



DAILY EDITORIAL ANALYSIS

TOPIC

**INDIA'S EV MANUFACTURING
SCHEME: CONCERNS & WAY
AHEAD**

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INDIA'S EV MANUFACTURING SCHEME: CONCERNS & WAY AHEAD

Context

- Recently, the Union Government recently said that it would start accepting applications from global electric car manufacturers for setting up factories in India.

About India's Automotive Market

- It is currently **valued at ₹12.5 lakh crore (\$150 billion)**, and is **projected to double by 2030**.
- Passenger car** sales are **expected to grow to 9–11% of all vehicle sales** by then, up from **just 2.5% today**, as electric mobility becomes central to climate action.
- The **Union Ministry of Heavy Industries** announced a **Scheme to Promote Manufacturing of Electric Passenger Cars in India (SPMEPCI)** to capitalize on this opportunity in March, 2024.

Core Proposition of SPMEPCI

- SPMEPCI** encourages global EV manufacturers to set up factories in India, offering them a **limited window to import high-value electric cars** (worth \$35,000) at a **reduced customs duty of 15%** — far lower than the usual 110%.
- It is tightly capped at 8,000 units per year and subject to two conditions:
 - Revenue foregone** through this incentive must not exceed the manufacturer's capital investment.
 - Companies need to invest at least ₹4,150 crore, with domestic value addition of 25% by year three and 50% by year five.

Global EV Manufacturing Landscape

- Surging Production and Regional Shifts:** Global EV production reached 17.3 million units in 2024, with **China leading** at 12.4 million units, accounting for over 70% of global output.
 - European production stagnated at 2.4 million units, while North America saw mixed results — Mexico doubled its output, while U.S. production declined.
- Battery Innovations and Cost Reductions:** Battery prices have dropped significantly, making EVs more affordable.
 - In China, costs fell by 30%, while Europe and the U.S. saw 10–15% reductions.
 - Manufacturers are focusing on solid-state batteries and longer-range lithium-ion technologies to improve efficiency.
- Market Expansion and Consumer Demand:** EV sales are projected to grow from 15.7 million units in 2024 to 46.3 million units by 2035, at a 10.3% CAGR.

Global Export Dominance

- China topped **global electric vehicle (EV) exports in 2024**, according to the *Global EV Outlook 2025* by the **International Energy Agency (IEA)**.
- In all five emerging markets studied—**Brazil, India, Indonesia, Mexico, and Thailand**—**Chinese OEMs** offered **EVs at lower prices** than the average electric car, boosting adoption.

Significances of EVs

- Tackling Climate Change:** The **transport sector contributes ~15%** of global CO₂ emissions.
 - Oil dependency** (petrol and diesel) is a major driver of this pollution.
 - Electric vehicles (EVs)** powered by renewable energy present a cleaner alternative.
- Reducing Local Air Pollution:** Urban areas suffer from **toxic air pollution**, primarily from fossil-fuel vehicles.
 - EVs can significantly **cut harmful emissions** in cities. It has direct health and quality-of-life benefits.
- Saving Foreign Exchange:** Countries like India spend vast sums on **oil imports**.
 - EV adoption can **reduce this burden**, improving national economic resilience.

Key Concerns & Challenges

- **Limited Incentives for Global Investors:** SPMEPCI offers **no tax breaks, capital grants, or land/energy subsidies**, unlike EV policies in countries like Thailand and Mexico.
- **Stringent Localization Requirements:** While this encourages local manufacturing, many industry players worry that **India's existing supply chain isn't mature enough** to meet these demands, leading to production delays and increased costs.
- **High Entry Barriers:** India's scheme mandates for a minimum investment and strict domestic value addition targets.
 - ♦ These **thresholds may deter smaller or newer players** from entering the Indian market.
- **Revenue-Based Penalties:** Automakers need to meet revenue targets of 5,000 crore in four years and 7,500 crore in five years. Falling short could trigger **penalties of up to 3% of the revenue gap**, recovered from bank guarantees.
 - ♦ It adds financial risk and uncertainty for participants.
- **Exclusion of Chinese Manufacturers:** The scheme **explicitly bars Chinese EV makers**, including **BYD, the world's largest electric car manufacturer**.
 - ♦ It limits competition and may reduce the diversity of technology and pricing options available to Indian consumers.
- **Limited Interest from Global Majors:** While brands like Mercedes-Benz, Skoda, and Volkswagen have shown interest, Tesla has opted out, preferring to pay full import duties instead of investing in domestic production.

Government Initiatives and Policies

- **FAME India Scheme (Phase II):** It aims to support the electrification of public and shared transportation.
- **E-Vehicle Policy:** It encourages global EV manufacturers to invest in India, boosting domestic production and reducing reliance on imports.
- **PM E-DRIVE:** It has played a crucial role in supporting commercial EV adoption, particularly in the three-wheeler segment.
- **Charging Infrastructure Expansion:** As of mid-2024, India had over 16,000 public charging stations, significantly improving accessibility for EV users.

Way Ahead

- There is a **need to focus** on automation and AI in manufacturing **to integrate modular EV architectures** to streamline production and cater to diverse market segments.
- Manufacturers need to focus on **recycling materials, reducing waste, and optimizing resource** use to lower environmental impact (sustainability & circular economy).
 - ♦ Bio-based die-casting lubricants are emerging as eco-friendly alternatives for precision EV parts.
- **Introduce Direct Incentives** such as tax exemptions, infrastructure support, or lower-cost financing.
- **Revise Investment Thresholds** to encourage mid-sized global manufacturers.
- **Expand Import Allowances** beyond 8,000 units per year to give investors a better runway.
- **Strengthen Supply Chain Development** to help meet domestic value addition targets sustainably.

Source: BL

Mains Practice Question

[Q] Does India's EV manufacturing scheme genuinely support industry growth, or do its numerous restrictions and caveats stifle innovation and competition?

