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Trade Tools for Accelerating the Electric Vehicle Transition

Best Practices from Existing Frameworks

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Introduction

India is moving toward electrification of its transportation, backed by policies that aim to increase demand, facilitate domestic production, and expand associated infrastructure. This includes policies such as Faster Adoption and Manufacturing of Hybrid and Electric Vehicles (**FAME I & II**), PM Electric Drive Revolution in Innovative Vehicle Enhancement (**PM-E DRIVE**), and Production Linked Incentives (**PLI**) for batteries, to name a few.

Along with these national-level policies, more than 30 subnational governments have **passed** their own electric vehicle (EV) policies that significantly contribute to the **national goal** of making 30 percent of all new cars and 80 percent of two- and three-wheelers electric by 2030. However, a major policy instrument that is often overlooked is India's trade policies. While domestic EV manufacturing is picking up pace, India remains **heavily reliant** on imported battery cells, critical minerals, and advanced components, creating potential supply chain vulnerabilities due to global events.

India's Trade Agreements and the Two-Track Framework

A **2026 publication** by the CSIS Chair on India and Emerging Asia Economics assesses India's recently signed trade agreements with Australia, the European Free Trade Association (EFTA), the United Arab Emirates (UAE), and the United Kingdom, focusing on India's approach to the EV transition. These agreements mark a shift toward "structured openness": high protection on finished vehicles, selective liberalization for upstream EV inputs, and a stronger focus on investment, standards, and technology cooperation.

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Figure 1: India's Recent Negotiated Trade Agreements

Source: Adapted from Thibault Denamiel et al., *Electrifying Delhi's Trade Agreements Strategy: Takeaways to Strengthen the Indian EV Supply Chain* (Washington, DC: CSIS, March 2026), https://www.csis.org/analysis/electrifying-delhis-trade-agreements-strategy.

Trade data analysis **shows** that these four partners (Australia, EFTA, the UAE, and the United Kingdom) account for only a small share of India's EV-related imports. As a result, heavy dependence on a small number of geographies, including China, Taiwan, Japan, and South Korea, heightens the supply chain risks for the EV transition and underscores the case for broader diversification.

India is currently in the process of negotiating trade agreements that will be consequential to its EV sector. The Chile Comprehensive Economic Partnership Agreement (CEPA) negotiations, launched in 2025, mark the first time India has explicitly sought a minerals-focused agreement with a major import source of minerals. Further, the **proposed upgrade** to the Japan CEPA, anchored by a $70 billion investment target, is vital given Japan's dominance in refined materials. Agreements with South Korea and Peru round out the list, given South Korea's dominance in battery cell capability and Peru's in copper and lithium mining.

However, a key consideration is the nature of supply chain concentration risks. Specifically, the overreliance on a few countries across battery cells, critical minerals, and advanced components could create vulnerability to export restrictions or geopolitical disruption. Accordingly, the authors have **suggested** Delhi categorize its trade partners into two tracks:

1. **Track A: Economic Security Countries**: This group includes trade partners that are explicitly diversifying their supply chains, such as the United States, the European Union, and Japan, which are actively restructuring industrial and trade policies to develop robust friend-shored supply chains.
2. **Track B: Economic Hedging Countries:** This group includes trade partners that are expanding their EV supply chain prominence through increasing reliance on select geographies, presenting potential supply disruptions and geopolitical risks for India.

As such, India's subsequent trade agreement negotiations must prioritize the intersection with global supply chain hubs while managing the concentration risk embedded within those regional supply networks.

Table 1: Extant or Potential Trade Agreements Vital to India's EV Supply Chain

European Union	Concluded January 2025	**High**	Zero duty on mines and minerals; eliminates tariffs on engineering goods; services and IP chapters for tech transfer. Implementation projected early 2027.
Chile CEPA	Negotiations launched May 2025	**High**	World's largest copper and lithium exporter. First minerals-focused CEPA upgrade—critical for extraction-stage diversification.
Japan CEPA Upgrade	In progress; $70 billion investment target	**High**	Dominant in refined materials (69.3% of India's processed minerals imports). Semiconductors, critical minerals, and clean energy cooperation.
South Korea CEPA Upgrade	Intensified negotiations ongoing	**Medium**	Key battery cell and pack supplier (7.6% of battery imports). Helps diversify away from China's 72.9% dominance in this segment.
Peru FTA	Round 9 concluded late 2025; target mid-2026	**Medium**	Top copper and lithium producer. Explicitly designed to stabilize long-term critical minerals supply arrangements.

Source: Adapted from Denamiel, Electrifying Delhi's Trade Agreements Strategy.

Six Trade Instruments: Global Best Practices

The six instruments examined in this paper—tariffs, rules of origin, government procurement, technology transfer, regulatory standards, and investment—are drawn from trade agreements worldwide. For each instrument, this section sets out the global best practice, its implications for India, and the specific Track A or Track B calibration India should adopt in negotiations.

TARIFFS

Tariff design has emerged as one of the most promising levers influencing the cost, competitiveness, and adoption of EVs, as well as their supply chains. Across recent trade agreements, there is a clear pattern toward the liberalization of upstream inputs combined with continued protection of finished vehicles. Agreements such as the **New Zealand–UK Free Trade Agreement**, the Comprehensive and Progressive Agreement for Trans-Pacific Partnership (**CPTPP**), and green-oriented frameworks such as the Singapore-Australia Green Economy Agreement (**GEA**) prioritize tariff elimination on environmental goods, including EV components such as batteries and charging infrastructure, to reduce input costs and accelerate domestic manufacturing.

At the same time, experience in transatlantic and U.S.-China-EU trade exemplifies how tariffs can also be deployed defensively. The **100 percent U.S. tariff** on Chinese EVs and the European Commission's

company-specific **countervailing duties** point to growing concern over subsidized foreign capacity shaping domestic EV markets. Compared with the U.S. approach, the European Union's more **differentiated measures**, which layer additional duties on top of the standard 10 percent import tariff, offer a more precise framework for necessary trade protection.

For India, this dual approach is particularly salient. Tariffs on EV inputs directly raise production costs, and **evidence** shows even modest duties can significantly increase final EV prices, slow adoption, and delay the scale-up of domestic manufacturing. At the same time, maintaining protection on finished vehicles supports local assembly and aligns with India's broader Make in India strategy. It is worth noting that the rationale for such defensive tariffs can vary significantly across jurisdictions: Some measures are framed primarily around **national security**, while others aim at **neutralizing distortions** created by state subsidies. However, India's case rests more explicitly on industrial policy grounds. The challenge, therefore, is not choosing between liberalization and protection but sequencing them across the value chain and across partners.

The two-track strategy provides a way to effectively balance liberalization and protection:

- **Track A:** India should maintain open, low-tariff regimes on upstream segments where it remains heavily import dependent, including raw minerals, processed materials, electrodes, and battery cells. Eliminating duties at entry into force, as seen in the UK agreement, lowers costs for domestic manufacturers and makes India a more attractive destination for EV and battery investment. Given that India's current trade agreements only partially overlap with key supply hubs, expanding such preferential access is essential to diversify away from concentrated suppliers.
- **Track B:** Tariff regimes should be more strategic. This includes maintaining most-favored-nation (MFN) or near-MFN rates on battery cells and packs, limiting the risk of geographic concentration of imports directly or the possibility of them being routed through third countries. Liberalization should be selective and contingent on verifiable supply chain origins, reflecting the transshipment risks observed in reexport hubs.

This approach aligns tariff policy with both industrial and security objectives by lowering input costs where India needs foreign integration and preserving policy space where supply chains remain exposed to concentrated geopolitical risk.

RULES OF ORIGIN

Rules of origin (RoO) sit at the heart of EV-related trade governance because they shape where investment flows and how supply chains evolve. The U.S.-Mexico-Canada Agreement (**USMCA**) provides one of the most robust examples of RoO as a tool for industrial strategy. The 75 percent regional value content requirement, high thresholds for steel and aluminum sourcing, and labor value content rules effectively channel EV and battery-related investments into North America, accelerating the construction of gigafactories and advanced component facilities across the region.

A similar logic underpins the UK-EU Trade and Cooperation Agreement (TCA), which offers similar lessons but focuses on flexibility. By extending timelines for tightening local value requirements from 2024 to 2027, the region prevented a scenario in which EVs (but not internal combustion engine vehicles) would suddenly incur tariffs, an outcome incompatible with European and UK

decarbonization goals. The structure of cumulation rules is equally important. Bilateral cumulation in the **UK-EU TCA** allows EU and UK content to be counted together toward RoO, aiming to adopt real-world supply chain integration. Where bilateral cumulation has been withdrawn, as in the UK-Canada automotive trade, exporters immediately faced tariff exposure.

In short, an Indian trade strategy geared toward the EV transition would pair ambitious RoO trajectories with flexible cumulation that supports integrated regional supply chains while allowing targeted exclusions only for clearly defined security-sensitive components.

- **Track A:** RoO should prioritize flexibility and integration. Adopting coequal rules with multiple qualification pathways, combined with bilateral cumulation, lowers compliance barriers and encourages firms to collocate production. This is particularly important for battery materials and cells, where supply chains are inherently multicountry. Experience from agreements such as the UK-EU TCA also suggests that phasing in stricter thresholds prevents disruption when domestic or partner capacity is still developing, as is the case with India's battery and cell industry.
- **Track B:** RoO should act as a filter against transshipment risk. Stricter value-addition thresholds and tariff-shift requirements at the Harmonized System (HS) six-digit level help ensure goods are not rerouted third-country inputs, as under the UAE-India CEPA. These rules should be reinforced with supply chain disclosure requirements, particularly for EV-relevant components such as battery cells, packs, and electrodes, where global supply chains remain highly concentrated.

GOVERNMENT PROCUREMENT

Government procurement mechanisms in trade agreements increasingly serve as a demand-side pillar for accelerating EV adoption. Even when procurement chapters are not EV-specific, many now explicitly allow environmental criteria such as life-cycle emissions, charging compatibility, recyclability, or energy efficiency to be included in tender specifications, provided foreign firms can compete on equal terms. This feature ensures that tenders for public buses, municipal fleets, or government-operated charging networks favor low-emission technologies without violating nondiscrimination obligations.

In agreements such as the **Singapore-Australia GEA**, procurement is further linked to collaborative innovation. Beyond simply opening procurement markets, these provisions encourage joint demonstration projects, data sharing, and the coordinated rollout of smart charging infrastructure.

In other words, the agreement leverages procurement not only to liberalize markets but to direct public purchasing power toward innovation, network build-out, and early-stage EV ecosystem development. For India, existing schemes such as PM-eBus Sewa represent precisely the procurement vehicles where EV-specific environmental criteria can be embedded without violating World Trade Organization (WTO) nondiscrimination norms, provided treaty partners are extended equal bidding rights. It is worth noting that India is not a signatory to the WTO Government Procurement Agreement, so such obligations arise from bilateral treaty commitments rather than multilateral rules. Procurement chapters can thus serve as demand anchors for Track A firms willing to invest in India's domestic EV ecosystem.

Additionally, for India, procurement policy can enable EV adoption at scale and leverage public demand to support domestic manufacturing. However, current agreements largely provide limited and uneven

procurement access, with significant carve-outs for sensitive sectors. As such, there is a space for India to strategically direct public purchasing power toward innovation, network build-out, and early-stage EV ecosystem development.

- **Track A:** Procurement can be used to attract high-quality supply chains and technology adoption. Opening selected procurement markets to firms from trusted partners, paired with transparent eligibility criteria, helps lower costs and improve technology access. At the same time, incorporating performance-based criteria (e.g., battery efficiency, safety, and life-cycle emissions) ensures that procurement drives quality upgrades rather than just price competition.
- **Track B:** Procurement should act as a filter rather than a gateway. Eligibility should be tied to domestic value addition and supply chain transparency, limiting participation where upstream inputs cannot be clearly verified. This is particularly important in EV segments where global component supply remains highly concentrated and where open procurement could inadvertently reinforce existing dependencies through third-country suppliers.

TECHNOLOGY TRANSFER

Technology transfer and cooperation provisions have also expanded in recent trade and partnership agreements to account for the technical complexity of EV supply chains and the strategic nature of critical minerals processing. The U.S.-Japan Critical Minerals Agreement (**CMA**) is emblematic of a new form of sector-specific agreement focused on a defined industrial objective rather than broad market liberalization ("functional trade agreement"), designed to diversify supply chains for lithium, nickel, cobalt, and other inputs. By enabling Japanese critical minerals to qualify under U.S. EV tax credit rules, the CMA encourages allied investment in extraction and refining outside concentrated geographies.

Similarly, emerging **EU-UAE Strategic Partnership Agreement** negotiations incorporate structured cooperation on battery technologies and integrated EV-charging networks. These agreements move beyond general references to technology exchange by institutionalizing joint research efforts and regulatory cooperation related to the green transition.

For India, the central challenge is ensuring that cooperation translates to domestic capability in upstream and midstream segments where dependence is high. In parallel, poorly structured partnerships risk embedding Indian supply chains within external technology ecosystems without meaningful upgrading, reinforcing existing dependencies rather than building domestic capability.

- **Track A:** Technology provisions should focus on capacity building in frontier technologies, including cell chemistry, cathode materials, and power electronics. This can be achieved through structured cooperation platforms: joint research and development programs, pilot manufacturing lines, and skills partnerships tied to production. The India-Japan framework provides a useful model, where industrial collaboration is enabled alongside intellectual property (IP) protections aligned with Trade-Related Aspects of Intellectual Property Rights (TRIPS), anchoring advanced manufacturing activity in India.
- **Track B:** Cooperation should remain downstream focused, centered on areas such as assembly processes, module integration, and charging infrastructure.

REGULATORY APPROACHES

The regulatory standards dimension of trade has become central to the EV transition. Multilateral rules can be crucial here: The WTO Agreement on Technical Barriers to Trade (TBT) sets a baseline framework that encourages members to base regulations on international standards, avoid unnecessary barriers, and maintain transparency through notifications. Recent regulatory updates submitted by China, the United States, Japan, and South Korea on high-voltage equipment, grid-integration technologies, and energy efficiency standards illustrate how countries can modernize EV-adjacent regulations while maintaining TBT consistency.

Likewise, other international agencies such as the International Electrotechnical Commission (IEC) undertake invaluable work to harmonize EV supply chain regulations, such as **EV charging standards**. Beyond the multilateral system, bilateral and plurilateral initiatives are aiming for deeper regulatory convergence. **EU-U.S. discussions** on mutual recognition of vehicle approvals (particularly relating to EV safety and charging standards) show the potential for reduced compliance duplication and faster cross-border deployment.

In other words, these discussions anchor EV-relevant technical rules in shared or mutually recognized standards, embedding regulatory cooperation committees directly into trade agreements and establishing forward-looking work streams on emerging issues such as battery passports and recycling requirements.

- **Track A:** Regulatory cooperation should move toward targeted alignment and mutual recognition. This includes joint standard setting on battery safety, recycling, and automotive software, building on the UK-India CETA's regulatory cooperation provisions and early-stage collaboration in emerging areas such as battery passports, reducing duplication and enabling Indian firms access to multiple markets without recertification.
- **Track B:** A more cautious sovereignty-retaining approach is appropriate. Engagement should retain the TBT-anchored approach from India's existing agreements, focusing on transparency and capacity-building cooperation but preserving the right to refuse equivalence. With this approach, regulatory provisions complement other trade instruments by reducing market-entry friction and preserving autonomy to shape domestic standards and avoid long-term technological lock-in dependent on external sources.

INVESTMENT

Investment chapters in trade agreements are being reshaped to align with the industrial requirements of the EV transition. EV and battery supply chains demand large, long-term capital commitments: Predictable treatment and transparent investment rules matter. Investment chapters in contemporary trade agreements are increasingly being designed not only to protect investors but also to actively steer capital toward the sectors and supply chains underpinning the EV transition.

The **EU-Angola Sustainable Investment Facilitation Agreement** exemplifies a facilitation-oriented approach focusing on reducing nontariff barriers to sustainable investment. The agreement improves transparency and predictability through published investment rules and clearer administrative procedures and streamlines permit processing via e-government tools and dedicated investor contact points. Likewise, the **EU-Chile Advanced Framework Agreement** embeds investment protection

within a broader sustainable development framework. It strives to secure reliable and environmentally responsible access to lithium and copper for EV batteries by guaranteeing nondiscriminatory market access in strategic sectors critical to the battery supply chain. These agreements combine legal certainty and equal treatment for investors with explicit environmental and governance commitments, thereby lowering risk and guiding capital toward climate-aligned projects.

Implementing protections in India is particularly important for EVs given the scale of investment required to build domestic capacity. While policies such as the PLI schemes create domestic incentives, trade agreements and investment protections determine if foreign capital is willing to commit to long-horizon projects. The central challenge is to attract investment that strengthens domestic capacity without reinforcing external supply chain dependencies.

- **Track A:** Investment provisions should prioritize risk reduction for strategic, long-horizon, and capital-intensive segments, such as mining, refining, and cell manufacturing projects. Predictable regulatory treatment and access to dispute resolution, among other protections, are particularly important. Combined with a transparent approval process, this helps crowd in capital. Additionally, like the UK-India CETA's procurement chapter, preferred-supplier pipelines for Track A firms with transparent eligibility rules will draw capital goods suppliers from diversified sources.
- **Track B:** A facilitation approach is more appropriate. Bilateral investment councils, as in the UAE CEPA, can support participation in less sensitive segments, such as assembly and charging, without extending broad protections that expose India to supply chain risks. Additionally, procurement eligibility strictly conditioned on domestic value addition and supply chain disclosure will ensure local industrial growth.

Application to Future Agreements

The following partner-specific recommendations are grounded in the two-track framework, which determines how tightly or permissively each instrument is applied depending on whether the partner is actively diversifying its supply chains (Track A) or maintaining or deepening those ties (Track B).

CHILE AND PERU

Chile and Peru **supply** over 43 percent of India's extraction-stage critical mineral imports. For Chile, where CEPA negotiations launched in May 2025, India should apply the UK-India CETA's tariff template—zero duties at entry into force (EIF) on lithium, copper, cobalt, and nickel—with the Australia ECTA's coequal origin rules and India-Japan CEPA-style investment protections for long-horizon extraction projects. The agreement should include a dedicated critical minerals chapter that goes beyond what any of India's existing agreements contain. The same architecture applies to Peru, where finalization is targeted for mid-2026.

JAPAN

The agreed CEPA **upgrade** should extend the existing agreement's technology cooperation provisions—which already allow industrial collaboration under TRIPS-aligned IP protections—to cell chemistry, cathode processing, and power electronics. The India-Japan Clean Energy Partnership provides a ready institutional vehicle for embedding these provisions.

THE EUROPEAN UNION AND THE UNITED KINGDOM

The EU-India FTA finalized in January 2026 provides zero-duty access on minerals and engineering goods. India should use the pre-EIF period to push for a battery standards chapter that builds on the UK-India CETA's regulatory cooperation precedent and aligns with the EU Batteries Regulation. This would reduce recertification costs and extend the UK CETA's coequal origin and open procurement provisions across both markets.

THE UNITED STATES

A future U.S.-India agreement should apply the UK-India CETA's tariff liberalization model for upstream EV inputs, the Australia ECTA's coequal origin rules to maximize preference utilization, and India-Japan CEPA-style investment protections to attract U.S. capital into Indian gigafactory projects linked to PLI scheme eligibility. Joint standards work should build on the UK-India CETA's regulatory cooperation chapter and extend to battery safety and EV software.

SOUTHEAST ASIA AND THE MIDDLE EAST

Several Southeast Asian and Middle Eastern economies serve as reexport hubs. India should apply the UAE CEPA's full anti-transshipment tool kit: HS six-digit tariff-shift rules and 40 percent value-addition thresholds, among others, for battery cells, packs, and electrodes. Commercial opportunities in final assembly and charging infrastructure remain open within this framework.

SOUTH KOREA

South Korea leads in battery manufacturing but remains embedded in concentrated cathode supply chains. India should apply UK-India CETA-style origin rules and Japan CEPA-style investment protections where South Korean firms source from diversified suppliers, as well as UAE CEPA-style tariff-shift and disclosure rules to map where South Korean value chains are routing their midstream processing. Procurement provisions should reward South Korean foreign direct investment that builds Indian domestic cell capacity rather than treat India as an export destination.

Conclusion

When it comes to India's trade policy, provisions pertaining to the electric mobility sector have often been placed at the periphery of broader market access objectives. But this must change given India's EV ambitions and the need to add domestic value and jobs. The EV supply chain should be prioritized as the organizing priority around which India's trade agreements are designed. The New Zealand-UK FTA, the USMCA, the UK-EU TCA, the Singapore-Australia GEA, the U.S.-Japan CMA, and India's recent CEPAs demonstrate that trade agreements are already functioning as industrial policy for the EV transition in other jurisdictions. India has the domestic demand and the manufacturing ambition. But to reach its EV goals, it needs to leverage the opportunity to design trade agreements that support its ambitions.

Trade agreements must be designed to strengthen the supply-side ecosystem, not simply to open export markets. Tariff liberalization on upstream inputs expands access to the raw and processed materials India needs for domestic battery manufacturing. RoO provisions that allow cumulation across allied partners build out regional supply chain depth, and government procurement chapters provide specific demand signals. Technology cooperation chapters transfer the process knowledge needed to move India up the value chain from assembly toward cell chemistry and cathode production. Regulatory alignment reduces the compliance cost of integrating into global EV supply networks. And investment

chapters complement tariff mechanisms by lowering risks for foreign investment and effectively support India's capability-building efforts while maintaining control over supply chain exposure. It also provides legal certainty to attract the patient capital required for industrial advancements. Used together, these six instruments give India the tools to shift the focus from being a demand center to becoming a supply hub. ■

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