石油与沥青世界期刊
WPB BITUMEN MAGAZINE
WPB
Issue 88
FEB 2026
WWW.BITUMENMAG.COM
BITUMEN MAGAZINE
THE WORLD OF PETROLEUM AND BITUMEN
亚洲沥青生产商与消费者之间的桥梁

INFINITY
GALAXY

In Pursuit of Excellence

As a player in the international bitumen market, Infinity Galaxy focuses on continuity, consistency, and structured trade.
The company's operations are aligned with evolving global demand and long-term market requirements.

Our Products

Paving Grade Bitumen
- Penetration Bitumen (Pen Grades)
- Viscosity Bitumen (VG Grades)
- Performance Grade Bitumen (PG Grades)
- AH Bitumen (Chinese Grades)
- Asphalt Cement (AC Grades)
- Australian Standard Grades (C-Class Grades)

Liquid Bitumen
- Cutback Bitumen
- Emulsion Bitumen

Oxidized Bitumen

Our Packages

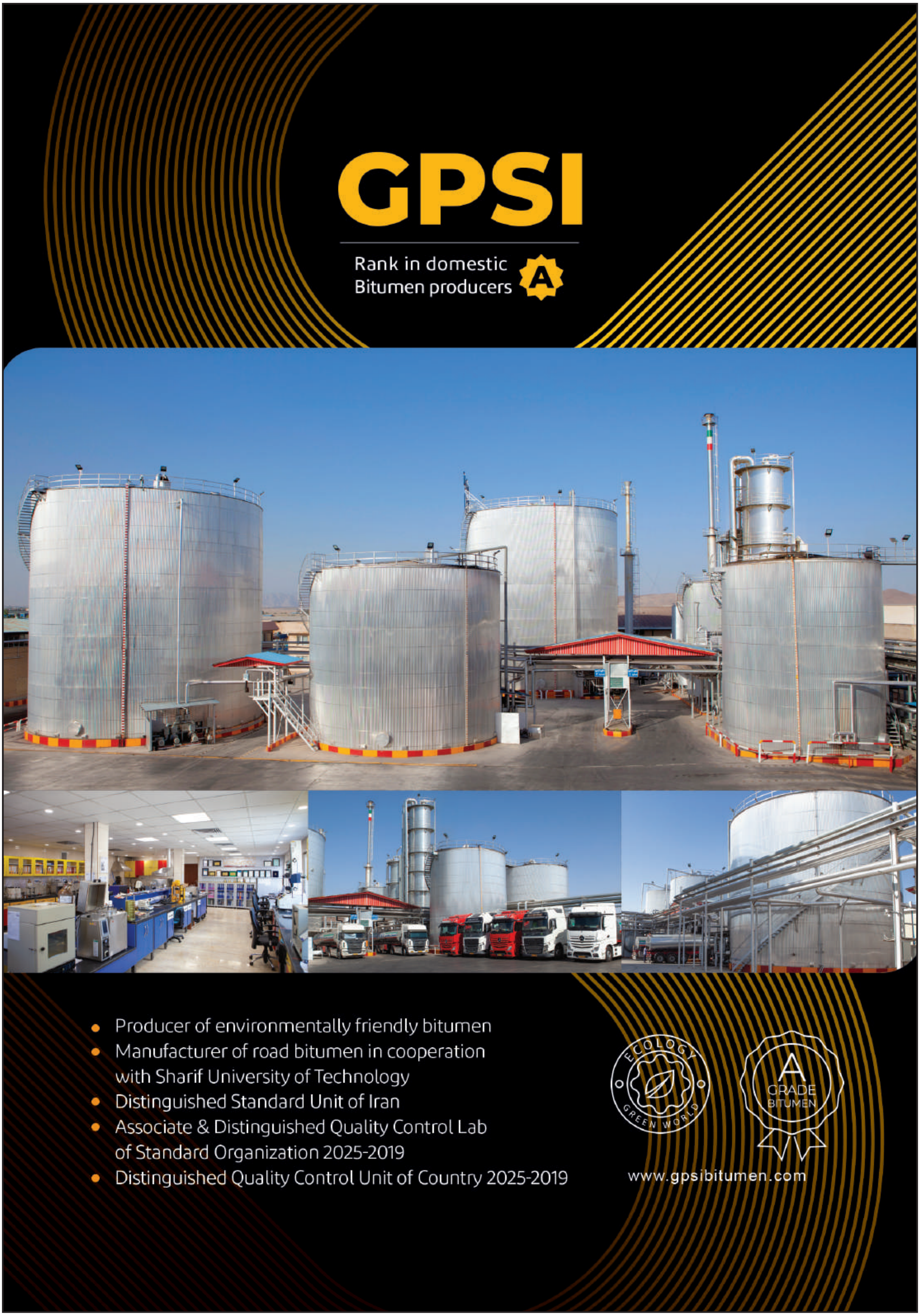
- **New Steel Drum**
- **Jumbo Bag**
- **FlexiTank**
- **Reconditioned Steel Drum**

WhatsApp

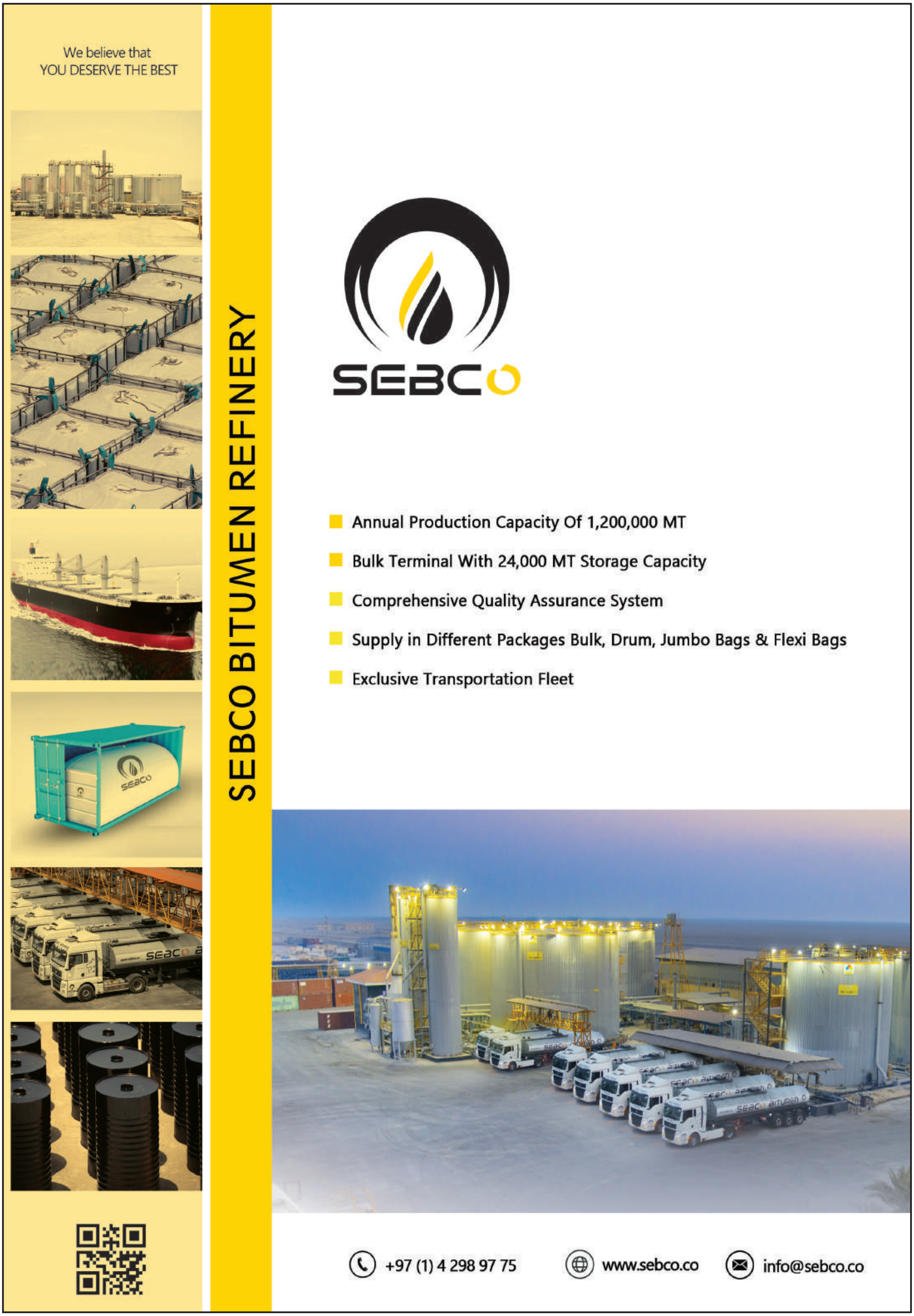
+971 4 558 2418
www.infinitygalaxy.org
Unit. 1623, Floor 16, ParkLane
Tower, Business Bay, Dubai, UAE.

WeChat

UNGM Help Center | ISO 9001:2015 | ISO 14001:2015 | ISO 22301:2019 | ISO 10004:2018 | Alibaba.com


GPSI
Rank in domestic
Bitumen producers
A
Producer of environmentally friendly bitumen
Manufacturer of road bitumen in cooperation
with Sharif University of Technology
Distinguished Standard Unit of Iran
Associate & Distinguished Quality Control Lab
of Standard Organization 2025-2019
Distinguished Quality Control Unit of Country 2025-2019
ECOLOGY
GREEN WORLD
A
GRADE
BITUMEN
www.gpsibitumen.com

1


We believe that
YOU DESERVE THE BEST
SEBCO BITUMEN REFINERY
SEBCO
Annual Production Capacity Of 1,200,000 MT
Bulk Terminal With 24,000 MT Storage Capacity
Comprehensive Quality Assurance System
Supply in Different Packages Bulk, Drum, Jumbo Bags & Flexi Bags
Exclusive Transportation Fleet
+97 (1) 4 298 97 75
www.sebco.co
info@sebco.co


S.T.N.J
S.T.N.J
SHIMI TEJARAT NAGHSHE JAHAN COMPANY
TK101
V101
Shimi Tejarat Naghshe Jahan is one of the leader and experienced companies in the production of high quality bitumen in Iran.
The bitumen produced in this factory is available in various forms, including 150, 180 and 200kg barrels, 300kg and one ton jumbobags and bulk bitumen.
The Africa continent, India, China, Singapore, Vietnam and other East Asian countries are among the export destinations of the company's products.
OUR PRODUCTS
• Penetration Grade Bitumen
• Viscosity Grade Bitumen (VG)
• Performance Grade Bitumen (PG)
• Asphalt Cement Grade (AC)
CONTACT US
www.stnjco.com
www
info@stnjco.com

5


RADIAN
DARYAYE MAHAN
www.radianshipping.com
Tehran Office Address:
First floor, No.6, 10th Alley,Ahmad Ghasir,Argentina Sq.
Postal code: 1514735434 +98 21 57396000

7


CREATING A BETTER CONNECTED WORLD
KBC
KEMAMAN BITUMEN COMPANY
INCORPORATED IN MALAYSIA IN APRIL 2003, KEMAMAN BITUMEN COMPANY SDN. BHD. (KBC), IS WHOLLY OWNED BY THE TIPCO ASPHALT GROUP OF COMPANIES.
KBC'S ONE-OF-A-KIND REFINERY IN SOUTH-EAST ASIA IS DESIGNED TO PROCESS HEAVY NAPHTHENIC CRUDE OILS. LOCATED IN KEMAMAN IN PENINSULAR MALAYSIA, THIS ASPHALT-FOCUSED REFINERY IS LICENSED TO PROCESS 100,000 BBLS OF CRUDE OIL PER DAY AND PRODUCES HIGH-QUALITY NAPHTHENIC ASPHALT, ATMOSPHERIC GAS OIL (AGO), VACUUM GAS OIL (VGO), AND NAPHTHA.
TO FURTHER ACCELERATE OUR GROWTH, KBC TRADING SDN BHD WAS ESTABLISHED IN JULY 2015 TO MANAGE THE RETAIL SALES OF PETROLEUM BITUMEN IN THE MALAYSIAN MARKET.
(+60)9 860 1800
INFO@KBC.COM.MY
WWW.KBC.COM.MY
Lot No. 5957 (Plot PT 7195), Telok Kalong Industrial Area,
Kemaman 24000,Terengganu Darul Iman,
Malaysia


VANSH
Logistics & Co.
Vansh Logistics
CERTIFICATIONS
WCAworld
Membership # 74389
JCTRANS
MTO
Vansh Logistics & Co. DC-3 Plot No.86-85 BH.
Adipur Police Station Adipur Gujarat -370205
+91 98249 95999
+91 99748 72777
umesh@vanshlogistics.com
www.vanshlogistics.com
WE HAVE AWESOME
SERVICES
CUSTOM CLEARANCE
IMPORT - EXPORT
TRANSPORTATION
BY SHIP - BY ROAD - BY RAIL
EXIM CONSULTANCY
EXIM TRADEMENTOR
FREIGHT FORWARDING
AIR
WAREHOUSING
INTEGRATED WAREHOUSING
DOOR TO DOOR DELIVERY
CARGO DELIVERS TO
YOUR DOOR STEP
FREIGHT FORWARDING
SEA
MARINE INSURANCE
SECURE YOUR SHIPMENT
PROJECT CARGO &
BREAK BULK

Iran at the Crossroads of Domestic Tensions and Nuclear Diplomacy; Rising Geopolitical Risk in Energy Markets

According to WPB, Political developments unfolding in Iran carry consequences that extend beyond its domestic sphere, shaping security calculations across the Middle East and influencing global energy logistics. Renewed student protests in Tehran and other urban centers, reports of severe judicial measures against detainees, intensified nuclear diplomacy, and public discussion in Washington of potential military contingencies collectively elevate geopolitical risk. Although rooted in internal governance and foreign policy disputes, these events intersect directly with oil exports, maritime insurance markets, tanker routing patterns, and refinery-linked commodities including bitumen.

University campuses in Tehran and several provincial cities have witnessed organized demonstrations led primarily by students. Security forces have reportedly intervened to disperse gatherings, and arrests have been documented by international observers. Judicial authorities are said to be pursuing cases that could involve heavy penalties. While protest activity is not unprecedented in Iran, the present cycle emerges during a period of sensitive nuclear engagement with Western governments, increasing its strategic resonance.

The nuclear file remains central to international policy deliberations. Reports indicate Tehran is preparing a revised proposal in response to diplomatic initiatives aimed at limiting enrichment activity. Concurrently, policymakers in Washington have publicly referenced contingency planning that includes limited military strike options should negotiations stall. Even absent operational movement, such rhetoric alters regional defense postures and investor sentiment.

Energy markets are closely tied to this dynamic. Iran holds some of the world's largest hydrocarbon reserves and continues to export crude oil, largely to Asian buyers, through channels shaped by sanction conditions. Any tightening of enforcement, new designations, or military escalation could reduce accessible export volumes. Conversely, progress in negotiations might support more stable and transparent flows. Either scenario would directly affect tanker availability, freight rates, and insurance validation processes.

The Strait of Hormuz remains a strategic focal point. A substantial share of globally traded crude transits this narrow passage. Political tension involving Iran historically correlates with higher maritime risk assessments and increased insurance premiums. Even incremental adjustments in war-risk coverage influence transport economics and contract pricing.

Domestic economic pressures further complicate the landscape. Inflation, currency volatility, and employment concerns contribute to public dissatisfaction. Oil revenue remains essential to fiscal stability and state expenditure. Any sustained disruption to export capacity would intensify budgetary strain, potentially reinforcing internal unrest.

Iranian refineries, beyond supplying domestic fuel demand, produce heavier petroleum derivatives including bitumen used in road construction projects both domestically and in export markets across South Asia and parts of Africa. Changes in crude intake volumes or operational continuity could indirectly influence regional availability of such materials, linking political developments to construction supply chains.

Regional governments observe these developments with caution. Gulf exporters evaluate infrastructure security and contingency planning. Asian importers review procurement diversification strategies. Shipping firms increase scrutiny of documentation and compliance certifications. Financial institutions reinforce screening mechanisms for transactions involving Iranian-linked cargoes.

Thus far, benchmark oil prices have reflected measured sensitivity rather than abrupt volatility. However, geopolitical premiums can expand rapidly if diplomatic engagement deteriorates. Markets remain attentive to official statements, sanction enforcement measures, and military posture adjustments.

The convergence of domestic protest activity, judicial escalation, nuclear negotiation signals, and external military rhetoric places Iran in a period of heightened strategic sensitivity. While physical supply flows remain intact, the broader risk environment influences insurance pricing, freight dynamics, refinery planning, and downstream commodity trade. The direction of diplomatic engagement in the near term will determine whether stability prevails or uncertainty deepens within one of the world's most consequential energy regions.

WPB

Global Bitumen Price

Week 3 of February 2026

In Week 3 of February 2026, the global bitumen market showed overall stabilitywith a mild firm tone across most regions.

Iran continued its gradual upward movement, supported by steady export demand,while Iraq-linked FOB Bandar Abbas levels consolidated at firm ranges.Across Asia, markets such as Singapore, China, South Korea, Vietnam, and Malaysiaexperienced either stable pricing or only minor adjustments, reflecting balancedsupply flows and consistent import demand rather than aggressive buying pressure.In South Asia and Oceania, India and Australia largely maintained stable levelsfollowing earlier increases, suggesting a consolidation phase after previous upwardmomentum. Sri Lanka showed slight softening, indicating cautious purchasing behavior, while

overall regional sentiment remained steady. The UAE market also held firm withparallel FOB and CFR structures, signaling stable export demand and unchangedfreight dynamics.In Europe, including Germany, Spain, and Italy, prices remained broadly unchangedcompared to Week 2. The stable ranges across drum and bulk segments suggeststeady demand conditions and firm but controlled supplier positioning.

Overall, Week 3 reflected a period of market consolidation globally, with stablefundamentals, balanced supply-demand dynamics, and no strong bullish or bearishpressure dominating the market.

Iran

Date	Bitumen Grade	Price (USD/MT)	Price Basis
Week 3 of February 2026	60/70 (Drum)	365 ±5	FOB Bandar Abbas
	60/70 (Bulk)	319 ±5	FOB Bandar Abbas
	60/70 (Jumbo Bag)	355±5	FOB Bandar Abbas
	60/70 (Drum)	277 ±5	Ex-work Bandar Abbas
	60/70 (Bulk)	239±5	Ex-work Bandar Abbas
	60/70 (Jumbo Bag)	259±5	Ex-work Bandar Abbas

Iran market showed a clear upward movement in both drum, bulk and Jumbo Bag segments over the week. The stronger rise in bulk reflects improving demand and tighter availability in large-volume shipments. Overall market sentiment has strengthened, indicating more confident buying interest compared to the previous period.

For further information, please contact us at +44 7831 4231 17

Singapore

Date	Bitumen Grade	Price (USD/MT)	Price Basis
Week 3 of February 2026	60/70 (drum)	410±5	CIF Singapore
	60/70 (bulk)	365±5	FOB Singapore

Singapore market recorded a slight upward adjustment in both drum and bulk segments over the week. The movement is relatively mild, indicating stable demand conditions and a balanced supply situation. Overall sentiment remains steady with no strong bullish momentum yet.

For further information, please contact us at +44 7831 4231 17

China

Date	Bitumen Grade	Price (USD/MT)	Price Basis
Week 3 of February 2026	60/70 (drum)	407±5	CFR Chongqing
	60/70 (drum)	389±5	CFR Hong Kong
	60/70 (drum)	377 ± 5	CFR Ningbo
	60/70 (drum)	390±5	CFR Huangpu
	60/70 (drum)	389±5	CFR Yunfu
	60/70 (drum)	374±5	CFR Tianjin
	60/70 (drum)	384±5	CFR Dalian
	60/70 (drum)	390±5	CFR Guangzhou
	60/70 (drum)	380±5	CFR Nansha
	60/70 (drum)	374±5	CFR Zhuhai

China market showed a slight upward adjustment across most ports compared to the previous week. The increase appears gradual and broadly distributed, suggesting steady import demand and stable supply flow. Market tone remains firm but without aggressive buying pressure, indicating controlled and balanced conditions.

For further information, please contact us at +44 7831 4231 17

UAE

Date	Bitumen Grade	Price (USD/MT)	Price Basis
Week 3 of February 2026	60/70 (drum)	343±5	FOB Jebel Ali
	60/70 (drum)	371 ± 5	CFR Jebel Ali

UAE market recorded a moderate upward movement in both FOB and CFR levels over the week. The parallel increase suggests stable export demand and consistent freight dynamics. Overall sentiment appears firm, supported by steady regional buying interest.

For further information, please contact us at +44 7831 4231 17

Sri Lanka

Date	Bitumen Grade	Price (USD/MT)	Price Basis
Week 3 of February 2026	60/70 (drum)	407±5	CFR Colombo

Sri Lanka market showed a mild upward movement in CFR levels compared to the previous week. The increase suggests improving buying interest or firmer supplier positioning. Overall sentiment appears slightly stronger with gradual demand support.

For further information, please contact us at +44 7831 4231 17

Iraq

Date	Bitumen Grade	Price (USD/MT)	Price Basis
Week 3 of February 2026	60/70 (drum)	380±5	FOB Bandar Abbas
	60/70 (bulk)	320±5	FOB Bandar Abbas

Iraq market moved upward across both drum and bulk FOB segments over the week. The rise reflects firmer export demand and tightening availability, with bulk showing relatively stronger momentum. Overall market sentiment has turned more bullish compared to the previous period.

"Analysis of the Consequences of the Second Round of Iran-U.S. Nuclear Negotiations"

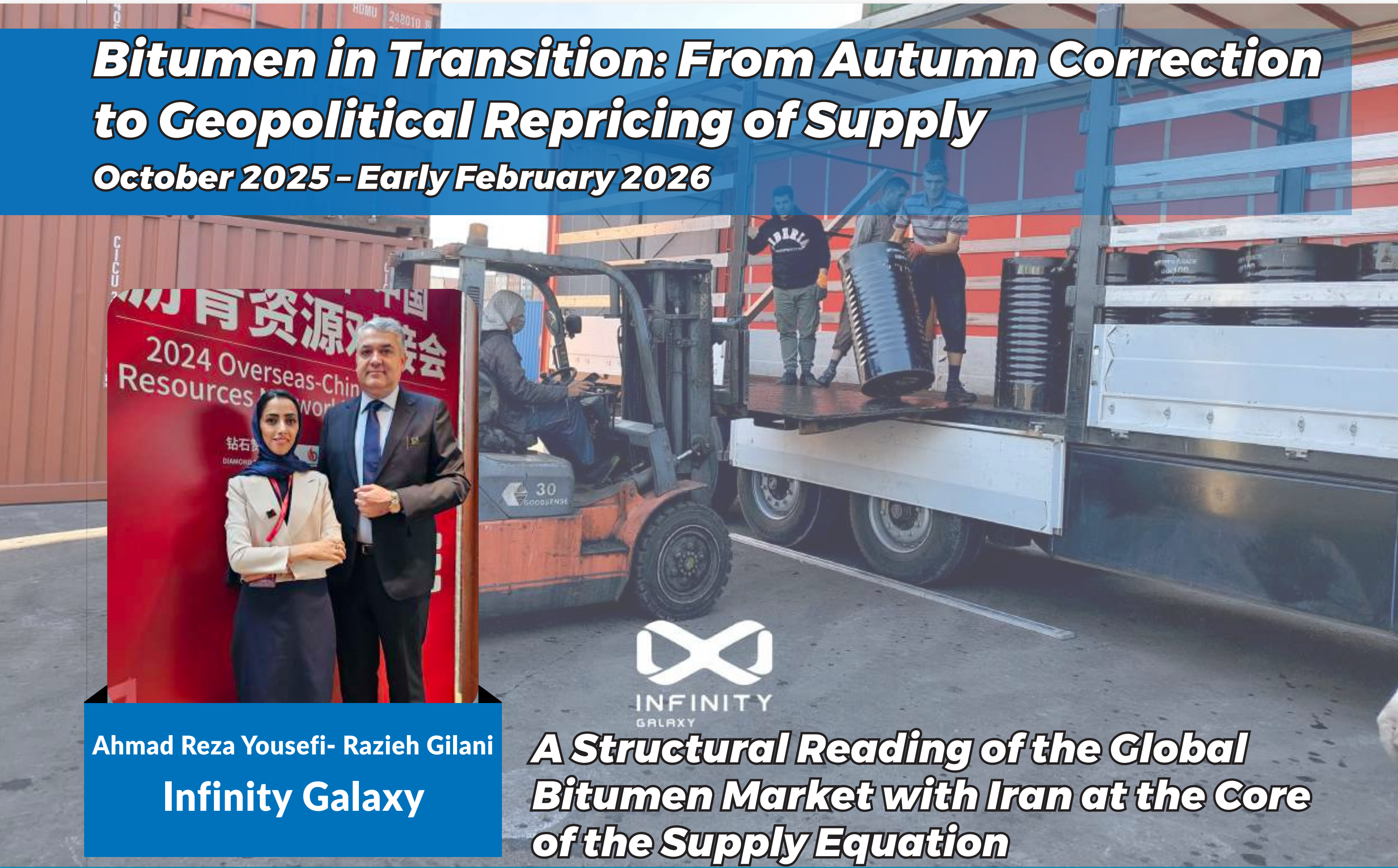
According to WPB, the second round of nuclear negotiations between Iran and the United States, held on February 17, 2026, in Geneva, immediately drew broad international attention, particularly across the Middle East. A region long shaped by security tensions and geopolitical rivalries closely monitored the talks as a development with direct relevance to regional stability and the security of global oil flows. At the same time, international energy markets followed the discussions with heightened sensitivity, given that any progress or breakdown in negotiations could influence supply expectations, maritime insurance costs, and broader investment calculations.

This meeting marked the second phase of indirect contacts between the two governments this year, following an initial round held earlier in February in Muscat. The political environment leading up to the Geneva session was characterized by visible military signaling and firm public rhetoric. The United States had reinforced its military presence in the region, while Iran conducted naval exercises near strategically significant waterways. These developments were widely interpreted as efforts by both sides to enter negotiations from positions of strategic leverage. Nevertheless, the convening of talks in Geneva underscored that diplomatic channels remain operational and that both governments continue to prioritize controlled engagement over direct confrontation.

According to reporting from major American and European media outlets, including the Associated Press and The Guardian, the Geneva discussions focused primarily on identifying a set of general principles to guide subsequent negotiations. U.S. officials reiterated that any final agreement must include verifiable limitations on Iran's uranium enrichment levels, along with expanded access for international inspectors. The Iranian delegation, in turn, described the session as constructive and noted progress in outlining shared principles, while emphasizing that considerable distance remains before a comprehensive accord can be achieved. Statements released after the talks indicate that significant differences persist regarding implementation mechanisms and the sequencing of potential sanctions relief.

President Donald Trump responded to the Geneva meeting by stating that his administration seeks a "strong and enforceable" agreement and reaffirmed that Washington will not retreat from its core demands concerning restrictions on Iran's nuclear activities. He further emphasized that the reinforcement of U.S. military deployments in the region is intended to ensure the security of American allies and maintain deterrence. This dual approach reflects a strategy that combines diplomatic engagement with sustained strategic pressure. On the Iranian side, the Supreme Leader issued remarks shortly after the negotiations, stressing the importance of safeguarding national sovereignty and security interests.

He cautioned against repeating past experiences in which, from Tehran's perspective, commitments did not yield reciprocal benefits. While acknowledging negotiation as a tool for managing tensions, he underscored



Bitumen in Transition: From Autumn Correction to Geopolitical Repricing of Supply

October 2025 – Early February 2026

Ahmad Reza Yousefi- Razieh Gilani
Infinity Galaxy

A Structural Reading of the Global Bitumen Market with Iran at the Core of the Supply Equation

Introduction:

In recent months, the global bitumen market has not merely experienced price volatility; it has entered a phase in which the relationship between price, risk, and geopolitical positioning is being redefined. While many market participants continue to interpret developments through traditional seasonal frameworks, what unfolded from October 2025 to early February 2026 cannot be reduced to a simple autumn correction followed by a winter rebound.

The objective of this article is to examine this "transition phase"- a period during which the market moved beyond a classic seasonal adjustment and into structural repricing driven by feedstock costs, logistics behavior, regional risk, and the evolving role of key players, particularly Iran.

This report adopts a structural lens rather than a purely statistical one to understand where the spirit of the market has moved over these four months and what message it carries for buyers and suppliers.

October-November:
A Correction Without Liquidation

During the final quarter of 2025, bitumen prices across Europe and Asia adjusted in line with softer crude and HSFO levels. Rotterdam, the Baltic, and the Mediterranean experienced seasonal demand pressure, while Singapore traded within a controlled downward channel. The correction was visible, but not disorderly.

Supply did not lose discipline. Refineries avoided aggressive destocking, inventories were managed, and differentials narrowed without creating destabilizing spreads. The market adjusted- it did not collapse.

This type of correction signaled structural cohesion on the supply side. When adjustments are not panic-driven, the groundwork remains intact for swift repricing should external variables shift. That shift began to emerge in January.

December:
Winter Slowdown Without Structural Breakdown

Severe winter conditions across large parts of Europe curtailed construction activity. Truck demand declined, short-term procurement slowed, and projects were deferred. At the same time, softer HSFO added pressure on export pricing.
Yet even in this environment, the market did not face widespread oversupply. Demand weakened, but supply responded flexibly. This behavior reflects a more mature market structure compared to previous cycles, with refineries exhibiting less reactive and less emotional output management.

During this same period, Iran maintained export continuity despite vacuum bottom constraints and heightened regional risk. Stability under pressure altered market perception: Iran was no longer viewed solely as a price-driven supplier but as a stability signal within an unstable environment.

January: Structural Repricing Begins

With the arrival of January, the market moved beyond seasonal correction into genuine repricing. Rising crude and strengthening HSFO translated quickly into export adjustments across Europe, South Korea, and East China. Importantly, this was not demand-led inflation. European construction activity had not fully resumed. The increase was primarily cost-driven, the market passed feedstock pressure into finished pricing.
Iran simultaneously faced operational and logistical complexity, including shipping caution and banking sensitivities. Nonetheless, export flow continued. In this environment, "Iran risk" became a quantifiable pricing component rather than an abstract concern. Iran transitioned from being a purely price-origin supplier to a geopolitical variable embedded in regional price formation.

February: The Market in Risk Assessment Mode

By early February, the global market entered a stabilization phase. Crude fluctuated, yet bitumen prices in many regions traded within narrow bands. Europe had not fully exited its seasonal slowdown, Singapore reflected relative balance, and Iran operated within a cautious but stable framework.
This period can be defined as a waiting phase. There were no strong bullish impulses, nor signs of structural collapse. Market participants were evaluating forward variables: weather normalization in Europe, crude direction, and geopolitical developments in the Persian Gulf.

Africa: A New Center of Gravity

During the period under review, African markets emerged as one of the most dynamic demand centers globally.
By late January, West Africa had become the most active demand hub, with CFR Lagos firming and multiple cargo movements signaling infrastructure execution momentum. Unlike Europe, which is heavily season-sensitive, African demand responds more directly to project financing cycles. Once activated, demand can remain firm even during Northern Hemisphere winter.
For Iran, Africa presented both opportunity and margin complexity. While traditional competitiveness remained, higher vacuum bottom costs, freight escalation, and sanction-related frictions compressed margins. In such an environment, volume-driven selling alone risks profitability erosion.

Iran at the Core of the Equation

Across these four months, three structural shifts became visible regarding Iran's role:
1. Export continuity persisted despite expectations of disruption.
2. Iran-related risk - freight, insurance, financial transfer- became embedded within pricing structure.
3. African activation increased the transmission of Persian Gulf dynamics into African pricing.
Iran is no longer a peripheral participant; it forms part of the decision-making core of the market.

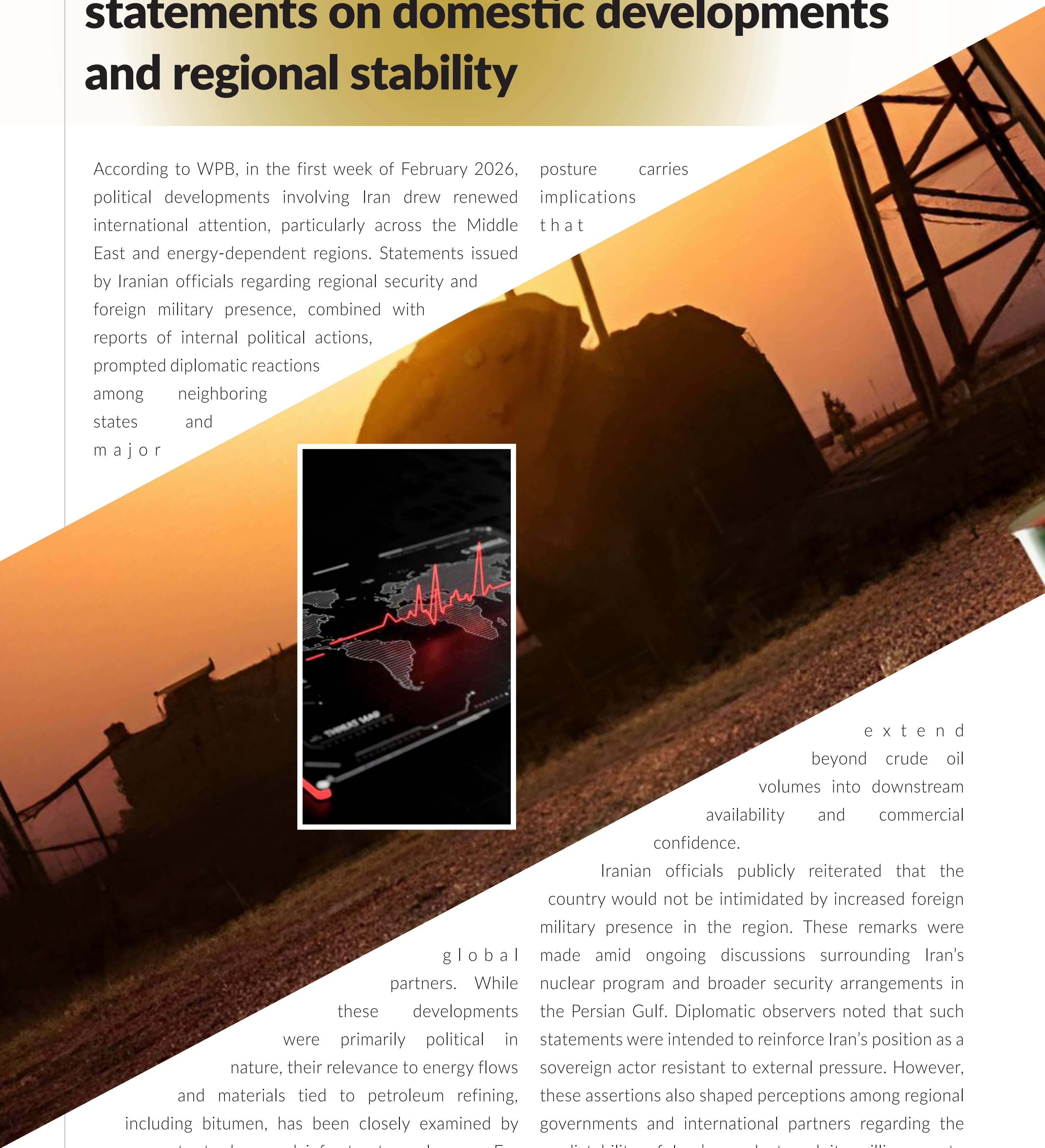
Future Outlook:

If crude stabilizes within mid-range levels and European activity gradually resumes with improved weather, the market could enter a stabilization phase with a mild upward bias.
In a stronger scenario, sustained African momentum combined with firmer crude could push pricing toward higher ranges.
However, a downside scenario remains valid should crude correct or logistical pressures in the Persian Gulf intensify.
The market stands in transition- neither in full expansion nor in deep contraction.

Conclusion:

The past four months confirm that the bitumen market has entered a structural phase where cost, logistics, and geopolitics weigh as heavily as demand.
Within this structure, Iran remains a key global supply source, yet its role is no longer purely price-based. Risk, stability, and regional positioning have become integral to global pricing dynamics.
The market has exited autumn correction but has not yet entered sustained expansion. In transition periods, disciplined players with structured risk management frameworks will define the winners.

The consequences of Iran's recent political statements on domestic developments and regional stability



According to WPB, in the first week of February 2026, political developments involving Iran drew renewed international attention, particularly across the Middle East and energy-dependent regions. Statements issued by Iranian officials regarding regional security and foreign military presence, combined with reports of internal political actions, prompted diplomatic reactions among neighboring states and major global partners. While these developments were primarily political in nature, their relevance to energy flows and materials tied to petroleum refining, including bitumen, has been closely examined by governments, traders, and infrastructure planners. For regions where stability of supply remains critical, Iran's posture carries implications that extend beyond crude oil volumes into downstream availability and commercial confidence.

Iranian officials publicly reiterated that the country would not be intimidated by increased foreign military presence in the region. These remarks were made amid ongoing discussions surrounding Iran's nuclear program and broader security arrangements in the Persian Gulf. Diplomatic observers noted that such statements were intended to reinforce Iran's position as a sovereign actor resistant to external pressure. However, these assertions also shaped perceptions among regional governments and international partners regarding the predictability of Iran's conduct and its willingness to engage within established diplomatic frameworks.

At the same time, reports of internal political measures, including actions taken against certain political figures, introduced an additional layer of uncertainty. Analysts indicated that domestic political consolidation often influences foreign policy signaling, particularly in states where internal and external narratives are closely linked. In Iran's case, these developments were interpreted by some governments as an indication of tightened internal control, potentially affecting the pace and tone of external engagement.

From a regional stability perspective, neighboring countries assessed these signals with caution. States bordering the Persian Gulf remain highly sensitive to any rhetoric or action that could disrupt maritime security or increase the risk of confrontation. Although no immediate escalation was observed, diplomatic channels were reportedly active as governments sought clarity on Iran's intentions. The stability of shipping routes, especially those critical to energy exports, remained a central concern.

Energy markets responded primarily through reassessment rather than immediate disruption. Iran's crude oil exports continued under existing arrangements, but market participants paid closer attention to political signals that could influence future negotiations or enforcement dynamics. Observers emphasized that Iran's oil sector, while resilient, operates within a complex web of sanctions, exemptions, and bilateral agreements. Political messaging therefore plays a significant role in shaping expectations around continuity.

Beyond crude oil, downstream petroleum products also entered the analytical frame. Bitumen, produced through refining processes, occupies a specific position in Iran's energy economy. The country is both a producer and exporter of bitumen, supplying markets across the Middle East, Asia, and parts of Africa. Infrastructure development in these regions relies heavily on consistent deliveries, making political stability a key variable in procurement planning.

Regional partners evaluated whether Iran's political posture could affect refinery operations or export logistics. While no policy announcements indicated changes to production or trade, analysts noted that heightened geopolitical tension often leads to stricter oversight of shipping, insurance, and payment mechanisms. Such conditions can indirectly affect bitumen exports by increasing transaction costs or limiting access to certain markets.

In the Middle East, governments and contractors examined the situation through the lens of infrastructure continuity. Large-scale road and urban projects depend on steady supplies of paving materials. Iran's role as a supplier means that any perceived risk to its export capacity can prompt buyers to diversify sourcing or renegotiate terms. Industry sources reported increased monitoring of Iranian shipments, not as a reaction to actual shortages, but as a precautionary measure.

Asia represents another critical dimension. Several Asian countries import Iranian petroleum products under bilateral arrangements. Political statements emphasizing resistance to external pressure were interpreted differently across

Eastern Asia Introduces New Policy Directions in Road Paving and Bitumen Use

According to WPB, in early February 2026, two policy-level developments originating in East Asia began to draw sustained attention from infrastructure planners, materials scientists, and road authorities well beyond their immediate jurisdictions. One emerged from Japan, where the Ministry of Land, Infrastructure, Transport and Tourism initiated a formal solicitation for alternative pavement technologies. The other took place in China, where Shandong Province enacted a binding technical standard governing the implementation of warm mix asphalt in road construction projects. Neither announcement was framed as a global declaration, nor did either explicitly address international markets. Yet together, they signal a recalibration in how bitumen-based road materials are being positioned within public policy, technical governance, and institutional procurement frameworks, with implications extending to the Middle East and other regions that depend heavily on long-term pavement durability, energy efficiency, and regulatory predictability.

For oil-producing and infrastructure-intensive regions such as the Gulf and broader Middle East, these developments matter not because they impose immediate obligations, but because they reshape the reference architecture against which future bitumen specifications, technology transfers, and project tenders are evaluated. Bitumen remains a strategic material in these regions, embedded not only in roads but also in port logistics, industrial zones, and urban expansion programs. When major Asian economies begin to adjust the institutional language surrounding asphalt and bitumen—shifting from purely performance-based frameworks toward technology-aware and emissions-conscious standards—the downstream effects are felt across export markets, engineering consultancies, and research partnerships.

The Japanese initiative, launched through the national road administration, does not target bitumen directly. Instead, it invites proposals for pavement technologies that may either complement or partially substitute conventional asphalt systems. This distinction is critical. Rather than signaling a retreat from bitumen, the policy reframes it as one material among several that must now justify its use through lifecycle performance, energy consumption during construction, and compatibility with evolving environmental targets. For bitumen producers and modifiers, this creates both pressure and opportunity: pressure to demonstrate compliance with broader policy goals, and opportunity to reposition bitumen through innovation rather than commodity supply.

Universities and public research institutions in Japan have already aligned their research agendas accordingly. The University of Tokyo's Institute of Industrial Science has expanded its pavement materials program to include comparative assessments of modified bitumen systems versus cementitious and composite alternatives under seismic and climatic stress. Kyoto University has continued its long-running research into low-temperature asphalt mixtures, focusing on binder rheology and long-term aging behavior. These academic efforts are not isolated;

What OFAC's Actions Mean for Venezuelan-Origin Bitumen Flows

According to WPB, The United States Treasury's Office of Foreign Assets Control issued updated guidance and a revised general license on February 10, 2026 concerning certain activities tied to Venezuelan-origin oil. The decision has immediate implications for trade corridors linking Latin America, the Caribbean, Europe, and parts of the Middle East. For refiners, traders, shipping firms, and infrastructure ministries dependent on heavy crude derivatives such as bitumen, the clarification narrows legal uncertainty while preserving compliance constraints. In practical terms, the announcement may influence how Venezuelan feedstock is marketed, stored, transported, blended, and converted into asphalt products that ultimately reach road construction projects across emerging and developed markets. Although the measure does not eliminate sanctions architecture, it refines the operational space within which commercial activity may proceed under authorization.

The February 10 action centers on General License 46A, which authorizes specific transactions involving Venezuelan-origin oil under defined conditions. The text addresses marketing, storage, and transportation activities, delineating what is permissible without violating U.S. sanctions. While crude oil typically commands headline attention, the downstream consequences extend to residual streams and heavy fractions that underpin global bitumen supply. Venezuelan crude is characteristically heavy and sulfur-rich. Its refining yields substantial quantities of vacuum residue and other feedstocks suitable for asphalt production. Any shift in the legal treatment of such crude therefore has direct relevance for the bitumen market.

Venezuela historically ranked among the world's major holders of heavy crude reserves. Before sanctions tightened, its barrels circulated widely through complex trading networks, reaching refineries configured for heavy feedstock in Asia, Europe, and the United States. The sanctions regime disrupted these channels, constraining production, limiting exports, and forcing redirection of cargoes. Bitumen output linked to Venezuelan crude contracted as refinery throughput declined. Infrastructure contractors in several regions reported sporadic supply volatility, particularly where local production capacity was limited and imports of heavy residues were essential.

The updated license does not represent a blanket lifting of restrictions. Rather, it specifies categories of transactions that may proceed if they comply with outlined parameters. The distinction is critical for bitumen manufacturers who rely on stable access to heavy crude streams. Under previous ambiguity, financial institutions hesitated to clear payments, insurers demanded higher premiums, and shipping companies reassessed risk exposure. Even where physical cargoes could move, ancillary services faced compliance barriers. The February 10 guidance narrows interpretive gaps, potentially easing friction in permitted transactions.

For Middle Eastern markets, the development holds indirect but notable importance. Gulf refiners compete in supplying bitumen to African and Asian destinations. Venezuelan barrels, when present in global trade, introduce an additional heavy crude source that can feed refineries outside the Gulf. If authorized Venezuelan-origin oil reenters certain channels in greater volume, competitive dynamics in bitumen exports may adjust. Contractors in East Africa, for example, have periodically relied on imports from both the Gulf and alternative suppliers. Availability of Venezuelan-derived material could influence procurement strategies and blending decisions.

European refiners are another focal point. Several facilities in Southern Europe possess technical configurations suitable for processing heavy crude. In recent years, many have shifted feedstock portfolios toward Middle Eastern or other Latin American grades. The OFAC clarification may enable limited re-engagement with Venezuelan-origin streams under compliant frameworks. If so, bitumen output in Europe could experience incremental stabilization,

Venezuela:

Any shift in the legal treatment of such crude therefore has direct relevance for the bitumen market.

2026

particularly ahead of seasonal infrastructure programs. Road maintenance cycles in Europe typically intensify during warmer months. Early-year supply planning is therefore critical.

The marketing dimension of the general license warrants particular scrutiny. By authorizing certain marketing activities, the Treasury acknowledges that commercial communication, negotiation, and contract formation can occur within defined bounds. This reduces the chilling effect that broad sanctions language previously created. Bitumen distributors often operate through long-term supply agreements with construction firms and government agencies. Without clarity on whether marketing discussions themselves might trigger compliance concerns, some transactions stalled before execution. The updated guidance offers greater certainty regarding permissible engagement.

Storage provisions are equally significant. Bitumen logistics depend on tank infrastructure capable of handling high-viscosity material. Storage terminals frequently commingle or sequentially handle different heavy products. Sanctions ambiguity complicated storage arrangements when Venezuelan-origin material was involved. Terminal operators required explicit assurances that hosting such cargo would not expose them to penalties. By delineating authorized storage activities, the February 10 action may re-open capacity at certain terminals that had withdrawn from related business.

Transportation remains one of the most sensitive aspects of sanctions compliance. Vessel owners, charterers, and insurers face direct exposure to regulatory penalties. In the case of heavy crude and residual products, voyages are often long-distance and involve ship-to-ship transfers. The general license clarifies which transportation activities are authorized, reducing the likelihood that compliant carriers will abstain purely out of uncertainty. For bitumen supply chains that depend on imported feedstock, reliable maritime transport is indispensable.

Financial institutions constitute another essential link. Payment settlement for crude and derivative products

traverses international banking networks. Prior to the updated license, compliance departments frequently adopted conservative interpretations, declining to process transactions with any Venezuelan nexus. This caution reverberated across asphalt production because refiners could not secure working capital for feedstock purchases. The explicit language of General License 46A provides banks with a clearer legal basis for processing authorized transactions, subject to due diligence.

The policy shift also intersects with environmental and technical considerations. Venezuelan heavy crude yields high levels of vacuum residue, a primary precursor for bitumen. Refineries optimized for deep conversion can adjust operating modes to maximize asphalt-grade material. If Venezuelan-origin oil enters refining slates under compliant terms, operators may calibrate units to capture margin in asphalt markets rather than exclusively targeting fuel products. This is particularly relevant at a time when global transportation fuel demand growth remains uneven and infrastructure spending persists in many regions.

From a geopolitical standpoint, the February 10 action signals calibrated engagement rather than comprehensive rapprochement. Sanctions remain embedded within broader U.S. foreign policy objectives. However, targeted licenses can serve pragmatic economic ends without dismantling overarching constraints. For bitumen markets, the nuance matters. Even partial reauthorization of trade can alter expectations, inventory planning, and contract pricing structures, though the license itself does not set prices.

In Latin America, neighboring countries that import Venezuelan-origin products may see logistical normalization. Asphalt demand in the region is closely tied to public works budgets. When feedstock supply is unpredictable, contractors delay procurement or pay premiums for alternative sources. With clarified authorization, regional refiners may secure more predictable crude inflows, supporting domestic bitumen production. This has downstream implications for road rehabilitation programs, especially in Caribbean states reliant on maritime imports.

The announcement also underscores the complexity of compliance documentation. Entities engaging in authorized transactions must maintain rigorous records demonstrating adherence to license conditions. Bitumen producers sourcing Venezuelan-derived feedstock will need to trace origin, ensure counterparties are not blocked persons, and verify that

AFRICA'S BITUMEN MARKET IN THE FIRST TWO MONTHS OF 2026

According to WPB, At the beginning of 2026, developments within Africa's bitumen market reflected broader dynamics shaping global trade in heavy refinery outputs. Decisions taken during January and February carried significance not only for domestic infrastructure programs across the continent but also for export-oriented refiners in the Middle East and Southern Europe. Early-year procurement cycles, synchronized with fiscal calendars and construction planning, influenced shipping schedules, refinery run optimization, and inventory strategies in several interconnected regions.

As the calendar turned, African governments moved from budget authorization to execution. Infrastructure allocations approved toward the end of 2025 began translating into procurement activity once administrative processes resumed in January. This transition period is a recurring feature of the market, yet the opening weeks of 2026 showed a comparatively orderly pattern. Buyers entered the year with measured stock positions, reflecting deliberate drawdowns in the final quarter of 2025, followed by a controlled return to the market rather than abrupt restocking.

For suppliers in the Middle East, the pace and sequencing of African demand served as an early indicator for the year ahead. Exporters tracked nomination patterns closely, particularly from West and East Africa, adjusting shipment sizes and vessel deployment to align with confirmed project timelines. Mediterranean refiners followed similar signals, especially in relation to North and parts of West Africa, where geographic proximity and established trade lanes remain relevant.

West Africa continued to account for a substantial share of early-year activity. Nigeria, Ghana, Côte d'Ivoire, and Senegal each entered 2026 with ongoing road rehabilitation and expansion programs, many linked to multi-year national transport strategies. In Nigeria, the gradual integration of additional domestic refining capacity during 2025 altered expectations about local supply, yet imported volumes remained part of the procurement mix in January. Distribution networks and grade availability continued to evolve, leading buyers to supplement domestic sourcing with imports where technical specifications or delivery timing required it.

Port operations in Lagos and Port Harcourt demonstrated consistent inbound movements during January. February scheduling suggested continuity rather than acceleration, with shipments timed to coincide with contractor mobilization ahead of dry-season work in selected regions. The emphasis was on reliability rather than volume expansion, reflecting cautious planning by both public authorities and private contractors.

In Ghana and Côte d'Ivoire, highway modernization projects awarded in late 2025 progressed through administrative confirmation stages during January. Supply contracts were formalized, storage arrangements were secured, and delivery windows were defined. February marked the transition from paperwork to physical movement, with cargo nominations issued and terminal slots allocated. Storage capacity constraints in certain ports required staggered arrivals, encouraging disciplined logistics rather than clustered discharges. Exporters responded by maintaining flexible shipping programs to accommodate narrower berth availability.

East Africa presented a distinct but complementary pattern. Kenya and Tanzania continued to advance trunk road upgrades and feeder road rehabilitation supported by a mix of national funding and development finance. In Kenya, procurement activity early in the year focused on framework-type arrangements that allowed phased drawdowns. January volumes remained moderate, reflecting inventory carried over from late 2025. As February progressed and contractors finalized mobilization schedules, inquiry levels increased accordingly.
Tanzania's role as a logistical gateway was evident in port

activity at Dar es Salaam. Cargoes handled during this period were destined not only for domestic use but also for onward movement to landlocked neighbors such as Rwanda and Uganda. Transit planning emphasized predictability, with customs procedures managed conservatively to limit demurrage exposure amid ongoing digitization efforts within regional trade systems.

In Southern Africa, market behavior during January and February was shaped by fiscal discipline and maintenance-driven demand. South Africa sustained road upkeep programs under both national and provincial budgets, while capital-intensive expansions remained selective. Domestic output covered a substantial portion of requirements, but imports continued to play a complementary role when refinery maintenance constrained availability. January activity centered on inventory review, while February purchases aligned with confirmed execution schedules rather than speculative positioning.

Mozambique and Zambia, both reliant on imported material, coordinated shipments through Beira and Durban respectively. Supply planning emphasized continuity for corridor rehabilitation linked to mining and regional logistics. Deliveries were structured to support steady consumption rather than front-loaded stock accumulation.

Across the continent, technical compliance featured prominently in procurement decisions. Transport authorities increasingly emphasized performance-oriented criteria in tender documentation, moving beyond purely penetration-based references. Suppliers were expected to provide consistent quality data, including parameters related to softening behavior, deformation resistance, and aging performance. January negotiations devoted significant attention to technical due diligence, while February contract awards translated these requirements into delivery schedules supported by laboratory verification procedures. Inventory management emerged as a defining theme during the period.

Many import-dependent markets entered January with leaner stocks following cautious year-end drawdowns. Currency volatility in several economies during late 2025 had encouraged restraint. As exchange conditions stabilized in early 2026, purchasing confidence improved incrementally. Rather than rebuilding stocks aggressively, buyers favored medium-sized cargoes that balanced operational security with financial prudence. February continued this pattern, with an emphasis on dependable supply over opportunistic accumulation.

Foreign exchange availability influenced transaction structures in both West and East Africa. Letters of credit were issued with detailed documentation requirements, and some buyers explored partial prepayment arrangements to secure shipment slots within tight scheduling windows. Exporters adapted by offering payment terms compatible with acceptable risk thresholds. This approach contributed to orderly material flows during January and February, avoiding abrupt shifts in offtake that can strain logistics. From a shipping perspective, freight availability remained generally adequate. The supply of coated tankers suitable for this trade supported planned movements, although careful coordination was required to align vessel drafts with port limitations and berth access. Weather conditions during January were largely favorable, enabling predictable transit times from Gulf and Mediterranean loading points to African discharge ports. February maintained similar operational continuity, reinforcing market stability.

Policy signals also played a role in shaping sentiment. Several African transport ministries used January budget presentations to reaffirm commitments to multi-year road programs. While these announcements did not trigger immediate surges in monthly procurement, they provided medium-term visibility for suppliers assessing engagement through the remainder of 2026. Contractors responded by advancing procurement of essential materials to safeguard project continuity.

Environmental and durability considerations appeared more frequently in procurement language during this period. Some January tenders referenced longevity and lifecycle efficiency, signaling gradual alignment with international best practices. Although adoption rates varied by country, February discussions indicated growing openness to materials designed to extend service intervals. Suppliers capable of providing technical support alongside deliveries strengthened their commercial positioning through advisory

engagement rather than transactional supply alone.
Competition among exporting regions remained present but measured. Middle Eastern suppliers retained logistical advantages in East Africa and parts of West Africa, while Mediterranean refiners sustained positions in North and selected West African markets. Asian cargoes were less prominent during January and February, reflecting freight economics and regional demand absorption. Buyers prioritized reliability, documentation compliance, and punctual delivery over aggressive sourcing shifts.

North Africa followed a separate trajectory shaped by domestic production capacity. Egypt and Morocco balanced local output with selective imports. January focused on inventory assessment and refinery maintenance planning, while February procurement aligned with confirmed spring construction schedules. Trade across the Mediterranean remained relevant, but domestic availability reduced the need for significant incremental imports.

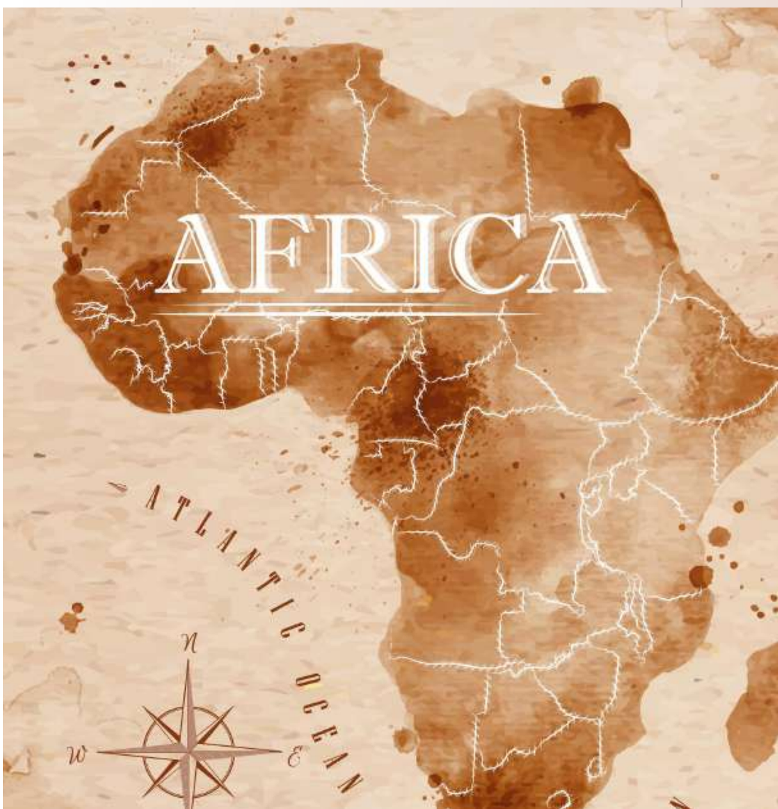
Global refining conditions indirectly influenced availability during the period. Refinery utilization levels in exporting regions supported steady output of heavy streams suitable for downstream use. No major unplanned outages disrupted export capacity to Africa in January or February, contributing to the overall sense of continuity in supply.

A structural development supporting this stability was the incremental expansion of storage infrastructure in parts of West Africa. Additional tank capacity commissioned toward the end of 2025 enhanced reception flexibility in early 2026. This reduced the likelihood of shipment deferrals and improved inland distribution efficiency. February operations demonstrated improved coordination between terminal operators and contractors, shortening turnaround times for dispatch to project sites.

Risk management practices among African importers also showed signs of maturation. Rather than concentrating purchases in single large tenders, authorities diversified supply schedules. Contracts finalized in January often included optional volumes exercisable later in the quarter, contingent on project progress. This modular approach aligned inflows with execution pacing, reducing exposure to storage constraints and financing costs.
Demand during January and February 2026 reflected continuity rather than abrupt expansion. The market avoided speculative behavior, remaining closely tied to confirmed infrastructure programs. For exporters in the Middle East, this translated into dependable baseline demand without sharp volatility. For African governments, it supported orderly sequencing of projects within approved budgets.

Looking beyond February, visibility for the second quarter appeared constructive. Dry-season execution in parts of West and East Africa was expected to increase material consumption. The measured replenishment observed in January established a foundation for sustained lifting schedules. Exporters were positioned to respond, provided logistical coordination and financing channels remained stable.

Taken together, Africa's market during the opening months of 2026 was characterized by fiscal clarity, logistical coordination, and cautious rebuilding of inventories. While the period did not generate dramatic headlines, it reinforced the continent's role as a consistent destination for heavy refinery outputs. For global suppliers, particularly those in the Middle East, early-year procurement patterns offered meaningful insight into capacity planning, shipping allocation, and commercial engagement for the remainder of the year.



DELAYED HIGHWAYS IN SOUTH AND SOUTHEAST ASIA AND THE EMERGING CONSTRAINTS ON BITUMEN SUPPLY

According to WPB, Major highway projects in South and Southeast Asia have recently experienced schedule slippages that extend beyond national borders, with implications for global construction supply chains and for bitumen trade across the Middle East and the Indian Ocean basin. Large infrastructure corridors in Bangladesh and the India–Myanmar connectivity program have encountered cumulative delays linked to land acquisition bottlenecks, financing revisions, contractor capacity constraints, and disruptions in materials procurement and logistics. For Middle Eastern refiners and exporters of paving-grade bitumen, these delays alter shipment cycles, contract structures, and inventory planning. For global markets, they signal that infrastructure momentum in fast-growing Asian economies remains vulnerable to administrative, logistical, and material supply constraints.

The Dhaka–Ashulia Elevated Expressway in Bangladesh represents one of the most significant ongoing urban transport initiatives in the region. Designed to alleviate congestion around the capital and to strengthen links between Dhaka and its industrial outskirts, the project has faced schedule overruns relative to its original timeline. Official updates indicate that progress has been slower than initially projected, with sections of the project lagging behind planned completion milestones. Among the primary causes cited are complexities in land acquisition, relocation of utilities, coordination with existing urban infrastructure, and adjustments in financing and contractor mobilization. These factors have interacted with procurement challenges affecting construction materials, including aggregates and paving materials such as bitumen.

Urban elevated highway construction requires consistent supply of asphalt mixtures tailored to structural and climatic specifications. In Bangladesh, the paving phase depends on a combination of imported bitumen and domestic blending facilities. Delays in import clearances, fluctuations in shipping schedules, and periodic foreign exchange constraints have contributed to irregular supply patterns. While no formal declaration of a bitumen shortage has been issued, contractors have reported the need to recalibrate procurement cycles and to sequence paving works more cautiously. This has extended construction timelines and required renegotiation of delivery schedules between suppliers and project authorities.

The Dhaka Bypass Expressway, another major infrastructure undertaking intended to divert heavy traffic from central Dhaka, has also encountered delays. In this case, land acquisition and right-of-way disputes have been significant drivers. However, once civil works reach the paving stage, the reliability of bitumen deliveries becomes critical. Bangladesh relies substantially on imports for its paving-grade bitumen, sourcing from regional suppliers in the Middle East and Asia. Any disruption in maritime logistics or delays in port handling translate into interruptions in asphalt plant operations. Contractors often respond by maintaining higher on-site stock levels, but this approach increases holding costs and strains project cash flow.
Beyond Bangladesh, the Kaladan Multi-Modal Transit Transport Project linking India and Myanmar has experienced protracted delays spanning several years. The

Oil Prices Climb Amid Fears of U.S. Military Action Against Iran

According to WPB, on recent days, international attention once again concentrated on the strategic relationship between Iran and the United States, following a series of political and security signals that raised renewed concerns about the possibility of military confrontation. While much of the immediate media coverage focused on oil markets, military risk, and diplomatic messaging, the implications for the bitumen and asphalt sector were less visible but no less significant. For the Middle East and adjacent regions, where infrastructure development, road construction, and export-oriented refining are tightly linked to political stability, the Iran–America war narrative carries structural consequences that extend beyond crude oil and into the foundations of construction supply chains.

The Middle East remains one of the most important global hubs for bitumen production and export, with Iran holding a central role due to its refining capacity, geographic position, and long-standing trade links with Asia, Africa, and parts of Europe. Any escalation involving Iran and the United States immediately alters risk perceptions around shipping routes, insurance coverage, contract enforcement, and logistical continuity. Even without direct military engagement, the language of war influences how governments, contractors, and infrastructure planners reassess medium-term projects. In February 2026, these dynamics resurfaced with clarity, creating a new operational environment for bitumen flows across multiple regions.

Reports published recently highlighted growing concern among policymakers and financial institutions regarding potential U.S. military action targeting Iranian assets. Although no formal declaration or direct engagement occurred, the political atmosphere shifted noticeably. This shift matters for bitumen because the product sits at the intersection of energy refining and public infrastructure, making it highly sensitive to both sanctions regimes and government spending priorities. Unlike crude oil, bitumen markets are less liquid and more dependent on stable contractual relationships, which amplifies the impact of geopolitical uncertainty.

Iran’s bitumen exports have historically adapted to external pressure through diversified routing, flexible packaging formats, and regional intermediaries. However, renewed Iran–America war discourse introduces fresh constraints. Shipping companies become more cautious, charter rates rise, and ports connected to Iranian-origin cargo face additional scrutiny. For buyers in South Asia, East Africa, and Southeast Asia, this translates into longer lead times and a stronger preference for alternative suppliers, even when Iranian material remains competitively priced.

At the same time, domestic infrastructure priorities within Iran are also affected. Government attention shifts toward strategic resilience rather than expansionary construction. Road maintenance programs may continue, but large-scale asphalt-intensive projects tend to slow when fiscal and political uncertainty increases. This internal adjustment reduces available export volumes of certain bitumen grades, particularly those produced by smaller refineries that rely on export revenue to remain operational.

From the U.S. perspective, the Iran–America war narrative reshapes how allied countries align their procurement strategies. American influence over financial systems and maritime insurance encourages compliance with informal risk-avoidance behavior, even in jurisdictions not formally bound by U.S. sanctions. As a result, some contractors quietly revise tender specifications to favor non-Iranian bitumen sources, citing supply security rather than political considerations. This subtle shift was already observable in late February 2026 through changes in tender language and delivery terms across several importing countries.

The immediate beneficiaries of this environment are alternative Middle Eastern and Asian suppliers. Countries such as Iraq, Bahrain, and certain Southeast Asian producers gain short-term attention as buyers seek diversification. However, these suppliers face capacity and consistency limitations, particularly for penetration-grade bitumen commonly used in large road projects. The result is a fragmented supply landscape where availability exists, but uniformity and reliability become harder to guarantee.

China and India, two of the largest consumers of bitumen globally, respond differently to Iran–America war signals. China's state-backed procurement structure allows greater tolerance for geopolitical risk, especially when materials are strategically important. Chinese contractors operating abroad may continue to source Iranian bitumen indirectly, provided logistical pathways remain functional. India, by contrast, exhibits a more cautious stance, influenced by insurance costs, shipping exposure, and diplomatic balancing. In February 2026, Indian importers showed increased interest in domestic refinery output and Southeast Asian alternatives, despite higher base costs.

In Africa, where Iranian bitumen has played a notable role in road construction over the past decade, the effects are particularly pronounced. Many African infrastructure projects operate on tight budgets and depend on predictable material supply. The renewed Iran–America war discourse introduces uncertainty that project financiers and development banks are reluctant to absorb. Consequently, some projects experience delays not due to funding shortages, but because of unresolved sourcing decisions. This creates a feedback loop where uncertainty in geopolitics directly slows physical infrastructure delivery.

European markets, though less dependent on Iranian bitumen in volume terms, are affected through regulatory and compliance channels. Refiners and traders in Southern and Eastern Europe reassess blending strategies and stock management, anticipating possible disruptions in Mediterranean shipping lanes. Even when no immediate shortage exists, precautionary behavior increases holding costs and reduces spot market activity, contributing to a more rigid trading environment.

One of the less discussed recent outcomes developments is the impact on bitumen pricing structures without direct reference to price levels. Contract formulas become more conservative, with shorter validity periods and stricter force majeure clauses. Buyers demand clearer origin disclosure, while sellers seek greater flexibility in delivery windows. These contractual adjustments reflect a market preparing for instability rather than reacting to actual disruption.

Marketing strategies within the bitumen sector also adapt. Producers emphasize reliability, origin transparency, and logistical control rather than competitiveness. In an environment shaped by Iran–America war concerns, the ability to demonstrate uninterrupted supply chains becomes a core selling point. This marks a shift away from volume-driven competition toward risk-managed positioning, particularly in government-funded infrastructure projects.

IMPACT OF REFINERIES AND ASPHALT PROCESSING ON AIR QUALITY IN 10 MAJOR CITIES AROUND THE WORLD

According to WPB, Air quality concerns linked to petroleum refining and asphalt processing have moved from the margins of industrial debate to the center of public policy discussions across multiple regions, particularly in the Middle East, East Asia, and large metropolitan areas with dense infrastructure development. Over the past year, regulatory scrutiny, environmental monitoring data, and urban health assessments have converged on one overlooked contributor: bitumen production and asphalt-related refining activities.

Unlike crude oil fuels that dominate energy narratives, bitumen operates largely in the background of urban growth, yet its environmental footprint is increasingly difficult to ignore. From Gulf refining hubs to Asian megacities and European industrial corridors, evidence now suggests that emissions associated with bitumen processing are exerting measurable pressure on urban air quality indicators.

Bitumen refining and asphalt production differ significantly from conventional fuel refining in both process design and emission profiles. These operations rely heavily on high-temperature treatment, oxidation, blending, and storage of heavy residues. The result is a complex mixture of airborne pollutants, including sulfur dioxide, nitrogen oxides, particulate matter, volatile organic compounds, and polycyclic aromatic hydrocarbons. In dense urban environments, where refineries or asphalt plants operate near residential zones, transport corridors, or ports, these emissions interact with existing pollution sources, compounding health and environmental risks. Recent monitoring campaigns conducted in several global cities indicate that areas surrounding bitumen processing facilities exhibit persistent deviations from baseline air quality measurements, even when overall fuel consumption remains stable.

In the Middle East, cities such as Tehran, Riyadh, and Basra have experienced growing attention from environmental authorities due to the proximity of refining infrastructure to urban expansion zones. In Tehran, long associated with traffic-related air pollution, new assessments highlight the

ADVANCED CRACK DETECTION METHODS AND THERMOELASTIC BEHAVIOR ANALYSIS

According to WPB, New technical findings released in February 2026 indicate measurable progress in the methods used to detect cracks in asphalt pavements and to characterize the thermoviscoelastic behavior of bituminous materials under operational stress. The research reflects a coordinated shift toward data-driven diagnostics, precision laboratory modeling, and integrated field monitoring systems. Collectively, these developments are expected to influence pavement design specifications, maintenance planning strategies, and long-term infrastructure resilience policies.

Crack formation remains one of the primary contributors to pavement deterioration worldwide. Traditional inspection techniques, largely dependent on visual surveys and periodic manual assessments, have demonstrated limitations in identifying early-stage microcracking. Once visible cracks appear at the surface, subsurface damage is often already advanced. The latest detection methodologies aim to address this gap by deploying high-resolution optical systems combined with automated image processing algorithms capable of identifying fissures at sub-millimeter scale.

Recent field applications demonstrate that three-dimensional laser scanning systems mounted on survey vehicles significantly improve surface mapping accuracy. These systems generate dense point-cloud data, enabling precise measurement of crack width, length, and spatial orientation. When integrated with geospatial positioning technologies, the resulting datasets provide infrastructure managers with comprehensive distress inventories across extensive roadway networks. The level of granularity now achievable supports more targeted intervention strategies and reduces reliance on generalized rehabilitation schedules.

Infrared thermographic imaging has also emerged as a practical complement to optical scanning. Temperature differentials across pavement surfaces often reveal hidden voids, moisture accumulation, or delamination between structural layers. By capturing thermal patterns during controlled inspection intervals, engineers can differentiate between superficial cracking and deeper structural weaknesses. The synchronization of thermal imagery with digital surface mapping has improved diagnostic confidence and reduced misclassification rates in field trials conducted under varied climatic conditions.

Beyond surface-level detection, non-destructive evaluation technologies are being refined to assess internal pavement integrity. Ground-penetrating radar systems now operate at enhanced frequencies, producing clearer subsurface profiles. These systems detect anomalies in layer thickness, density variations, and moisture infiltration zones that may accelerate crack propagation. Data integration platforms merge radar outputs with surface crack maps, enabling a multi-layered assessment framework that strengthens predictive maintenance models.

Parallel to detection advancements, laboratory analysis of asphalt's thermoviscoelastic behavior has undergone significant refinement. Asphalt materials exhibit time- and temperature-dependent mechanical responses, meaning their stiffness and deformation characteristics vary under different loading rates and thermal environments. Historically, characterization relied on relatively simple empirical tests. Current research prioritizes dynamic mechanical analysis techniques that apply oscillatory loading across broad frequency ranges. This approach allows the construction of master curves that describe material stiffness over extended temperature intervals.

The time–temperature superposition principle has gained renewed emphasis in performance evaluation. By shifting test data obtained at various temperatures along a logarithmic time scale, researchers develop unified models that predict long-term behavior from short-duration laboratory experiments. These models enable more accurate estimation of rutting susceptibility at elevated temperatures and fatigue cracking risk under low-temperature conditions. The precision of such predictive tools supports climate-specific mix design adjustments and informs binder modification strategies.

Polymer-modified binders continue to receive attention in thermoviscoelastic studies. Enhanced formulations aim to improve elasticity at high service temperatures while maintaining adequate stiffness to resist permanent deformation. Recent findings suggest that optimized polymer networks can reduce thermal stress accumulation during temperature cycling. However, researchers note that modification must be calibrated carefully to avoid excessive brittleness at low temperatures. Laboratory protocols now incorporate cyclic thermal conditioning to replicate real-world seasonal variations before mechanical testing.

Moisture sensitivity testing has also been incorporated into advanced evaluation frameworks. Water infiltration alters adhesion between binder and aggregate, influencing crack initiation and propagation. Updated conditioning procedures subject specimens to controlled humidity exposure followed by mechanical loading cycles. Results confirm that moisture presence significantly affects viscoelastic response, particularly in mixtures with elevated air void content. These insights are prompting revisions to mixture qualification criteria in several jurisdictions.

Embedded sensing technologies represent another dimension of innovation. Acoustic emission sensors installed within pavement structures capture stress-wave signatures generated by microcrack development. Signal processing algorithms analyze waveform characteristics to classify crack types and assess growth dynamics. Field validation projects indicate that acoustic monitoring can detect structural distress before it becomes visible at the surface. When integrated with machine learning classification models, these systems enhance early warning capabilities and contribute to proactive asset management.

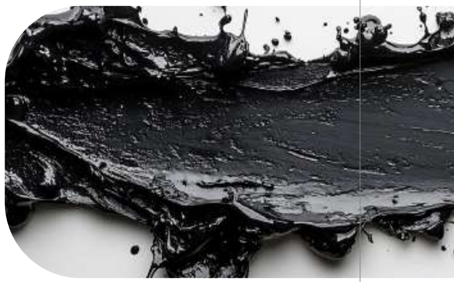
Fiber optic strain sensing has progressed from experimental application to pilot deployment. Distributed fiber optic cables embedded within asphalt layers provide continuous strain measurements along entire roadway segments. Unlike discrete sensors, distributed systems detect localized stress concentrations with high spatial resolution. Data from early installations reveal that abnormal strain patterns often precede observable cracking by extended intervals. Transportation authorities are assessing long-term reliability and cost-effectiveness before large-scale implementation.

Artificial intelligence plays a central role in the processing of large inspection datasets. Convolutional neural networks trained on extensive crack image libraries now demonstrate high classification accuracy across diverse pavement conditions. Updated algorithms incorporate contextual variables such as traffic intensity, historical maintenance records, and environmental exposure data. This integration enhances predictive modeling and allows maintenance scheduling based on quantified risk profiles rather than fixed inspection intervals.

Finite element modeling has further strengthened the link between laboratory findings and field performance. Advanced computational simulations replicate the stress–strain response of asphalt mixtures subjected to realistic loading sequences and thermal gradients. Calibration with field-derived parameters improves model reliability. Engineers use these simulations to evaluate structural responses under projected climate scenarios, providing guidance for long-term infrastructure adaptation strategies.

Sustainability considerations increasingly shape research priorities. The incorporation of recycled asphalt pavement

FOAMED BITUMEN COLD RECYCLING IN PORTUGAL



According to WPB, Infrastructure authorities in Portugal have introduced a cold recycling methodology based on foamed bitumen that is drawing attention beyond Europe, particularly in regions such as the Middle East where road expansion and rehabilitation programs consume substantial volumes of bituminous materials. The initiative reflects a broader international shift toward maximizing material efficiency, reducing energy intensity, and extending pavement life cycles without relying on fully new asphalt layers. For countries that are major producers or exporters of bitumen, the Portuguese model offers insight into how demand patterns may gradually evolve as sustainability, cost control, and lifecycle performance become dominant criteria in public infrastructure policy.

The program, implemented by Infraestruturas de Portugal, centers on in-situ cold recycling using foamed bitumen technology. Rather than removing existing pavement layers and transporting reclaimed materials to off-site plants, the process pulverizes deteriorated asphalt layers directly on the roadway. The reclaimed material is then mixed with foamed bitumen and, where required, small quantities of cement or stabilizing agents. The treated material is compacted and finished to create a renewed structural base layer. This method reduces the need for virgin aggregates, minimizes transport requirements, and lowers overall energy consumption compared to traditional hot mix reconstruction.

Foamed bitumen plays a central role in the process. Produced by injecting small amounts of water into hot bitumen under controlled conditions, the rapid expansion creates a fine dispersion of binder within the reclaimed aggregate matrix. The resulting mixture achieves workability at lower temperatures, enabling cold processing without the high thermal input associated with conventional asphalt production. For bitumen producers, this represents an important evolution in application methodology rather than a reduction in material relevance. The binder remains essential to structural integrity, but it is utilized in a manner that enhances efficiency and reduces waste.

Portugal's adoption of this technique reflects long-term planning within its national road network management strategy. Many European countries face aging transport infrastructure combined with fiscal constraints and climate policy commitments. Under such conditions, full-depth reconstruction using traditional hot mix asphalt is not always economically or environmentally optimal. Cold recycling with foamed bitumen offers an alternative that balances structural performance with cost containment. The approach allows agencies to rehabilitate extensive sections of roadway while preserving underlying materials.

For the global bitumen market, the significance of this development lies in its potential replication. Regions with expanding highway networks, including parts of the Middle East, North Africa, and Southeast Asia, consume large quantities of bitumen for both new construction and maintenance. If cold recycling technologies become more widely adopted, demand patterns may gradually shift from high-volume new material supply toward integrated lifecycle management models. This does not imply a decline in bitumen consumption overall; rather, it suggests a more technically optimized use of binder within rehabilitation cycles.

In the Middle East, where extreme climatic conditions impose additional stress on pavement structures, foamed bitumen cold recycling presents both opportunities and technical considerations. High surface temperatures and heavy axle loads require durable base layers with reliable moisture resistance and structural cohesion.

The Portuguese experience demonstrates that, under appropriate design and quality control parameters, recycled layers stabilized with foamed bitumen can achieve mechanical performance comparable to traditional base courses. This finding is relevant for countries investing in long-term road resilience under harsh environmental conditions.

Economically, cold recycling reduces reliance on imported aggregates and decreases fuel consumption associated with material transport and high-temperature mixing. For countries that import bitumen or face currency constraints, efficient binder utilization is particularly valuable. Instead of increasing overall binder volume, the process optimizes distribution within reclaimed materials. From a producer's perspective, this may support more stable long-term demand by embedding bitumen deeper within maintenance strategies rather than tying consumption solely to new highway construction.

The environmental dimension is equally significant. European infrastructure policy increasingly integrates carbon accounting and resource efficiency metrics into project evaluation. Cold recycling aligns with these objectives by lowering greenhouse gas emissions relative to conventional hot mix operations. Although bitumen remains a hydrocarbon-based material, its application within a recycling framework supports broader sustainability goals. This alignment enhances the material's position within policy debates that scrutinize fossil-derived inputs.

From a technical standpoint, successful implementation requires precise control of foaming parameters, moisture content, and compaction processes. The expansion ratio and half-life of the foamed binder must be calibrated to ensure uniform coating and structural stability. Portugal's experience indicates that careful laboratory testing and field trials preceded large-scale application. This highlights the importance of engineering capacity and institutional expertise in adopting advanced bituminous technologies. Countries seeking to replicate the model will need investment in training, quality assurance systems, and specialized equipment.

The market implications extend to equipment manufacturers as well. Cold recycling trains, integrated mixing units, and on-site stabilization systems represent a specialized segment of the construction machinery industry. As adoption increases, demand for such equipment may grow in tandem with demand for tailored bitumen grades optimized for foaming performance. Refiners may respond by adjusting penetration grades or modifying binder formulations to enhance foamability and durability in recycled mixtures.

For bitumen exporters, particularly those in regions heavily dependent on infrastructure-driven demand, the Portuguese development underscores the importance of technical support alongside material supply. Providing engineering guidance, performance data, and application expertise can strengthen commercial relationships. In markets where cold recycling is not yet standard practice, knowledge transfer may create new avenues for engagement beyond commodity sales.

Portugal's initiative also contributes to a broader narrative about lifecycle cost analysis. Instead of focusing solely on initial construction expenses, infrastructure agencies increasingly evaluate total cost of ownership over multi-decade horizons. Cold recycling with foamed bitumen reduces future maintenance cycles by reinforcing existing layers rather than simply overlaying damaged surfaces. This approach can delay structural failure and extend service intervals, thereby moderating long-term public expenditure. In developing economies, where rapid urbanization strains fiscal capacity, such efficiency gains are particularly attractive. Road networks expand quickly, but maintenance budgets often lag behind. Integrating recycling technologies from the outset can mitigate future backlog. For bitumen suppliers, participation in these programs ensures continued relevance as infrastructure policy evolves toward sustainability and durability.

It is important to emphasize that cold recycling does not eliminate the need for high-quality bitumen. On the contrary, binder consistency and performance become even more critical when applied in thin films within recycled aggregates. Variability in binder properties can compromise foam stability and structural cohesion. This reinforces the importance of refining standards, storage protocols, and technical oversight.

The Portuguese case demonstrates that public infrastructure agencies are willing to adopt innovative bituminous solutions when supported by credible data and engineering validation. Media coverage within Portugal has highlighted the method's efficiency and resource conservation attributes. While not a headline geopolitical development, its significance for the bitumen sector lies in demonstrating practical, scalable application under national authority supervision.

Globally, the direction of infrastructure policy increasingly favors circular economy principles. Materials are expected to remain in productive use for longer periods, with minimal extraction of virgin resources. Foamed bitumen cold recycling fits within this framework without displacing the binder itself. Instead, it integrates bitumen into a more sustainable material cycle. This integration may shape future procurement criteria and technical specifications across multiple regions.

In summary, Portugal's adoption of foamed bitumen cold recycling represents more than a localized engineering adjustment. It illustrates how bitumen continues to evolve within modern infrastructure systems. For Middle Eastern producers, European refiners, Asian importers, and African development agencies alike, the initiative offers a case study in balancing structural performance, fiscal discipline, and environmental responsibility. As replication expands, the global bitumen market may increasingly align with lifecycle optimization models that prioritize efficiency without diminishing the material's strategic role in transport infrastructure.

Examining the Causes of the Relative Stability of Global Bitumen Prices in February 2026

According to WPB, Global bitumen prices recorded a modest decline in mid-February 2026, with benchmark levels easing to 3,280 Chinese yuan per metric ton on 13 February, a daily decrease of 0.67 percent. Despite a limited month-on-month increase of 2.76 percent, values remain more than 14 percent below the level observed during the same period last year. This movement is primarily attributed to five interconnected factors: seasonal contraction in paving activity across parts of the Northern Hemisphere; stable but non-expansionary crude oil pricing; consistent refinery output of heavy residues; elevated inventories following subdued winter consumption; and competitive export positioning in key Asian destinations. Together, these elements have contributed to a controlled downward adjustment rather than abrupt volatility.

Seasonal demand contraction represents the most immediate driver behind the current softness. In North America and large parts of Europe, winter conditions significantly restrict asphalt paving operations. Road construction and resurfacing projects slow or temporarily halt during colder months because low temperatures prevent effective asphalt compaction and curing. As a result, procurement volumes decline, leaving suppliers with reduced off-take. When demand falls while production levels remain stable, market equilibrium adjusts downward. This dynamic has been visible throughout January and early February, when procurement schedules were either postponed or scaled back. Although some southern regions maintain year-round construction cycles, their consumption levels are insufficient to offset the broader seasonal slowdown in major developed markets.

A second contributing factor lies in crude oil pricing stability. Bitumen production costs are directly linked to the value of crude oil, from which heavy residues are derived during refining. In early 2026, Brent crude has fluctuated within a relatively narrow range without generating upward momentum strong enough to lift downstream heavy products decisively. When crude markets lack bullish stimulus, refiners face limited justification to raise bitumen quotations aggressively. Instead, pricing tends to follow a restrained path. The absence of supply disruptions or major geopolitical shocks in February has reinforced this stability. Without external pressure elevating feedstock costs, bitumen values have remained anchored, allowing minor demand weakness to translate into incremental price decreases.

Consistent refinery output has further contributed to the adjustment. Many refineries, particularly in the Middle East and parts of Asia, have maintained steady production schedules for heavy petroleum fractions. Where fuel demand structures support balanced product slates, refiners have not significantly reduced heavy residue output. This continuity in supply ensures that availability remains adequate in export markets. When supply flows remain uninterrupted during a period of seasonal demand moderation, inventories accumulate gradually. Such accumulation exerts downward pressure on spot quotations as sellers compete to secure term contracts or clear volumes before the next consumption cycle accelerates.

Elevated inventories represent the fourth explanatory element. During late 2025, relatively moderate prices encouraged forward purchasing and storage in several importing regions. As winter dampened immediate usage, these stored volumes limited the need for additional spot purchases in early 2026. Buyers holding sufficient reserves have adopted a cautious stance, delaying fresh orders in anticipation of potential further softness. This purchasing discipline reinforces downward tendencies, as sellers adjust offers to stimulate transaction flow. Inventory-driven moderation is not unusual in the first quarter of each calendar year, yet its influence remains notable in February's price formation.

Competitive export positioning in Asian markets has also shaped current levels. Suppliers from the Middle East, South Asia, and East Asia have sought to secure market share in destinations where infrastructure programs remain active. Competitive pricing strategies, combined with freight considerations, have compressed margins. Exporters facing comparable production costs frequently adjust offers incrementally to remain attractive to importers. This competition discourages sharp upward movements, particularly in an environment where demand growth is steady but not accelerating.

Looking ahead to the remainder of February 2026, the outlook suggests relative stability with limited upward momentum unless crude oil benchmarks strengthen materially. As temperatures gradually rise in certain regions toward the end of the month, procurement inquiries may begin to increase modestly. However, significant demand recovery typically emerges closer to March and April, when paving conditions improve more broadly across the Northern Hemisphere. Therefore, absent an unexpected shift in crude supply fundamentals or logistical disruption, prices are likely to remain within a narrow corridor through the end of February.

Should Brent crude move above its recent trading band or should refinery maintenance schedules constrain heavy residue output, incremental gains could materialize. Conversely, if inventories remain elevated and procurement stays cautious, minor additional softness cannot be ruled out. On balance, prevailing indicators point toward consolidation rather than a pronounced upward or downward swing. The 0.67 percent daily reduction observed on 13 February appears consistent with routine seasonal recalibration rather than structural weakness.

Over the medium term, infrastructure expenditure plans in the Middle East, South Asia, and parts of Africa continue to underpin baseline demand. Government-funded highway expansions, airport resurfacing programs, and urban transport corridors provide durable consumption anchors. These structural drivers reduce the probability of sustained price erosion. Nonetheless, the near-term trajectory remains closely tied to crude oil developments and the pace at which winter inventories are drawn down.

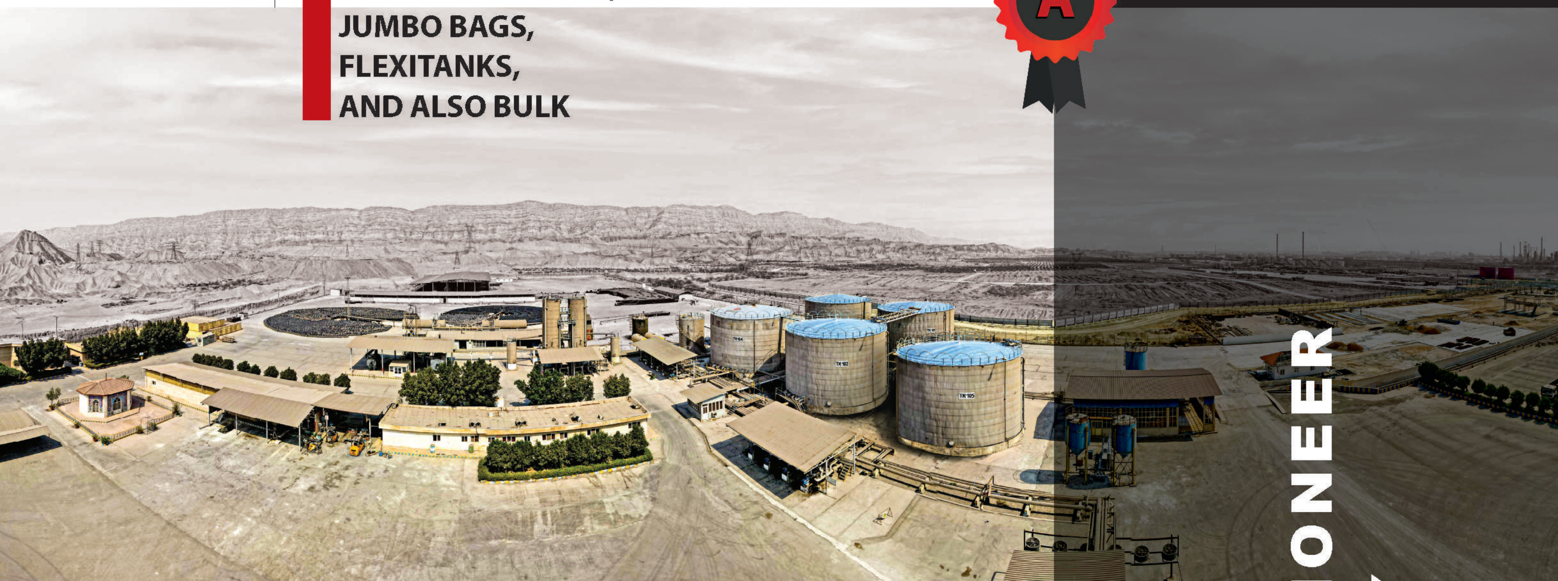
In conclusion, February's price movement reflects an interaction of predictable seasonal demand moderation, stable crude benchmarks, steady refinery output, inventory accumulation, and competitive export dynamics. Current data do not indicate systemic imbalance. Instead, they suggest a market adjusting methodically to cyclical conditions. Provided external energy markets remain calm, bitumen prices are expected to trade sideways through late February, with gradual firming more likely to emerge as spring construction activity resumes.

Overall, the recent adjustment in global bitumen prices reflects a seasonal and structurally predictable market movement rather than a fundamental imbalance. The combination of moderated winter demand in major Northern Hemisphere markets, stable crude oil benchmarks, steady refinery production of heavy residues, elevated inventories, and competitive export pricing has collectively contributed to the limited price decline observed in mid-February 2026. Current indicators suggest that the market remains fundamentally supported by ongoing infrastructure programs across the Middle East, Asia, and parts of Africa. Unless a significant shift occurs in crude oil supply dynamics or refinery output patterns, prices are expected to remain within a relatively narrow range through the remainder of February, with a gradual strengthening more likely as seasonal construction activity resumes in early spring.

HORMOZAN OIL

HIGHEST QUALITY IN PRODUCTION
PROFICIENT IN LOGISTIC OPERATIONS
VARIETY IN PACKING

BITUMEN VARIOUS PACKAGING INCLUDE
NEW STEEL DRUMS,
JUMBO BAGS,
FLEXITANKS,
AND ALSO BULK



HIGH-POWERED AND PIONEER IN BITUMEN INDUSTRY

www.hormozan.com

Bitumen Manufacturer, Cutback, Viscosity, Penetration and Performance grades

Instagram/hormozan.group
LinkedIn/hormozan group
Tel/(+98-21) 52 707
Email/info@hormozan.com
Fax/ (+98-21) 88 30 53 88
Head Office/No.41, South Kheradmand St., Tehran, Iran.
Factory/Hormozan St., North side of Bandar Abbas Refinery, Bandar Abbas, Iran.
Export Terminal/Shahid Rajaee Port Complex, Bandar Abbas, Iran