Organization of Arab Petroleum Exporting Countries

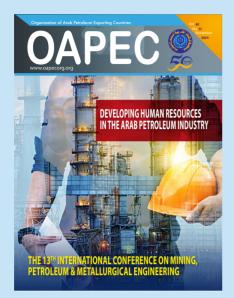
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DEVELOPING HUMAN RESOURCES IN THE ARAB PETROLEUM INDUSTRY THE 13TH INTERNATIONAL CONFERENCE ON MINING, PETROLEUM & METALLURGICAL ENGINEERING



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ORGANIZATION OF ARAB PETROLEUM EXPORTING COUNTRIES (OAPEC)



The Organization of Arab Petroleum Exporting Countries (OAPEC) was founded on the basis of the agreement signed in Beirut, Lebanon on 9 January 1968 between the governments of Kingdom of Saudi Arabia, the State of Kuwait and the (then) Kingdom of Libya. The agreement stipulates

that the Organization shall be domiciled in the City of Kuwait.

The principal objective of the Organization is the cooperation of the members in various forms of economic activity in the petroleum industry, the determination of ways and means of safeguarding the legitimate interests of its member countries in this industry, individually and collectively, the unification of efforts to ensure the flow of petroleum to its markets on equitable and reasonable terms, and providing appropriate environment for investment in the petroleum industry in member countries.

In 1970 the United Arab Emirates, the State of Qatar, the Kingdom of Bahrain and the Republic of Algeria joined the Organization, followed by the Syrian Arab Republic and the Republic of Iraq in 1972, Arab Republic of Egypt in 1973, then the Republic of Tunisia in 1982 (its membership was suspended in 1986). Any Arab country which derives a significant share of its national income from petroleum is eligible for membership in OAPEC upon the approval of three-quarters of the member countries, including all three founding members.







SAUDI ENERGY MINISTER: SAUDI ARABIA ADVOCATES 'CIRCULAR LOW-CARBON ECONOMY' MODEL



11TH INTERNATIONAL CONFERENCE AND **EXHIBITION ON CHEMISTRY IN THE INDUSTRY**



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THE 13TH INTERNATIONAL CONFERENCE ON MINING, PETROLEUM & METALLURGICAL ENGINEERING

• OAPEC-Joint Ventures:

OAPEC has sponsored the creation of four companies: The Arab Maritime Petroleum Transport Company (AMPTC), established in 1972 with headquarters in Kuwait City, the Arab Shipbuilding and Repair Yard Company (ASRY) established in 1973 with headquarters in Bahrain, the Arab Petroleum Investments Corporation (APICORP) established in 1974 with headquarters in Khobar, Saudi Arabia, the Arab Petroleum Services Company (APSC) established in 1975 with headquarters in Tripoli, Libya.

OAPEC'S ORGANS

The Organization carries out its activities through its four organs:

- Ministerial Council: The Ministerial Council is the supreme authority of the Organization, responsible for drawing up its general policy.
- Executive Bureau: The Executive Bureau is composed of one representative from each of the member countries, drawing recommendations and suggestions to the Council, reviewing the Organization's draft annual budget and submitting it to the Council, it also adopts the regulations applicable to the staff of the General Secretariat. The
- resolutions of the Executive Bureau are issued by the majority of two-thirds of all members.

 General Secretariat: The General Secretariat of OAPEC plans, administers, and executes the Organization's activities in accordance with the objectives stated in the agreement and directives of the Ministerial Council. The General Secretariat is headed by the Secretary General. The Secretary General is appointed by resolution of the Ministerial Council for a tenor of three years renewable for similar period(s). The Secretary General is the official spokesman and legal representative of the Organization and is accountable to the Council.
- The Secretary General directs the Secretariat and supervises all aspects of its activities, and is responsible for the tasks and duties as directed by the Ministerial Council. The Secretary General and all personnel of the Secretariat carry out their duties in full independence and in the common interests of the Organization member countries. The Secretary General and the Assistant Secretaries General possess in the territories of the Organization members all diplomatic immunities and privileges.
- Judicial Tribunal: The protocol of the Judicial Tribunal was signed in Kuwait on 9 May 1978 and came into effect on 20 April 1980. The Tribunal is competent to consider all disputes related to the interpretation and application of OAPEC's establishment agreement, as well as disputes arising between two or more member countries concerning petroleum operations.



DEVELOPING HUMAN RESOURCES IN THE ARAB PETROLEUM INDUSTRY

Modern petroleum industry is characterised by relying on complex and highly-sophisticated technology that requires strategic orientation towards further financial and moral support for human resources working in the field, as well as, for petroleum research and training centres. The establishment of more research centres is needed in order to secure the industry's future. OAPEC member countries pay special attention to developing human resources working in the petroleum industry due to the importance of this sector in the composition of these countries' economies and because this sector is one of the most attractive fields to work in. OAPEC countries believe in supporting human resources through training, scientific research, and the development of all occupational levels.

OAPEC members also work on boosting scientific research on new technologies that help energy conservation and cutting emissions resulting from petroleum and petrochemical instalments. This stems from their deep belief in maintaining good health and safety, as well as, an environment that is free of pollution.

Most Arab petroleum companies have interpreted this vision by putting human resource development on top of their priorities in their strategic developmental plans through the establishment of petroleum training centres and departments equipped with the latest scientific methods and preparing intensified long-term training programmes for technical

and administrative staff in collaboration with regional and international training institutes which helped nationalise the industry in our member countries. This has helped in establishing many national oil companies in the 1970s and contributed to having these Arab oil companies entering into strategic partnerships with global petroleum companies.

Continued efforts by OAPEC members (to employ the latest technology in all their petroleum operations to boost and improve efficiency and increase output) have stemmed from their belief that their sustainability as key petroleum suppliers is tied to various factors including having qualified human resources capable of using the latest technology at all stages of the industry.

As for OAPEC, Arab human resource development is part of its priorities. Article II of OAPEC establishment agreement refers to "the role of the organisation in providing training and job opportunities to the citizens of its member countries where such potentials exist." In order to achieve this goal, for long years- OAPEC Secretariat General organised many conferences and training workshops for the various occupational levels of the Arab petroleum industry. The Forum on the Fundamentals of Oil and Gas, which is held biennially, is one of these training opportunities that informs those working in the field of the latest developments in the oil and gas industry. Also, specialised

training workshops are held for climate change negotiators, databank officers, natural gas experts, etc.

It is worth mentioning that OAPEC has always been keen on coordinating with the various renowned petroleum training institutes in its member countries. There has been a number of collaborations and meetings as well as workshops in the past. We hope to revive these meetings and collaborations when circumstances allow.

OAPEC Secretariat General encourages petroleum training cooperation among the member countries. It works hard on coordinating with Arab petroleum training institutes; exchanging expertise, skills and experiences; and strengthening cooperation among Arab petroleum human resources. We hope that the situation would improve to allow more integration and coordination between Arab petroleum institutes through exchanging trainers and trainees; opening data flow channels on training curricula; and making use of social media for panel discussion livestreaming.

Underscoring its keenness on human resource development in the Arab petroleum industry, OAPEC has signed an MoU with the Japan Cooperation Centre Petroleum (JCCP) to execute a group of scientific activities like conferences and training programmes. Another MoU was signed with the GCC Council's Secretariat General on petroleum media cooperation. It covered cooperation between the two sides in

training and human resources development. OAPEC also has distinguished contributions to the various specialized international and Arab conferences in which it participates. Moreover, the Secretariat General has organized the 1st Coordination Meeting for Petroleum Research Institute and Centre Officials in the Member Countries. Its goal was to discuss cooperation frameworks between petroleum research centres and institutes in the member countries, maximize exploiting available potentials, coordinate and exchange expertise in scientific research to tackle challenges facing the oil and gas industry in the member countries.

While following up on the latest developments in the Arab petroleum human resources front, OAPEC Secretariat General highly appreciates the tangible efforts in this domain and stresses that human resource development in the petroleum industry is among the priorities of cooperation between the members countries. We hope the circumstances would allow for further cooperation between the Arab countries in terms of petroleum training in order to face current and future challenges in this industry guided by scientifically and practically qualified staff. We also call for supporting the Arab petroleum research centres and institutions since they are the backbone of the Arab petroleum industry.



SAUDI ENERGY MINISTER:

SAUDI ARABIA ADVOCATES 'CIRCULAR LOW-CARBON ECONOMY' MODEL

Saudi Energy Minister HRH Prince Abdulaziz Bin Salman said Saudi Arabia made significant steps to reform energy prices in 2016 in order to rationalize consumption and emphasise the sustainability of the economic growth. He clarified that Saudi oil output is more than 10 million b/d with about 267 billion barrels of oil reserves.



This was part of his speech at the Future Investment Initiative conference in Riyadh, KSA, on 29-31 October 2019. The Prince drew the attention to the fact that KSA has been reforming its overall energy system, including the development of various programmes, like the electricity system integration programme that will lead to the restructuring of the sector to become more efficient. He stressed that focus is on improving energy efficiency in industry, constructions, and transportation sectors, which claim 94% of the energy consumption in the kingdom.

He explained that climate change is now a hot issue at the international scene stressing the importance of tackling these issues and working on boosting energy sustainability in spite of all challenges. The Prince disclosed that KSA is advocating the concept of "circular low-carbon economy" to achieve further sustainability of the economic system. It is a framework that tackles and treats carbon emissions from all sectors, as well as, all types of gases causing global warming. The concept can be realised through the four renowned strategies: reduce, reuse, recycling, and recovery. This "closed loop system" will help restore carbon balance the way it happens in the nature.

He added adopting this comprehensive model is as important as renewables. The Prince said the world cannot strike a balance between carbon sources and carbon sinks relying solely on renewables and cutting emissions; clarifying that nature-based solutions will contribute to cutting carbon as part of the circular low-carbon economy.







HE Suhail Al Mazrouei, UAE's Minister of Energy and Industry, affirmed that the UAE is a leading player in the global energy sector.

He attributed this to its role in finding creative solutions to the challenges of energy sustainability and the diversification of sources of energy, as well as the formulation of a new energy landscape for sustainability and conservation of the environment.

On World Energy Day 2019, an initiative endorsed by His Highness Sheikh Mohammed bin Rashid Al Maktoum, Vice President, Prime Minister and Ruler of Dubai, Al Mazrouei in a speech said, "With 54 countries from around the world under Dubai Declaration on 22nd October 2012, the UAE is keen to diversify its sources of energy and to reduce carbon dioxide emissions in order to enhance the competitiveness of the country and achieve the happiness of society by adopting the

concepts of sustainable development."

He stressed that the vision of the UAE's leadership has played a pivotal role in achieving sustainable development and reducing the carbon footprint, under the framework of the UAE Energy Strategy 2050, which aims to reduce carbon emissions from electricity production by 70 percent over the next three decades and generate 50 percent of energy through green sources.

Al Mazrouei also pointed out that the Ministry of Energy and Industry, in cooperation with its partners, launched several initiatives and programmes to ingrain the culture of rationalising the consumption of resources into society, as well as to encourage members of the community to adopt a responsible lifestyle in terms of energy consumption. The day is marked on 22nd October every year. (WAM)



BAHRAIN:

11TH INTERNATIONAL CONFERENCE AND **EXHIBITION ON CHEMISTRY IN THE INDUSTRY**

On behalf of His Royal Highness Prince Khalifa bin Salman Al Khalifa. Bahrain's Prime Minister, HE Sheikh Mohammed bin Khalifa Al Khalifa. the Minister of Oil, inaugurated the 11th edition of the International Conference and Exhibition Chemistry in Industry on Tuesday, 29 October 2019, hosted by the Kingdom of Bahrain under the theme of 'Breakthrough Solutions Through Innovative Materials'.



HE Sheikh Mohammed bin Khalifa Al Khalifa said that the chemical industry at present is considered one of the many industries with a wide range that serve mankind in various fields. HE also stated that we need to work hard to study these challenges and move forward to overcome these challenges through the optimal use of energy and benefit from the expertise and modern technology and the great potential of these technologies to address current and future challenges.

HE the Minister pointed out that innovation and creativity to the latest technologies and the exchange of information and expertise and training of human cadres, are capable of making a promising industrial future, which is one of the most important tools that we must seriously think to reach the highest standards of progress, development and prosperity in this vital industry. HE stated that the performance of the Bahraini oil companies affiliated to the National Oil and Gas Authority

(NOGA) are using the best practices and advanced technologies to improve their work in various fields, using environmentally friendly technologies such as advanced trends in getting carbon and enhance oil recovery in the field of petrochemicals and refining. HE highly appreciated the Bahrainis, especially the youth, who contributed in achieving many national achievements in this field.

At the end of his speech, HE the Minister of Oil expressed his great thanks and appreciation to the leadership for the support to the oil and gas sector in the Kingdom of Bahrain, which has achieved positive results in ensuring the sustainability of economic growth in the Kingdom. HE also thanked Mr Fahad Al Muhaish, President of the conference, for his excellent efforts in preparing and organizing this great event, as well as for the keynote speakers, chairpersons, participating delegations and exhibitors, wishing them every success.





ARKAB:

ALGERIAN OIL & GAS EXPORT VOLUMES FALL IN 2019



Algeria's Energy Minister HE Mohamed Arkab said oil and gas export volumes fell 9% in the first nine months of 2019 after a 2% drop in output and an 8% rise in domestic consumption. Total energy revenues reached \$24.6 billion for January to September 2019, compared to \$29 billion in 2018.

He added that overall energy exports reached 67 million tonnes of oil equivalent (mtoe) by the end of September 2019, against 74 mtoe in the first nine months of 2018. Oil and gas output stood at 140 mtoe, down from 143 mtoe in January-September 2018. Domestic demand rose to 45 mtoe from 42 mtoe in 2018.

"This situation calls for an increase in oil and gas production," HE Arkab explained.





QATAR PETROLEUM:

BEGINS SUPPLY OF VERY LOW SULPHUR FUEL OIL AT RAS LAFFAN INDUSTRIAL CITY

HE Eng. Saad Sherida Al Kaabi, Qatar's Minister of State for Energy Affairs, the President and CEO of Qatar Petroleum said: "Qatar Petroleum continues to strive to achieve the highest environmental standards and to implement the best industry practices to help minimize environmental impacts. We are proud to be one of the first countries to limit the availability of marine fuels to only grades that are compliant with the International Maritime Organization's 2020 regulation for a 0.5% global Sulphur limit."

"We hope this constitutes a major step towards protecting the regional and global environment in line with environmental objectives of Qatar National Vision 2030," Al Kaabi added.

His statements came on the occasion of Qatar Petroleum's announcement that they commenced the supply of Very Low Sulphur Fuel Oil (VLSFO) at Ras Laffan Industrial City (RLIC) Port. The VLSFO marine fuel offering has been initiated in advance of the International Maritime Organization (IMO) 2020 regulation



for a 0.50% global Sulphur limit for marine fuels which will come into effect January 1, 2020.

Qatar Petroleum invited all vessel owners and operators seeking IMO 2020 compliant VLSFO to avail the services available at RLIC Port and other ports in the State whenever their vessels are calling at or passing by any of Qatar's ports.



Organization of Arab Petroleum Exporting Countries OAPEC



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OAPEC Secretary General HE Abbas Al Naqi underscored OAPEC member countries' significant status in the global energy markets due to their huge oil and gas resources. He explained that this status makes it imperative for these countries to continue their positive role in maintaining the global petroleum market stability and sparing no effort in preserving oil and gas as key energy resources due to their large contribution in the economic and social development in these countries.

In his speech at the 13th International Mining, Petroleum and Metallurgical Engineering Conference (MPM13) held in Egypt on 25-27 October 2019 under the theme "The Future of Energy & Mining: Challenges &

Perspectives," HE Al Naqi explained that there are many challenges facing OAPEC members while trying to preserve their petroleum resources, including: environmental issues that have been linked directly to climate change in spite of the fact that many Arab oil and gas producing countries are committed to implementing international standards on pollution-free environment through the use of latest technology that improves oil quality and cut emissions. He clarified that these efforts go in line with international agreements like the UNFCCC and Kyoto Protocol scheduled to expire in 2020 and replaced by Paris Agreement.

Al Naqi also tackled the growing domestic energy consumption in many Arab countries





driven by а group factors of including rapid population and economic growth, and discrepancy between domestic energy prices and its actual production costs which doubled consumption in the region since the beginning of this century from 7.6 million boed in 2000 to 14.7 million boed in 2018.

HE Al Naqi stressed that such high domestic energy consumption

levels threaten Arab oil and gas exports which means a drop in revenues; an issue that cannot continue for long time. He pointed out that efficient energy consumption is an important solution to avoid or reduce the growth of unnecessary consumption.

On renewables, Al Naqi said this source has become an important part of the energy policies of the consuming countries. Renewables have a considerable share in the global energy mix, especially in power generation, however, they are still complimentary - and not alternative- to conventional fossil fuel, which will continue to be the main source of energy and the most important source in the energy mix globally for long decades to come according to specialized studies.

He went on saying that working on developing new and renewable resources production helps diversifying energy resources. Many OAPEC and non-OAPEC Arab countries have made significant steps in this field, especially solar, thermal, wind, and nuclear power to generate electricity.

Al Naqi concluded his speech by stressing





the importance of cooperation between Arab, regional, and international organisations and specialized energy research centres and universities to reach out to clean energy research and technology. Areas of research should include renewables, energy efficiency, advanced and cleaner fossil fuel technology like CCS. Such cooperation should also encourage investments in infrastructure and clean energy technology to make modern and sustainable energy services available for all.



23RD MEETING OF ARAB NEGOTIATING GROUP & 13TH WORKSHOP OF ARAB NEGOTIATING GROUP ON EVALUATION OF CLIMATE FUNDING REQUIREMENTS



Upon an invitation by the League of Arab States, OPAEC Secretariat General took part in the 23rd Meeting of the Arab Negotiating Group held in Cairo, Egypt, on 1-7 November 2019. Members of the Arab Negotiating Team tasked with following up the Paris Agreement on Climate Change participated in the event.

Mr. Ayman Shasly of Saudi Arabia and Head of the Arab Negotiating Team tasked with following up the Paris Agreement on Climate Change chaired the meeting. Representatives of the Arab countries, the Arab League, ESCWA, and OAPEC participated in the meeting. The Director of the Information and Library Department Mr. Abdul Kareem Ayed represented OAPEC at the event.

The meeting discussed the latest developments in the climate change

negotiations on international level and the required Arab move in this regard.

OAPEC Rep presented a paper on Bonn 2019 outcomes, a glimpse of the carbon markets and pending issues relevant to article VI of the agreement, as well as, the IPCC report, the New York Climate Summit in September 2019, and the world trade issues influencing the progress of the climate change negotiations.

Following extensive discussions, the Arab Negotiating Team prepared a plan for the Arab stance and moves at the negotiations and on tackling climate change issues in general; most importantly observing and activating the principles of the agreement, calling for a balanced handling of all issues and paying attention to adaptation and funding issues according to the Paris Agreement.







OAPEC JOINT VENTURES' 48TH COORDINATION MEETING

OAPEC Secretariat General held the 48th Coordination Meeting for OAPEC Joint Ventures on 28 October 2019 in Cairo, Egypt. The meeting was chaired by HE Abbas Ali Al Naqi, OAPEC Secretary General; and it was attended by the joint ventures' CEOs and GMs as representatives of their companies. Also, the General Manager of the Arab Oil Training Institute took part in the meeting.

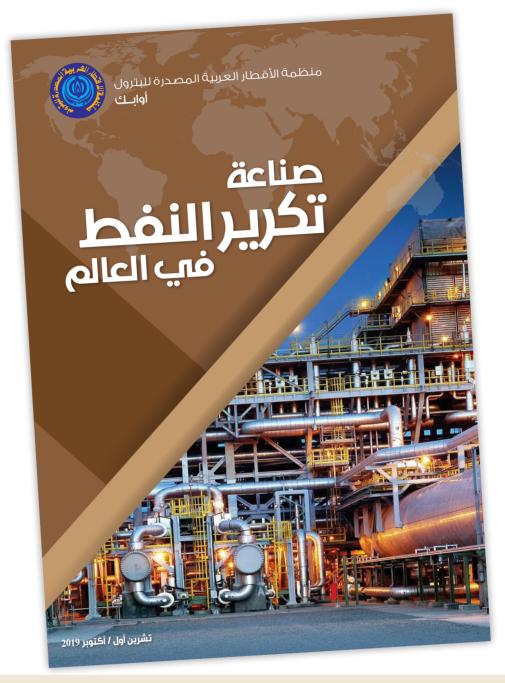
The meeting aimed at highlighting the activities, and the financial and operational results of the joint ventures during 2018 and the first half of 2019. Cooperation, collaboration, and challenges facing these companies were also discussed. A report on the minutes of meeting will be submitted to

the next meeting of OAPEC Ministerial Council in December 2019.

The revision of the joint ventures' activities in 2018 and the first half of 2019 showed that despite the difficult conditions facing a number of these companies, they managed to achieve good operational and financial results. While the rest have been impacted by fierce competition and the surrounding difficult circumstances in some Arab countries but nevertheless are trying to develop and improve their businesses. Meanwhile, the Secretariat General has started working on a report following this meeting which will include recommendations to support these joint ventures in the next stage.



WORLD OIL REFINING INDUSTRY



Oil refining industry is one of the most effective industries in the world and it has an important role in energy market. Oil refining industry has been under considerable pressure for decades. The refineries need heavy investments for improving the environmental features of the fuels they produce and reducing direct emissions to the environment. This study explains the development of oil refining industry in the world's regions, defined here as Africa, Asia Pacific, Eastern Europe, Middle East, North America, South America and Western Europe.



The main purpose of this study is to examine the reasons behind the main challenges facing the refining industry in the world, address the necessary measures needed for improving the performance. The study also includes updated information relating to all active and planned refineries in each region, historical data on supply/demand balance of petroleum product from 1995 to 2018 and forecast to 2040.

The world's demand for petroleum products will keep growing, especially in Asia Pacific, Mideast and Africa regions. The demand will increase for Gasoline and Diesel while it will decline for residue. Overall trend in demand is clearly toward higher-quality fuels. Shrinking demand, which in turn reduces the opportunities for refiners that are big exporters to these regions, will have significant impact on refiners within the United States and Western Europe.

Most of the refineries in Africa, Eastern Europe and Middle East built 30 to 40 years ago with small scale, and using less sophisticated technology. Consequently, aging refineries have been suffering from higher maintenance and operating costs than refineries built recently. Currently, the refining sector in these regions has several problems:

- Most of the operating refineries have limited capacities for converting bottom-of-the-barrel fractions of oil into light products. They largely rely on catalytic reforming and hydrotreating processes rather than catalytic cracking, hydrocracking, and thermal operations.
- The share of heavy fuel oil in refinery output is higher than its level in Western Europe and North America.
- Petroleum products quality is well below European standards and some of refineries still produce low-octane, leaded gasoline.

During the last two decades, investment in refineries has never been attractive in regions where market forces decided the product prices. Starting in the early 1980s, North America and Europe lowered their excess capacity while improving their performance and ability to produce higher quality refined products.

The North America and Western Europe regions have seen a closure of many refineries in recent years, while the operating refineries have been struggling to survive by improving its performance and flexibility to be more efficient and more able to adapt to changing market needs.

At the same time, refining capacity continued to

expand in the Middle East and Asia Pacific. In addition to building new refineries, most of the developing countries have actively started expanding the capacity of their active refineries, implementing the latest and most efficient technologies, and maximizing the refinery and petrochemical integrations in attempt to maximize the production of lighter refined products, achieve economic diversification, meet environmental protection obligations and achieve a competitive advantage amongst industry players.

On the other hand, refining sectors in Middle East and Asia-Pacific enjoy a number of key advantages, including the availability of skilled and cheap labor, large reserves of capital and rapidly growing local demand. These advantages have encouraged the national oil companies in these regions to build a strategic alliance with the international oil companies, so that they can gain more competitive advantages, generate more economic growth for both parties, and share risks and rewards fairly.

In the developing countries, such as Africa, Asia Pacific, Eastern Europe, and Middle east, a strong focus now on building new refineries and upgrading their active refineries to help ensure their survival today and profitability in the future. The expansion projects also aimed at improving the ability of the refineries to produce high quality fuels, meet the growing local market demand of petroleum products and enhance its competitiveness in the international markets.

As concluded in this study, in order to improve the operation and financial viability of the oil refining industry in these regions, the following key issues should be addressed:

- Develop a strategy for closure of unprofitable or environmentally unacceptable facilities.
- Prioritize investments to match market need, environmental timetables, and financial return.
- Reduce pollution attributable to the industry through environmental protection legislation.
- Competition must be introduced wherever practicable.
- Additional fund is needed to address pollution control at the refining sites.
- Reasonable security of supply must be ensured.
- An international forum must be created for exchange of views on common regional problems.
- Technical training programs at every level must be established.

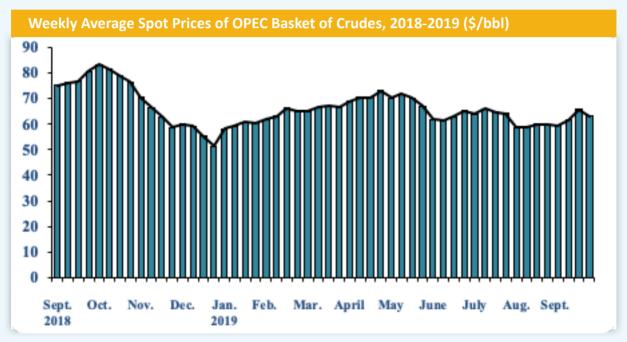


Petroleum Developments in the World Market and Member Countries*

First: World Oil Markets

1. Oil Prices

In September 2019, OPEC Reference Basket increased by 4.7% or \$2.8/bbl from the previous month level to stand at \$62.4/bbl. Supply disruptions and heightened geopolitical tensions in the Middle East, were major stimulus for the increase in oil prices during the month of September 2019.



Source: Organization of Petroleum Exporting Countries, OPEC.

2. Supply and Demand

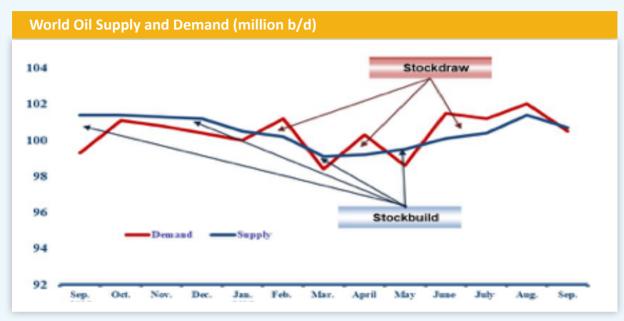
World oil demand in September 2019, decreased by 1.5 million b/d or 1.5% from the previous month level to reach 100.5 million b/d. Demand in OECD countries decreased by 2% comparing with the previous month to reach 48 million b/d. And demand in Non-OECD countries decreased by 0.8% comparing with their previous month level to reach 52.5 million b/d.

^{*} Prepared by the Economics Department.



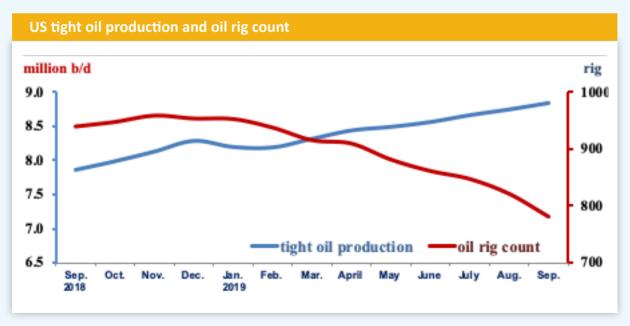


World oil supplies in September 2019, decreased by 0.7 million b/d or 0.7% comparing with the previous month to reach 100.7 million b/d. OPEC crude oil and NGLs/condensates total supplies decreased by 2% comparing with the previous month to reach 34.5 million b/d. Whereas preliminary estimates show that Non-OPEC supplies remained stable at the same previous month level of 66.2 million b/d.



Source: Energy Intelligence Briefing Oct. 23, 2019.

US tight oil production in September 2019, increased by 1.1% to reach about 8.8 million b/d, whereas US oil rig count decreased for the tenth month in a row, by 40 rig from the previous month level to stand at 781 rig.

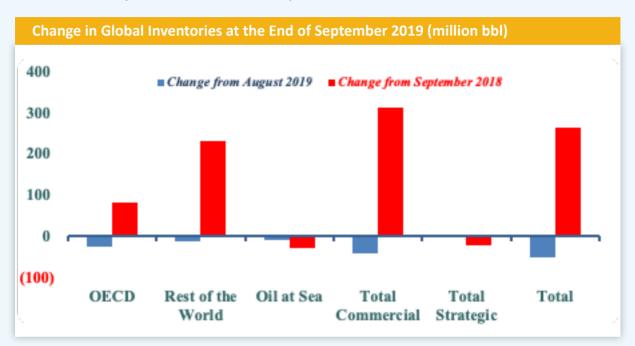


Source: EIA, Drilling Productivity Report for key tight oil and shale gas regions Oct. 2019.



3. Oil Inventories

OECD commercial inventories in September 2019 decreased by 27 million barrels from the previous month level to reach 2947 million barrels, and Strategic inventories in OECD-34, South Africa and China decreased by 4 million barrels from the previous month level to reach 1824 million barrels.



Source: Oil Market intelligence, Dec 2018 and Oct. 2019.

4. Oil Trade

US Oil Imports and Exports

US crude oil imports in September 2019, decreased by 4.8% from the previous month level to reach 6.6 million b/d, and US product imports decreased by 17.4% to reach about 2 million b/d.

US crude oil exports in September 2019, increased by 6.5% from the previous month level to reach 3.1 million b/d, whereas US product exports decreased by 3.6% to reach about 5.1 million b/d.

Second: Natural Gas Market

1. Prices

- The average spot price of natural gas at the Henry Hub increased in September 2019 to reach \$2.56/million BTU.
- The Price of Japanese LNG imports in August 2019 increased by \$0.7/m BTU to reach \$10.16/m BTU, the Price of Chinese LNG increased by \$0.1/m BTU to reach 8.45/m BTU, whereas the Price of Korean LNG imports decreased by \$0.2/m BTU to reach \$9.20/m BTU.

2. Exports

Arab LNG exports to Japan, Korea and China were about 2.730 million tons in August 2019 (a share of 18.3% of total imports).



Tables Annex