### **S&P Global** Commodity Insights



# Navigating challenges: APIC 2025

Trade uncertainty and sustainability in Asian chemical markets

### 2025

## Credits

Akash Kumar Jain, Ashish Dhyani, Charlene Goh, Esther Ng, Fumiko Dobashi, Gustav Holmvik, Heng Hui, Kartik Kohli, Mainak Moitra, Nanda Lakhwani, Su Yeen Cheong, Thiam Hock Tan, Zhi Xuan Ho.

### Editing:

Lead Editor: Adithya Ram Other editors: Aastha Agnihotri, Ankit Ajmera, Manish Parashar, Ribhu Ranjan, Pollock Mondal

Design: S&P Global CI Content Design

### **S&P Global** Commodity Insights

## Contents

Thailand faces feedstock challenge, eyes low-carbon, specialty products
China seen boosting polymer exports to SE Asia amid US trade tensions5
Southeast Asia's ethylene, butadiene markets face supply and demand headwinds7
Optimism remains for Southeast Asia's solvents market despite ongoing tariff challenges9
Recycled realities: Asia's journey toward a sustainable polymer future

India's chemical market cautiously optimistic amid changing trade landscape	. 14
Southeast Asia rides low-carbon methanol wave	. 16
China a sustainable fuel powerhouse-in-waiting: Green Marine	. 18
Recent assessment launches	20
Asia chemicals team	. 21

S&P Global Commodity Insights continues to play a pivotal role at the Asia Petrochemical Industry Conference each year, where we engage with industry leaders to share our in-depth analysis of global petrochemical markets.

In this report, intended to coincide with APIC 2025, we assess implications for the sector of a potentially more uncertain trade environment while factoring in the global push toward greater sustainability. The focus is on Southeast Asia, and particularly Thailand, to examine how its chemical producers are responding to changing demand patterns.

Platts also examines changes in China's polymer trade flows and headwinds Southeast Asian chemical markets may face, given the specter of US-imposed tariffs and associated disruptions. We also explore India's chemical markets, which may prove to be relatively resilient amid potential regulatory measures and domestic factors. The report also covers developments within recycled plastics and low-carbon methanol in response to global sustainability initiatives, and new Platts assessments that address emerging market needs and enable price transparency.

# Thailand faces feedstock challenge, eyes low-carbon, specialty products

Thailand's petrochemical industry will continue to be pressured throughout 2025 by weak margins due to high feedstock costs, particularly for naphtha, and a shift in demand patterns in the key export market of China driven by overcapacity.

The country has been moving to lighter feedstocks amid high naphtha prices in Asia for the last few years, an associated drop in olefins margins, and steam cracker shutdowns in the region. Thailand will also have to contend with China's increasing selfreliance in the conventional petrochemicals sector, and the initial response to this challenge has been a greater focus on the production of low-carbon and specialty products.

### Feedstock challenge

Thailand has the largest petrochemical capacity in the ASEAN region, with an ethylene output capacity of 5.5 million mt/year in 2024, according to Sukanya Boonneung, executive director/ chemical consulting at S&P Global Commodity Insights.

According to Boonneung, about 65% of the cracker feedstock in Thailand is liquid-based, and 34% is gas-based. The country's gas-based crackers are under the PTT group and utilize locally sourced ethane and propane.

The use of liquid feedstock, namely naphtha, is not as costcompetitive as gas-based production in the US and Middle East, she added.

As a result, there have been indications recently of the industry rethinking its feedstock mix.

In March, Vopak NV announced plans to construct 160,000 cu m of new tank storage capacity at its tank terminal in Map Ta Phut by 2029 for higher imports of US ethane for PTTGC's steam cracker. SCGC recently signed a long-term agreement with Enterprise Products Partners LP to procure 1 million mt/year of ethane for its subsidiary LSP.

LSP had halted commercial operations at its petrochemical complex in Long Son Island in October 2024 amid negative margins, notably for ethylene. SCGC plans to invest in raising the ability of LSP's 950,000 mt/year cracker to use ethane, propane, and naphtha.

SCGC has also signed a charter contract for five newbuild very large ethane carriers with Mitsui OSK Lines Ltd.'s affiliate MOL Energia Ltd., under which MOL will provide 15 years of logistics services transporting ethane from Enterprise Products in the US to Vietnam.

#### Asian ethylene-naphtha spread below breakeven



Source: S&P Global Commodity Insights

## Shifting demand

Thailand will also be challenged by changing demand dynamics from China, historically a key destination for its petrochemical output.

About 50% of the petrochemicals Thailand produces is consumed domestically and 50% is exported, Boonneung said, adding Thailand is a large exporter of commodity polymers to other ASEAN countries and China.

"Historically, China was a key export market for commodity polymers from Thailand. However, with China increasing its self-sufficiency in commodity polymers, exports to China are decreasing and product margins are negatively impacted," said Boonneung.

"China can make up the difference from its own production plants. China is actively expanding its petrochemical capacity to reduce reliance on imports, particularly for products like ethylene, polyethylene, and polypropylene."

According to Boonneung, Chinese producers are also looking to invest in making petrochemicals and other products outside China.

Thailand is one of the target locations for Chinese players seeking to expand to the US and EU markets. Downstream investment by Chinese producers may boost demand for petrochemical products in Thailand, Boonneung said.

### Plant restructuring

The falling demand in China and the rest of Asia, as well as a drastic oversupply on account of new production facilities across the region, have made the business environment in Thailand difficult, leading to several plant shutdowns and restructuring.

Thailand's Ube Chemicals Asia Public Co. (UCHA) will stop producing cyclohexanone, caprolactam, and ammonium sulfate, and shut down one of two nylon polymers lines. Meanwhile, the Ube Fine Chemicals Asia Co. (UFA) subsidiary will end production of 1,6-hexanediol and 1,5-pentanediol.

Ube will maintain and expand its remaining businesses in Thailand. UCHA will make composites, and UFA will manufacture polycarbonate diol for high-performance coatings. Ube's Thai Synthetic Rubbers Co. business will continue producing elastomers.

# 34%

### of Thailand's crackers are gas-based.

In December 2024, India's Styrenix Performance Materials Ltd. acquired Ineos Styrolution affiliate Ineos Styrolution Thailand Co. Ineos Styrolution Thailand has an 85,000 mt/year acrylonitrile-butadiene-styrene plant and a 100,000 mt/year styrene acrylonitrile unit in Map Ta Phut. It also makes high rubber graft.

In October 2024, PTT Asahi Chemical Co. (PTTAC), a 50-50 joint venture between Asahi Kasei Corp. and PTTGC, terminated production at Rayong amid high feedstock costs and rising capacity in China. PTTAC produced acrylonitrile, methyl methacrylate, and ammonium sulfate and intends to dismantle its production facilities by 2028.

# Focus on low-carbon, specialty products

Thailand is also seeing specialty products being prioritized to offset the weak demand and oversupply for conventional petrochemical products. Specialty chemicals traditionally have stronger demand growth because they are often niche products, innovative, and patented.

"Thai producers are looking for cost reductions and specialty product investments to survive in the long run. Key producers, such as PTTGC, SCGC, and IRPC plan to invest in specialty and low-carbon products," said Boonneung.

These products include low-carbon polymers such as recycled plastics, biopolymers, and circular polymers, driven by global sustainability incentives. In March, Braskem Siam, a JV between SCGC and Braskem BSA, signed a letter of intent with Mitr Phol Bio Fuel, part of Thailand's Mitr Phol Group -- ASEAN's leading ethanol producer -- to supply agricultural-based ethanol to produce bio-ethylene.

Braskem Siam will produce bio-ethylene for SCGC, which will use it as feedstock for bio-based polyethylene, which has a negative carbon footprint and is recyclable. It will be Asia's first bioethylene production plant, with a capacity of 200,000 mt/year, and is expected to be completed by 2027.

# China seen boosting polymer exports to SE Asia amid US trade tensions

China has emerged as a significant global exporter of polymers, particularly polypropylene and polyvinyl chloride, following extensive capacity expansion efforts. As US-China trade tensions rise, China's polymer exports to Southeast Asia are expected to increase in 2025 due to slower domestic demand and pressure prices in the region.

# PP

Asia's polypropylene capacity has been expanding. According to S&P Global Commodity Insights, a total of 3 million mt/ year of PP capacity is expected to come online by the end of 2025, mainly in China. China has been actively exporting PP, becoming a net exporter in March 2024, Chinese customs data shows. Exports from China have been predominantly directed toward Southeast Asia, particularly Vietnam, because of proximity and low freight rates. Vietnam is the third-largest importer of PP in Asia, following China and Indonesia.

However, due to tight supplies of copolymer grades, Commodity Insights projects Asia to continue being net short of PP, with an estimated deficit of 2 million mt/year by the end of 2025. The supply of copolymer grades has been limited due to the fact that there are fewer suppliers producing this grade in Asia compared with homopolymers.

The homopolymer-grade PP is experiencing oversupply in Asia, as Chinese suppliers have been aggressively selling in this market. Meanwhile, there is a shortage in imports of copolymer PP.

Vietnam continues to have the lowest prices in SE Asia, with its PP import deficit expected to rise to about 1.2 million mt/year in 2025 from 1.1 million mt/year in 2024.

According to market sources, the intra-Association of Southeast Asian Nations and ASEAN-China free trade agreements are expected to retain the supply of PP within the region. These agreements are expected to encourage Asian producers to concentrate their efforts on regional cargoes, enhancing their competitiveness against imports from the Middle East.

Platts, part of Commodity Insights, assessed CFR Vietnam PP raffia down \$10/mt week over week to \$925/mt, on a market discussion at the same level on April 16.

### I PE

In March, the price spread between Southeast Asian and Far East Asian polyethylene prices reached a multiyear high of \$85/mt for linear low density polyethylene and \$70/mt for high density polyethylene, due to expectations of oversupply in China.

Commodity Insights analysts have projected Chinese PE capacity to expand to 41.7 million mt in 2025 from 34.8 million mt in 2024.

In January, Yulong Petrochemical and Wanhua Petrochemical started up new PE plants with a combined capacity of 1.55 million mt/year. As a result of oversupply, the CFR Far Ear Asia HDPE film price benchmark fell to a five-year low of \$875/mt on Jan. 22, Platts data showed. The demand outlook remains lukewarm amid US-China trade tensions, and market sources have not been optimistic about an improvement in prices.

Meanwhile, the Southeast Asian PE market has seen some price support due to some plant shutdowns. In Saudi Arabia, PetroRabigh has shut its PE plant in April for turnaround.

The Philippines' JG summit shut its 320,000 mt/year HDPE/ LLDPE swing plant and 250,000 mt/year HDPE unit in December 2024. In Vietnam, Longson Petrochemical shut its 500,000 mt/ year HDPE and 500,000 mt/year LLDPE units in October 2024.

However, trading sources indicated that demand remained sluggish, with participants adopting a cautious, wait-and-see approach amid US-China trade tensions.

Although the spread between Chinese and Southeast Asian prices has been wide, traders noted that reexporting cargoes from China continued to be challenging.

"I do not expect PE reexports to become very active because the spread is still too low," Will Xu, associate director of polymers at Commodity Insights, said. "If considering freight and port handling fee, the spread would need to reach \$130-\$150/mt which might then motivate high reexports."

A producer said the spread would need to exceed \$80/mt for significant reexporting activity to occur, considering the \$40/mt freight cost and \$30/mt port handling charge.

"Some traders have tried to reexport but their price is too high ... So, end-users still prefer to purchase from their regular producers," said the producer.

Despite the significant decline in Chinese PE prices due to weaker sentiment in China, which has led to a widening spread between China and Southeast Asia, global trade uncertainties may continue to keep the window closed, according to market sources.

#### Wider SE Asia-China spread may prompt China's PE re-exports



Source: S&P Global Commodity Insights



## **PVC**

China has been exporting PVC since 2020 and is currently the second largest exporter globally, following the US. Market sources expect China's PVC exports to continue to grow, in line with rising capacities, as domestic demand remains subdued due to a real estate slump.

Commodity Insights analysts have projected Chinese PVC capacity to expand to 31.51 million mt in 2025 from 28.73 million mt in 2024.

In 2024, China's PVC exports rose 15% from a year earlier to 2.6 million mt, according to Chinese Customs. Of the total, about 50% of exports were absorbed by the Indian market.

According to Indian customs data, its PVC imports hit a record high of 3.22 million mt in 2024. Of the total, 1.27 million mt/year, or about 40%, came from China.

However, this trend is expected to shift as India tightens its regulations, requiring PVC exporters to obtain a certificate to comply with the Bureau of Indian Standards (BIS) requirements, although the regime is not yet officially in effect.

Key suppliers, with the exception of China, have received a BIS certificate. Trade sources previously identified Southeast Asia as a new destination for China's PVC exports, which could exert pressure on prices in the region.

China's PVC export outlook has been cloudy. Concerns about US trade tariffs on Southeast Asia have weighed on the region's PVC consumption. Vietnam, which imported 191,111 mt of PVC from China in 2024, representing 7.3% of China's total PVC exports, has been notably affected, as a significant portion of its finished products, such as vinyl flooring, are reexported to the US.

# Southeast Asia's ethylene, butadiene markets face supply and demand headwinds

Southeast Asia's ethylene and butadiene markets are set to face tightening supplies in 2025, largely due to a series of steam cracker shutdowns that took place in 2024.

Driven by persistent negative margins within the olefins complex, industry sources noted that the closure of three major naphthafed steam crackers -- representing 18% of the region's ethylene production capacity -- is not just reshaping market dynamics, but also altering pricing structures, as evidenced by the diverging price spread between Northeast Asia and Southeast Asia.

While the new capacity from PT Lotte Chemical Indonesia, set to come online in May, is anticipated to relieve supply pressures, trade sources said this startup coincides with a challenging period for suppliers who are already plagued with negative margins.

The Cilegon-based steam cracker can produce 1 million mt/year of ethylene and 140,000 mt/year of butadiene, according to a company source.

### Sluggish demand, new capacity weigh on ethylene

Negative margins have forced three out of a total of 16 steam crackers in SE Asia to shutter their operations in 2024. These steam crackers -- Malaysia's Lotte Chemical Titan, Philippines-based JG Summit and Vietnam's Long Son Petrochemicals -- account for a combined ethylene production capacity of 1.945 million mt/year out of a total production capacity of 10.815 million mt/year.

Industry sources said tightened regional supply due to the shutdowns has failed to provide support to prices. Instead, weak



demand dynamics have worked to widen the ethylene price spread between SE Asia and NE Asia in 2025.

In the first four months of 2025, the spread averaged \$44.55/mt, widening by more than 55% or \$15.82/mt compared with \$28.73/mt over the same period in 2024, data from Platts, part of S&P Global Commodity Insights, showed.

Looking ahead, trade sources said the buying appetite for imports from Indonesia may be dampened by new supply from the startup of PT Lotte Chemical, further exacerbating downward pressure on ethylene prices in SE Asia.

Indonesia, a key importer of ethylene in SE Asia, has seen slower imports given the sluggish downstream polyethylene demand.

### SE Asia-NE Asia ethylene spread hits 5-month high in April



A key peak demand season for polyethylene during the holy month of Ramadan saw limited uptake in consumption, especially for food-grade plastics, signaling a shift in consumer habits.

An overall sluggish landscape so far in the year has depressed the buying appetite for ethylene in the region, particularly as converters were saddled with rising inventory and slow sales of finished goods.

### Butadiene trade flow shifts

SE Asia has historically served as a major butadiene supply source in Asia, typically moving excess spot volumes of up to 6,000 mt, primarily destined for homes in NE Asia, notably China and South Korea. However, sources said the market has seen a significant shift in this trend, with excess spot volumes diminishing to almost zero.

China's butadiene imports from SE Asia in February were at 12,935 mt, down 2.4% from a month earlier, according to the latest data by China Customs. Elsewhere, South Korea's butadiene imports from SE Asia nosedived by 70% over the same period to 2,950 mt, the South Korea Customs Service data showed.

Against this backdrop, market sources noted that prices in SE Asia remained largely supported by constrained supply. Since January, the price spread between NE Asia and SE Asia narrowed to an average of \$65/mt over Q1, compared with \$88/mt in Q4 2024, Platts data showed.

### Butadiene inflow from SE Asia to NE Asia seen falling



Source: China Customs, Korea Customs, S&P Global Commodity Insights

Typically, CFR Southeast Asia butadiene price is \$100/mt lower than CFR Northeast Asia, with the price difference reflecting trade flow and freight costs that make such transactions economically viable. However, following the recent steam cracker shutdowns, spot butadiene offers from SE Asia have evaporated, leading to a narrowing of the location spread between NE Asia and SE Asia.

### Trade tensions, geopolitical risks post demand uncertainty

In addition, with languid conditions and poor economics in the downstream sectors already underscoring tepid demand, industry sources warned that the introduction of new trade tariffs by the US might further suppress and weaken regional demand for these markets and related products.

Specifically on downstream polymer demand, market sources said that trade tensions would negatively affect plastic bag exports from Vietnam to the US, leading to reduced demand for polyethylene and its feedstock, ethylene.

"Vietnam's plastics bag exports will be affected, which will impact PE and ethylene markets," a PE producer said.

A trader echoed a similar sentiment, adding, "A lot of Chinese cargoes are exported to Southeast Asia. If Southeast Asia is hit by tariff and can no longer export [downstream products] to the US, demand [from Southeast Asia] is going to be very bad."

Trade tensions could also take a toll on butadiene demand as tire exports from the region to the US could be affected by US tariffs, market sources said.

"Tire factory operations may come down, which will slash butadiene demand," said a market source.

Of a total 42% US tire imports in 2024, 27% were from Thailand and 15% from Vietnam, data from the US International Trade Commission showed.

# Optimism remains for Southeast Asia's solvents market despite ongoing tariff challenges

Despite volatility and tariff-related uncertainties in Southeast Asian aromatics and solvents markets, participants and analysts remain optimistic about demand prospects from the construction, automotive and agriculture sectors.

Southeast Asia -- as both a consumer and producer of aromatics and solvents such as toluene, ethyl acetate, and acetone -- has often been overshadowed by larger Asian economies like India, China and South Korea. However, according to market sources, long-term prospects appear favorable amid growth expectations in regional countries.

"We anticipate steady demand growth in 2025, particularly in sectors such as construction, automotive, agriculture, and packaging—areas that are essential drivers of solvent and chemical consumption. Markets like Vietnam and Indonesia are demonstrating robust industrial activity and infrastructure momentum," said Nattapong Tomsaroj, vice president and managing director of TOPNEXT International Company, a member of Thailand's Thaioil Group, on April 9.

The company, which distributes solvents and chemicals, operates across five key markets: Thailand, Vietnam, Indonesia, Singapore and India, with a strategic focus on Southeast Asia.

The optimistic outlook was echoed by Eshwar Yennigalla, senior analyst for aromatics at S&P Global Commodity Insights. "In 2025, we expect both demand and supply in the Southeast Asian region to improve, particularly with H2 start-ups and restarts in Indonesia. Overall, net toluene imports will remain at levels similar to those in 2024."

Toluene is an aromatic chemical used as a solvent, a petrochemical feedstock, and an octane booster in gasoline.



# Tariff jitters; China ramps up solvents exports

Significant uncertainty remains surrounding tariffs, as several Southeast Asian countries initially faced US tariffs of about 30%-40% in early April. In the days that followed until the time of writing (April 11), there have been retaliations, escalations and negotiations, culminating in a full-blown trade conflict with China and a 90-day respite from the reciprocal tariffs for everyone else.

### China's rising solvents exports to Southeast Asia



"The new US tariffs introduce substantial headwinds for Southeast Asian chemical exporters—especially those with strong exposure to the US market. Reduced price competitiveness may lead to lower export volumes, tighter margins, and the need to reallocate products to alternative markets," said Nattapong, adding that "regional producers may face increasing pressure to shift production or diversify export strategies."

Meanwhile, China's rising supply of chemicals has been a key factor in reshaping the Southeast Asian market landscape in recent years. "China became a net exporter of toluene in 2022, and exports are projected to rise to 600,000 mt/year by 2025, with Southeast Asia expected to receive the majority of these volumes," Yennigalla noted.

In 2024, three of the top five destinations for China's toluene exports were Southeast Asian countries: Singapore, Indonesia and Malaysia. Singapore was the largest importer, with 152,884 mt, accounting for nearly 28% of the total 552,321 mt, according to customs data.

"China's expanded chemical production is reshaping the competitive landscape across Southeast Asia. Over the past few years, Chinese exports have gained traction in markets like Vietnam and Indonesia due to their cost advantages and widely accepted manufacturing standards," said TOPNEXT's Nattapong. He emphasized that the Thai distribution company views this as an opportunity to offer higher-quality specialty chemicals, especially as Chinese companies invest in local Southeast Asian manufacturing.

Separately, a Chinese exporter of solvents and chemicals noted slowing growth in Southeast Asia. This, combined with overcapacity in China, is causing market imbalances and affecting products such as "toluene, acetates, ketones—almost everything in solvents."

"At the same time, China may reduce gasoline exports in 2025, which could lead to increased demand for toluene in the Straits," Yennigalla projected, but cautioned that "since early 2025, the gasoline market has been relatively soft, driven by high global inventories and additional supply from new refining capacity, such as Nigeria's Dangote refinery."

# 28%

### of China's toluene exports go to Southeast Asia.

# Focus on sustainability and overcoming challenges

The Southeast Asian chemicals industry faces challenges and opportunities stemming from regulatory shifts, including stricter environmental standards and increasing demand for greener solvent alternatives.

TOPNEXT is focusing on expanding its portfolio to include more sustainable, low-emission solvents that align with both regulatory trends and customer expectations, Nattapong explained.

The Thai distribution company has created a new business unit focused on specialty chemicals such as green chemical solutions for the personal care and household industries. These include food-grade ethanol, cocamidopropyl betaine, biodegradable hydrotreated castor oil and biosurfactants.

Among other issues, the global chemical freight markets have experienced a tight supply of chemical tankers since the pandemic, leading to rising freight costs and a higher likelihood of ship delays.

Another challenge facing many importing countries in Southeast Asia has been the strong US dollar, which has increased the cost of imports.

"Thailand remains well-positioned as a key chemical exporter in the region, supported by its strategic location, advanced infrastructure, and strong industry players. While we see promising growth potential, particularly in petrochemicals, fertilizers, and specialty chemicals, we remain cautiously optimistic due to external pressures such as trade policy shifts, rising competition, and regulatory changes," said TOPNEXT's Nattapong.

# Recycled realities: Asia's journey toward a sustainable polymer future

The Asian recycled polymer market, historically robust in exports, has been struggling to diversify its export base due to tightening European regulations on the import and export of plastic bales.

The implementation of the ReCyClass certification in Europe from November 2024 altered the market, leading to a slowdown in recycled polyethylene terephthalate export demand to Europe. Europe has traditionally been a significant market for Asian recycled materials. The stricter regulations aim to ensure higher quality and sustainability standards in recycled products but also pose barriers for exporters.

Conversely, the implementation of Extended Producer Responsibility programs in Asia, especially in India, faces challenges stemming from an inadequate collection infrastructure. The economic landscape in Asia, marked by a heavy reliance on virgin plastics due to lower costs further complicates the rapid adoption of EPR regulations.

## EPR regulations in India

India drafted EPR regulations on Dec. 6, 2024, set to take effect on April 1, 2026. These rules aim to hold producers, importers, brand owners and waste processors accountable for managing packaging waste and promoting recycling.

The anticipated impact of these draft rules is already visible as manufacturers of virgin plastics now require buyers to provide their respective EPR numbers on invoices to facilitate transactions. This shift shows the increasing regulatory pressure that industry stakeholders must navigate.

The EPR policy has influenced domestic pricing, with foodgrade pellet prices rising to approximately Rupees 115-120/kg in early-April from around Rupees 106/kg in late-March. 30 million mt/year by 2025.

As a result, total R-PET demand in India is projected to reach 4.35 million mt by the end of 2026, driven by a government mandate requiring food-grade PET bottles to contain at least 30% post-consumer recycled plastic.

This regulatory push aligns with global trends. S&P Global Commodity Insights' analysts estimate that global demand for R-PET bottle-grade resins will exceed 30 million mt/year by 2025, reflecting an annual average consumption growth rate of approximately 4%. However, estimates for Asia are significantly lower, potentially falling below 10 million mt/year, highlighting the disparity in regional growth rates.

Analysts predict that recycled HDPE demand in Asia will account for about 7.3% of total demand in 2025, translating to nearly 5 million mt/year. This figure indicates relative stability compared to 2024, reflecting ongoing challenges and opportunities within the market.

## Price disparity

A two-tiered market has emerged in Asia, characterized by a segment of recycled materials that lack certifications and are traded at lower prices compared to certified products.

Non-food grade R-PET flakes have been trading at a significant discount compared to prime materials. Similarly, R-HDPE that does not possess Global Recycled Standards certification has been trading at lower prices than virgin HDPE, traders said.

In contrast, food-grade R-PET pellets command higher prices, while GRS-certified R-HDPE is priced at least 20% above prime material, illustrating the growing importance of certification in the market.

### Lacking waste management infrastructure

The Asian recycled polymer market is characterized by the inadequacy of waste collection infrastructure across the region.

Many countries are still developing their recycling capabilities and substantial investments are necessary to establish a robust framework for waste management.

"Consumer staples producers are investing in waste management and recycling companies. This is aimed at closing the loop on plastic waste," a major polypropylene producer in India said.

Such investments are crucial for improving the collection and processing of recyclable materials, essential for meeting future demand driven by EPR regulations.

# Advanced recycling emerges

There are also opportunities for growth through advanced recycling technologies in the Asia recycled polymer market.

Industry sources are increasingly considering advanced recycling as a viable alternative to mechanically recycled polymers, particularly for handling contaminated or difficultto-process plastic waste. India is emerging as a leader in advanced recycling capabilities, with an estimated capacity of slightly less than 50,000 mt/year, according to Commodity Insights analysts.

Pyrolysis will dominate more than half of advanced recycling, with an estimated capacity of approximately 350,000 mt/year. Mixed plastic waste, particularly polyolefins, is expected to play a critical role in chemical recycling as the global energy transition unfolds, the analysts predicted.

However, many manufacturers continue to rely on virgin plastics due to their lower costs and established supply chains. Transitioning to recycled plastics often involves higher initial investments and adjustments in production processes. While legislation sets ambitious targets, the market may take time to adjust to these new economic realities.

Consumer awareness and demand for sustainable products are still evolving in many Asian markets.

The Asian recycled polymer market is poised for growth, driven by EPR initiatives and advanced recycling technologies, but stakeholders must navigate a landscape of evolving regulations and consumer preferences to capitalize on emerging opportunities.

### Plastic wastes

Southeast Asia has emerged as a key destination for plastic waste exports. Japan, the world's second-largest plastic waste exporter, has been shifting its exports from China to other regions such as Southeast Asia after China decided to ban their imports.

Japan's plastic waste exports to China stood at 7,263 mt in 2024 compared to 249,267 mt in 2017, Japanese customs data showed. Meanwhile, exports to Southeast Asia stood at 465,862 mt, or 68% of the total volume, in 2024. Malaysia is Japan's top export partner, taking in 229,221 mt in 2024.

In February, Japan's export of plastic waste rose 6.6% from a month earlier to 43,846 mt after the New Year's holiday season in January, customs data showed March 28. Exports to Malaysia soared almost six times to 12,489 mt in February, compared to 2,345 mt a month earlier. Japan's exports to Vietnam jumped 62% to 11,393 mt during the same period, the data showed.

Platts began processed-ready mixed plastics waste assessments in Europe and the US on March 12. Platts assessed process-ready mixed plastic waste bale at \$264/mt DDP in the US and \$297.70/ mt DDP in Europe April 7.





May

2025

# India's chemical market cautiously optimistic amid changing trade landscape

The chemicals market in India is likely to maintain its overall growth trajectory in 2025-26 (April-March) with a resilient economy balancing the dampening effects of a changing trade landscape, intermittent bearishness, and geopolitical risks. Market participants expect a spur in demand post June, and a peak in market activity ahead of the festival season during October-November.

India's central bank on April 9 slashed the repo rate by 25 basis points for the second time in 2025 while realigning its policy stance from neutral to accommodative. The central bank's efforts to boost economic growth and the increased liquidity in the market are seen as positive for growth in the Indian chemical market, which is typically aligned with GDP growth, an industry source said.

"We expect the Indian chemical market's growth to follow a similar trend or even exceed the GDP growth through 2025," the source said.

India's central bank pegged real GDP growth at 6.5 % in the 2025-26 fiscal year, the same level as 2024-25.

As summers approach, there are expectations of growth in demand for chemicals. However, some concerns do persist as disturbances in global trade triggered by changing tariffs could dampen the spending sentiment.

# Real estate, construction and infrastructure

Despite changing global trade, India's polymer market is expected to strengthen in the coming months due to likely announcements on regulatory measures and increased demand from commercial construction, irrigation projects, and federal infrastructure allocations.



The government's spending measures to boost India's infrastructure sector, including higher allocations for the water pipeline scheme, Jal Jeevan Mission, could also stimulate buying in the polyethylene market. Additionally, robust demand in packaging films, consumer durables, and seasonal demand cycles in downstream sectors like automobiles and electronic goods could likely support India's polymer market.

However, the housing and automotive sectors, which are crucial end-use markets for chemicals, could face some challenges. In the housing market, Anarock Research reported a 28% decline in sales across seven major Indian cities in Q1 2025, driven primarily by higher home prices and interest rate sensitivity.

## Paints

The paints sector in India experienced subdued demand for key chemicals in January-March 2025. The competition in the Indian paints market has intensified with new entrants, disadvantaging smaller manufacturers. Major paint companies reported margin pressures and slow demand during this period.

Despite these challenges, industry participants remain hopeful about recovery, citing favorable budget announcements, government infrastructure spending, and improved monsoon forecasts. The recent monetary policy measures aim to spur economic growth, potentially enhancing aggregate demand conditions.

## | Fabrics

Weak consumer spending has hit fabrics, household consumption, and product packaging sectors as well. The textiles sector came under pressure in March, with India's purified terephthalic acid downstream polyester producers cutting production rates due to eroding margins and swollen stockpiles. Most Indian polyester plants operated at 85%-90% capacity until February, but production rates were reduced to 70%-75% in early March.

However, the comparatively lower US tariffs on Indian fabrics, as against those on China-origin fabrics, supported the sentiment of market participants in India. "The export market had turned non-viable for us, as cheaper polyester was flooding the global markets. That is likely to change in the near term," said a major polyester producer in India.

A PTA producer said, "I see improvement in exports in the near term, mainly terry-cotton and home-improvement fabric since the US is among major consumers of fabrics from India. The long-term inflationary impact of the tariffs is, however, a little concerning."

Indian PTA buyers are likely to have imported more PTA in March compared with February. "We are already seeing green shoots of improvement in domestic demand for polyester fabric," a source said.

# 70% India's polyester plant runs reduced to 70-75% early March.

## I Changing tariffs

Market participants have exercised caution following the announcement of new tariffs from the US and China, including a 26% tariff on imports from India. While steady price trends were observed for most commodities, thin trading activity persisted as stakeholders assessed the potential fallout. Most of the market was notably quiet, with domestic discussions indicating stableto-soft conditions.

In the polymer segment, mixed views emerged about changes in trade flow and demand for finished plastic goods. Some traders indicated minimal impact on polymer trade flows, while other stakeholders in the Indian plastics industry said the higher tariffs could hinder exports of finished plastic products to the US, impacting demand for polyethylene and polypropylene resin.

According to an announcement by the American Chemical Council, pharmaceuticals and certain chemicals have been exempted, which is beneficial for India, a source said.

The market dynamics changed slightly following the announcement of a 90-day pause on tariffs by US President Donald Trump. According to an international chemical supplier, "There was unusual silence among Indian buyers while the tariff situation was developing. However, they again started to show buying interest after the announcement on tariff pause."

Indian market participants have overall expressed cautious optimism as some chemicals could experience demand growth in the coming days while others may continue to face challenges, saying much would depend on external factors and domestic conditions.

# Southeast Asia rides low-carbon methanol wave

With the global maritime industry accelerating toward netzero decarbonization targets, Southeast Asia is set to play its part with low-carbon methanol as Indonesia takes the lead in production, with ambitious projects set to transform the region's energy landscape. In preparation, Singapore is rolling out licenses aimed at facilitating methanol bunkering and trading at one of the world's busiest ports.

The region's nascent initiatives come as the International Maritime Organization's Marine Environment Protection Committee in April voted to charge shipowners penalties for maritime greenhouse gas emissions starting from 2028. These measures are wide-reaching and will impact the cost of transporting fuel, chemicals and consumer goods.

However, with China accounting for more than half of renewable methanol projects globally, Southeast Asia's potential for lowcarbon methanol production often becomes overshadowed by the burgeoning giant.

# Transforming SE Asia with innovation, collaboration

Advancements in low-carbon methanol production in Southeast Asia reflect the region's growing commitment to sustainable energy solutions.

Indonesia appears to be at the forefront of low-carbon methanol production in Southeast Asia. PT Akraya is planning to construct a biomethanol plant in Indonesia with a capacity of 20,000 to 40,000 mt/year, to potentially be located in Sumatra, where palm mills, cassava, and sugarcane are abundant. Singapore Methanol is building two biomethanol plants in Indonesia. The first plant, located in Sumbawa Island, is expected to produce 70,000-100,000 mt/year of biomethanol, utilizing sugarcane bagasse as feedstock. Construction is expected to begin in 2025, with commercial production targeted for 2027.

This will be followed by a second facility in Sulawesi, Indonesia, projected to reach a capacity of 1 million mt/year by 2030 using bamboo as feedstock.

A handful of investors are also considering building low-carbon methanol plants in Indonesia but a number of these projects are still at the research stage.

In Malaysia, BPO, VATA VM Synergy, and Emerald Tech Engineering have plans to build a 100,000-mt/year green methanol plant which uses non-palm feedstocks in Pahang, Malaysia, with the capability to scale up to 500,000 mt/year. First deliveries are expected at Kuantan port in 2028.

Malaysian renewable energy producer BAC Renewable Energy signed in February a memorandum of agreement with Dovechem Terminal Langsat and TLP Terminal for the development of the BAC RE ASEAN Biofuels Storage and Exporting Hub at Tanjung Langsat Port, Johor. "This collaboration is a testament to our shared vision of accelerating the adoption of green maritime fuels and reinforcing Malaysia's position as a regional biofuel hub leader," the company said in a LinkedIn post.

Thai national oil and gas conglomerate PTT Plc in 2023 tapped ThyssenKrupp Uhde, a unit of German industrial engineering and steel conglomerate ThyssenKrupp AG, to conduct a feasibility study on a green methanol project.

According to the findings, completed in 2024, the company can produce 100,000 mt/year of green methanol from a process used to capture carbon dioxide. Electricity to operate the green methanol factory would come from renewable energy, according to local media reports.

Chinese container liner COSCO Shipping on Nov. 15, 2024, inked a memorandum of understanding with Thai conglomerate Charoen Pokphand Group and US trader Freepoint Commodities to construct a green methanol production facility that adheres to stringent EU standards.

### Price discovery

While low-carbon methanol production is unlikely to occur in Singapore due to economic costs, the government has rolled out measures to encourage the supply and trading of alternative marine fuels including methanol at the world's biggest bunker port.

### This collaboration is a testament to our shared vision of accelerating the adoption of green maritime fuels and reinforcing Malaysia's position as a regional biofuel hub leader.

The Maritime and Port Authority of Singapore in March opened applications for licenses to supply methanol as a marine fuel in Singapore. The licenses are valid from Jan. 1, 2026 to Dec. 31, 2030.

Through 2024, a number of shipowners have signed term contracts with low-carbon methanol producers, but there has been little transparency on prices. In anticipation of spot trading of low-carbon methanol picking up in Singapore from 2025, Platts launched assessments for Singapore low-carbon methanol marine fuel (MMF) with carbon intensity less than 32.9 gCO2e/megajoule and Singapore methanol marine fuel with carbon intensity less than 90 gCO2e/MJ in November.

Platts assessed Singapore low-carbon MMF at an average of \$994/mt and Singapore MMF with carbon intensity less than 90 gC02e/MJ at an average of \$527.680/mt in April.

With a significant portion of Asia's low-carbon methanol supply anticipated to originate from China over the next two years, Platts has launched FOB Shanghai low-carbon methanol marine fuel price assessments starting May 2025.

# China a sustainable fuel powerhouse-in-waiting: Green Marine

Production and pricing challenges have hindered the adoption of low-carbon methanol as an alternative marine fuel. However, Asia is poised for transformation over the next three years, with China emerging as a leader in low-carbon methanol production, paving the way for wider acceptance of the fuel in the maritime industry, Chris Chatterton, managing director and partner at Green Marine, said.

"China is advancing low-carbon methanol production due to heavy investments in renewable power and green hydrogen, with methanol, sustainable aviation fuel and ammonia being the three main hydrogen derivatives to be produced on the back end of those investments," Chatterton said in an interview with Platts, part of S&P Global Commodity Insights.

In contrast, Europe is expected to lag behind China's production due to higher costs and slower project implementation compared to regions like the Middle East and the Americas, market sources said.

Despite its regulatory leadership with the FuelEU Maritime decarbonization targets, Europe might struggle to keep pace, Chatterton said.

In April 2024, Green Marine signed an agreement with the China (Shanghai) Pilot Free Trade Zone Lin-gang special area administration to develop the world's first methanol bunker fuel trading platform, aimed at positioning Shanghai as China's leading methanol marine fuel bunkering hub.

Chatterton said other Chinese ports, such as Zhoushan, Tianjin and Hong Kong, will also have significant opportunities to provide low-carbon methanol bunkers.

Beyond China, Singapore -- the largest bunkering hub globally -- is expected to play a crucial role in establishing the market for low-carbon methanol bunkering.

METHANOL NET 160 KGS.

Europe is expected to lag behind China's production due to higher costs and slower project implementation compared to regions like the Middle East and the Americas.

"Its geographical proximity to production, voyage origination and connectivity to the top two trade lanes will be advantageous," Chatterton said.

# Meaningful supply from 2026

Despite ambitious expansion plans, sufficient supply of lowcarbon methanol for the maritime industry will likely remain a stumbling block for some shipowners as the growth of vessels outpaces the availability of fuel.

According to DNV data, orders for LNG dual-fuel vessels surged in the second half of 2024 compared to those for methanol dual-fuel vessels. From January to December, 264 LNG vessels were ordered, registering a 103% year-over-year growth. Methanol vessel orders, on the other hand, saw a modest increase of 4% year over year at 166 in 2024.

Chatterton said "perceptual uncertainties" regarding the availability of low-carbon methanol, along with LNG's lower price compared to more sustainable fuels like green methanol and green ammonia, likely influenced these decisions. In addition, LNG's perception as a transitional fuel played a significant role.

LNG is compliant as a marine fuel until 2035, when FuelEU Maritime's well-to-wake greenhouse gas intensity threshold drops to 77.94 gCO2e/MJ.

Still, Chatterton is optimistic that the market will likely see the first wave of Chinese low-carbon methanol enter the market by mid-2025, resulting in a significant supply of "millions of tons" available by 2026 due to expanded production capacity.

"China has emerged as a global front-runner in renewable power production and leads the world in renewable power equipment ... this positions China as the lowest-cost producer for wind, solar and, consequently, green hydrogen."

## I Multiplier hack

While the price of eMethanol is currently significantly higher than gray or biomethanol, FuelEU Maritime multipliers, tax incentives and subsidies will, over time, bring down the cost of production, Chatterton added.

From Jan. 1, 2025, to Dec. 31, 2033, shipowners using renewable fuels of non-biological origin, or RFNBO, will benefit from a multiplier of 2. This means that companies will only need to consume half the amount of megajoules from green fuels to meet their compliance obligations.

For example, if a shipowner needs to demonstrate compliance for 100 MJ, they only need to consume 50 MJ of RFNBO due to the multiplier's doubling effect.

"Keep in mind that current pricing and cost structures are largely based on pilot scale technology, where producers already have plans to scale operations as the feeds are made available ... which we will see closer to 2030," he said.

Platts FOB Shanghai eMethanol was assessed at \$1,699.622/mt and FOB Rotterdam eMethanol at \$2,094.028/mt on March 17.

As regulations evolve, clearer pathways and market signals for methanol adoption will emerge, Chatterton added.

# Recent assessment launches

### Asia/Middle East

#### Q2-24

🔵 Soda Ash, CFR India

### Q3-24

- 🔵 r-PET, FOB India
- Butyl acrylate, CFR India
- Acetic anhydride, FOB India

### Q4-24

- Isobutanol, CFR China
- Raffinate-1, CFR NEA
- Polybutylene terephthalate, FOB China
- POM, CIF China
- 🛑 Ethyl acetate, FOB China
- Ethyl acetate, CFR SEA
- Acrylic Staple Fiber, CIF India
- 🛑 Natural Rubber, TSR 20, FOB SEA
- 🛑 LDPE, FOB Saudi Arabia
- 🛑 HDPE blowmolding, FOB Saudi Arabia
- Liquid Epoxy Resins, FOB NEA

### Q1-25

- 🛑 Carbon Black, FOB India
- 🛑 Ammonia CFR SE Asia
- Ammonia CFR Singapore

### Q2-25

- Hexamethylenediamine, FCA East China
- Caprolactam CFR Vietnam
- Caprolactam CFR Philippines
- Compacted ammonium sulfate FOB China River
- Compacted ammonium sulfate FOB North
- China Low-carbon methanol FOB China

### Europe

#### Q2-24

Soda Ash, DDP NWE

### Q3-24

Acetic anhydride, DDP NWE

### Q4-24

- Carbon Black N330, DDP NWE
- Carbon Black N550, DDP NWE
- Polybutylene terephthalate, DDP Germany
- POM, DDP NWE
- 🛑 Natural Rubber, TSR 20, DDP NWE
- 🛑 Acrylic Staple Fiber, DAP Turkey
- PMMA, extrusion, DDP NWE
- PMMA, injection, DDP NWE
- 🛑 Epoxy Resins, DDP NWE

#### Q1-25

- 🛑 Mixed plastic waste bales, DDP NWE
- r-Polystyrene white pellets, DDP NWE

### Q2-25

- Monopropylene Glycol, industrial grade, FCA NWE
- Monopropylene Glycol, USP/EP grade, FCA NWE
- Dipropylene Glycol, Fragrance grade, FCA NWE
- 🔵 Methanol Marine Fuel, DEL Rotterdam

### US

### Q2-24

- Caprolactam, DDP US Southeast
- Butyl acrylates, DDP US East Coast
- 2-Ethylhexyl Acrylates, DDP US East Coast
- PBR, High-Cis, FOB USGC
- SBR, Emulsion 1500, CFR USGC
- SBR, Emulsion 1502, CFR USGC
- 🔵 Methyl Methacrylate, DDP USGC
- 🔵 r-PET, ex-works Central Mexico

### Q3-24

- Dense soda ash, Ex-plant Wyoming (Green River)
- Toluene Diisocyanate (TDI) DAP US
- Slabstock polyether polyols, DAP US
- 🔵 r-PET, DDP Brazil

### Q4-24

- POM, FOB USGC
- POM, CFR Brazil
- 🛑 Isobutanol, FOB USG
- PMMA, extrusion, DDP USG
- Epoxy Resins, DDP USG
- PBT neat resin, DDP US Midwest
- 🛑 PBT, 30% glass filled, DDP US Midwest
- Carbon Black N330, ex.Works USG
- 🛑 Carbon Black N550, ex.Works USG
- Natural Rubber, TSR 20, CFR US East Coast
- Linear Alpha Olefins, Butene-1, FOB USGC
- 🛑 Linear Alpha Olefins, Hexane-1, FOB USGC
- 🛑 Linear Alpha Olefins, Octene-1, FOB USGC

#### Q2-25

- Acrylic staple fiber, DDP US East Coast
- Mixed plastic waste bale, DDP US

### **S&P Global** Commodity Insights

# Asia chemicals team

Charlene Goh Polyethylene, Ethanolamines <u>charlene.goh@spglobal.com</u>

Esther Ng Methanol, Acetic Acid, VAM, ETAC <u>esther.ng@spglobal.com</u>

Fumiko Dobashi Butadiene, Rubbers, Raffinate-1 fumiko.dobashi@spglobal.com

Gustav Holmvik BPA, Polycarbonate, Epoxy Resin gustav.holmvik@spglobal.com

Haitian Fang Benzene, Phenol, Acetone haitian.fang@spglobal.com

Heng Hou Cheong Nylons, Caprolactam, HMDA heng.hou.cheong@spglobal.com

Hui Heng Polypropylene, r-PE, r-PET <u>hui.heng@spglobal.com</u>

**Jing Kang Goh** Toluene, Solvent-MX, Aromatics Freight jing.kang.goh@spglobal.com

Lynette Lim Propylene, ACN, Propylene Oxide lynette.lim@spglobal.com

Nanda Lakhwani PVC, EDC, VCM, Caustic Soda, Chlorine nanda.lakhwani@spglobal.com **Pankaj Rao** PX, PTA <u>pankaj.rao@spglobal.com</u>

Sang Ah Lee Isomer-MX, GAA sang.ah.lee@spglobal.com

Samar Niazi MTBE, MMA, PMMA samar.niazi@spglobal.com

Sophia Yao Aromatics, OX sophia.yao@spglobal.com

Su Yeen Cheong Asia-Pacific Markets suyeen.cheong@spglobal.com

Thiam Hock Tan POM, PBT thiam.hock.tan@spglobal.com

Zachary Ooi Oxo-Alcohols, Plasticizers, PET, EVA zachary.ooi@spglobal.com

**Zhi Xuan Ho** Ethylene, Glycols, Ethylene Oxide <u>zhi.xuan.ho@spglobal.com</u>

**Zi Nin Tan** Styrene Monomer, PS, ABS, EB <u>zi.nin.tan@spglobal.com</u>

Zong Ming Shin Market Research shin.zong.ming2@spglobal.com Akash Kumar Jain India: BPA, Isocyanates, Polyols, Soda Ash, Liquid Freight akash.kumar.jain@spglobal.com

Ashish Dhyani India: Polyethylene, ACN, Acrylic Fibre, Polymer Freight ashish.dhyani2@spglobal.com

**Divya Shah** India: r-PET, PVC <u>divya.shah@spglobal.com</u>

Kamna Kapoor India: Methanol, AAn, VAM, Acetone, Phenol, Acetic Acid kamna.kapoor@spglobal.com

Mainak Moitra India: Polypropylene, PTA, Butyl Acrylate, Carbon Black <u>mainak.moitra@spglobal.com</u>

Sagar Baul India: Toluene, Solvent-MX, Styrene Monomer sagar.baul@spglobal.com

Stuti Chawla India, Middle East Markets stuti.chawla@spglobal.com