

AI-Empowered Strategic Urban Planning & Execution for E-Mobility Adoption **in Philippine Cities**

Beyond EV Adoption: A System-First Approach to Sustainable Urban Mobility

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The E-Mobility Landscape and Strategic Problem

Where are we now — and why is the conversation incomplete?

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- The EV opportunity is real and accelerating
 - But electrification without a transport strategy is solving the wrong problem
 - **Philippine cities need system thinking,**
not just electric vehicles
(the same problem with PUVMP* – now called PTMP)**

**PUVMP - Public Utility Vehicle Modernization Program*

***PTMP - Public Transport Modernization Program*

The E-Mobility Promise vs. The Ground Truth

✓ THE PROMISE

- 
Zero-emission transport fleet
 Lower operating costs for operators & commuters (and now even private vehicles)
- 
Reduced urban air pollution
 Immediate health and livability benefits for cities
- 
Energy independence
 Domestic renewables power the transport sector
- 
Global competitiveness
 Signals modernity to investors and talent

✗ THE CURRENT REALITY

- 
E-jeepneys stuck in the same traffic
 Electric doesn't mean moving
- 
No strategic transport plan in most cities
 E-mobility policy without demand data is guesswork
- 
Charging push from private sector only
 Uncoordinated, market-driven without city strategy
- 
Micromobility left behind in policy (only restrictions – no lobbyists)
 E-trikes & e-bikes carry millions daily — largely ignored

You can't electrify your way out of a traffic problem.

Adding electric vehicles to a dysfunctional transport system doesn't fix the system.



Traffic costs PH cities

Php 3.5-5 B / day

In Metro Manila alone — electric or not



EV demand drops

when traffic is bad

People don't buy what they won't use



Root cause:

No strategic transport plan

Not a technology gap — a planning gap



A Balanced E-Mobility Strategy Focused on Net-Positive Gains to our Economy, Environment, and Society

Four pillars that must work together — not in isolation

-
1. 🚌 **Electrify public transport first**
 2. 📊 **Build strategic transport plans**
Supply & demand balance, transition timelines
 3. 🛵 **Enable the micromobility ecosystem**
Users have already adapted — policy must follow
 4. ⚡ **Define government's structural (i.e., planning and policy) role in e-mobility for ALL USERS**
Enable, don't compete with the private sector

Four Pillars of a Balanced E-Mobility Strategy

01

Electrify Public Transport First

The highest-impact, most cost-effective first step. One electric bus removes 50+ private car trips daily.

02

Strategic Transport Planning

Data-driven route design, demand mapping, and transition timelines. Supply must meet real demand.

03

Enable the Micromobility Ecosystem

E-trikes, e-bikes, e-scooters are already mainstream. Last-mile connectivity needs enabling policy, not prohibition.

04

Government's Role in E-Mobility and Charging for all

The private sector is already investing. Government's role is structural: incentives, system nudge, zoning, grid integration, standards, depot electrification.

Electrify Public Transport First — Highest Impact Per Peso

Why start with public transport?

System-level impact from day one

1 electric bus replaces 50+ car trips — reducing traffic for everyone

Forces the right infrastructure investments

Depot charging, grid upgrades at transit hubs — where it benefits most

Creates ridership that makes EVs attractive

Better PT = fewer private vehicles = less congestion = more EV appeal

Transition requires planning, not just procurement

Route restructuring, headways & co-op transition must precede fleet purchase



50x

More impact per e-bus vs. 1 private EV



60-80%

of daily trips in Philippine cities



E-jeepney + E-buses

On the road — needs a strategic backbone

Build a Strategic Transport Plan: Balance Supply and Demand

1. Demand Mapping
Visualize Travel Needs (OD flows, trip purpose)

2. Supply Optimization
Design Demand-Optimized Routes

3. Transition Timelines
Plan Phased Fleet Conversion

4. Multi-modal Integration
Connect seamlessly with Diverse Modes

E-mobility is only as good as the transport system it rides on.

✗ WITHOUT A PLAN

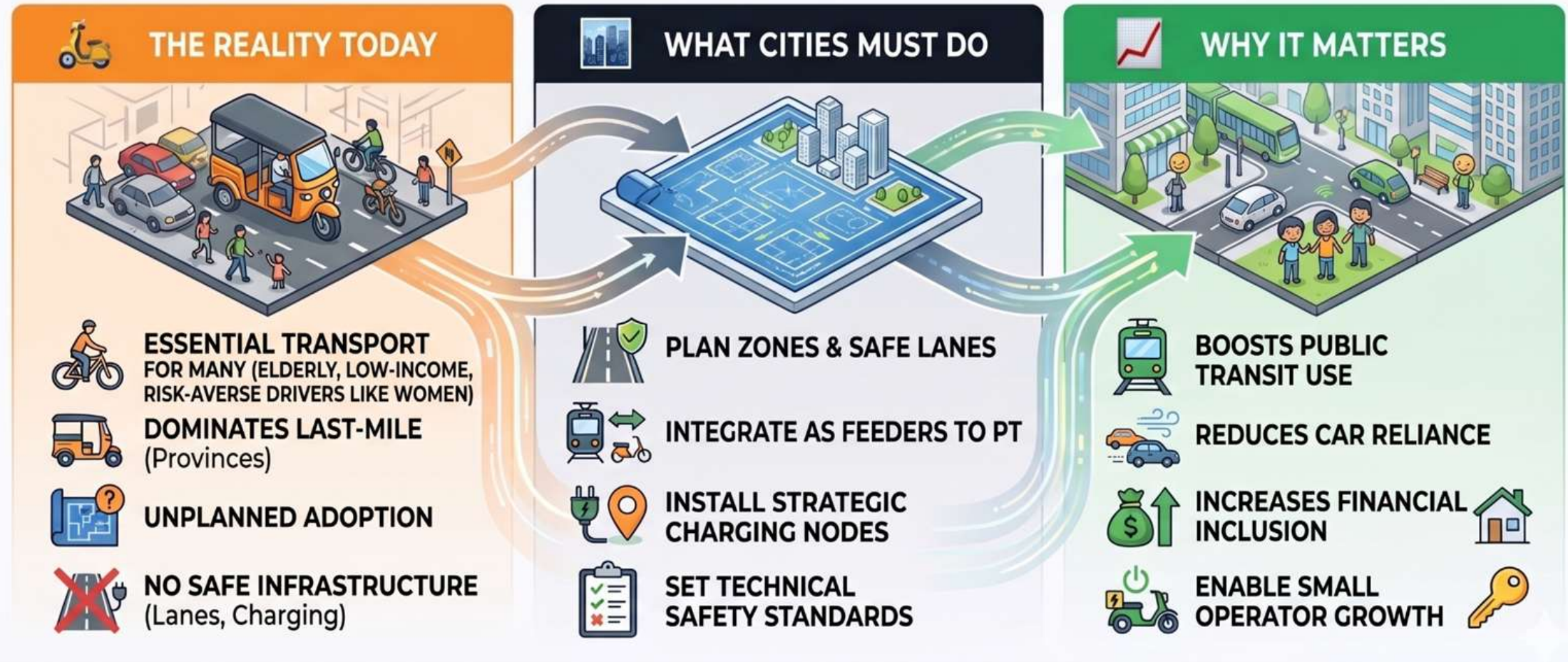
- EV** EVs stuck in congestion
- Inefficient but quieter routes
- Unrecouped Investments
- Subsidy without Results

✓ WITH A STRATEGIC PLAN

- Demand-Led Route Design
- Data-Justified EV Investment
- Cooperative-Led Transition
- Measure Performance, Not Just Sales

Micromobility: Users Have Already Adapted — Policy Must Follow

E-trikes, e-bikes, and e-scooters carry millions of Filipinos daily — yet most cities have zero policy for them besides banning them.



E-Mobility Infrastructure & Policy: Government's Role Is Structural, Not Operational

The private sector is already investing in charging.
Government's role is the enabling environment:

Zoning & land use standards

Require charging in commercial, transit & residential developments

Grid integration policy

Time-of-use rates to avoid grid peak stress; renewable incentives

Public transport depot electrification mandate

New public transport terminal permit renewals must include depot charging plans

Interoperability standards

Common standards prevent vendor lock-in and encourage competition

THE COUNTERPRODUCTIVE TRAP

"More EVs on the road, more chargers everywhere."

The problem:

Pushing EV cars WITHOUT fixing traffic means:

- People won't trade up from a car stuck in traffic
- Charging infra placed by commercial interest, not urban and user need
- Grid stress without time-of-use management
- Same market, same buyers — no purchasing power uplift
- Filipinos are not (yet) environmentally conscious and are price-sensitive







The Economic Case

Liveable cities are competitive cities — here's how e-mobility connects the two

Traffic is not only a transport problem.

It is an economic drag on every sector:

-  Higher operations and logistics costs reduce competitiveness
-  Talent avoids cities with poor quality of life
-  Lost productivity for workers & businesses daily
-  Investors price in infrastructure risk

E-mobility done right is not an environmental agenda.

It is a competitiveness agenda.

Better Mobility = Better Economy = More Competitive Cities



OPERATIONS COST

 **Every hour of delay is a real measurable cost**

Lower logistics/transport costs
→ more competitive exports

E-Public transport with reliable
schedules → business
predictability



PURCHASING POWER

 **Transport eats 20–30% of low-income household budgets**

Affordable, efficient public
transport lifts disposable income

E-trikes lower per-km cost for
riders & operators



CITY LIVEABILITY

 **Liveable cities attract talent and foreign investment**

Air quality + walkability = higher
property values

Global rankings matter to
business location decisions



How





Enables This

Data-driven tools to accelerate every pillar of your e-mobility strategy

SeerMO is not another study.





It is the platform that makes strategic transport & urban planning fast, affordable, and implementable — in any city, on any budget.

-  **90× faster than traditional planning**
-  48 hours vs. 6 months for a full assessment

Seermo Accelerates Every Pillar of Your E-Mobility Strategy







Public Transport Optimization

-  Demand-based route redesign with AI analytics
-  Headway & frequency modeling for e-PT fleet sizing
-  Cooperative transition support — data for operators
-  Real-time community feedback on PT performance







Road Safety & Infrastructure Audit

-  48-hour rapid local assessment
-  Walking & cycling infrastructure gap analysis
-  Curbside disorder and illegal parking mapping
-  Priority intervention ranking by composite score







Holistic E-Mobility Intelligence

-  Demand-driven charging site selection
-  Traffic flow + dwell time for optimal placement
-  Micromobility charging node integration planning
-  Grid stress impact assessment by location



Evidence for Policy & Budget

-  Implementable project justification in hours
-  AI-aligned recommendations vs. political & social goals
-  Budget allocation modelling by intervention type
-  Continuous monitoring: did the intervention work?

End-to-End from Data Capture to Decision Making to Implementation Simplified and Empowered by seermoplus



The desktop dashboard interface for Seermoplus provides a comprehensive view of citywide data. At the top, there is a navigation menu with options like "Seermoplus", "Community Reports", "Crashes & Violations", "Traffic Counts", "Speed Profile", and "Audits Overview". The main area features a map with various data overlays, including clusters of reports and crashes, traffic counts, and speed segments. A legend on the left side of the map explains the different data types and their visual representations. Below the map, there is a "Scope summary" section that provides a high-level overview of the data being analyzed. At the bottom, there are several summary cards for different data categories, each with a count and a button to open the corresponding report. A "Spatial Scoring" section at the bottom provides additional insights into the data distribution across the city.

Legend

- COMMUNITY REPORTS**
 - Cluster (number = count)
 - Single report
- CRASHES & VIOLATIONS**
 - Cluster (number = count)
 - Single crash
- TRAFFIC COUNTS (PEAK PPH)**
 - 37 — 10,190
 - Direction of flow
 - Station w/o direction
- SPATIAL SCORE (COMPOSITE)**
 - 0 — 100
 - Percentile rank within this dataset (higher = higher priority). Hexes below the 60th percentile fade out so the eye lands on the priority cluster.
 - Balanced default mix — click to restore default weights.
- SPEED (KPH)**
 - 0 — 40+

Scope summary — Citywide totals: 649 reports • 1,149 crashes • 286 segments • 13 stations. Draw a polygon to narrow.

| Category | Count | Action |
|----------------------|-------|------------------------------|
| COMMUNITY REPORTS | 649 | Open in Community Reports |
| CRASHES & VIOLATIONS | 1,149 | Open in Crashes & Violations |
| SPEED SEGMENTS | 286 | Open in Speed Profile |
| TRAFFIC STATIONS | 13 | Open in Traffic Counts |

SPATIAL SCORING
Citywide • 115 hexes • Composite mean 50 / 100 • Composite mean 50 / 100

Buttons: Composite, Safety First, Space Reallocation, Sustainable Transport, Optimized Land-Use, Green Spaces

Right sidebar: Seermoplus Chat, No scope active — questions are citywide. History, Ask anything about the selected area, or pick a starter question below. WHAT WOULD YOU LIKE TO DO NEXT? Summarize this area, Safety hotspots, Why traffic is slow, What to fix first. Each chat supports up to 12 questions in this workspace (larger context per turn). Start a new chat anytime to reset.

CALL TO ACTION



Cities That Act on Data and Planning Will Win the E-Mobility Transition

Partner with Seermo to build your city's strategic transport and development foundation — before the transition leaves you behind.



AI-Driven Transport & Urban Planning

Demand mapping + current-state audit for your city in 48 hours



E-Public Transport Route Feasibility Study

Data-driven route redesign sized for electric fleet deployment



Micromobility Strategy

Identify gaps in safety, charging, and integration with PT



Charging Location Optimization

Site selection based on real demand — not commercial interest



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