



Issue **4**

Iran Methanol Magazine

July & Aug . 2022



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Call for Cooperation with **Iran Methanol Magazine**

The present publication is not an outcome of the Iran Methanol Seminar. Herein, we are doing our utmost to provide solid, periodic information regarding methanol pricing stabilization with the cooperation of Iran's methanol industry executives and experts, while sharing information in the technical, production, and export fields.

All the dear readers of Iran Methanol Magazine who are keen to cooperate in terms of sending their related articles and content in the fields of market, production, and shipment of methanol, are kindly asked to send their materials to the publication's secretariat through the following communication channels. This is to note that the received articles would be published upon the approval of the publication's scientific committee.

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Beyond the Market ;





Beyond the Market ;

In the beyond the market section of issue 1 of this publication, we briefly reviewed the factors influencing methanol's supply and demand, and in issue 2 of the publication, we had abridged discussions regarding the production (nominal capacity and actual production). In this issue, we will explore global methanol consumption, its distribution in downstream industries, and the geographical concentration of important downstream industries.

In figure 1, the global methanol consumption from 2017 and its consumption forecast until 2031 are illustrated. When it comes to methanol consumption, this is to note whether the methanol produced for coal to olefin (CTO) production is included or not. In this figure and section, the methanol produced in CTO units has also been considered and added. This is evident that the methanol market is expanding and this year it is expected to grow by 4% compared to last year.

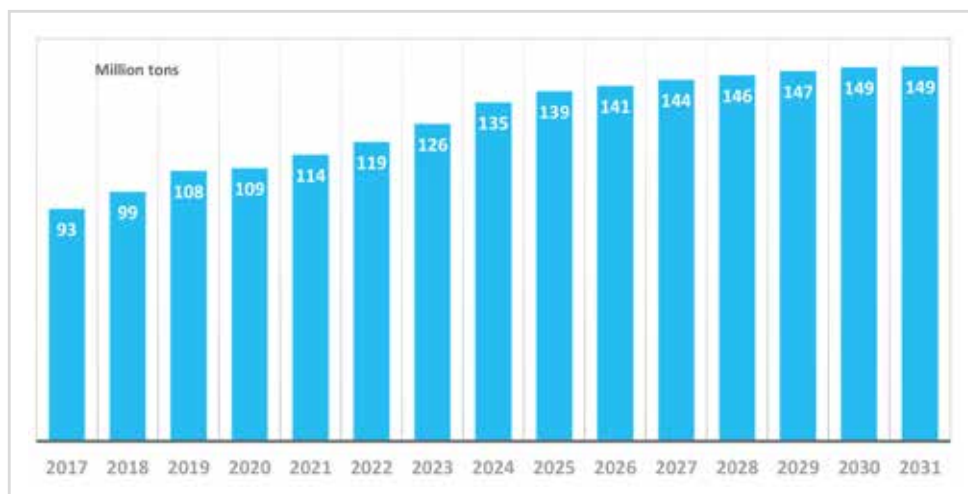


Figure 1- Global methanol consumption including CTO - past and forecast

But geographically¹, which regions have the highest methanol consumption throughout the world? Figure 2 demonstrates the data extracted from examinations of this issue in 2017, 2022, and 2027. As expected, the highest methanol consumption is in Northeast Asia and mainly in China.

1. NEA: North East Asia (China, Japan, Taiwan, Korea)

SEA: South East Asia: New Zealand, Australia

S Asia: South Asia: Indian subcontinent

ME: Middle East

E, W Europe: East, West Europe

Central Asia: (Russia, Azerbaijan Georgia)

SA: South America

NA: North America



Figure 2- Regions' performance regarding global methanol consumption

It is anticipated that China consumes about 82 million tons of methanol (including 26 million tons in the CTO sector) this year. The pie charts in graph 2 depict each region's consumption share and its column chart demonstrates the amount of methanol consumed in each geographical region. After Northeast Asia, Western Europe is the world's largest methanol consumer, and in this region, Germany, the Netherlands, and Great Britain have the highest annual methanol consumption.

The more important question, perhaps, might be in which downstream industries' sectors this methanol consumption is concentrated. A glance at the graph shows us that the OTM and formaldehyde sectors are the main consuming sectors of methanol. Considering the total production of olefin from methanol, either as CTO or as MTO, this year roughly 33% of the world's total methanol production is consumed in this sector, followed by formaldehyde with 19% of the total methanol consumption worldwide.

In case we would be advocating the theory that considers methanol produced in the CTO sector as an intermediate product of a general process and disregard its amount from the total calculations of methanol supply and demand, and according to this theory, if we exclude the 22 million tons of methanol produced from coal in the olefin sector, then formaldehyde consumes about 25% of the world's free methanol, followed by MTO (production of ethylene or propylene with methanol purchased from other units) with 14%.

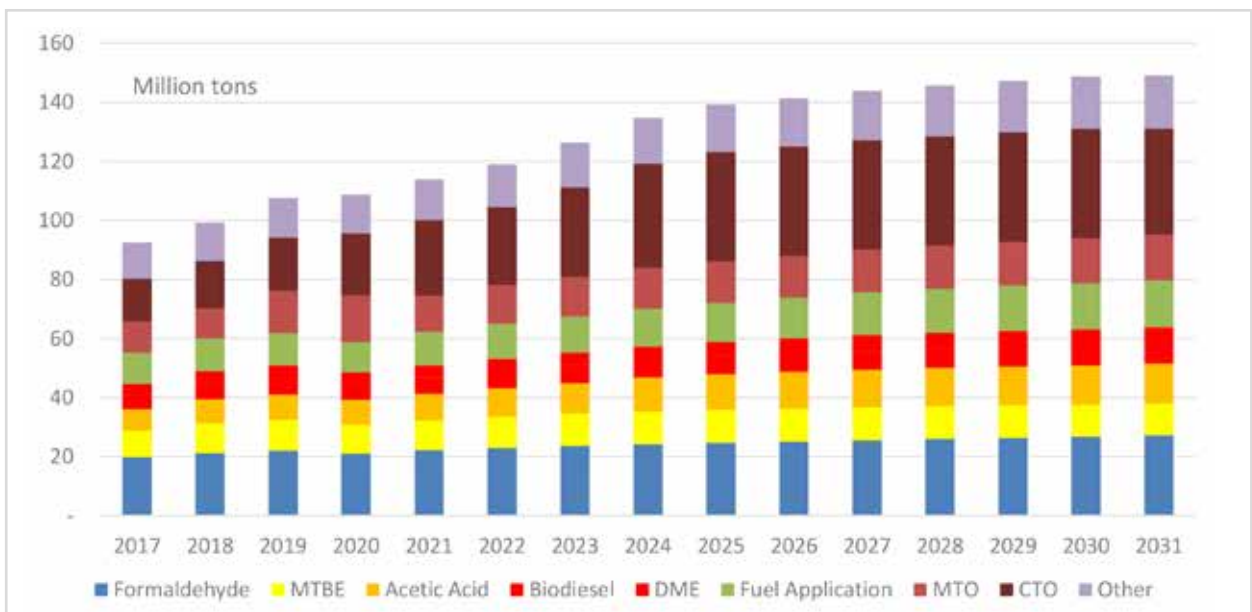


Figure 3- History and prediction of methanol consumption in downstream industries

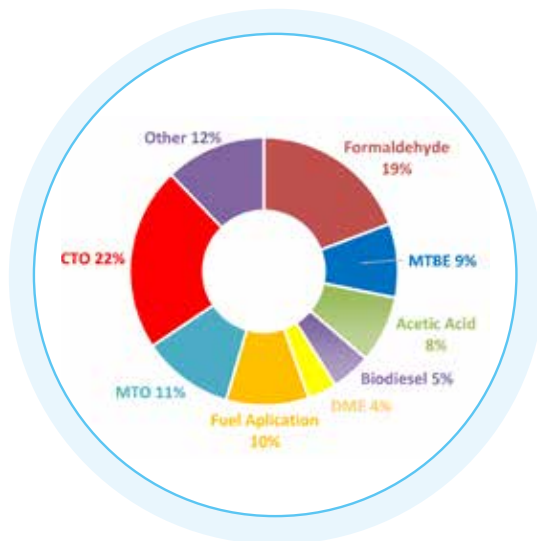


Figure 4- Share of downstream industries in methanol consumption in 2022

Based on the predictions, we would be experiencing a surge of activity in the CTO sector in proportion to the growth of MTO industries in the years to come. This issue has been illustrated in Figure 5. As can be seen evidently in the graph, olefin-producing industries that use purchased methanol did not grow much in comparison with olefin industries that use coal directly. This may attract the attention of China’s import market suppliers because most of the olefin-producing units that use purchased methanol are the major consumers of methanol imported to China.

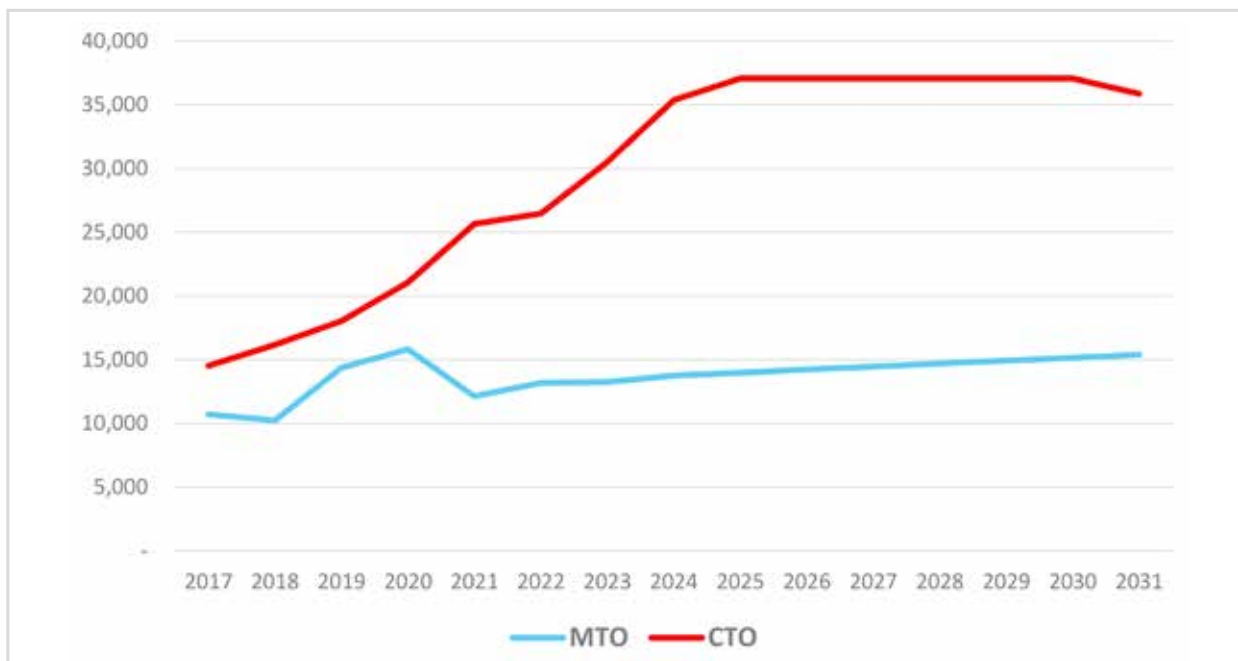


Figure 5- Comparison of methanol consumption in CTO and MTO industries

Figure 6 specifies geographical regions in which we can expect formaldehyde producers to be present. Considering this issue, measures can be taken to set the strategy for selling methanol to formaldehyde producers in the target markets. Since formaldehyde production heavily depends on the construction boom seasons, depending on the target market, the intervals when methanol absorption by such markets is affected by reasons like economic problems of the society, unsuitable weather seasons for construction (winter or monsoons), important regional and country holidays (such as Christmas, China’s lunar holiday, and India’s Diwali celebration), and so on, might be anticipated. Also, occurrences like widespread quarantines cannot be predicted and their risk is shared in all markets.

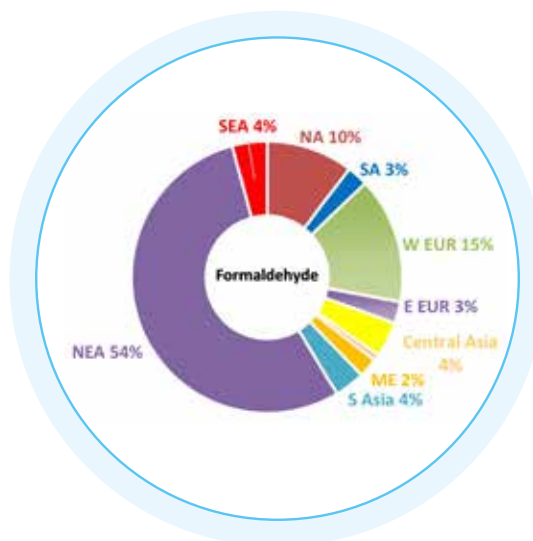


Figure 6- Methanol consumer’s distribution in the formaldehyde sector in different geographical regions

In the acetic acid sector, it is seen that after Northeast Asia (with China as the leader with an annual production of about 8 million tons of acetic acid), North America comes second. One of the largest producers in the US is the well-known Celanese Company, which ranks first in the country with a production of 1,300 kilotons of acetic acid per annum.

To a large extent, MTBE is also affected by the change of seasons, for instance, during summer with the boost in summer trips and consequently petrol, the consumption of this product also increases drastically. In the Middle East, Saudi Arabia is considered one of the most important producers of this product and produces about 3.5 million tons of MTBE annually. As expected, China is the top producer of this product with a production of about 12 million tons per annum.

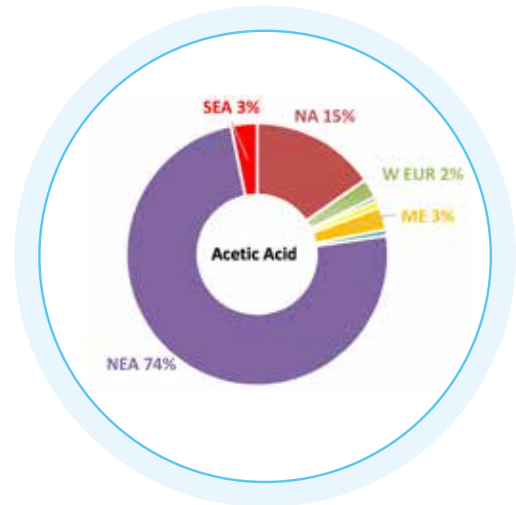


Figure 7- Distribution of methanol consumers in the acetic acid sector in different geographical regions

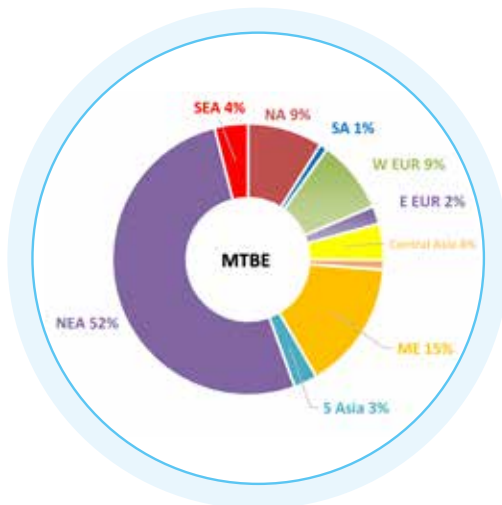


Figure 8- Distribution of methanol consumers in the MTBE sector in different geographical regions

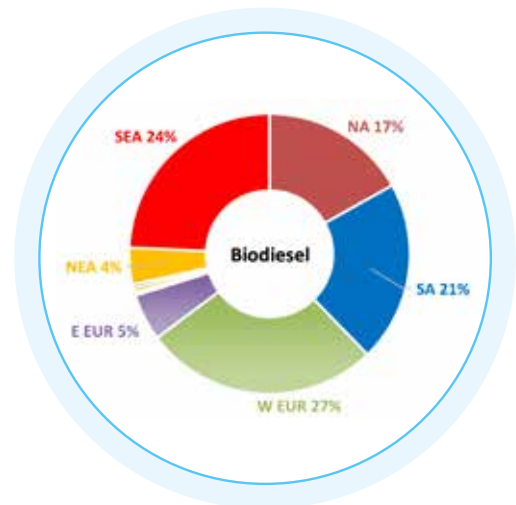


Figure 9- Distribution of methanol consumers in the biodiesel sector in different geographical regions

In case the need arises to supply methanol for the biodiesel sector, then there would be no other option but to explore other markets: Western Europe, North and South America, and Southeast Asia. In South America, except for Venezuela, other countries are more or less engaged in biodiesel production. In North America, the US alone produces about 9 million tons of biodiesel annually. In Northeast Asia, the production in this sector is less considerable: China produces about two million tons of biodiesel per year. In Southeast Asia, the largest producer of biodiesel is Indonesia, which has a production of about 4 million tons. Western Europe is the provenience of this product: France with 4 million tons, Germany with about 5 million tons, the Netherlands with two and a half million tons, and Spain with 6 million tons of biodiesel per annum together rank first in terms of production in this sector.

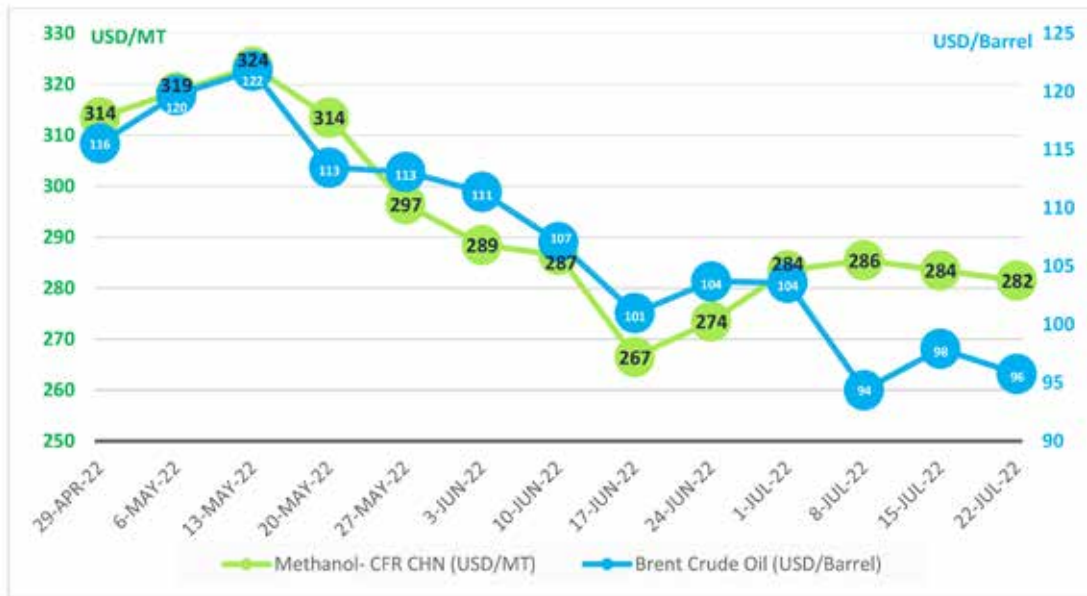
More than ninety percent of the fuel and dimethyl ether producers are located in Northeast Asia, and the olefin from methanol sector is utterly located in China.

Market Analysis





The seasonal comparison of methanol and crude oil price changes



Average prices in Mordad (22nd of July to 22nd of Aug)

	Bushehr	Kaveh	Marjan	ZPC	Average price in publications
CFR CHN (USD / MT)	283	As this plant was down in Mordad just like Tir, no deal has been concluded.	292	296.5	294.8



India's market in Mordad (22nd of July to 19th of August)

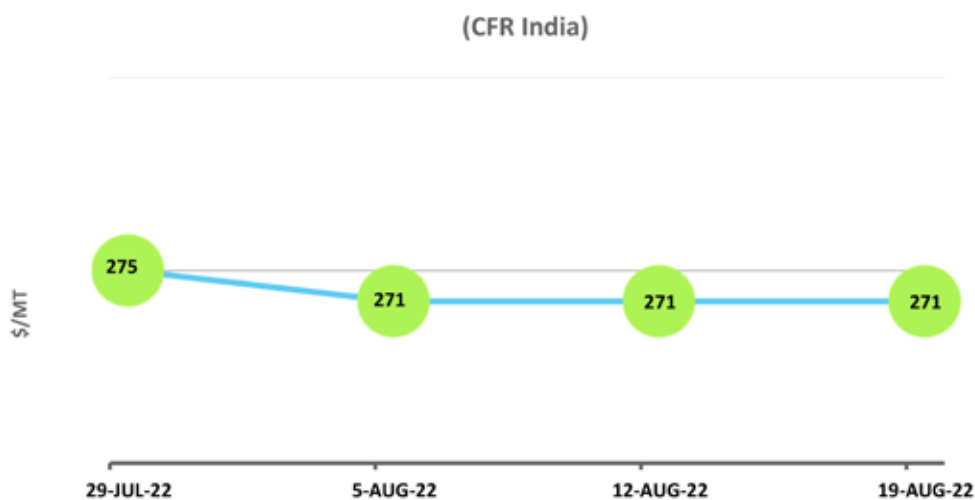


Figure 10 -India price changes in Mordad (22nd of July to 19th August

July 29th:

Prices in India's market continued to plummet during the week ending July 29. Although the price of methanol in the most important market of Asia, namely China, surged, that was not seemingly convincing for market participants in India enough to increase the price, and among Asian markets, the lowest rate of spot methanol shipments belonged to India's market like previous weeks. Experts are

of the belief that the main reason for the low price level is the continuation of the Monsoon storm and the slump in demand from downstream industries.

In the meantime, India's market was not undergoing a shortage in terms of supply, and since other Asian markets did not have the capacity to absorb all the shipments from the Middle East and Venezuela, spot shipments con-

tinued to be sent to this market from the two mentioned origins, therefore there was an excess of load in India, especially from the Middle East. Even the sporadic Plants shut do down in Iran, which caused the methanol export to India to be disrupted during the week ending July 29, did not bring about a shortage of cargo in India's market, and Iran's cargo deficit was well covered by Russian and Venezuelan shipments.

During the past couple of weeks and months, India has not only increased its methanol import from Russia but also made an upswing in the import of the most important energy carrier, i.e. Russian crude oil. As Bloomberg reports, India, which is currently the third largest oil consumer in the world, imported one million barrels of crude oil daily from Russia in July alone.

With the advent of the Russia-Ukraine war and the decline in Russian oil exports to the West, India saw this as an opportunity to increase the amount of oil purchased from this country taking advantage of Russia's special discounts. To expedite purchasing operations, Indian refineries are now using smaller, lesser-known traders.

August 5th:

India's market reached a relatively balanced status in the first week of August after consecutive weeks of facing a downturn in the methanol price. The continuation of weather conditions caused by the Monsoon storm has minimized the downstream industries' demand, and the very same factor caused many buyers not to enter into spot transactions in the week ending August 5, and made them postpone their purchases to a later time in future after investigating and reviewing the market's current cir-

cumstances.

Moreover, the Rupee lost its value against the dollar during the last week and the price of imported methanol increased consequently compared to domestic methanol. Therefore, buyers preferred to procure methanol through the domestic market. Considering the upcoming Indian Independence Day holiday, downstream sectors' activity is expected to drop in August. On the other hand, the low prices of methanol in India, alongside the surge in the transportation cost from the Middle East to this country up to 60 dollars per ton, have made the Middle Eastern producers reluctant about this market. All the above factors resulted in a relative balance of supply and demand and brought about the stability of prices in the week ending July 5.

There was also another news about the new standard regarding methanol and acetic acid production, announced by the Bureau of Indian Standards (BIS), which will be effective and must be observed from February 3, 2023, for imported products. The Bureau of Indian Standards (BIS) is the body in charge of developing the country's standards for specific goods - mainly health-oriented. It has been two years now that this body has been developing new standards for some products such as methanol and acetic acid, although the necessity of complying with these standards has been put off many times and the possibility of it being postponed again is not outlandish.

August 12th:

Prices in India's market were relatively stable for the second consecutive week. The prolonged severe weather conditions following the Monsoon storm caused low de-

Bushehr Petrochemical Company



mand for methanol from downstream sectors - especially formaldehyde and solvents. Furthermore, given that methanol price was at its lowest in India among Asian markets in the past weeks, suppliers in the Middle East tended to sell their cargoes in other markets with higher profit margins. Therefore, India's market maintained the balance of the previous week in terms of supply and demand during the week ending August 12.

During this week, shipments from Iran were also offered without discount and with a premium included in some cases. Meanwhile, the purchasers were still expecting a discount and this brought about a price gap between the suppliers' offer and the purchasers' accepted rate, which eventually resulted in a downturn in transactions. However, the supply of methanol from some other countries such as Venezuela and Russia resumed at an acceptable rate.

According to another piece of news, the renewable energy producer company called NTPC, and the state-owned industrial chemicals producer, GACL, have signed an agreement to explore opportunities to set up the first commercial-scale green ammonia and methanol production project. Based on this agreement, the feasibility of producing green methanol and ammonia in the Gujarat state of India will be studied. This project aims at increasing the production of renewable and clean energy and its ultimate goal is to produce 75 tons of green methanol and 35 tons of green ammonia daily.

August 19th:

India's market was somewhat steady in the seven days ending August 19th and the methanol price underwent

little fluctuation compared to the previous week. Apart from the Monsoon storm, which had a reducing effect on India's methanol demand over the past several weeks, the rise in the inflation rate also reduced the purchasing power in downstream industries and, as a result, the demand for imported methanol in these units went down. However, some market participants believed that September, which is the time before the start of the Diwali holiday - that is, the time to fill the storage tanks by buyers - might be the time that methanol demand would surge. Especially, at this point in time, the intensity of the Monsoon storm would gradually decrease.

When it comes to supply, the desire of Middle Eastern sellers to do business in India fell off. Meanwhile, the sale of methanol by other sellers such as Russia and Venezuela was unchanged and therefore there was no shortage in terms of methanol supply in India's market. However, the prices offered by Middle Eastern sellers were higher than the selling rates of Venezuelan producers.

Despite the downturn in methanol demand over the past weeks, statistics indicate that India's methanol imports in the first six months of 2022 have increased by about 23 percent compared to the same period last year. India's methanol import in the first half of 2022 reached about 1,300,000 tons, which has increased by more than 200,000 tons in comparison with last year. The noteworthy point might be the growth of Iran's share - either directly or through the United Arab Emirates - in the first 6 months of 2021, as well as the entry of Russian methanol into this country through Finland.

Dena Petrochemical Company



CHINA

China's market in Mordad (22nd of July to 19th of August)

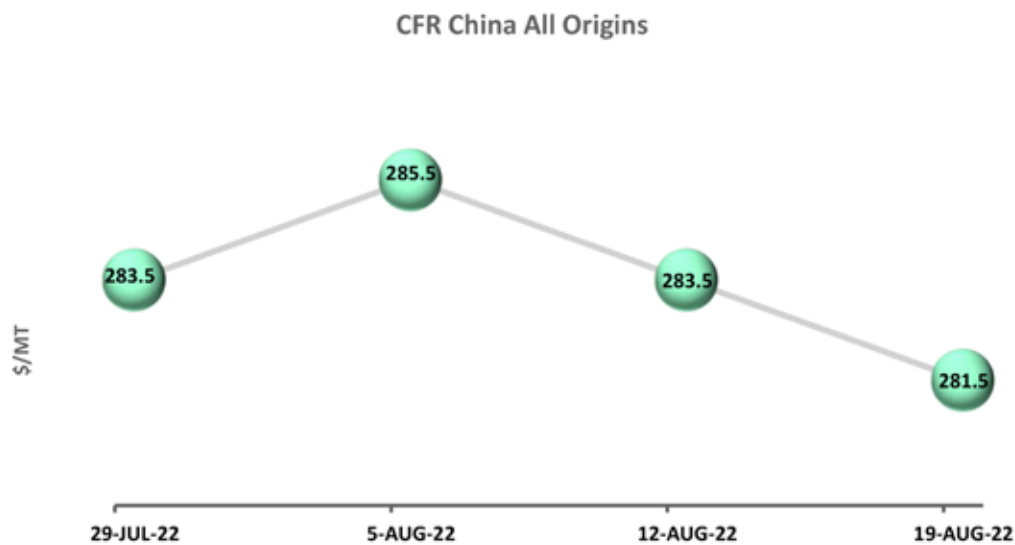


Figure 17- CFR China in Mordad (22nd of July to 19th of August)

July 29th:

China's domestic and imported methanol prices continued to rise during the last week of July, while different sources reported the plunge in Iran's production as the chief reason for this price increase.

There is news throughout the market regarding the halt of 4 or 5 Iranian methanol producers, which caused severe concern among buyers and end consumers about the decline in supply. In the middle of the week ending July

29th, ZPC's plant no. 1, Marjan, and Bushehr returned to production whereas Kimia and Kaveh had zero production in the last week of July.

Apart from the mentioned triggers, the methanol index growth in the Futures market also contributed to the increase in domestic and imported prices. On Thursday, July 28, the value of the methanol index boosted by 4.6% compared to the previous day in the Futures market. During the last week of July, a spot cargo was traded with a

premium of 1.8 percent and CFR China shipping term, the pricing basis of which has not been determined.

The probability of prices falling again in August has led buyers to maintain their cautious stance towards buying spot cargoes, especially those with a fixed unit price. Regardless of the increase in prices, the outlook for China's downstream industries and the methanol market is still gloomy and the improvements are relatively slow in the performance of the production sectors compared to what has been predicted. As before, the increase in positive cases of Covid-19 is considered the biggest threat to the economy of this country. In the last week of July, the Methanex contractual prices of Asia and China for August were published and both were lower compared to July, which was fully expected considering the price drop during that month.

Going through changes in the prices of China's imported cargoes – all origins and specific origins - as well as domestic cargoes from July 26 to August 2, a downturn in domestic prices in eastern China is noticeable. When it comes to this price downslide, International publications highlight the impact of factors such as the drop-off in the crude oil price and the plummet of the methanol index value in the Futures market.

As for methanol production status inside China, this is noteworthy that according to some reports, except for an increase of about 2% in the average production rate in the east and south of China, other regions had a similar status in terms of production in comparison with the week ending July 22. Other publications did not point to the stability in the production rate and stated that the decline in the profit margin of some methanol units with coal feedstock

has forced them to produce at a lower rate.

Moreover, the total inventory of China's methanol storage tanks increased to 1.12 million tons compared to the week ending July 22. The arrival of imported shipments in addition to the downturn in methanol sales to domestic buyers in the wake of the price upward trend have been the major reasons for the increase in inventory levels in the last week of July. As some publications speculate, the inventory of methanol storage tanks in the Jiangsu region has reached its highest level since January 2021.

The data published in some international publications report a 3-percent drop in the rate of formaldehyde production in eastern China and 4-percent growth in the production rate of acetic acid. Bearing in mind the 15 to 20-day production stoppage of the new Tianjin Bohai unit, the average production rate of the MTO sector is expected to decrease. This unit, which has a production capacity of 600,000 tons of olefin per year, has been out of service since July 27, due to a technical failure.

August 5th:

The upswing in the price of domestic and imported methanol was again reported by most international publications in the first week of August. The production problems in Iran and the downslide in Iran's methanol supply played a major role in the price increase similar to the last week of July. Despite this growth in prices, other grounds such as the drop in the crude oil price, the increase in the Coronavirus spread, and the possibility of tension escalation leading to a war of words between the United States and China are serious threats to China's market. As some newspapers and official news agencies report, the recent

Kaveh Petrochemical Company



visit of Nancy Pelosi, the speaker of the United States House of Representatives, to Taiwan will create heightened tensions between the two countries. It is alleged that Taiwan is the biggest challenge point in the relations between the US and China. Apart from the re-spread of the coronavirus in cities of China and the possibility of the re-imposition of nationwide and strict quarantines that severely wrecked the economy of this country, the aftermaths of the mounting tension between the US and China on the financial markets also has become a matter of grave concern for market participants.

Reviewing the daily prices indicates that the price of specific origins (SO) cargoes as well as those of Eastern China's domestic ones increased on Monday, August 8. Among the methanol spot negotiations with the CFR China shipping term, a premium of about 1.5 to 1.8 percent was reported however the pricing publications of these transactions are unknown.

When it comes to production status in the region, the average production rate in Northwest China and Inner Mongolia decreased by 5 and 19 percent, respectively, compared to the week ending July 29. Meanwhile, the average production rate in the east of China rose by approximately 2 percent compared to the last week of July. The plummet in the domestic production of methanol in China is due to the upsurge in the price of coal and the decline in the profit margin of methanol producers using coal feedstock.

For the fourth consecutive week, the total inventory of tanks in the main regions became greater, which was due to the drop in the offload from coastal ports however it is

expected that the inventory would start to shrink soon. Taking into account production problems among Iranian methanol units as well as rising transportation costs, the export volume from this supplier will decrease in August. Iran's total methanol export last month (July) was 620,000 tons, while this supplier exported a total volume of 890,000 tons of methanol to China in June alone. According to international publications' reports, the curtailment in loading, the inflation in transportation costs, and also the stagnation in the methanol market have forced some Iranian producers to reduce or even fully stop their production.

Other than Iran, the rest of the methanol producers in the Middle East and South America are also dealing with the high cost of natural gas and this setback will undoubtedly disrupt their exports to China.

Some reports did not indicate any increase in the average production rate of MTO whereas some sources report an increase of about 8% in the production of this sector in the first week of August. This increase in production is caused by the return of the 600,000-ton Tianjin Bohai unit to service after almost a week of downtime due to technical issues. The average production rate of this unit was about 60-70% during the week ending August 5. Investigations suggest that the profit margin of all MTO producers had a downward trend due to the surge in the price of methanol as well as the drop in products such as ethylene oxide, acrylonitrile, and ethylene vinyl acetate.

August 12th:

The decline in methanol consumption in the wake of the

Siraf Enerji Petrochemical Company



drop in the production of the MTO sector led to the downturn in imported and domestic prices in China during the second week of August. As international publications report, the reason for the drop in production in this sector was the slump in the market of olefin and its derivatives, as well as the growth of methanol prices as the main feedstock of MTO units from the week ending July 22 to the first week of this month. In addition to the weekly plummet in the price of methanol, the existing uncertainty regarding the market situation in the coming weeks and the possibility of prices going down caused the purchasers to maintain their cautious stance when it comes to buying and avoid new transactions, which caused purchase demands to be very limited.

The changes occurring during that week in the production status of the MTO units in the region are as follows: the average production rate of the 830,000-ton Jiangsu Sailboat unit reached 95% with a decrease of about 8% and the methanol consumption of this producer reduced about 15 thousand tons per month. The production rate of Ningbo Fund reached 85% with a drop of 5% and the amount of its methanol consumption was reduced by about 7 thousand tons per month. The average production rate of the 300,000-ton Yangmei Hengtong unit was estimated at 70% in the week ending August 12th, which shows a decline compared to the first week of August, and its monthly methanol consumption reduced by 20,000 tons. Two 300,000-ton units of Nanjing Chengzhi and Luxi Chemical have also been out of service and will return to production for at least two weeks.

The 690,000-ton Zhejiang Xingxing unit also lowered

its production rate and considering the low profit margin of its products and the high inventory of product storage tanks, the unit is supposed to be out of production for at least 20 days. The executives of this company had earlier announced that the production will be stopped from August 11, however, this was postponed and the exact time is yet to be announced. It is noteworthy that some publications estimated that the monthly consumption of this producer would drop by about 100 thousand tons during the 20-day shutdown.

The analysis of methanol daily prices from August 8 to 16 reveals that on August 16, domestic prices in eastern China had a downturn and international publications held the fall in the methanol index value in the Futures market as the main reason for this. Indisputably, the continuation of the drop in the methanol price in the stock market may affect the prices on Friday, August 19.

Investigations on the methanol production status in China's different regions indicated that in the second week of August, the average rate in Inner Mongolia surged by 9%, and by approximately 3% in the northwest of China. The reduction of main suppliers' methanol production caused the volume of the imported shipments to remain at a low level in the week ending August 12. According to the information from publications, the total inventory of the main regions reached 1.07 million tons. The stock of storage tanks in Jiangsu port, which had the largest decrease in stock among other regions, reached its lowest level in the last three weeks.

Moreover, the production in the MTO and formaldehyde sectors decreased but the production of acetic acid in-

Zagros Petrochemical Company



creased by 5% compared to the week ending August 5. Regarding the profit margin situation of MTO units, most of the producers gained less profit in the week ending August 12.

August 19th:

As investigations suggest, in the week ending August 19th, the production plummeted in the MTO sector significantly downturned the methanol consumption in China, which is the chief cause of weakening the methanol market, especially the import market. Since Monday, August 15th, when the 690,000-ton Zhejiang Xingxing unit was out of production and the news of its shutdown was officially announced by the officials of this company, the demand for the methanol purchase dropped dramatically. As per the correspondence conducted by the market research and customer service department of Zagros Petrochemical Company with a related contact in the mentioned company, the halt's duration is not specified. When it comes to prices, the price of imported shipments went down while the price of domestic methanol went up relatively. The drop in production in southwest China after the decline in the average production rate and

the unexpected shutdown of some methanol units in this region were effective in raising domestic prices. The unprecedented heat wave in China and the surge in electricity consumption caused most cities of China to be dealing with problems regarding power outages, as a result of which the methanol production lessened.

Based on the international publications' assessment, the amount of methanol inventory declined in all coastal regions. With regards to the forecasts on the possibility of price increase in the week ending August 26th, the amount of production off-take in the coastal ports expanded compared to the last two weeks.

Regarding the status of the downstream derivatives of methanol, this is to note that the data published in the publications imply a drop in the average production rate of MTO in the week ending August 19th, and it is believed that the production rate of this sector is at its lowest level since the beginning of 2022. The profit margin of most MTO producers experienced a downturn in comparison with the previous week, which was mainly due to the decrease in derivatives produced from olefin such as propylene and also polymer materials.

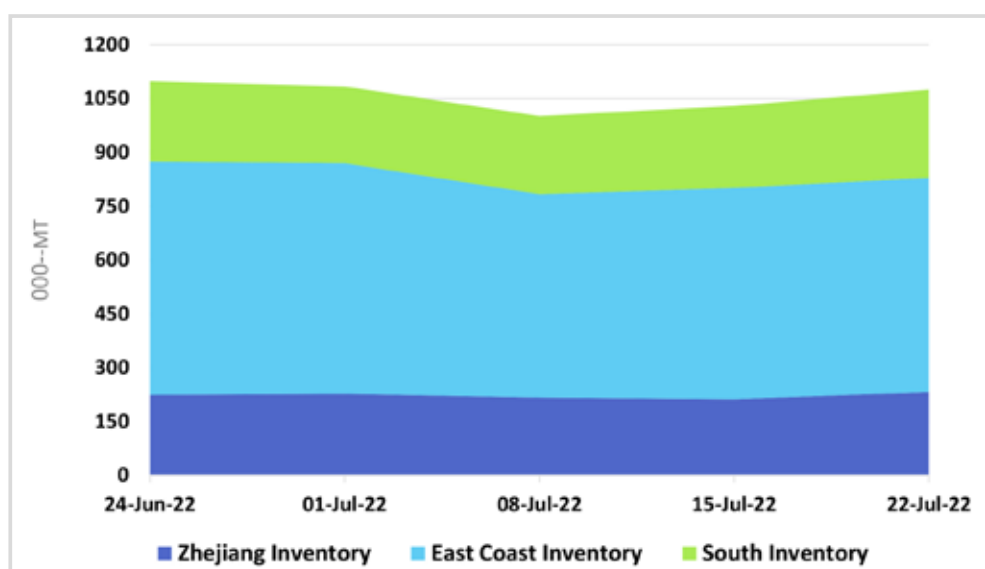


Figure 18- Methanol Coastal Inventory in China

Production News ;



America

Country Name	Company Name	Capacity Thousand tons per (year	Occurrence
Venezuela	Total production	2,370	The average production rate in August 2022 is approximately 95%.
Chile	Methanex	840 880	The average production rate of the smaller unit of this complex in August 2022 is approximately 100%, and according to the reports in hand, the larger unit, which was taken out of service on April 29, is still in production halt.
United States	Koch Methanol St. James	1,700	The average production rate of this unit in August is estimated at 79%.
Canada	Medicine Hat Methanex	600	The average production rate of this producer in August 2022 is roughly 100%.
United States	OCI	925	The average production rate of this unit in August 2022 was approximately 70%.
Trinidad and Tobago	Total production	6,610	The average production rate of this country in August 2022 was around 80%.
United States	Fairway Methanol	1500	The average production rate of this producer in August 2022 was roughly 100%.
United States	Lyondell Basell	660 780	The average production rate of both units in this complex in August 2022 was approximately 100%.
United States	Methanex Geismar	1,100 1,100	The average production rate of both units in this complex in August 2022 was approximately 76%.
United States	Natgasoline	1,700	The average production rate of this unit with natural gas feedstock in August 2022 was approximately 54%. As reported, this unit had a production halt during the first week of August.
United States	Total production (12 production units)	6,698	The average production rate in August 2022 was roughly 74%.



Europe

Country	Unit name	Capacity Thousand) (tons per year	Occurrence
Russia	Togliatti Azot	500 500	The average production rate of one of the units in this complex in August 2022 was approximately 75% while the other unit stopped producing.
Russia	Shchekino	450 500 500	One of the 500,000-ton units along with the 450,000-ton unit in this complex had around 75% production in August 2022. The average production rate of another 500,000-ton unit was approximately 100%.
Russia	Gazprom Methanol (Tomsk)	1,000	This producer had no production in August 2022 due to technical issues.
German	Mider / Helm (Leuna)	600	This producer had no production in August 2022 due to technical issues.
German	BASF	330 150	Both units of this complex had an average production rate of approximately 100% in August 2022.
Azerbaijan	Socar	450	The average production rate of this producer in August was around 70%.
Russia	Metafrax (Gubakha)	1,000	As in July, this producer had no production in August 2022.
Russia	BioMCN	500 500	Production stopped in both units in this complex in August 2022, as the publications report.
Russia	Equinor	1,000	In August 2022, this producer had an average production rate of about 100%.

Africa & Middle East

Country	Unit name	Capacity Thousand tons (per year)	Occurrence
Libya	NOC	330 330	The average production rate of one of the units in August was approximately 100% and the other unit is still in production halt.
Guinea	AMPCO	850	The average production rate in August 2022 was approximately 100%.
Egypt	EMethanex	1,260	The average production rate of this producer in August was around 60%. This unit stopped its production in the third week of August.
Iran	Zagros	3,300	The average production rates of units no. 1 and no. 2 were 60% and 86% respectively in August 2022.
Iran	Kaveh	2,310	As in July, this unit had no production in August 2022.
Iran	Marjan	1,650	The average production rate of this unit in August was about 65%.
Iran	Bushehr	1,650	The average production rate of this producer, which had formerly production halt during the last week of the previous month, was around 65%.
Saudi Arabia	Al-Razi	4,850	The production rate of this complex in August 2022 seems to be acceptable.
Saudi Arabia	IMC (Sipchem)	1,050	The average production rate of this producer in August was roughly 100%.
Qatar	QAFAC (Muntajat)	1,000	The average production rate of this unit in August was about 100%.
Oman	OQ (Salalah)	1,300	The average production rate of this unit in August 2022 was about 100%.
Oman	Oman (Helm)	1,050	This producer had an approximate 100% average production rate in August 2022.

Asia-Pacific

Country	Unit name	Capacity Thousand tons per (year)	Occurrence
Indonesia	Kaltim	720	The average production rate in August 2022 was approximately 90%.
New Zealand	Methanex	850 850 530	The average production rate of both of the 850,000-ton units in this complex during August 2022 was roughly 95%, while the 530,000-ton unit still does not produce.
Brunei	Brunei	850	The average rate of this unit in August 2022 was approximately 90%.
Malaysia	Petronas	1,700 720	The average production rate of the larger unit in this complex in August was approximately 35% and that of the smaller unit was about 77%. The bigger unit didn't have production in the last week of July and the third week of August.
East and South China		7,160	The average production rate was between 75 – 77% during August 2022.
Southwest China		3,120	The average production rate was about 54% during August 2022.
Northwest China		20,950	The average production rate was between 47 – 54% during August 2022.
Inner Mongolia		10,190	The average production rate was between 64 – 83% during August 2022.

Marjan Petrochemical Company

