

Deployment of Electric Bicycles in various districts in India

Location Name	Latitude	Longitude	GeoName ID
Kuppam	12.7491	78.3416	

Location Description:

Districts in states such as Kerala, Madhya Pradesh, Andhra Pradesh and Bihar

Activity Description:

Deployment of Electric Bicycles in various districts in India

Location Name	Latitude	Longitude	GeoName ID
Sehore	22.9911	77.1283	

Location Description:

Districts in states such as Kerala, Madhya Pradesh, Andhra Pradesh and Bihar

Activity Description:

Deployment of Electric Bicycles in various districts in India

Location Name	Latitude	Longitude	GeoName ID
India	20.5937	78.9629	

Location Description:

India is actively promoting EV adoption through policy incentives public-private partnerships, pilot projects etc.

Activity Description:

India is the selected country for the implementation of all project components

Location Name	Latitude	Longitude	GeoName ID
Maharashtra	19.7514	75.7138	

Location Description:

The project is exploring opportunities in the state for work across the UNEP components

Activity Description:

The project has signed a strategic MoU with the Maharashtra Transport Department

Location Name	Latitude	Longitude	GeoName ID
Surat	21.1884	72.8414	

Location Description:

Location for 2-LCV/ SCV pilot

Activity Description:

Under Component 1 of the project, an e-LCV/ SCV pilot is planned and Surat has been selected for the implementation of the pilot (UNEP)

V. ANNEX

Uploaded Document

Document Category	Title
M and E Document	PIR_2025_GEF-7 India E-Mobility 2