Centre for WTO Studies

INDUSTRIAL SUPPLY CHAIN SERIES

Polyethylene Terephthalate (PET) Resin in Global Value Chains

Trade Dynamics, Production Landscape, and India's Position

BRIEF No.5 | June 2026

Dr. Jaijit Bhattacharya
Manmeet Singh Gulati
Dr. Kashika Arora
Dr. Qayoom Khachoo

Table of Contents

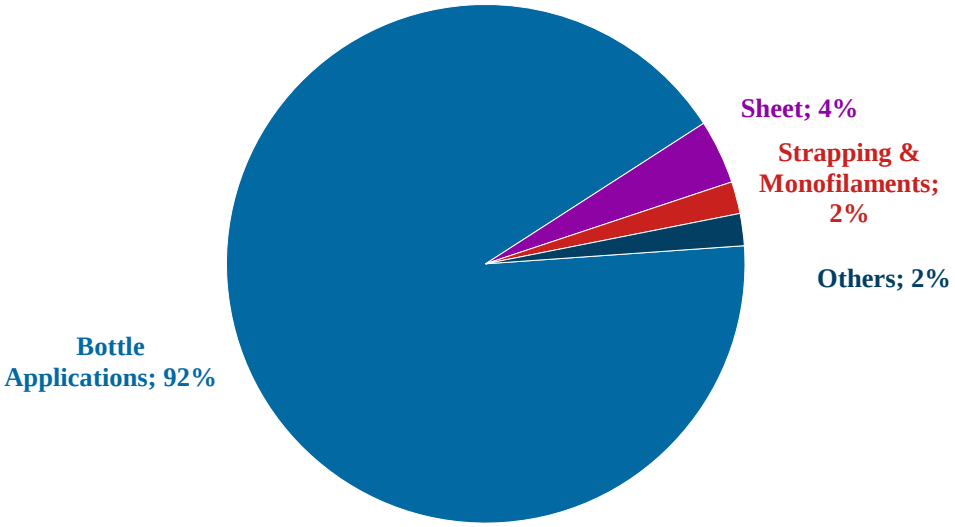
1. Introduction and context[1]

Polyethylene Terephthalate (PET) resin is a high-performance thermoplastic polymer synthesised through the polycondensation of two petroleum-derived monomers, Purified Terephthalic Acid (PTA) and Mono-Ethylene Glycol (MEG). PET is produced in pellet form and subsequently converted into bottles, films, fibres, and a range of industrial components, PET combines exceptional tensile strength, chemical inertness, optical clarity, and barrier properties against moisture and gases.

As illustrated in Figure 1, PET resin finds application across three broad downstream segments: bottle applications, sheets, and strapping and monofilaments, with bottle applications constituting the single largest segment, accounting for 92% of total PET consumption in 2024-25[2]. This dominance is driven by the increasing demand for sustainable and recyclable materials, the global shift toward eco-friendly packaging solutions, and the rise of e-commerce, which has heightened the need for durable, lightweight packaging that ensures product safety during transit.

The versatility of PET across food and beverage containers, films, and trays further affirms its position as the primary material for modern packaging applications. Since bottle applications represent the largest share of total PET consumption, this report is confined to an analysis of bottle-grade PET resin.

Figure 1 PET Resin downstream consumption

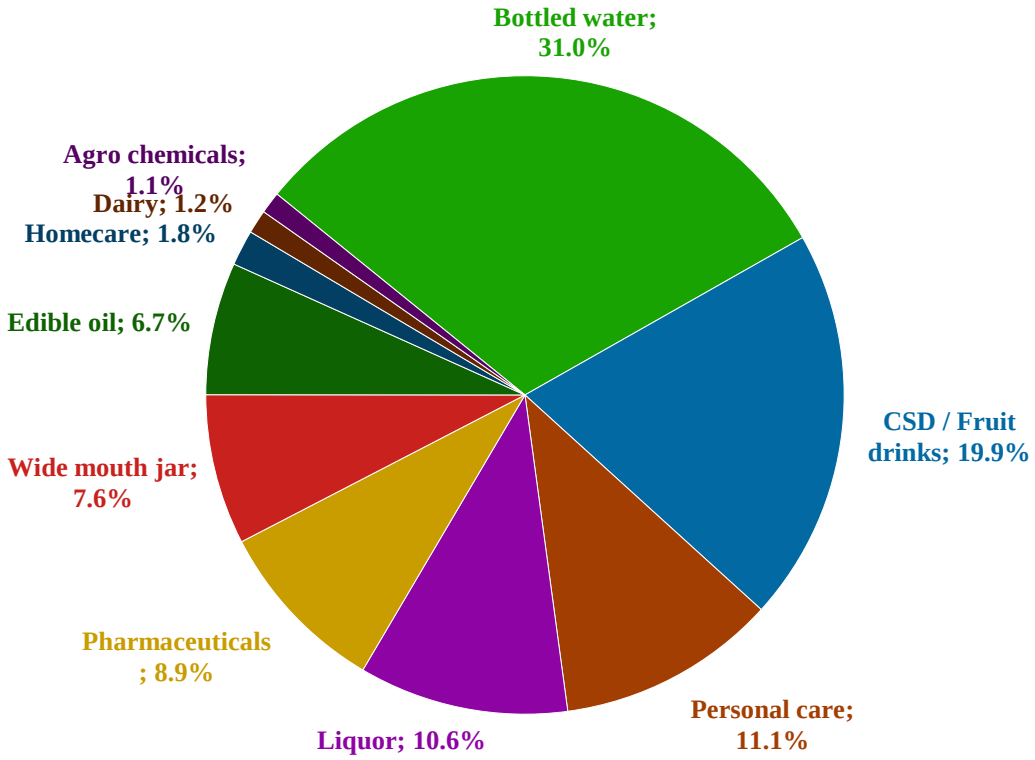


Within bottle applications, the end-use base is highly diversified, encompassing bottled water, carbonated soft drinks (CSD), fruit beverages, personal care products, liquor, pharmaceuticals, edible oils, and numerous other sectors, as illustrated in Figure 2. This wide-ranging demand highlights that bottle-grade PET resin serves a broad spectrum of consumer and industrial segments, establishing it as a strategically important intermediate for the Indian economy.

[1] The authors sincerely acknowledge Dr. Pritam Banerjee, Head of the Centre for WTO Studies, for his guidance, encouragement, and continuous support throughout this research work.

[2] https://petpla.net/2025/10/08/pet-recycling-in-india-trends-challenges-and-opportunities/

Figure 2 End-use applications of bottles



Source: PlastIndia Foundation (2019), as cited in CII–India Plastics Pact, Material Flow of PET Used in Packaging Applications in India (2022)[3]

PET production value chain starts with the upstream feedstocks, followed by the polymerisation process, and finally ends in the conversion phase, which results in various PET products.

1. Upstream Feedstocks (PTA, MEG)

The PET value chain begins with the extraction of para-xylene (PX), which is derived from naphtha during petroleum refining. PX is then oxidized to produce purified terephthalic acid (PTA). At the same time, ethylene undergoes a hydration process to form monoethylene glycol (MEG). Together, PTA and MEG make up approximately 85% of the cost of PET resin, meaning fluctuations in crude oil prices impacts the production cost of PET.

2. Polymerisation (PET Resin)

The next step in the PET value chain is polymerisation, where PTA and MEG are polycondensed in continuous reactors to form PET polymer melt. The melt is then pelletised into small resin chips that are ready for further processing. For bottle-grade PET, solid-state polymerisation (SSP) is required to achieve the necessary intrinsic viscosity (IV) to ensure compliance with food safety standards.

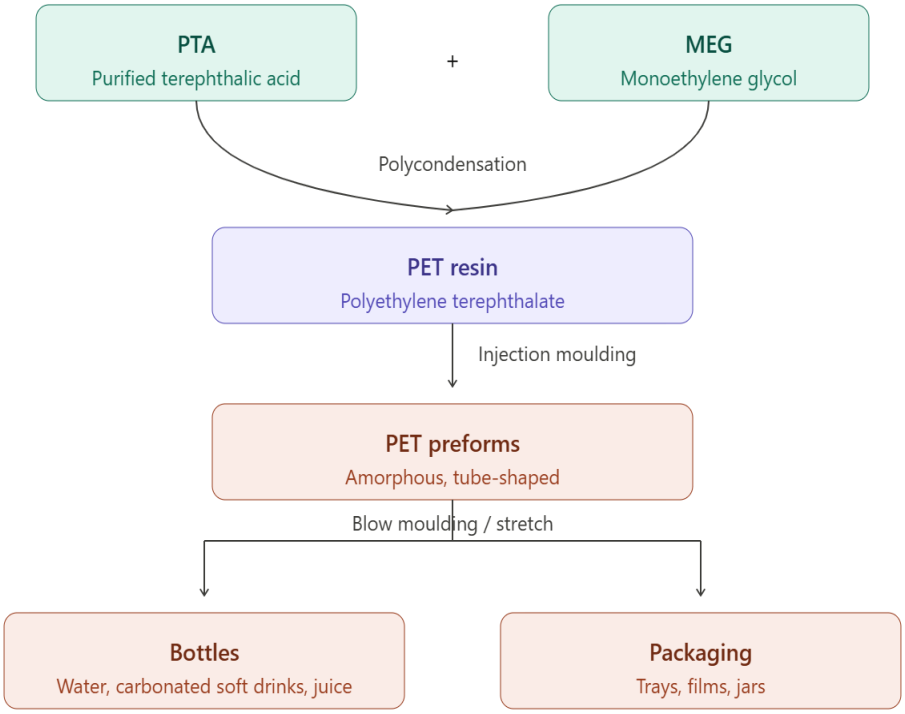
3. Conversion (Preforms, Bottles, and Packaging)

Once PET resin pellets are ready, they are supplied to converters where resin pellets are transformed into a variety of products, including PET preforms, bottles, and films. These are then blow-moulded

[3] https://www.indiaplasticspact.org/uploads/1703753076document.pdf

into containers for products like water, carbonated soft drinks, and juice, or they are used for other packaging needs such as trays, films, and jars.

Figure 3: PET Resin Value Chain Upstream to Downstream



The Indian PET industry is in a precarious situation due to threat of immense over-capacity in China which is being directed to the rest of the world, including substantially to India.

2. Global trade patterns in PET

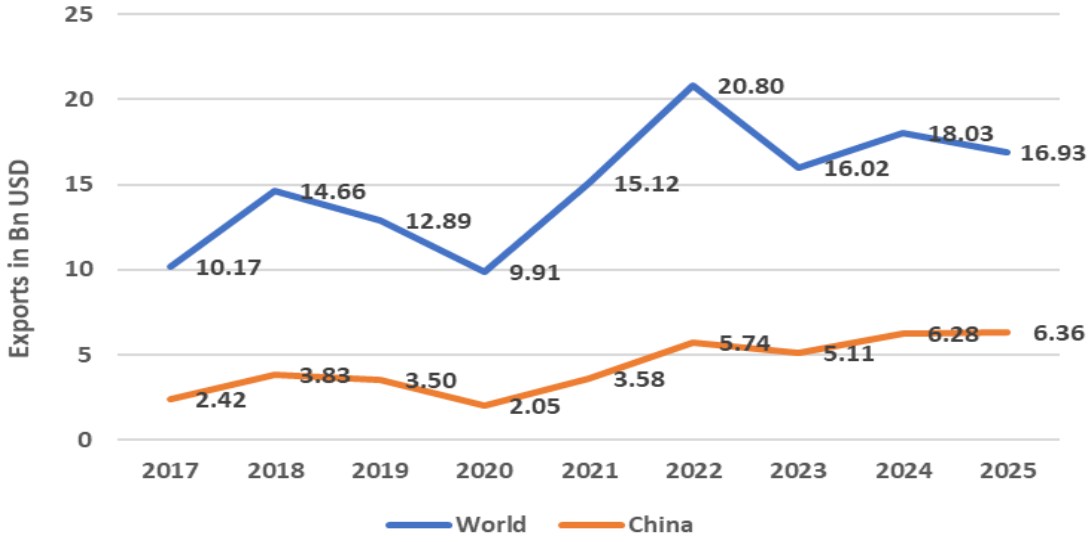
Global trade of PET resin reached USD 18 billion in 2024, recovering steadily from a trough of USD 9.9 billion in 2020 and stabilising after the sharp spike of USD 20.8 billion seen in 2022, which was largely driven by post-pandemic restocking[4]. Over the 2017–2024 period, trade values have roughly doubled in nominal terms owing to the structural growth in global demand for PET across packaging, textiles, and industrial applications.

Given China's commanding 35% share of global PET resin exports, looking at the trajectory of its exports is essential for understanding the competitive pressures facing all other producing nations. Any sustained expansion in Chinese supply directly influences global pricing benchmarks, market access, and the investment decisions for competing producers worldwide.

It is to be noted that most of India’s imports of PET comes from China.

[4] PET resin trade corresponds to HS codes 390761 and 390769

Figure 4: Trend in Global and Chinese Exports (2017–2025)

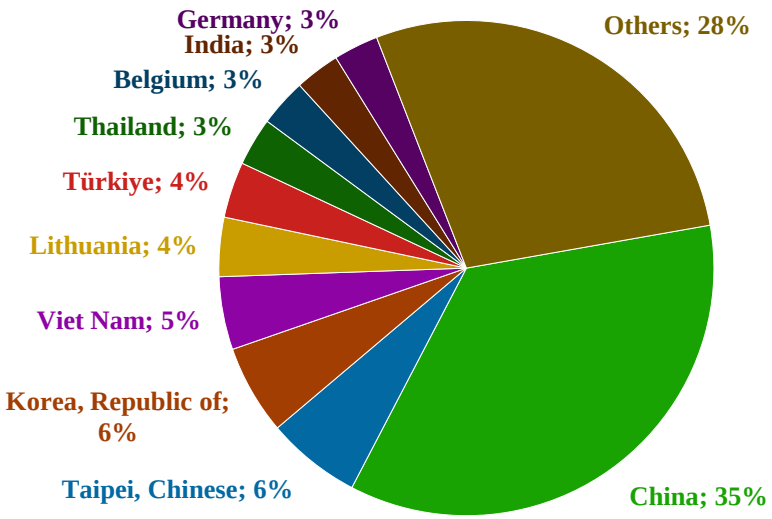


As illustrated in the figure above, Chinese PET resin exports have risen from USD 2.42 billion in 2017 to USD 6.36 billion in 2025, nearly tripling in value over eight years. For a supplier already holding 35% of the global export share, coupled with active capacity investments in Viet Nam, Indonesia, and other emerging markets, this trend places mounting pressure on competing producers in terms of pricing, market access, and the viability of new capacity investments elsewhere.

Therefore, as global demand for PET grows year-on-year, much of the supplies for this growing demand is being fulfilled by massive excess capacities that have been setup in China.

2.1 Global export distribution

Figure 5: % Share in Exports (2024) - World Export Distribution



Source: ITC Trade Map[5]

[5] https://www.trademap.org/Index.aspx

China dominates global PET supply with a commanding 35% export share, a position built on the scale and vertical integration of its domestic PTA–PET production complex, low energy costs, significant government support, and massive overcapacities that continuously export volumes into international markets.

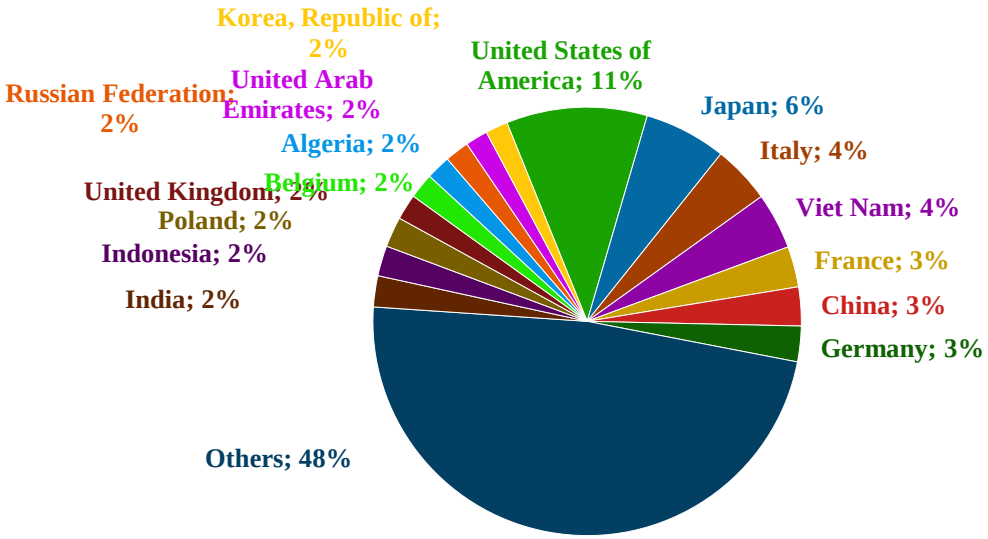
This dominance is now being reinforced through Chinese overseas investments in PET resin capacity. In Indonesia, Wankai New Materials, the leading Chinese producer, is setting up a 750,000 TPA PET resin facility with an initial investment of USD 300 million.[6] In Viet Nam, China-based Billion Industrial Holdings Limited has developed 550,000 TPA of polyester bottle-chip capacity, including a 300,000 TPA expansion backed by approximately USD 73.9 million of investment.[7] This makes Viet Nam's emergence as a 5% global export hub particularly relevant, as part of this capacity is linked to Chinese-origin investment.

Chinese Taipei and Korea (Republic of) each account for 6% of global exports, supplying primarily to Japan, the United States, and Australia. Türkiye and Lithuania each hold a 4% share, serving as key suppliers to regional European and Middle Eastern markets. Thailand, Belgium, India, and Germany each contribute 3%, with their exports largely oriented toward neighbouring or logistically proximate markets. The remaining 28% is distributed across a long tail of smaller exporters, reflecting the breadth of global PET production capacity.

2.2 Global import distribution

The import landscape is considerably more fragmented than the export side, with 'Others' dominating at 48%, reflecting demand spread across numerous developing and frontier markets. Among named importers, the United States leads at 11%, followed by Japan at 6%. In Southeast Asia, Viet Nam (4%) and Indonesia (2%) are driven by thriving packaging, and consumer goods sectors.

Figure 6: % Share in Imports (2024) - World Import Distribution



Source: ITC Trade Map

[6] https://jakartaglobe.id/business/chinese-pet-plastic-manufacturer-to-set-up-factory-in-cilegon
[7] https://www.hkexnews.hk/listedco/listconews/sehk/2025/0417/2025041701117.pdf

European demand is represented by Italy (4%), and France, China, and Germany at 3% each. India (2%), despite domestic production capacity, continues to import significant volumes, alongside several other markets each contributing 2%. Notably, India's 2% share of global imports translates to approximately 23% of its domestic demand in 2024.

Table 1 provides a detailed breakdown of destination markets for each of the top ten exporting nations, illustrating the geographic concentration, or diversification, of individual export flows. China's supply base is broadly distributed, with no single destination absorbing more than 7% of its exports, reflecting its role as a swing supplier to a wide range of markets across Asia, Africa, and Latin America.

By contrast, Korean and Taiwanese exports are notably concentrated. Chinese Taipei directs 45% of its shipments to Japan and 26% to the United States, while Korea similarly relies on the US (26%), Viet Nam (25%), and China (18%) for the bulk of its outflows. European producers such as Lithuania and Belgium operate within tightly integrated EU supply chains. Lithuania sending 29% of exports to Poland alone, while India's export portfolio is geographically diversified across the Middle East, South Asia, and Latin America.

Table 1: World Matrix of Top 10 Exporters and Their Major Import Destinations (2024)

Top Exporters	Top Importing Countries with share	% Share in World exports
China	Vietnam (7%), Indonesia (5%), Nigeria (5%), UAE (5%), Russia (5%), Korea, Republic (4%), India (4%), Philippines (3%), Algeria (3%), Peru (3%)	35.00%
Taipei, Chinese	Japan (45%), USA (26%), Australia (4%), China (3%)	6.00%
Korea, Republic	USA (26%), Vietnam (25%), China (18%), Japan (8%), Belgium (3%)	6.00%
Viet Nam	USA (13%), Japan (10%), Bulgaria (10%), Mexico (9%), Poland (9%), India (8%), Italy (7%), Belgium (5%), Spain (3%), Portugal (3%), Brazil (3%)	5.00%
Lithuania	Poland (29%), France (8%), United Kingdom (8%), Czech Republic (8%), Ukraine (7%), Germany (4%), Slovakia (4%), Italy (4%), Sweden (4%), Portugal (3%), Hungary (3%), Netherlands (3%), Spain (3%)	4.00%
Türkiye	Italy (17%), Germany (11%), United States of America (11%), Belgium (9%), Romania (9%), Greece (8%), Spain (6%), Bulgaria (5%), Libya, State of (4%)	4.00%
Thailand	Japan (41%), United States of America (23%), Viet Nam (10%), Indonesia (3%)	3.00%
Belgium	France (23%), Germany (15%), Italy (12%), United Kingdom (10%), Netherlands (8%), Hungary (6%), Poland (6%), Luxembourg (4%), Czech Republic (3%)	3.00%

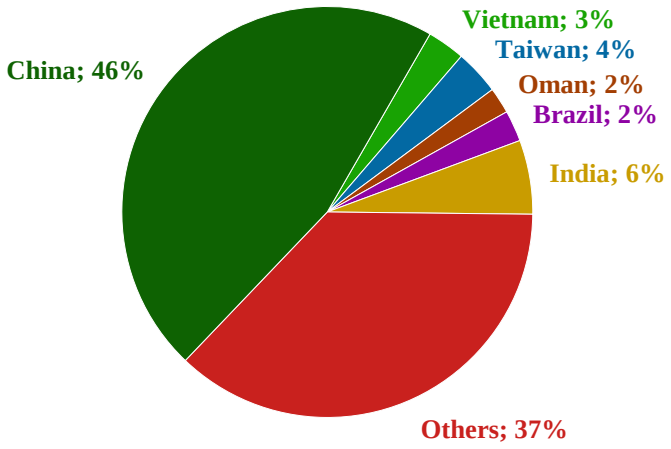
India	United Arab Emirates (14%), Saudi Arabia (7%), United States of America (6%), Oman (6%), Egypt (4%), Israel (4%), Nepal (4%), Mexico (4%), Iraq (3%), Djibouti (3%), Japan (3%), Bangladesh (3%), Bahrain (3%)	3.00%
Germany	Netherlands (21%), Austria (13%), Poland (9%), Belgium (8%), France (7%), United Kingdom (6%), Czech Republic (6%), Luxembourg (5%), Italy (4%), Switzerland (4%), Lithuania (4%)	3.00%

Source: ITC Trade Map

3. India's strategic position in global PET value chain

Global PET resin capacity stood at approximately 41.2 million KT in 2024. The defining structural feature of this market is the overwhelming dominance of a China alone commanding 19.1 million KT, roughly 46% of world total capacity.

Figure 7: Global Capacity Distribution (2024)



Source: DGTR Final Findings, Case No. AD(SSR)-08/2025

In addition, between 2022 and 2028, Chinese producers have announced over 10 million KT of new capacity additions, with total capacity forecast to reach 24.2 million KT by 2028 against estimated domestic demand of only 8.2–9 million KT.

The resulting structural over-capacity, exceeding 10 million KT is of a scale that must be absorbed through exports.

Table 2: Global PET Resin Capacity vs Demand (2024, KT)

Country	Capacity (KT)	Demand (KT)	Surplus (KT)
Global Total	41,243	28,675	12,568
China	19,069	8,166	10,903
Vietnam	1,230	580	650
Taiwan	1,457	264	1,193
Oman	850	252	598

Brazil	1,010	619	391
India	2,406	1,919	487

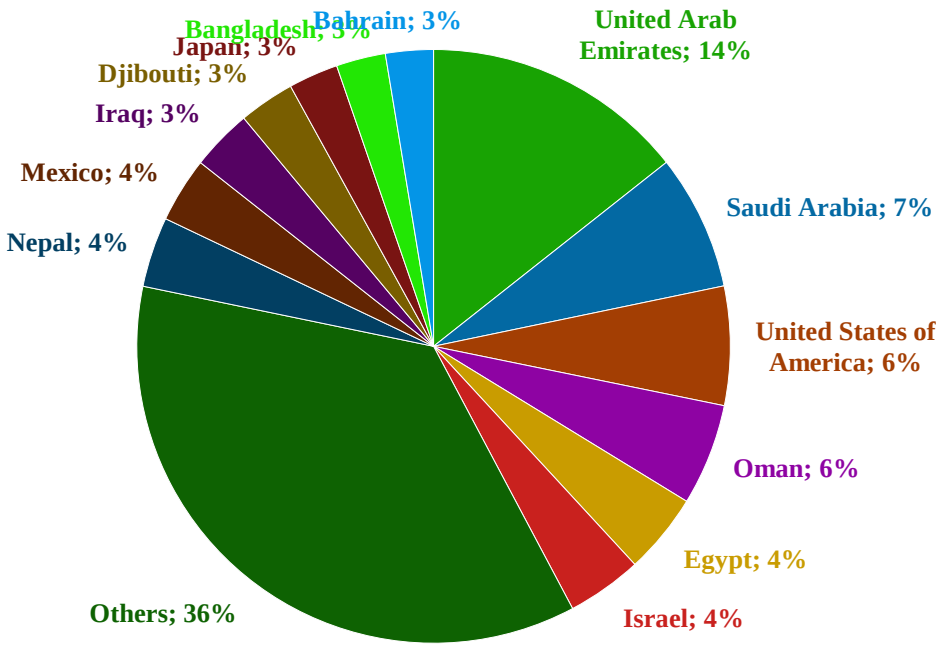
Source: DGTR Final Findings, Case No. AD(SSR)-08/2025[8]

Against this backdrop, India occupies a position of considerable strategic significance. The second-largest PET resin producer in the Asia-Pacific region, India has total domestic capacity of approximately 2.4 million MTPA in 2024–25, against domestic demand of approximately 1.9 million tonnes, this excess capacity reflects headroom for consumption growth.

Key domestic producers include Reliance Industries Limited, IVL Dhunseri Petrochemicals Industries Private Limited, Indorama Yarns Private Limited, JBF Industries, and Chiripal Poly Films. The sector has also attracted newer entrants such as Uflex Limited, Sparsh Industries, Sumilon Industries, and Jindal Polyfilms, who have collectively invested over INR 1,500 crores in greenfield capacity since the imposition of anti-dumping duties in March 2021, signalling confidence in domestic market environment.[9]

India's competitive positioning extends beyond the domestic market. With a 3% share of global export volumes in 2024, India ranks among the world's top ten PET resin exporters. India’s principal markets, the UAE, Saudi Arabia, the United States, Oman, and Egypt, reflect a trade geography anchored in the Middle East and extending across Asia, Africa, and the Americas.

Figure 8: India Export Countries (2024)



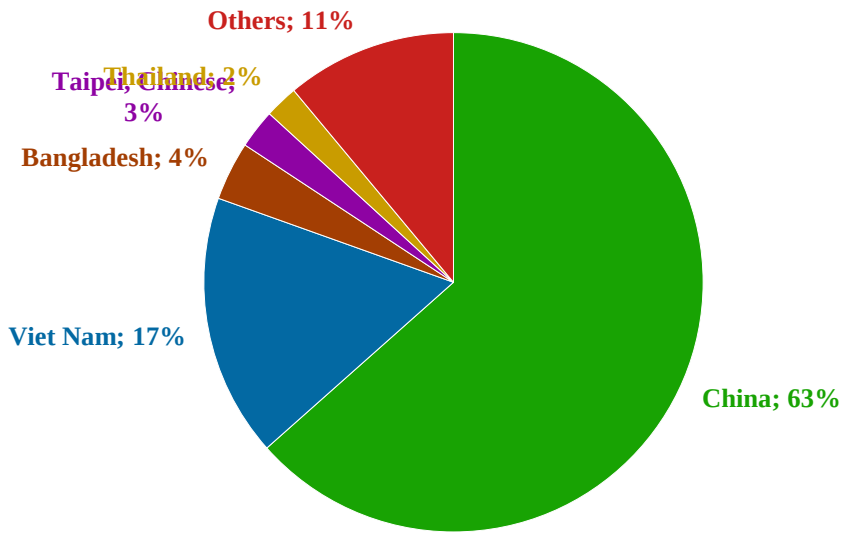
Source: ITC Trade Map

[8] https://dgtr.gov.in/sites/default/files/2026-03/PET%20Resin%20Eng%20FF%20Signed%20(1).pdf

[9] https://dgtr.gov.in/sites/default/files/2026-03/PET%20Resin%20Eng%20FF%20Signed%20(1).pdf

However, India has emerged as a significant exporter of PET Resin, yet this growth has occurred concurrently with its position as a major importer of Chinese PET resin. Despite the expansion of domestic exports, imports from China remained substantial, reaching approximately 2.05 lakh MT in 2023–24 and slightly increasing to 2.08 lakh MT in 2024–25, indicating sustained reliance on imports.

Figure 9: India Import Sources (2024)



Source: ITC Trade Map

The historical trajectory of these trade flows contextualises the present situation. India was the single largest export destination for Chinese PET resin during the pre-duty investigation period (October 2018–June 2019), ahead of the EU, Nigeria, and Russia. Following the imposition of duties in March 2021, Chinese export flows were partially redirected toward the EU, which subsequently initiated its own anti-dumping investigation in 2023 and enforced anti-dumping duties.

With the EU market now effectively closed to dumped Chinese PET Resin, India has re-emerged as the default and most commercially significant market for Chinese producers, at the critical time when the original five-year anti-dumping duty approaches its sunset review.

4. Estimation of supply chain resilience risk

4.1 Methodology

Supply chain resilience risk for PET resin is assessed across three stages of the value chain.

- Stage I: Primary feedstocks - Purified Terephthalic Acid (PTA) and Monoethylene Glycol (MEG)
- Stage II: PET resin
- Stage III: PET bottles

For each stage, the assessment draws on four parameters: domestic production, import volumes, domestic consumption, and import concentration by source country. These are measured for 2022-23 and 2023-24 to capture directional trends. Import dependence is expressed as imports as a proportion of domestic consumption.

Import concentration is measured as the combined share of the top four source countries in total imports, with individual country shares identified to assess single-origin exposure.

4.2 Analysis

STAGE 1

Table 3: Production and Import Dependency of Stage 1 Inputs for PET Bottle Manufacturing in India

PUC	Purified Terephthalic Acid (PTA)		Monoethylene Glycol (MEG)	
HS Codes	**291736**		**290531**	
Year	**2022-23**	**2023-24**	**2022-23**	**2023-24**
Domestic Production (Thousand MT)	3202.20	3158.00	1656.20	1683.67
Imports (Thousand MT)	1596.47	1623.24	1500.81	1102.66
Exports (Thousand MT)	4.44	1.99	39.65	29.64
Domestic Consumption (Thousand MT)	4794.23	4779.25	3117.36	2756.69
Imports as a proportion of Domestic Consumption (%)	33.30	33.96	48.14	40.00
Import Concentration (% of Imports from Top 4 Countries)	99.40 China (58%) Taiwan (21%) Thailand (20%) Malaysia (1%)	90.90 China (33%) Taiwan (24%) Thailand (21%) Korea RP (13%)	90.53 Kuwait (52%) Saudi Arab (27%) Singapore (8%) Oman (4%)	99.44 Kuwait (65%) Saudi Arab (29%) Singapore (4%) USA (1%)

Sources:

1. Production – DCPC Annual Report 2024-25[10];
2. Exports/Imports – Ministry of Commerce Trade Database[11];
3. Consumption – estimated as Production − Exports + Imports

[10] https://chemicals.gov.in/sites/default/files/Reports/Annual_report_english_2024-25.pdf
[11] https://tradestat.commerce.gov.in/eidb/

STAGE 2

Table 4: Production and Import Dependency of Stage 2 Inputs for PET Bottle Manufacturing in India

PUC	**Polyethylene terephthalate (PET) Resin**	
HS Codes	**390761 and 390769**	
Year	**2022-23**	**2023-24**
Domestic Production (Thousand MT)	1935.41	1789.20
Imports (Thousand MT)	215.88	451.90
Exports (Thousand MT)	675.64	494.08
Domestic Consumption (Thousand MT)	1475.65	1747.02
Imports as a proportion of Domestic Consumption (%)	14.63	25.86
Import Concentration (% of Imports from Top 4 Countries)	66.50 China (28%) Vietnam (17%) Taiwan (13%) Bangladesh (9%)	81.69 China (58%) Vietnam (15%) Taiwan (6%) Bangladesh (4%)

Sources:

1. Consumption – DGTR Final Findings[12];
2. Exports/Imports – Ministry of Commerce Trade Database;
3. Production – estimated as Consumption + Exports − Imports

[12] https://dgtr.gov.in/sites/default/files/202603/PET%20Resin%20Eng%20FF%20Signed%20%281%29.pdf

STAGE 3

Table 5: Production and Import Dependency of Stage 3 of PET Bottle Manufacturing in India

PUC	**PET bottles**	
HS Code	**392330**	
Year	**2022-23**	**2023-24**
Domestic Production (Thousand MT)	1446.72	1712.76
Imports (Thousand MT)	6.41	7.24
Exports (Thousand MT)	12.20	13.34
Domestic Consumption (Thousand MT)	1440.93	1706.66
Imports as a proportion of Domestic Consumption (%)	0.44	0.42
Import Concentration (% of Imports from Top 4 Countries)	83.39 Nepal (35%) China (34%) USA (7%) Malaysia (7%)	81.29 China (36%) Nepal (32%) Malaysia (6%) Bhutan (6%)

Sources:

1. Production: Authors' calculation using conversion norm (PET resin consumption/1.02) from DGTR Final Findings;
2. Exports/Imports: Ministry of Commerce Trade Database;
3. Consumption: estimated as Production + Imports − Exports

4.3 Implications

Stage 1 – Upstream Feedstocks: Purified Terephthalic Acid (PTA) and Monoethylene Glycol (MEG)

For PTA, imports as a proportion of domestic consumption stood at 33.30% in 2022-23 and held at 33.96% in 2023-24, with domestic production remaining broadly stable at around 3,150 to 3,200 thousand MT. The more significant concern is the sourcing pattern that the top four countries account for over 90% of all PTA imports in both years. China alone supplied 58% of PTA imports in 2022-23, moderating to 33% in 2023-24, but Taiwan and Thailand together accounted for a further 44% in that year. There is, in effect, minimal sourcing diversification in PTA supply.

MEG exhibits higher vulnerability. Import dependence stood at 48.14% in 2022-23 and, while it eased to 40% in 2023-24, imports remain close to or above domestic production in absolute volume. The sourcing base is even more concentrated. Kuwait alone supplied 52% of MEG imports in 2022-23 and 65% in 2023-24, with Saudi Arabia contributing a further 27% and 29% respectively. Collectively, the Gulf suppliers together accounted for roughly 79% to 94% of MEG imports across the two years. This level of geographic concentration in a single sub-region means that any disruption to Gulf petrochemical supply, whether from logistics constraints, production curtailments, or geopolitical developments, would directly raise input costs and constrain resin output in India, with few alternative suppliers available to respond promptly.

The concentration risks identified at this stage point towards a structural dependence on petroleum-linked feedstocks sourced from a narrow set of geographies, particularly Gulf-origin MEG and China, Taiwan, Thailand-origin PTA. Addressing this requires looking upstream, to the feedstock base from which PTA and MEG are derived. PTA is produced from para-xylene (PX), which in India is overwhelmingly derived from naphtha and other petroleum streams, while MEG is conventionally produced from ethylene, also petroleum-derived.

Diversifying these feedstock pathways, through domestic PX production from alternative routes such as coal-to-PX, or bio-based ethylene from agricultural feedstocks such as sugarcane, would reduce the sector's exposure to the price volatility and supply disruptions inherent in petroleum-linked and geographically concentrated import sources.

Stage 2 – PET Resin

At the resin stage, the data reflects a deteriorating supply picture over the two-year period. Domestic production fell from 1,935.41 thousand MT in 2022-23 to 1,789.20 thousand MT in 2023-24, a decline of over 7.5%, while domestic consumption rose from 1,475.65 to 1,747.02 thousand MT over the same period. The gap between domestic production and consumption was increasingly filled by imports as import volumes grew from 215.88 thousand MT to 451.90 thousand MT, and imports as a proportion of domestic consumption climbed from 14.63% to 25.86% in a single year.

China's share of PET resin imports rose sharply from 28% in 2022-23 to 58% in 2023-24. The top four countries collectively accounted for 66.50% of imports in 2022-23 and 81.69% in 2023-24. This trajectory, rising import dependence combined with rising concentration in a single origin, is the indicator of supply chain vulnerability at this stage.

Consistent with the DGTR proceedings, this illustrates that while domestic production capacity exists and exceeds current demand in installed terms, actual output is declining as producers continue to operate below capacity due to predatory pricing pressures resulting from dumped imports.

Stage 3 – Downstream: PET Bottles

The downstream conversion stage exhibits a contrasting trend. Import dependence for PET bottles is low, at 0.44% of domestic consumption in 2022-23 and 0.42% in 2023-24. The import concentration points to a sourcing structure that is geographically spread across Nepal, China, Malaysia, Bhutan, and the USA, with no single country commanding a dominant share. This reflects a competitive import market for bottles rather than a structural dependence on any one origin.

The low import dependency observed at Stage 3 is, however depends on the stability of Stage 2. Domestic bottle converters are reliant on a functioning domestic resin supply base. Their current low import exposure is due to the fact that domestic PET resin production, despite declining, continues to supply the converting sector. A further contraction in domestic resin output would require converters to source a greater share of their resin requirements from imports, at which point the Stage 2 risk would transfer directly to Stage 3.

The three-stage assessment points to a value chain where the primary resilience risks are concentrated at the feedstock and resin stages. Both PTA and MEG supply are import-dependent and sourced from a narrow set of origins. At the resin stage, domestic output fell while import volumes and Chinese origin-concentration both rose sharply within a single year. The downstream conversion sector remains insulated for now, but its resilience is structurally linked to the continued viability of domestic resin production.

India's import dependence in PET bottles is extremely low, standing at 0.44% of domestic consumption in 2022–23 and 0.42% in 2023–24. This shows that India already has a strong domestic conversion base across preforms, bottles and packaging applications. However, this downstream strength depends on the continued availability of competitively priced domestic PET resin. If resin production becomes commercially unviable due to dumped imports, converters may initially benefit from low-priced imported resin, but over time they would become dependent on imported feedstock. This would transfer supply risk from the resin stage to the downstream packaging stage.

A policy approach that supports vertical integration across the PET value chain, encouraging preform, bottle, and packaging converter capacity alongside upstream resin production, would deepen domestic demand for Indian-origin resin and improve the utilisation economics of domestic producers. Strengthening these linkages would help ensure that India's packaging sector remains anchored in integrated domestic manufacturing rather than dependent on imported resin trading.

5. Industry value chain challenges

The central challenge facing the Indian PET Resin industry is constrained domestic market access, which has resulted in capacity underutilisation and obstacles to forthcoming investments. This situation is largely driven by sustained and large-scale dumping from China PR. Dumping, defined as the export of goods at prices below their normal value, has persisted in India despite the imposition of anti-dumping duties following the original investigation in 2020–21. The Directorate General of Trade Remedies (DGTR)'s Final Findings (Case No. AD(SSR)-08/2025, dated 20 March 2026) confirm that the dumping margin for the subject country remains positive and significant, ranging between 20–30%.

As notified in the final findings, imports from China grew by 763% over the injury period (2021–22 to 2024–25), rising from 23,142 MT to 1,99,704 MT, a nine-fold increase, even as anti-dumping duties were in force. By the period of investigation (April 2024 to March 2025), Chinese imports accounted for over 10% of India's total consumption and nearly 68% of all imports into India.

Table 6: Import Volumes from China PR vs. Indian Demand

Parameter	2021–22	2022–23	2023–24	2024–25 (POI)
Imports from China (MT)	23,142	50,213	2,13,784	1,99,704
Total Indian Demand (MT)	12,23,681	14,75,878	17,47,192	19,21,748
Subject Imports as % of Demand	1.9%	3.4%	12.2%	10.4%

Source: DGTR Final Findings, Case No. AD(SSR)-08/2025

The dumping challenge is primarily due to an enormous structural overcapacity in China PR. As per data from the DGTR Final Findings, China's total PET Resin production capacity is 19,069 KT against a domestic demand of only 8,166 KT, leaving an excess capacity of 10,903 KT, which represents 87% of the global surplus of 12,568 KT. China's idle capacity alone (5,321 KT) is nearly three times India's entire demand of 1,922 KT.

Table 7: Global and China PET Resin Capacity vs Demand (KT)

Parameter	Global	China PR
Capacity (KT)	41,243	19,069
Demand (KT)	28,675	8,166
Excess Capacity (KT)	12,568	10,903
China's share of global surplus	--	87%

Source: DGTR Final Findings, Case No. AD(SSR)-08/2025

Moreover, Chinese producers are actively expanding further. Planned capacity additions project an increase from 19,069 KT in 2024 to 24,161 KT by 2028. With Chinese domestic demand unable to absorb this volume, price-sensitive export markets, particularly India, have become the primary destination for these exports.

The influx of dumped imports has had a direct impact on domestic pricing. Even with anti-dumping duties in force, the landed price of Chinese imports has undercut the selling price of the domestic industry (price undercutting of 0–10%). More significantly, the landed price of imports remains below the cost of sales of the domestic industry, meaning that the domestic industry cannot price its product in line with its costs. The selling price of the domestic industry fell by 7% between 2020–21 and the

period of investigation (1st April 2024 – 31st March 2025), even as the cost of sales rose by 5% over the same period. This price suppression directly erodes the level playing field.

Moreover, the domestic industry's market share has declined by 10% between 2020–21 and the period of investigation (1st April 2024 – 31st March 2025), while the share of Chinese imports increased substantially, from approximately 2% of consumption in 2021–22 to over 10% in 2024–25.

While anti-dumping duties address unfair pricing, domestic producers continue to face structural cost disadvantages arising from logistics and supply-chain inefficiencies that affect competitiveness on delivered cost.

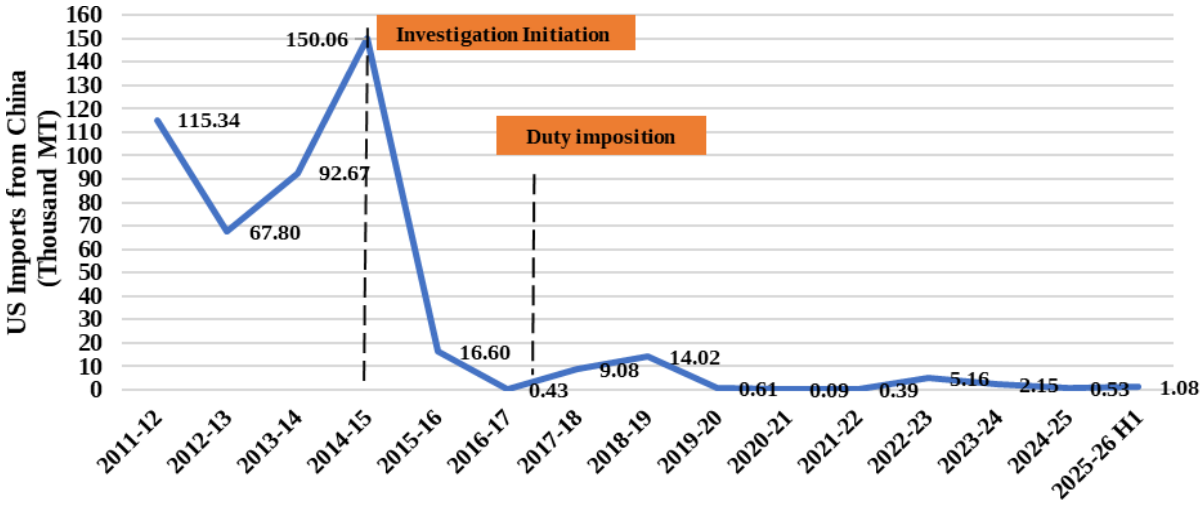
India has achieved measurable progress in logistics reform through initiatives such as the National Logistics Policy, PM GatiShakti, Sagarmala, Bharatmala, Dedicated Freight Corridors, ULIP, and the Logistics Data Bank. The latest official assessment estimates logistics costs at 7.97% of GDP, reflecting macro-level improvements. However, these gains do not uniformly benefit bulk industrial commodities such as PET resin, where even modest differences in delivered cost can materially influence converter procurement decisions. Domestic producers continue to face structural disadvantages arising from port handling charges, container availability, terminal fees, rail connectivity, warehousing, and inland transportation when moving resin from inland plants to converter clusters.

These logistical challenges exacerbate the price suppression already imposed by dumped imports, limiting the ability of domestic producers to compete on delivered cost. Addressing these constraints through rationalisation of port handling charges, enhanced rail and multimodal connectivity, and better integration of petrochemical production clusters with downstream converter hubs would mitigate structural cost disadvantages. Nevertheless, improvements in logistics cannot replace the need for anti-dumping duties. The immediate injury stems from dumped imports from China PR, which have surged even while duties remain in force. Anti-dumping duties restore fair pricing conditions, while targeted logistics and infrastructure enhancements enable domestic PET resin producers to compete efficiently on delivered cost once market prices are corrected.

6. Global responses to capacity erosion due to dumping

India's experience with large-scale Chinese dumped imports of PET resin mirrors that of other countries. At least ten nations have imposed Anti-dumping duties remedial measures to safeguard their domestic industries, reflecting a well-documented pattern of systematic dumping by Chinese exporters. According to the DGTR's Final Findings, roughly 98% of China's PET resin exports are priced at dumped levels, with 74% below the non-injurious price of Indian producers. The global experience demonstrates that trade remedies are essential to safeguard their domestic PET Resin industries from dumping.

Figure 10: Effect of Anti-Dumping Duty by the USA on Chinese PET Resin Imports, showing changes in import volumes during investigation initiation and duty imposition periods.



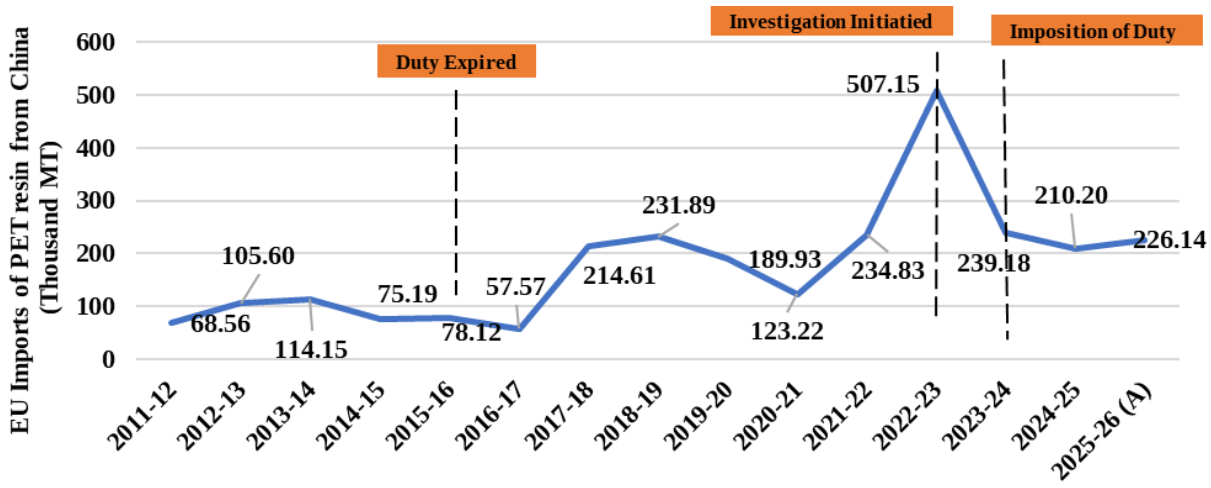
Source: Industry Sources

For instance, following the initiation of anti-dumping and countervailing duty investigations by the United States in April 2015, and the imposition of provisional measures in October of the same year, imports of PET resin from China declined sharply. These duties were formally imposed in 2016 and maintained through the 2022 review, with US import volumes from China remaining subdued thereafter.

The European Union's experience further illustrates the consequences of lapsing anti-dumping duties. Duties on Chinese PET resin expired in November 2015, after which import volumes surged from approximately 75,000 MT to 200,000 MT, eventually soaring to over 500,000 MT. The magnitude of this increase ultimately prompted the European Commission to initiate a new investigation in 2023.

In its findings imposing definitive anti-dumping duties (OJ L, 2024/1040, dated 2 April 2024), the European Commission noted that imports had declined during the investigation period itself, attributing this to the chilling effect of the investigation's initiation. Definitive duties were re-imposed in November 2023, effectively closing the EU market to below-cost Chinese PET resin.

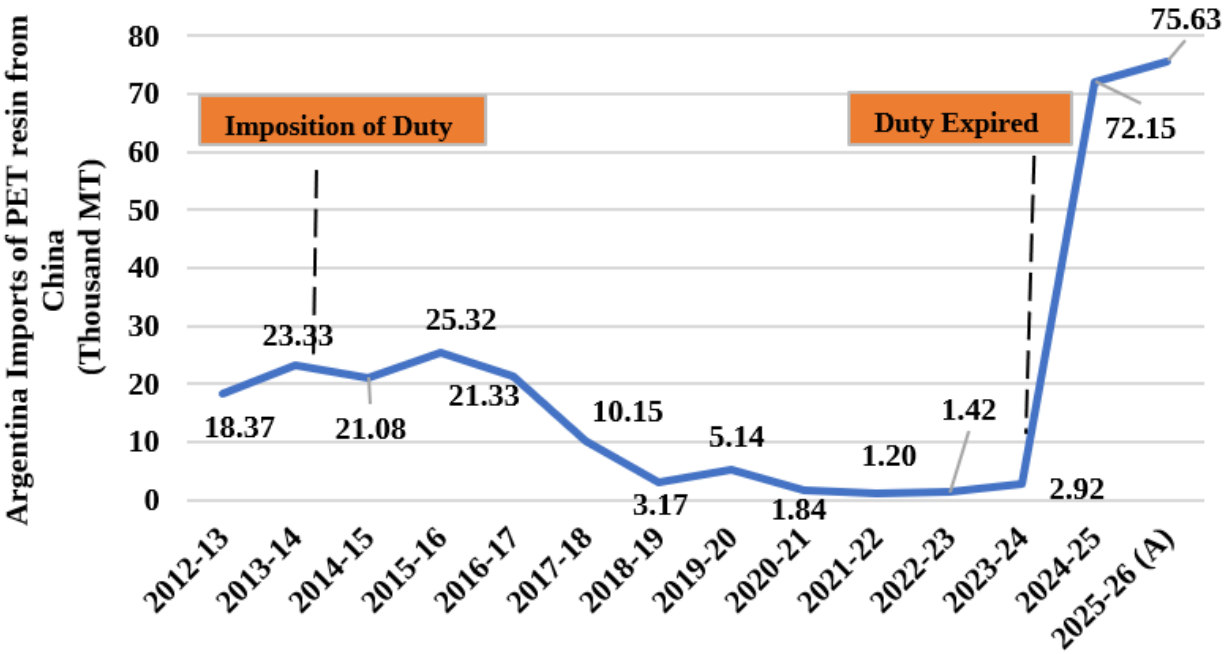
Figure 11: Impact of Anti-Dumping Duty by the EU on Chinese PET Resin, showcasing changes in import volumes during the duty expiration, investigation initiation, and imposition periods.



Source: Industry Sources

The Argentina case is equally illustrative. Anti-dumping duties on imports of PET resin from China were imposed in October 2013 and lapsed in December 2023. The imports which had stood at approximately 1,419 MT during the duty-in-force period, increased to over 70,000 MT following the lapse of anti-dumping Duty on Chinese imports.

Figure 12: Impact of Anti-Dumping Duty by Argentina on Chinese PET Resin, highlighting changes in import volumes before and after the imposition and expiration of duties



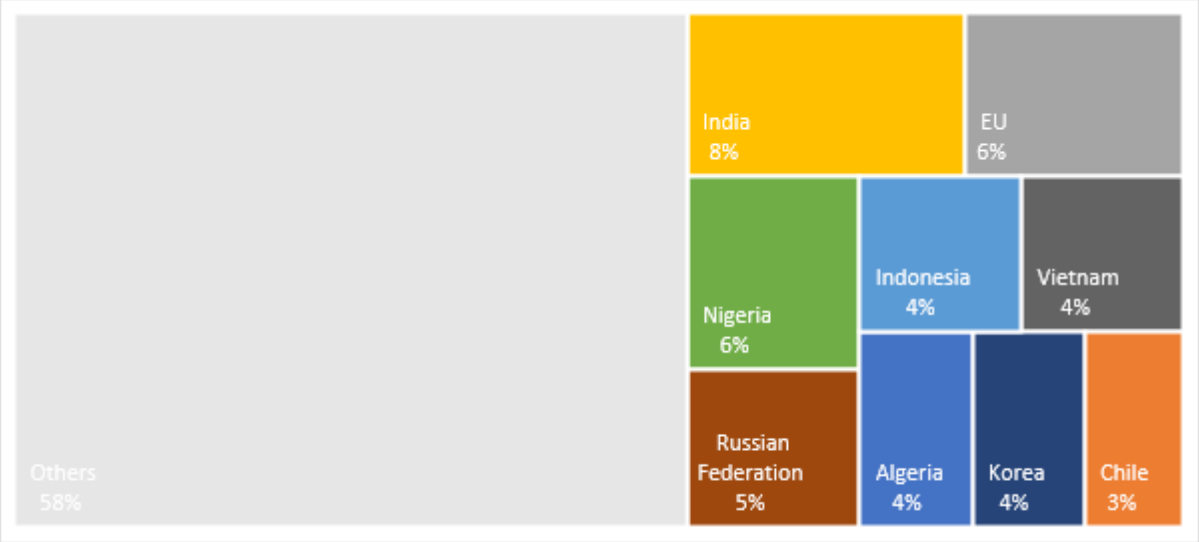
Source: Industry Sources

These cases collectively demonstrate a well-established pattern that imports of PET resin from China remain limited so long as anti-dumping duties are in force, and surge promptly upon their removal.

India's Re-emergence as a Primary Dumping Destination

India’s current position should be viewed in the context of broader Chinese PET resin export flows. During the original investigation period (October 2018 to June 2019), India was the largest destination for Chinese PET resin, surpassing the European Union, Nigeria, and Russia. The remaining 144 export destinations collectively accounted for 58% of China’s total PET resin exports.

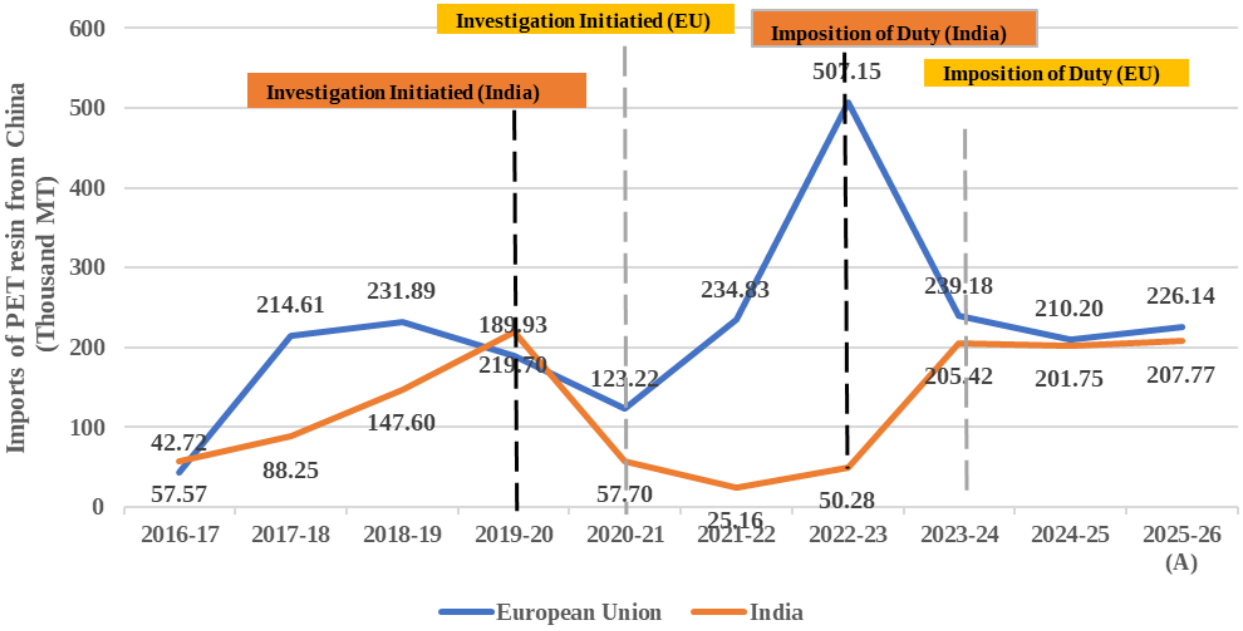
Figure 13 Destination-wise Distribution of Chinese PET Resin Exports - Pre-Duty Period (2018-19)



Source: Industry Sources

Following the imposition of anti-dumping duties by India in March 2021, Chinese producers diverted a portion of their export volumes to the European market. This diversion itself contributed to the injury experienced by EU producers, ultimately triggering the European Commission's anti-dumping investigation in 2023.

Figure 14 Impact of Anti-Dumping Measures on PET Resin Imports from China to India and the EU, comparing the effect of investigations and duty impositions across both regions from 2016–17 to 2025–26.



Source: Industry Sources

With the EU market effectively closed to dumped Chinese PET resin following the re-imposition of anti-dumping measures in 2023, trade flows have shifted once again. Between 2022–23 and 2023–24, China's total PET resin exports increased by only 3%, yet the proportion directed to India rose as the EU market became less accessible. As a result, India has re-emerged as the largest open market for Chinese producers, coinciding with the impending sunset review of the original five-year anti-dumping duty.

Absence of Alternate Markets

The likelihood of a sharp increase in imports of PET resin from China, in the event duties are allowed to expire, is further reinforced by the absence of alternative large-scale markets capable of absorbing China's structural surplus of PET Resin.

It is important to note that the largest PET consuming nations, the US and the EU have both imposed anti-dumping duties on imports of PET resin from China. US tariff policy has also introduced additional uncertainty, making that market structurally less reliable for Chinese exporters. China has therefore effectively lost access to two of its four largest markets for PET resin. With Vietnam unlikely to absorb volumes at scale comparable to these markets, India becomes the default dumping ground for Chinese overcapacity if anti-dumping duty of PET Resin is not enforced.

Table 8: Trade Remedial Measures Against Chinese PET Resin Exports

Country	Measure	Status
United States	ADD + CVD[13]	Imposed 2016; continued 2022
European Union	Anti-Dumping Duty	Originally lapsed 2015; re-imposed November 2023
Brazil	Anti-Dumping Duty	Imposed 2016; continued 2022
Japan	Anti-Dumping Duty	Imposed 2017; continued 2023
Canada	ADD + CVD	Imposed June 2025
South Korea	Anti-Dumping Duty	Definitive duty-imposed November 2024
Malaysia	Anti-Dumping Duty	Imposed May 2025
SACU, Argentina, Türkiye	ADD	Various dates measures in force

Source: DGTR Final Findings, Case No. AD(SSR)-08/2025

Trade remedy measures are the primary mechanism controlling Chinese PET resin imports globally. In India, imports from China already stand at approximately 2 lakh MT annually despite duties being in force, making the risk of a surge upon expiry particularly acute. Documented instances from Argentina and the EU confirm that removal of such measures is followed by a sharp increase in import volumes within the same year. Given that India was China's single largest PET resin export destination prior to the imposition of duties, the commercial incentive for Chinese producers to scale up exports upon duty expiry remains structurally intact.

[13] Countervailing Duty

7. Policy implications and way forward

India currently has a domestic PET resin capacity of approximately 2.4 million MTPA against a demand of around 1.92 million MT in 2024–25. However, this surplus is temporary as demand has been growing at 12–14% per year[14], projected to reach over 3.79 million MT by 2030. By 2030, domestic consumption will surpass the current installed capacity creating a demand supply gap necessitating new greenfield investments to meet future demand.

Key observations

- **Operational feasibility challenges impacting future investments**
  The viability of new PET resin investments is constrained under current market conditions. Price suppression, as documented in the DGTR's Final Findings, has distorted the domestic industry's selling prices by 7%, while costs of production have concurrently increased by 5%, skewing the economic viability for greenfield expansion.
- **Demand–supply gap by 2030 due to muted domestic investment**
  The deferral of new capacity creation is expected to result in a demand–supply gap by 2028–30. In the absence of timely domestic investment, this gap is likely to be met largely through imports, particularly from China, thereby deepening strategic import dependence.
- **Shift from manufacturing to trading of PET**
  In the absence of a conducive operating environment, domestic producers will progressively shift from manufacturing to trading, sourcing PET resin directly from Chinese producers for on-supply to Indian converters. This would transfer supply-chain control over a material that enables India's PET packaging sector, valued at USD 1.5 billion in 2024[15], to a single origin that already accounts for 87% of global surplus capacity.
- **Increased pressure on forex outflow**
  At a landed price of approximately USD 850 per tonne[16] for Chinese PET, a projected demand base of 3.79 million MT by 2030 would translate into annual import exposure of nearly USD 3 billion from China alone. This would widen India's already significant bilateral trade deficit. Given that India's plastics imports from China stood at USD 6.3 billion in 2024, PET resin becoming a bulk-import commodity would further deepen import dependence and add to foreign exchange pressure.
- **Impact on downstream industries**
  The impact of demand supply gap extends beyond PET resin producers to downstream MSME converters, preform manufacturers, bottle producers, and FMCG, beverage, food, and pharmaceutical packaging industries that depend on stable domestic PET supply. Any disruption or repricing of Chinese exports during geopolitical tensions could transmit directly into packaging costs. This vulnerability is further compounded by PET resin's dependence on para-xylene, a petroleum-derived feedstock, making import-led supply chains more exposed to crude price volatility and petrochemical disruptions.

Ensuring a conducive operating environment for domestic PET resin producers will be important for sustaining existing capacities and supporting future investments. This would enable domestic industry

[14] https://petpla.net/2025/10/08/pet-recycling-in-india-trends-challenges-and-opportunities/
[15] https://www.imarcgroup.com/india-pet-packaging-market
[16] https://www.alibaba.com/showroom/pet-resin-price-from-china.html

to meet the country's growing demand on commercially viable terms, strengthen supply-chain resilience, and reduce the risk of excessive import dependence in a strategically important industrial input.

Potential policy measures to be considered:

- In line with the above observations, anti-dumping duties on PET Resin imports may be considered following the sunset review. The DGTR's Final Findings confirm a positive dumping margin in the range of 20–30%, ongoing price suppression, and the growing structural overcapacity in China. Therefore, non-implementation of DGTR recommended duties would allow import surges as documented in Argentina and the European Union, both of which saw dumped import volumes multiply within months of duty expiry.
- Logistics and infrastructure improvements, including rationalisation of port handling costs and inland freight charges for resin movements, would help reduce the structural cost disadvantage of domestic industry relative to importers.
- Promoting downstream industries, including MSMEs in preform, bottle, and packaging converter segments, through supportive policy measures would deepen the domestic demand base for Indian-origin resin and improve the utilisation economics of domestic producers.
- Export facilitation for both PET resin and downstream converted products would allow domestic producers to build scale and achieve cost competitiveness. India already holds a 3% share of global PET resin exports, with a well-diversified destination base across the Middle East, Africa, and the U.S.A. Structured market development support could expand this meaningfully.
- Feedstock security through the development of domestic para-xylene supply, including evaluation of coal-to-PX and bio-based ethylene routes such as sugarcane-derived ethylene, would progressively reduce dependence on petroleum-linked feedstocks whose price and availability are subject to supply-side disruption. Sugarcane-based ethylene, in particular, would link PET resin production to the agricultural economy, creating an additional income stream for the farming sector.

  The cumulative effect of these measures would be to strengthen the supply-chain resilience of India's domestic PET resin industry, ensuring it can meet the country's growing consumption needs, maintain export competitiveness, and provide reliable supply to downstream packaging and consumer goods sectors. This approach secures a diversified and robust domestic industry, safeguarding the supply chain from over-reliance on a single foreign source, a dependency that ten other countries have already addressed through trade remedy measures, while creating sustainable growth opportunities for Indian producers and associated sectors.

About the Authors

Dr Jaijit Bhattacharya is Founder and President of the Centre for Domestic Economy Policy Research, an independent think tank recognised with the Pt. Deen Dayal Upadhyaya Award for its contribution to Atmanirbharta. He is a noted expert in technology-led governance, technological sovereignty and trade policy.

Dr Bhattacharya has advised government agencies in India and South Asia on issues relating to digital governance, industrial resilience, strategic technologies and domestic manufacturing competitiveness. His work also engages with trade policy questions linked to supply-chain security, import dependence, trade remedies and India's integration into global value chains. He coined the terms "Digital Colonisation" and "Technological Sovereignty" in 2005 and has been recognised by the MIT Sloan School of Management as one of the top 50 experts who have shaped India's digital policies. He has authored six books on technology policy, including India's first book on e-governance, released by former President Dr A.P.J. Abdul Kalam. His book *eGov 2.0: Technology, Processes and Policies* was released by Shri Narendra Modi.

Dr Bhattacharya has worked extensively with the military on technology solutions and institutional restructuring, including work linked to the Shekatkar Committee recommendations.

He has authored over 50 peer-reviewed research papers and holds patents in India and the United States. He has previously held leadership roles at Accenture, IBM, HP and KPMG. He holds a B.Tech from IIT Kanpur, an MBA from IIM Calcutta and a PhD in Computer Science from IIT Delhi.

Contact: president@c-dep.org

Manmeet Singh Gulati is a Policy Analyst at the Centre for Digital Economy Policy Research (C-DEP), where he works on international trade, global value chains (GVCs), free trade agreements (FTAs), trade remedies, and industrial policy. He has worked in trade policy research and consulting, having previously worked with the Confederation of Indian Industry (CII) and undertaken research assignments with the Ministry of Commerce and Industry and the Association for Environment and Development Research (AEDR). His work focuses on anti-dumping and safeguard measures, global supply chains, and India's trade competitiveness. He has contributed to policy reports and industry publications on trade and manufacturing, and has supported research for the Ministry of Commerce on India's FTA negotiations. He holds a Master's degree in Economics from the Indian Institute of Foreign Trade (IIFT), and a Bachelor's degree in Economics from the University of Delhi.

Email ID: manmeet.singh@c-dep.org

Dr. Kashika Arora is a Senior Research Fellow at the Centre for WTO Studies (CWS). She holds a Ph.D. in Economics from the Indian Institute of Foreign Trade (IIFT), New Delhi, and has over 10+ years of experience in trade policy research and analysis. Her work focuses on India's export competitiveness, technology-intensive manufacturing, global value chains (GVCs), and free trade agreements (FTAs). Dr. Arora's research has been published in Scopus- and ABDC-listed journals and several book chapters examining trade–technology linkages and supply chain dynamics. She was part of India's G20 Working Group on Trade and GVCs and has presented her research at international conferences such as GLOBELICS. In addition, she has served as guest faculty at IIFT, teaching Ph.D. scholars and defense personnel through Management Development Programs.

Email ID: kashika_cws@iift.edu

Dr. Qayoom Khachoo is a Senior Research Fellow at the Centre for WTO Studies (CWS). He holds a Ph.D. in Economics from IIT Indore and brings 10+ years of experience in teaching and applied economic research. His work focuses on Foreign Direct Investment (FDI), Intellectual Property Rights (IPRs), innovation, and international trade, with publications in leading ABDC-listed journals. Dr. Khachoo also serves as a reviewer for several leading academic journals, reflecting his commitment to rigorous, policy-relevant scholarship. His research bridges theory and practice, providing evidence-based insights into the dynamics of global trade and innovation.

Email ID: qayoom_cws@iift.edu

ABOUT THE CENTRE

About CRIT

India's Foreign Trade Policy (FTP) Statement 2015-20 suggested a need to create an institution at the global level that can provide a counter-narrative on key trade and investment issues from the perspective of developing countries like India. To fill this vacuum, a new institute, namely the Centre for Research on International Trade (CRIT), was set up in 2016. The vision and the objective of the CRIT were to significantly deepen existing research capabilities and widen them to encompass new and specialized areas amidst the growing complexity of the process of globalization and its spill-over effects in domestic policymaking. Secondly, enhancing the capacity of government officers and other stakeholders in India and other developing countries to deepen their understanding of trade and investment agreements.

About CWS

The Centre for WTO Studies which is a constituent Centre of CRIT, pre-dates the CRIT since it was created in 1999 to be a permanent repository of WTO negotiations-related knowledge and documentation. Over the years, the Centre has conducted a robust research program with a series of papers in all spheres of interest at the WTO. It has been regularly called upon by the Government of India to undertake research and provide independent analytical inputs to help it develop positions in its various trade negotiations, both at the WTO and other forums such as Free and Preferential Trade Agreements and Comprehensive Economic Cooperation Agreements. Additionally, the Centre has been actively interfacing with industry and Government units as well as other stakeholders through its Outreach and capacity-building programs by organizing seminars, workshops, subject-specific meetings, etc. The Centre thus also acts as a platform for consensus building between stakeholders and policymakers. Furthermore, the inputs of the Centre have been sought after by various international institutions to conduct training and studies.

CENTRE FOR WTO STUDIES

5th to 8th Floor, NAFED House, Siddhartha Enclave, Ashram Chowk, Ring Road, New Delhi 110014

https://wtocentre.iift.ac.in/