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Policy Brief

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# Reforming India's Aluminium Ecosystem *Tariff Rationalisation and Competitive Pricing for MSME Growth*

*India's aluminium industry is at a crucial point. It is one of the largest producers globally, with significant bauxite reserves and cost advantages. However, the sector faces structural issues that hurt its ability to add value domestically and compete effectively with micro, small and medium-sized enterprises (MSMEs).*

*This Policy Brief examines three interconnected challenges limiting India's aluminium sector. First, an inverted duty structure; second, high market concentration (HHI: 3,180) among four producers, combined with LME-linked import parity pricing and third, Quality Control Orders impose compliance burdens on smaller firms and restrict access to imported inputs needed for manufacturing.*

*It highlights how these issues together weaken India's downstream aluminium sector, involved in secondary manufacturing. This limitation affects job creation and export potential for value-added products. With the EU's Carbon Border Adjustment Mechanism posing a threat to aluminium exports worth USD 2.7 billion, policy changes are necessary. The paper suggests adjusting tariffs, creating clearer pricing systems, and simplifying regulations to foster a more competitive and inclusive aluminium value chain that supports industrial growth and job creation.*

## 1. Introduction

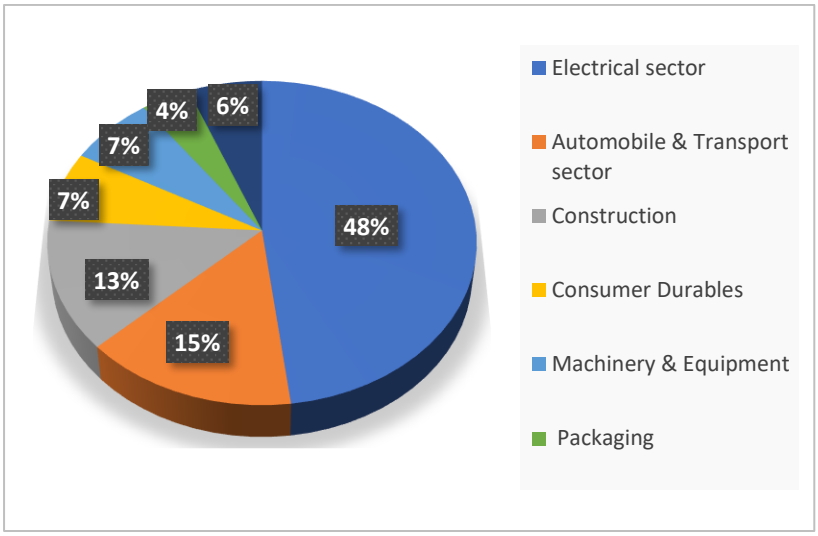
India’s aluminium industry holds a strong strategic position globally, supported by rich bauxite reserves that provide a natural competitive advantage. The sector is led by four major primary producers: National Aluminium Company Limited (NALCO), Hindalco Industries Limited, Bharat Aluminium Company Limited (BALCO), and Vedanta Aluminium Limited (VAL). NALCO operates one of the largest integrated bauxite, alumina, and aluminium complexes in the country.

For the financial year 2024, India’s installed aluminium capacity stood at 4.17 million tonnes, reflecting strong upstream integration and significant potential for downstream expansion.[1]

[1] India Climate & Energy Dashboard. https://iced.niti.gov.in/energy/end-use/industry/aluminium

Aluminium's versatility makes it an essential input across industries such as power, transport, construction, packaging, and consumer goods (Figure 1). Its light weight, recyclability, and durability make it a more environmentally friendly substitute for steel and plastic.

**Figure 1: Sector-wise Aluminium consumption (%) in India in 2024**




*Source: Ministry of Mines, Government of India*

Usage in aerospace, automotive, and power transmission continues to expand, supported by nearly 600 cable and conductor manufacturing units across India. In construction, aluminium has become a preferred material for doors, windows, and façades, while packaging and consumer durables have emerged as important drivers of demand. According to the Aluminium Secondary Manufacturers Association (ASMA), there are 3,500 MSMEs[2] in India working in downstream Aluminium sector.

Although India is one of the largest producers of aluminium in the world, its per capita consumption remains relatively low compared to the global average. While global average per capita consumption is about 11.5 kilograms, India's is just about 2.7[3] kilograms per capita. With rapid urbanisation, industrial growth, and a transition toward clean energy, the aluminium industry in India offers substantial potential for domestic value addition.

However, the duty structure of aluminium imports under preferential trade agreements poses challenges to domestic competitiveness, underscoring the need for tariff rationalisation and targeted policy support to strengthen the industry's value chain.

## 2. Overview of Aluminium Trade in India

India imported USD 1.03 billion worth of unwrought aluminium (HS 7601) in 2024, with total quantities reaching 392,000 tons. [4]The import base remains geographically concentrated: Malaysia, Qatar, UAE, and Bahrain together account for over 70 per cent of India's total aluminium imports. Malaysia alone supplies one-third of India's unwrought aluminium

[2] https://asmaindia.co.in/
[3] Vision Document on Aluminium Sector 2025
https://mines.gov.in/admin/download/686b72a13ed1e1751872161.pdf
[4] Trademap https://www.trademap.org/Index.aspx

imports, largely benefiting from its cost-effective smelting operations and preferential tariff access under the ASEAN-India Trade in Goods Agreement (AITIGA). (See Annexure Table A1).

This import pattern reflects India's growing demand for primary aluminium as a critical input for downstream sectors such as automotive, power transmission, and construction, even though the country possesses significant domestic smelting capacity through NALCO, Hindalco, BALCO, and Vedanta Aluminium. Imports have risen primarily due to competitive global prices, high domestic energy costs, and occasional raw material constraints within the domestic industry.

### *Inverted Duty Structure in India's Aluminium Sector*

India's aluminium tariff regime illustrates a clear case of an inverted duty structure (IDS), where the customs duty on the primary input is higher than, or equal to, that on finished goods imported under Free Trade Agreements (FTAs). This imbalance discourages domestic value addition and places downstream manufacturers at a disadvantage compared to importers of finished or semi-finished aluminium products.

The basic customs duty on primary aluminium (HS 7601) is 7.5 per cent, with a surcharge of 0.75, which takes the effective import duty to 8.25%, applicable uniformly across most origins. However, several FTAs (as in Table 1 below), such as the ASEAN–India Trade in Goods Agreement (AITIGA), the India-South Korea Comprehensive Economic Partnership Agreement (CEPA), and the India-UAE CEPA, provide preferential access for finished or semi-finished aluminium goods, significantly lowering or eliminating tariffs on these products.

For example, aluminium plates, sheets, and strips (HS 760612) imported from Malaysia attract zero duty under the ASEAN FTA, while the raw material used to produce them continues to be taxed at 7.5 per cent. Similarly, aluminium structures and parts (HS 761090) from South Korea and aluminium household articles (HS 761510) from Singapore also enter at zero duty, even though the primary metal used to manufacture them faces a 7.5 percent import tariff.

This distortion becomes even clearer when looking at India's own export patterns. India's largest export market for primary aluminium (HS 760110) is the Republic of Korea, with its import valued at around USD 3.6 million. Under the India-Korea CEPA, Korea can then export a wide range of downstream aluminium products such as aluminium structures & parts (plates, rods, profiles, etc.) back to India at zero duty. In effect, Korea imports raw aluminium from India, adds value, and sells the finished goods back into the Indian market without paying any tariff. This highlights a clear imbalance in India's tariff schedule, where domestic value-added producers face higher input costs than foreign competitors benefiting from preferential trade agreements.

This duty structure under some FTA arrangements creates a cost distortion where it becomes cheaper to import finished aluminium goods than to manufacture them domestically using imported or locally produced aluminium.

The impact is most severe for secondary processors and MSME manufacturers, who rely on affordable access to primary aluminium for producing extrusions, cables, conductors, and other fabricated goods. In many cases, the domestic market for such products is directly undercut by

duty-free imports from FTA partners, eroding the competitiveness of Indian firms in both domestic and export markets.

**Table 1: Inverted Duty Structure (Due to FTA) in India's Aluminium Sector**

| S. No. | Finished Product (HS code & description) | Origin Country | MFN Tariff on Raw Material (HS 7601) | Tariff on the raw material under the FTA | FTA Applied | MFN Tariff on the final good | Tariff on the final good under FTA |
|---|---|---|---|---|---|---|---|
| 1 | 760612 – Aluminium plates, sheets & strips (alloyed) | Malaysia | 7.5 % | 7.5% | ASEAN/ Malaysia CECA | 7.5 % | 0 % |
| 2 | 761610 – Aluminium nails, screws, bolts, nuts & washers | Malaysia | 7.5 % | 7.5% | ASEAN / Malaysia CECA | 10 % | 0 % |
| 3 | 760719 – Aluminium foil (plain, not backed) | UAE | 7.5 % | 6.75% | India–UAE CEPA | 7.5 % | 6 % |
| 4 | 761090 – Aluminium structures & parts (plates, rods, profiles, etc.) | South Korea | 7.5 % | 7.5% | India–South Korea CEPA | 10 % | 0 % |
| 5 | 761510 – Aluminium household articles (pressure cookers, etc.) | Singapore | 7.5 % | 7.5% | ASEAN | 20 % | 0 % |
| 6 | 761090 – Architectural/ornamental aluminium structures | Vietnam | 7.5 % | 7.5% | ASEAN FTA | 10 % | 0 % |

*Source: www.indiaBR.com*

### *Export of Primary Aluminium*

The Indian primary aluminium industry demonstrates a strong export-oriented model, consistently relying on international markets to absorb a significant portion of its domestic output between 2015 and 2023.

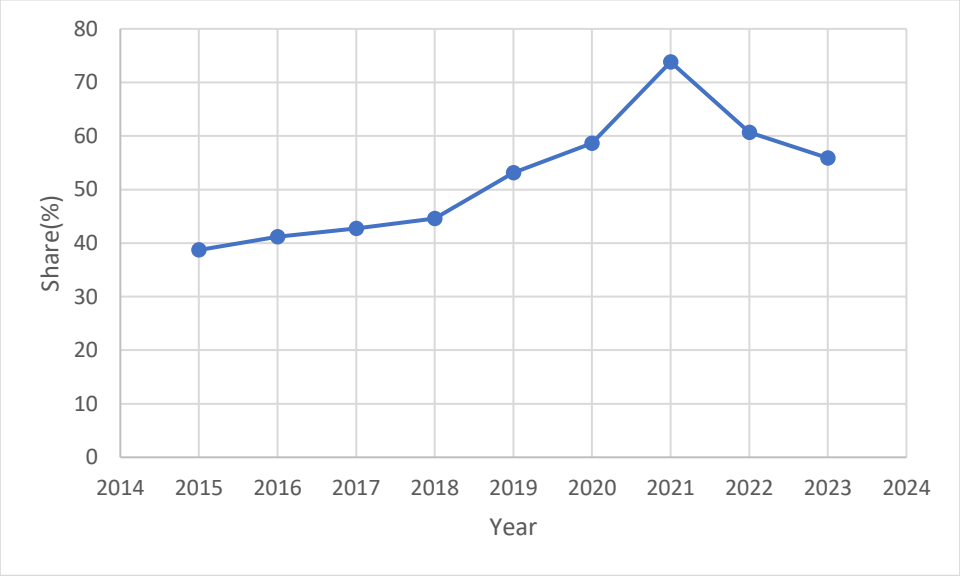
Production experienced robust growth, generally increasing year-on-year from approximately 2.03 million units in 2015 to a high of 4.03 million units in 2022, showcasing a substantial increase in India's manufacturing capacity. Crucially, exports grew at an even faster pace, peaking at nearly 2.67 million units in 2021 (up from 0.78 million units in 2015).

This rapid export expansion resulted in an extremely high reliance on global demand, with the percentage of total production exported soaring from 38.71% in 2015 to a remarkable 73.82% in 2021 (Figure 2).

This trend establishes India as a major global supplier, with its industry's financial health closely tied to international commodity prices and trade policies. While exports saw a

moderation in 2022 and 2023, dropping to 58.74% of production by 2023, the sector remains fundamentally dependent on overseas sales, balancing its role as a key international provider with emerging growth in domestic demand driven by national infrastructure and industrial expansion.

**Figure 2: Share of Primary Aluminium Export out of Production in India**




*Source: Author's calculations based on Metals Bulletin and Indian Bureau of Mines reports of various years and TradeMap, International Trade Centre, Geneva*

The graph above shows that India's primary aluminium sector is heavily export-dependent, with more than half of its output shipped overseas. This dependence peaked in 2021, when exports crossed 73 per cent of total production. Such a high export share makes the industry extremely vulnerable to global price volatility. The focus on selling unwrought aluminium abroad exposes producers to unstable revenues and limits the availability of metal for domestic users.

This export-first approach also weakens India's downstream sector. When primary producers prioritise international sales, less raw material is available for local manufacturers, especially SMEs in casting and fabrication clusters. These MSMEs could be a major source of strength for India because of competitive labour costs and growing demand from industries like the automotive sector. Instead, the country ends up importing more finished goods, such as flat rolled products and extrusions, that could have been produced domestically.

By exporting basic aluminium instead of encouraging value-added production within India, the economy loses out on higher export earnings, domestic job creation, and stronger manufacturing capabilities.

## *Regulatory Aspects*

### Import licensing requirements

Aluminium imports into India are subject to import licensing requirements, through compulsory advance registration under India's Non-ferrous Metal Import Monitoring System (NFMIMS).[5] Since April 2021, when the NFMIMS entered into force, the import policy condition for notified items under Chapter 76 has been 'Free, subject to compulsory registration'.[6]

The purpose of the advance compulsory registration system is to enhance import transparency, help the designated authority identify and keep track of the grades of non-ferrous metals being imported into India, and formulate and calibrate policy responses accordingly. For secondary manufacturers relying on imported inputs and raw materials, the NFMIMS, as an import licensing regime which requires consignment-wise advance declarations, may slow customs clearances at the border. This may cause delays and create supply chain uncertainty.

### Quality control mandates

Aluminium imports are subject to India's quality control regime through Quality Control Orders (QCOs). QCOs are non-discriminatory quality control regulations for both domestically produced and imported products, based on concerned Indian Standards. The goal of QCOs is to prevent deceptive practices, protect consumer interests, uphold product quality requirements and curb imports of sub-standard goods, enhance domestic production parameters to international standards, ensure protection of human health and safety, and environmental protection.

Through QCOs, relevant standards applicable to domestically produced goods also apply to imports, unless they are specifically exempted. In the case of imported products, foreign manufacturers need to obtain requisite licenses under the Foreign Manufacturers Certification Scheme (FMCS) of the Bureau of Indian Standards (BIS).

In the context of international trade rules, QCOs constitute 'technical regulations' within the meaning of the term in the World Trade Organization (WTO) Agreement on Technical Barriers to Trade (TBT), as compliance with the stipulated standards is mandatory. They are accordingly notified to the WTO TBT Committee, and countries have often raised Specific Trade Concerns (STCs) regarding various QCOs.[7]

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5 India's Notification under Article 7.3 of the Agreement on Import Licensing Procedures, 10 December 2024, Committee on Import Licensing, World Trade Organization, G/LIC/N/3/IND/24.

6 Directorate General of Foreign Trade, Notification No. 61/2015-2020 dated 31 March 2021, Amendment in Import Policy of Copper and Aluminium under Chapter 74 and Chapter 76 of ITC (HS), 2017, Schedule-I (Import Policy)-reg.

7 See, for example, STC raised by the European Union (EU) on the India-Cookware and Utensils (Quality Control) Order, 2023, G/TBT/N/IND/258 (ID 83086)

Since 2023, a series of QCOs have been introduced to regulate quality standards of aluminium and aluminium alloy products produced in and entering into India.

From the 1st of October, 2025, the latest Aluminium and Aluminium Alloy Products (Quality Control) Order, 2025 has entered into force (for enterprises other than small and micro enterprises).[8] For small enterprises and micro enterprises (as defined under the Micro, Small and Medium Enterprises Development Act, 2006), the regulation will enter into force as per a deferred timeline, i.e., on 1 January and 1 April, 2026, respectively. The QCO mandates compulsory use of the Standard Mark, showing conformity to relevant Indian Standards.[9]

While this move is seen as a response to low-quality and sub-standard aluminium imports entering the country, the QCO on Aluminium and Aluminium Alloy Products may adversely affect the competitiveness and interests of secondary manufacturers in India.

For secondary manufacturers in the Indian aluminium industry who are reliant on imported inputs, QCOs on upstream product categories may serve to restrict access to imported raw materials required for domestic manufacturing processes, thereby causing supply chain disruptions in value added manufacturing.

The potential downstream impact on secondary manufacturers is also notable since imported inputs used in export-oriented manufactured goods in the first instance are exempt from the application of the QCO[10], but this does not extend to scenarios where imported inputs are fed into intermediate products, which themselves feed into a finished product intended for export (or similarly, in the case of domestic manufacturers catering to both exports and the domestic tariff area).

Furthermore, in the case of base metals, such as in the aluminium value chain, the burden of a dual quality control regime is seen – while finished goods are already subject to mandatory quality standards, products at the input and intermediate stages which feed into the production of the finished goods are also subject to the quality control regime.

On the other hand, QCOs also impose a cost and compliance burden (in terms of certification expenses and administrative and logistics costs, compounded by the limited number of accredited laboratories for conformity assessment) on the micro, small and medium enterprises operating as secondary manufacturers in the sector.[11]

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8 S.O. 2021 (E) dated 5 May 2025 – the Aluminium and Aluminium Alloy Products (Quality Control), Order, 2025, Department for Promotion of Industry and Internal Trade, Ministry of Commerce and Industry, Government of India, <https://bis.gov.in/wp-content/uploads/2025/05/Aluminum-and-Aluminum-alloy-products-Quality-Control-Order-2025.pdf>.

9 Use of Standard Marks are licensed from the Bureau of Indian Standards (BIS) as per Scheme-I of Schedule-II of the Bureau of Indian Standards (Conformity Assessment) Regulations, 2018.

10 See the first Proviso to Section 2 of S.O. 2021 (E), stating that: "Provided that nothing in this Order shall apply to goods or articles manufactured domestically for export."

11 See generally, Prerna Prabhakar, Decoding India's Quality Control Orders, Centre for Social and Economic Progress (CSEP) Working Paper – 105, September 2025; Amitabh Kant and Diewakarr Mittal, 'Ease Up, Quality Cops', The Economic Times, 27 October 2025; Understanding Industry Perspective on Quality Control Orders, Chase India Advisors, May 2025.

This distributional impact of QCOs potentially contributes to a double whammy for small players engaged in secondary manufacturing activities in base metal industries like aluminium – making access to imported inputs and intermediates harder, as well as eroding their manufacturing competitiveness by increasing regulatory burden and compliance costs.

The recent report by the NITI Aayog's High-Level Committee on Non-Financial Regulatory Reforms (HLC-NFRR) has taken note of the compliance burden for industry arising from mandatory QCOs on raw materials and intermediates.[12]

The Report makes a case for reducing QCO burden on raw materials, intermediates and capital goods which are critical inputs for downstream production. For base metals (including Aluminium), the Report makes a strong justification for revoking the QCO, based on the following:

**Table 2: A Case for Revoking QCOs on Base Metals like Aluminium**

| S.No. | Policy Objective and Approach | Justification |
|---|---|---|
| 1. | Health/Safety Risk | Base metal feedstock, such as aluminium and alloys, do not pose direct consumer-facing risks, safety or health hazards; Quality standards are already in place for end-use products which ensure product safety and performance; |
| 2. | Downstream Impact | QCOs can lead to higher input prices, particularly for specialty grades not available domestically; Delays in foreign manufacturers obtaining requisite BIS licenses can cause supply constraints; |
| 3. | Domestic Capacity | QCOs can stymie operations of import-dependent downstream intermediates in the Aluminium sector; |
| 4. | Global Benchmarking | Major economies do not generally mandate base metal certification as a regulatory measure, instead adopting buyer-seller quality assurances agreed contractually; |
| 5. | Impact of QCOs | Implementation of QCOs combined with limited downstream capacity can contribute to supply rigidity and price volatility. |

*Source: Adapted from "Reform 3: Revoke QCOs on base metals" – 2nd Report of NITI Aayog's High-Level Committee on Non-Financial Regulatory Reforms (HLC-NFRR), October, 2025*

[12] 2nd Report of NITI Aayog's High-Level Committee on Non-Financial Regulatory Reforms (HLC-NFRR), October 2025.

Against this background, multiple reports began to emerge that the government has taken note of the concerns around QCOs, particularly those raised by downstream intermediate industry stakeholders, and was planning remedial action.[13] In a welcome move, by an Order of the Ministry of Mines published on 13 November, the government has withdrawn the main Aluminium and Aluminium Alloys Quality Control Order.[14]

## 3. Market Concentration Risks in India's Primary Aluminium Industry

India's primary aluminium market is characterised by high concentration, with production dominated by four large integrated producers: Vedanta Ltd., Hindalco Industries Ltd., Bharat Aluminium Company Ltd. (BALCO), and National Aluminium Company Ltd. (NALCO). The production data for 2023–24 shows that these four firms collectively accounted for the entire national output of 4.16 million tonnes, reflecting a highly consolidated supply structure. Vedanta alone contributed around 43 percent of total production, followed by Hindalco with 32 percent, BALCO with 14 percent, and NALCO with 11 percent.

To quantitatively assess the degree of concentration, the Herfindahl–Hirschman Index (HHI)[15] has been calculated based on the market shares of these firms. The computed HHI value of approximately 3,180 indicates a highly concentrated market, as per the U.S. Department of Justice's classification, where an HHI above 2,500 denotes high concentration. This level of concentration underscores the dominance of a few producers and limited competition in the primary aluminium market.

Such concentration has significant implications for the broader aluminium value chain. First, it restricts supply diversity and makes the pricing of raw aluminium highly sensitive to the strategic decisions of a handful of companies. Second, the gradual expansion of vertically integrated primary producers into downstream and secondary markets has further intensified their control over pricing and supply.

As these large firms extend their dominance beyond primary smelting into fabrication, extrusion, and recycling segments, smaller MSME units find themselves increasingly vulnerable. Limited bargaining power, dependence on high-cost raw materials, and reduced access to competitively priced aluminium leave these secondary producers exposed to market practices shaped by a few dominant players.

This structural concentration reduces competitive pressure and weakens market responsiveness to downstream industry needs. Secondary manufacturers face both price rigidity and supply vulnerability, as their input costs are directly tied to the pricing and production decisions of these few major players. In contrast, the absence of smaller primary producers or diversified suppliers prevents competitive adjustments that could moderate prices or improve input accessibility.

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13 See for example, QCO burden: India may ease a key irritant for companies, The Economic Times, 10 November, 2025.

14 S.O. 5173 (E), Ministry of Mines, Government of India, dated 13 November, 2025.

15 Herfindahl–Hirschman Index (HHI) = $\sum_{i=1}^{n} S_i^2$ ; where 'n' is the number of firms present in the market and 'S' is the market share of each firm.

In summary, the high market concentration reflected in the HHI score highlights a systemic imbalance within India's aluminium industry. The current structure consolidates pricing power in the hands of a few large firms, constraining the growth and competitiveness of downstream value-added sectors. Addressing this concentration through policy mechanisms that encourage entry, competition, and transparent pricing is essential to building a more resilient and inclusive aluminium ecosystem in India.

## 4. Primary Aluminium Pricing Mechanism Analysis

Aluminium prices in India are not cost-based**,** that is, they are not set according to domestic production costs but are instead determined through import parity pricing (IPP)**.** Under IPP, domestic producers align prices with the global benchmark (the London Metal Exchange, LME) and add applicable customs duties and logistics costs. While this practice maintains international alignment, it often inflates domestic prices, preventing MSMEs and recyclers from benefiting from India's inherent cost advantages in labour, energy, and raw materials. Understanding whether aluminium pricing in India is import-linked or cost-based is essential for designing transparent, fair pricing policies that enhance MSME competitiveness. This mechanism is demonstrated by a case study below.

### ***Case Study: Trend Analysis Between the London Metal Exchange*** *(LME) and NALCO Domestic Primary Aluminium Price*

**Analytical Framework**

Since NALCO's annual reports do not explicitly publish product-wise domestic prices for aluminium ingots, billets, or wire rods, indicative price levels were derived using financial and operational data disclosed in its reports. The methodology involved dividing the total aluminium segment revenue (in crore) by the total metal sales volume (in tonnes) to obtain the average realisation per tonne, which represents the effective domestic aluminium price. Since billets and wire rods are value-added products derived from ingots, their indicative prices are higher than the ingot base price by a modest, consistent premium. Billets and wire rods are processed forms of primary aluminium ingots.

**Indicative Domestic Aluminium Prices (NALCO)**

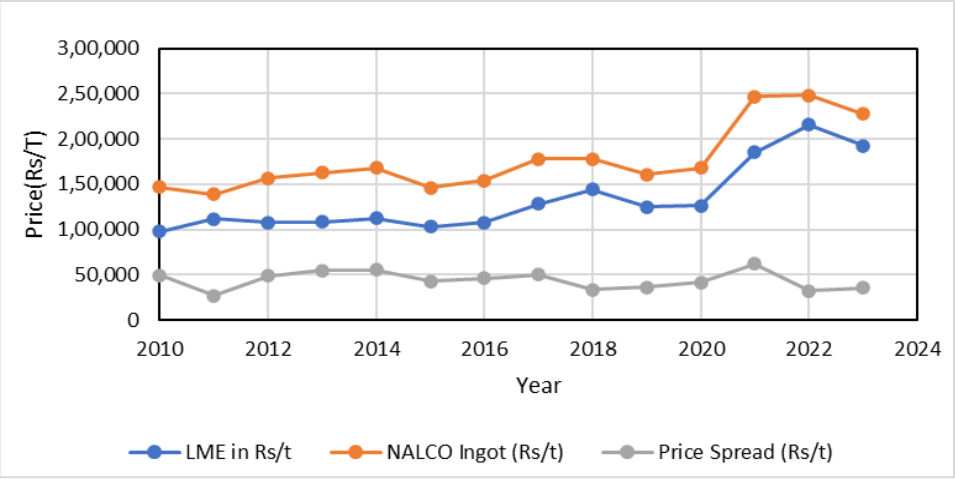
Since NALCO's annual reports do not explicitly publish per-tonne domestic prices, average realisations were estimated using segmental revenue and volume data. The dataset (See Annexure Table – A2) has been prepared with a 13-year comparative view (2010–2023) of aluminium product pricing by NALCO[16] (domestic) versus LME[17] (international benchmark). LME prices are converted to Indian rupees using the annual average exchange rate (Rs/US$) from the Reserve Bank of India (RBI).

The chart shows that India's domestic aluminium prices move almost exactly with LME prices every year. When global prices rise, domestic ingot prices rise in the same pattern, and when LME prices fall, domestic prices also fall. This means Indian aluminium pricing is strongly linked to global markets and follows an import-parity model.

[16] NALCO Annual Reports (FY 2010 – 23)
[17] World Bank Commodity Price Data (The Pink Sheet) Updated on May 02, 2025

This spread reflects the premium charged in the domestic market over the global benchmark price. The annual price spread between NALCO and LME (Rs equivalent) remained consistently positive, ranging from Rs 30,000 to 60,000 per tonne over the study period. Even during years of global price softening (2015–2017 and 2022-2023), domestic prices did not decline proportionally, suggesting price rigidity and the dominance of Import Parity Pricing.

**Figure 3: Trend analysis of domestic aluminium price with LME price**




*Source: Author's calculations based on NALCO Annual Reports, LME (World Bank Pink Sheet), and RBI exchange rate data*

Even though India is among the world's lowest-cost producers of alumina, this competitive advantage does not translate into lower domestic aluminium prices. Because pricing is tied to LME benchmarks and protected by tariffs, domestic producers price aluminium close to import-parity levels rather than based on their lower production costs. As a result, downstream manufacturers and MSMEs do not benefit from India's cost efficiencies and instead continue to face input prices driven by global factors.

## Impact on Secondary Producers and MSMEs

i. **Price Transmission:** Secondary aluminium typically sells at a 10–20% discount to primary aluminium. However, this discount is percentage-based. Therefore, when primary aluminium prices increase, the same discount is applied to a now higher primary price, causing secondary aluminium prices to rise as well. This leads to automatic price escalation in the secondary market, raising input costs for MSMEs and recyclers who rely on secondary metal.

ii. **Margin Pressure:** Scrap prices stay fairly stable, but finished product prices follow primary aluminium rates. This mismatch squeezes MSME and recycler profit margins and makes it hard for them to compete with large integrated producers.

iii. **Price Volatility:** Because domestic prices track LME trends, global price swings directly affect Indian MSMEs. Most small players cannot hedge or absorb shocks, leading to unstable costs and uncertain profits.

iv. **Loss of Competitiveness:** Higher and inflexible domestic aluminium prices increase the cost of downstream products like castings and extrusions. This weakens India's export competitiveness and slows the growth of value-added and recycled aluminium industries.

## 5. Emerging Challenges

The EU's Carbon Border Adjustment Mechanism (CBAM) is set to significantly affect India's aluminium sector because the EU is a major destination for Indian metal exports. Nearly 27% of India's aluminium exports, worth about USD 2.7 billion, go to the EU, placing the industry directly in the path of CBAM's carbon-based levy[18]. Since CBAM levies will be linked to the carbon emitted during production, India faces a disadvantage: its aluminium is highly carbon-intensive due to the dominance of coal-based power in smelting. Indian primary aluminium typically emits around 18 tonnes of $CO_2$ per tonne of aluminium, compared to 15 tonnes globally[19]. This emissions gap means Indian exports will attract a higher CBAM tax.

MSME exporters face additional difficulties, such that they often lack the capacity to track emissions, comply with complex reporting rules, or manage third-party verification. Unless India expands recycling (which cuts emissions by over 90% [20]compared to primary smelting), lowers duties on green aluminium, and supports renewable-powered smelting or hybrid facilities, its exporters could face steep CBAM taxes, reduced demand, and loss of market share in one of their most important markets.

## 6. Policy Recommendations

The following policy recommendations are proposed to improve pricing transparency, support MSMEs, and ensure overall balanced growth between primary and secondary aluminium sectors:

### *Tariff Rationalisation on Imports of Primary Aluminium*

India's downstream and secondary aluminium sector continues to face high input prices due to the 7.5% import duty on primary aluminium. At the same time, the majority of the value-added downstream products are imported into India without any tariff under several FTAs (e.g. under ASEAN-India FTA). This undermines the competitiveness of domestic processors, as well as making it more profitable for global producers to sell finished goods rather than intermediate materials.

Rationalising duties on primary aluminium and aligning them with the needs of downstream users is therefore essential to restore fairness and support domestic manufacturing. Revisiting the current customs duty regime would directly reduce input costs, improve domestic competitiveness, and help India expand its share in global markets for aluminium extrusions, rolled products, castings, and other value-added goods.

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[18] Priya, P. (2024) 'Decoding CBAM: How will EU's carbon levy impact India'.

[19] https://jmkresearch.com/wp-content/uploads/2025/04/Green-Power-Procurement-by-Aluminium-Sector-in-India_JMK-Research.pdf

[20] Dierk Raabe, Dirk Ponge, Peter Uggowitzer, Moritz Roscher, Mario Paolantonio, et al. Making sustainable aluminium by recycling scrap: The science of "dirty" alloys. Progress in Materials Science, Elsevier, 2022, 128, □10.1016/j.pmatsci.2022.100947□. □hal-03665697

A balanced tariff structure will create a more integrated value chain where both primary and secondary producers can grow without policy-induced disadvantages.

### *Transparent Domestic Aluminium Pricing Framework*

Downstream users consistently highlight the lack of a transparent and predictable pricing mechanism for domestic aluminium. Nearly 50% of India's primary aluminium is exported, and domestic supply and pricing are largely influenced by global market conditions. Primary producers follow an import-parity pricing model anchored to the London Metal Exchange (LME) benchmark, causing domestic prices to fluctuate sharply with international volatility, irrespective of India's lower production costs. MSMEs, who operate on thin margins, bear the consequences of these price swings without adequate financial buffers or hedging tools.

The government may explore mechanisms that encourage greater domestic stability in aluminium pricing.

Transparent disclosures by primary producers on pricing formulas, cost drivers, and benchmark linkages may reduce information asymmetry and build confidence among downstream manufacturers.

### *Streamlining Regulatory Burden, Improving Domestic Manufacturing Capabilities and Promoting Exports of Downstream Products*

Non-tariff measures and industrial policy interventions need to be carefully calibrated to ensure optimum industrial growth. Quality Control Orders on upstream product categories and base metals such as aluminium can serve to restrict access to imported raw materials required for domestic manufacturing processes, causing supply chain disruptions. Compliance with QCOs also poses a significant regulatory burden for smaller downstream players. The withdrawal of the QCO on Aluminium and Aluminium Alloys is welcome. Similar initiatives can be taken to further streamline regulatory burden for secondary and downstream aluminium players.

# Annexures

**Table A1: List of Top 10 supplying markets for the Product: 7601 (Unwrought aluminium) imported by India in 2024**

| S No. | Exporters | Value imported in 2024 (USD thousand) | Trade balance 2024 (USD thousand) | Share in India's imports (%) | Quantity imported in 2024 | Quantity unit | Unit value (USD/ unit) |
|---|---|---|---|---|---|---|---|
| 1 | Malaysia | 343,374 | 205,678 | 33.2 | 132,042 | Tons | 2,600 |
| 2 | Qatar | 145,474 | -145,461 | 14.1 | 54,436 | Tons | 2,672 |
| 3 | United Arab Emirates | 144,553 | -144,375 | 14 | 53,217 | Tons | 2,716 |
| 4 | Bahrain | 135,410 | -134,882 | 13.1 | 53,306 | Tons | 2,540 |
| 5 | Oman | 88,581 | -88,296 | 8.6 | 31,740 | Tons | 2,791 |
| 6 | Korea, Republic of | 46,928 | 640,824 | 4.5 | 16,964 | Tons | 2,766 |
| 7 | Netherlands | 19,118 | 136,635 | 1.8 | 7,628 | Tons | 2,506 |
| 8 | China | 14,850 | 257,500 | 1.4 | 4,667 | Tons | 3,182 |
| 9 | Singapore | 14,074 | -14,074 | 1.4 | 5,281 | Tons | 2,665 |
| 10 | Viet Nam | 9,942 | 219,252 | 1 | 4,511 | Tons | 2,204 |

*Source: TradeMap, International Trade Centre, Geneva*

**Table A2: Price Spread Analysis (2010–2023)**

| Year | LME (US$/t) | Exchange Rate (Rs/US$) | LME in Rs/t | NALCO Ingot (Rs/t) | Price Spread (Rs/t) |
|---|---|---|---|---|---|
| 2010 | 2,140 | 45.7 | 97,798 | 1,47,000 | 49,202 |
| 2011 | 2,398 | 46.7 | 1,11,987 | 1,39,000 | 27,013 |
| 2012 | 2,022 | 53.4 | 1,07,975 | 1,57,000 | 49,025 |
| 2013 | 1,846 | 58.6 | 1,08,176 | 1,63,000 | 54,824 |
| 2014 | 1,867 | 60.3 | 1,12,580 | 1,68,000 | 55,420 |
| 2015 | 1,604 | 64.2 | 1,02,977 | 1,46,000 | 43,023 |
| 2016 | 1,605 | 67.2 | 1,07,856 | 1,54,000 | 46,144 |
| 2017 | 1,968 | 65.1 | 1,28,117 | 1,78,000 | 49,883 |
| 2018 | 2,109 | 68.4 | 1,44,256 | 1,78,000 | 33,744 |
| 2019 | 1,791 | 69.9 | 1,25,191 | 1,61,000 | 35,809 |
| 2020 | 1,704 | 74.1 | 1,26,266 | 1,68,000 | 41,734 |
| 2021 | 2,480 | 74.6 | 1,85,008 | 2,47,000 | 61,992 |
| 2022 | 2,703 | 79.8 | 2,15,699 | 2,48,000 | 32,301 |
| 2023 | 2,350 | 82.0 | 1,92,700 | 2,28,000 | 35,300 |

*Source: Author's calculations based on NALCO Annual Reports, LME Data, and RBI exchange rate data*

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