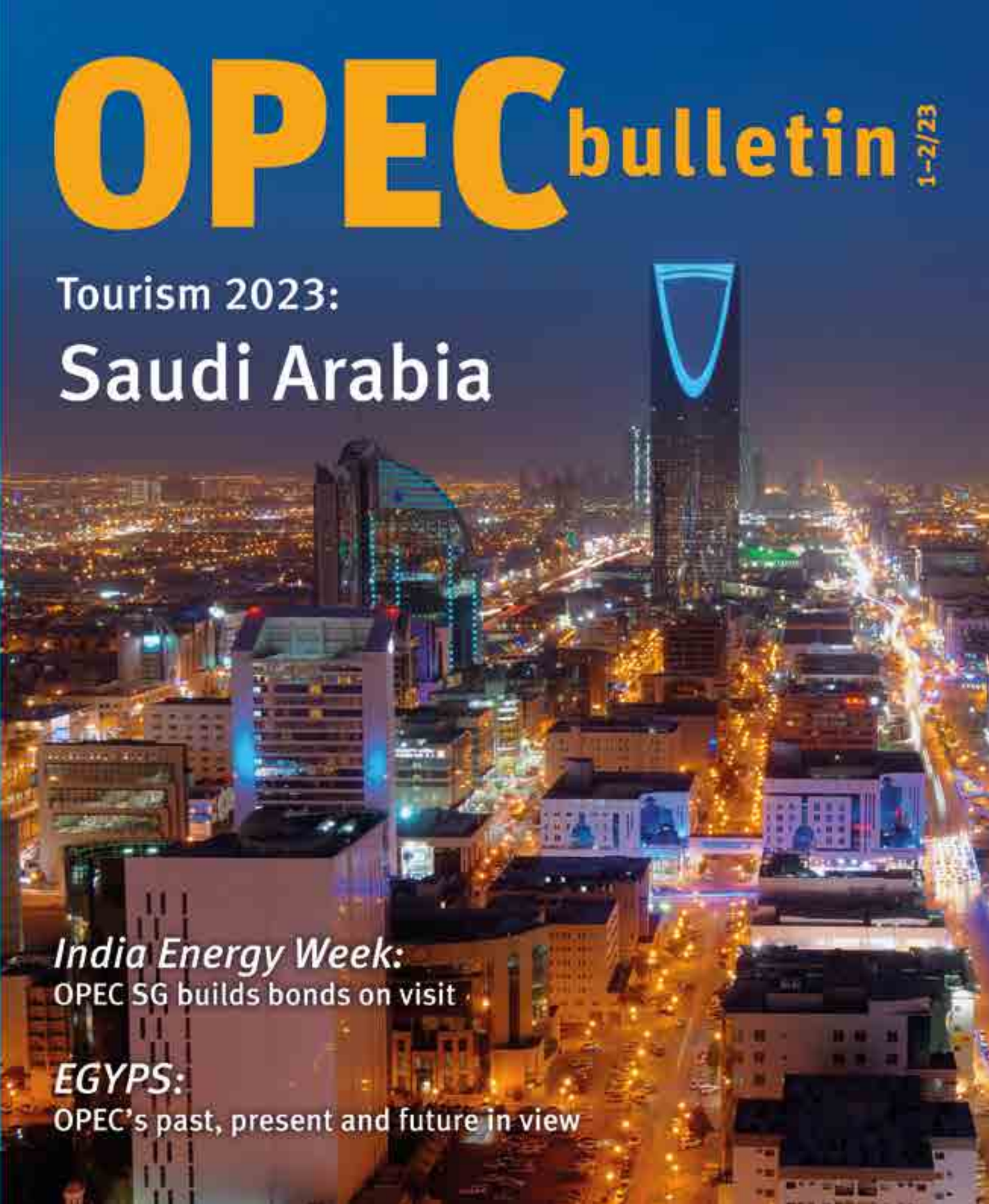
OPEC bulletin

1–2/23



Tourism 2023:
Saudi Arabia

India Energy Week:
OPEC SG builds bonds on visit

EGYPS:
OPEC's past, present and future in view

OPEC 8th International Seminar

Save the date

July 5–6, 2023

Hofburg Palace, Vienna, Austria

The 8th International OPEC Seminar will be held under the theme:

'Towards a sustainable and inclusive energy transition'

www.opec.org

Strength in diversity

At the end of 2022, the OPEC Secretary General, Haitham Al Ghais, paid tribute to the staff at the Secretariat at a Long Service Award Ceremony. It was an opportunity to not only honour career milestones, with some witnessing a remarkable 40 years of service, but also to thank each and every staff member for their professional dedication.

Al Ghais said: "Your integrity, commitment and teamwork guarantee the quality and consistency of services to all stakeholders and help ensure OPEC's prominence among international energy institutions."

The event underscored the importance of teamwork, of working toward common goals, promoting a positive work culture, inspiring innovation and improving productivity. It was the legendary Henry Ford that once said: "If everyone is moving forward together, then success takes care of itself."

The OPEC Secretariat is the Organization's executive organ and home to 124 staff, representing 40 nationalities from six continents. It is a multicultural workplace, an enduring legacy to the history of the Organization.

The value of the staff is evident in the high quality of every aspect of the Secretariat's work. This includes its industry-leading research, data and analysis, its informative publications, its outreach activities, as well as the technical, administrative, human resource and logistical support it provides.

Often working in the background, the Secretariat team directly supports it Member Countries, enabling them and the Organization to carry out its decade's long mission of supporting a stable and sustainable supply of oil, which is vital to the world's energy security and economic vitality.

The history of OPEC was on display most recently in Egypt in February when the Secretary General visited the Maadi Yacht Club on the River Nile to unveil a commemorative installation dedicated to the history shared by OPEC and the club.

It is a location that played a pivotal role in the Organization's founding when in April 1959, a small group of visionaries met at the club to explore ways to protect their countries' sovereign energy resources, which eventually led to the formation of OPEC in Baghdad in September 1960.

It was also an opportune time to reflect upon what the Organization has been through in the period since, both the success it has had and the challenges it has faced. It is a story that encapsulates a family of nations, of feelings and emotions of countries rich in culture and heritage, and of the struggle of a group of developing countries to exercise their inalienable right to permanent sovereignty over their natural resources in the interest of their national development.

It is also at its heart a story of people, and this includes the many staff that have passed through the doors of the Secretariat. Some have stayed for a short period, but many have made careers at the Organization, serving with great loyalty and commitment.

In fact at the recent Long Service Award Ceremony there were 15 staff members recognized for ten years of service, seven for 15 years, ten for 20 years, five for 30 years, and two for 40 years. It is testament to the special relationship between the Organization and the staff that support it.

It is a special privilege to pay tribute to the two colleagues who have spent 40 years and more serving the Organization, both of whom will retire in the next month or so.

The first is Diana Lavnick, Senior Production Assistant in the Public Relations & Information Department. Diana, an Australian-Austrian, has been the backbone of the *OPEC Bulletin* for many decades, helping put together more than 350 editions, as well as many other publications. A true professional, who has made an exceptional contribution to the Secretariat's work.

The second is Nadir Guerer, Senior Research Analyst in the Research Division. Nadir, originally from Türkiye, has served with incredible commitment, objectivity and expertise in a number of roles over his years at the Organization, earning the respect of everyone at OPEC. He has been a true public servant, often going above and beyond in his work at the Secretariat.

We 'tip our hat' to Diana and Nadir and hope their legacies inspire the newer generations of OPEC staff, to help drive the Organization's innovation, growth and development in the coming years, through working together as a team.

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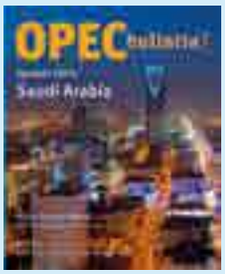

Cover
This month's cover shows Saudi Arabia's capital, Riyadh. The Kingdom is becoming a tourism powerhouse (see feature on page 44).

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OPEC Membership and aims
OPEC is a permanent, intergovernmental Organization, established in Baghdad, on September 10–14, 1960, by IR Iran, Iraq, Kuwait, Saudi Arabia and Venezuela. Its objective — to coordinate and unify petroleum policies among its Member Countries, in order to secure a steady income to the producing countries; an efficient, economic and regular supply of petroleum to consuming nations; and a fair return on capital to those investing in the petroleum industry. Today, the Organization comprises 13 Members: Libya joined in 1962; United Arab Emirates (Abu Dhabi, 1967); Algeria (1969); Nigeria (1971); Angola (2007); Equatorial Guinea (2017). Ecuador joined OPEC in 1973, suspended its Membership in 1992, rejoined in 2007, and suspended its Membership again on December 31, 2019. Qatar joined in 1961 and left on December 31, 2018. Indonesia joined in 1962, suspended its Membership on December 31, 2008, reactivated it on January 1, 2016, but suspended its Membership again on December 31, 2016. Gabon joined in 1975 and left in 1995; it reactivated its Membership on July 1, 2016. The Republic of the Congo joined the Organization on June 22, 2018.

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Contributions
The *OPEC Bulletin* welcomes original contributions on the technical, financial and environmental aspects of all stages of the energy industry, as well as research reports and project descriptions with supporting illustrations and photographs.

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EGYPS kicks off against a backdrop of energy discoveries

The sixth Egypt Petroleum Show (EGYPS) kicked off at the International Exhibition Centre in Cairo in mid-February, featuring more than 500 exhibitors and an estimated 2,000 delegates.

Since its launch in 2017, EGYPS has become a vital energy event, showcasing Egypt's prominence as an oil and gas energy producer.

Alongside OPEC's African Member Countries, Egypt is one of the continent's major oil producers, with crude and liquids output of around 600,000 barrels per day.

In addition, Egypt's gas sector has gained global attention following recent discoveries that could significantly boost its exports while meeting rising domestic demand.

One month before EGYPS, the Italian energy giant Eni announced a "significant" natural gas discovery in the Narges offshore concession in the Eastern Mediterranean. Germany's Wintershall Dea made its own announcement of an onshore gas discovery in the Nile Delta's East Damanhour exploration zone. Both European firms have a foothold in a number of OPEC Member Countries.

Speaking at EGYPS for the first time as OPEC Secretary General, Haitham Al Ghais underscored the country's

Arab Republic of Egypt Presidency

Dignitaries take time out for a group photo at the Opening Ceneremony of EGYPS 2023, including: Abdel Fattah El Sisi (front row, fifth r), President of the Arab Republic of Egypt; Tarek El Molla (fourth r), Minister of Petroleum and Mineral Resources of Egypt.

importance as an energy producer while also pointing to the deep ties between the Organization and Egypt.

"I wish to express my gratitude to Abdel Fattah El Sisi, President of the Arab Republic of Egypt, for his considerable contributions to our industry and his patronage of this event," Al Ghais said in a keynote address to the *EGYPS Presidential Opening Ceremony* on February 12.

A long history of cooperation

He went on to thank Egypt's Minister of Petroleum and Mineral Resources, Tarek El Molla, for chairing EGYPS and for his close working relationship with OPEC. The day before, February 11, El Molla attended a ceremony at Cairo's Maadi Yacht Club *(see page 8)* to mark the round of meetings that took place there in 1959 involving delegates from IR Iran, Iraq, Kuwait, Saudi Arabia and Venezuela that would pave the way to the establishment of OPEC in September 1960.

OPEC and Egypt have cooperated on many occasions since then. Although it does not participate in the 'Declaration of Cooperation' (DoC), Egypt has been an observer and key supporter of the framework since its inception in 2016.

Al Ghais stressed the important role played by the DoC in his remarks at the presidential ceremony, which included many high-level attendees as well as prominent oil and gas industry leaders.

"Looking at its track record over the past six years, the DoC has been recognized by the G20 and leading consuming countries for its constructive and positive role in supporting the global oil market for the benefit of all stakeholders," Al Ghais said. "To sustain these efforts, OPEC remains committed to investment so that supply meets demand, and to help further reduce the industry's carbon footprint."

The ties binding Egypt and many OPEC Member

Haitham Al Ghais, OPEC Secretary General, presenting his keynote address.

Attendees at EGYPS 2023.

Countries are further reflected in their involvement in institutions like the International Energy Forum (IEF) and African Petroleum Producers Organization (APPO), as well as the Gas Exporting Countries Forum (GECF).

"Investment is essential for the industry to innovate and deploy the technologies needed to decarbonize."

— OPEC Secretary General, Haitham Al Ghais

Keeping investment front and centre

At major global events leading up to EGYPS — including the World Economic Forum in Davos and at India Energy Week — the Secretary General has driven home the importance of sustaining investment in the oil sector to address rising energy demand.

He reiterated this in his EGYPS keynote address, stressing the need to boost investment to meet demand now and in the future. In 2020 alone, upstream capital expenditure plummeted by roughly 28 per cent, exceeding the dramatic declines seen in the severe industry downturn in 2015 and 2016.

"Unfortunately, the oil industry has been plagued by several years of chronic underinvestment, which has contributed to reduced spare capacity, production constraints and lower refinery output," he said.

The Secretary General referenced OPEC's latest outlook showing that global oil demand is on course to exceed pre-pandemic levels this year, reaching almost 102 million barrels/day (m b/d), and growing to around 110m b/d by 2045.

To balance supply and demand over the longer term, the 2022 edition of OPEC's *World Oil Outlook (WOO)* estimates that more than $12 trillion in investment will be required between now and 2045. Of this, $9.5tr will go to upstream projects, $1.6tr to the downstream and $1tr to the midstream.

"In considering these sums, it is important to remember that investment in energy security is a key enabler for economic activity, an essential element of energy access, and a cornerstone of stability in energy markets," Al Ghais said.

Panel discussion (l–r): Eithne Treanor, moderating the session; Haitham Al Ghais, OPEC Secretary General; Dr Omar Farouk Ibrahim, Secretary General, APPO; Joseph McMonigle, Secretary General, IEF; and Dr Houda Ben Jannet Allal, General Director, Observatoire Méditerranéen de l'Énergie.

'Look at the big picture'

Given the scale of the world's energy demand, as well as the need to alleviate energy poverty, Al Ghais delivered a message to all parties involved in the global climate negotiations. He urged them "to pause for a moment, look at the big picture, and work towards an energy transition that is orderly, inclusive and helps ensure energy security for all nations."

The Secretary General went on to commend Egypt's leadership of the 27th United Nations Conference of Parties (COP27) meeting in 2022. He stressed that the talks held in Sharm El-Sheikh provided a platform to advocate for a balanced and fair process on issues related to adaptation, mitigation and the means of implementation, particularly with regard to climate finance and technology.

"At Sharm El-Sheikh," he added, "we were able to successfully relay our message that there is simply no 'one size fits all' solution to the climate challenge. Different countries around the world have varying capabilities and diverse needs."

The United Arab Emirates (UAE) will preside over COP 28. The Secretary General told the audience that the negotiations that will take place in an OPEC Member Country offers "a fresh opportunity to explore inclusive, sustainable and consensus-based solutions to climate change."

Many prominent oil and gas industry leaders and high-level stakeholders attended the EGYPS opening session.

Other events at EGYPS

Additionally, the Secretary General took part in a panel the discussion on February 13 titled *'Fostering enabling strategies, policies and frameworks — driving energy transition and climate-change actions'*. Alongside Al Ghais, the panel featured Dr Omar Farouk Ibrahim, Secretary General of APPO; Joseph McMonigle, Secretary General of the IEF; and Dr Houda Ben Jannet Allal, General Director of Observatoire Méditerranéen de l'Énergie (OME). Eithne Treanor, a familiar face at many OPEC events, moderated the session.

He also participated in an EGYPS Young Professionals Programme 'fireside chat', highlighting the important role of young people in the future of the energy industry.

OPEC's stand at the Egypt International Exhibition Centre, the EGYPS venue, was widely visited during the three-day event.

Honouring a key moment in OPEC history

OPEC's Secretary General commemorates a formative moment in the Organization's history during a ceremony at Cairo's Maadi Sporting and Yacht Club.

Taking a step back in history, OPEC Secretary General, Haitham Al Ghais, visited the Maadi Yacht Club on February 11, 2023, to honour the spot along the River Nile that played a seminal role in the Organization's founding.

Al Ghais was joined by Tarek El Molla, Egypt's Minister of Petroleum and Mineral Resources; Ebrahim Shelbaya, President of the Maadi Yacht Club Board; and a host of other dignitaries and club members to unveil a commemorative installation dedicated to the history shared by OPEC and the club.

The Secretary General recounted that on the sidelines of the first Arab Petroleum Congress, which took place in Cairo in April 1959, a small group of visionaries met to explore ways to protect their countries' sovereign energy resources. The privacy of the Maadi Yacht Club provided the ideal setting for their discussions.

An oasis on the Nile

Established as the Maadi Golf Club in the early 1920s, the venue has expanded over the years to include sailing and sporting facilities. A serene, leafy oasis in a suburban district of Cairo, Maadi has long been an escape from the Egyptian metropolis' vibrant streets, plazas and marketplaces.

A key figure in the 1959 Maadi discussions was one of the great energy journalists of her time, Wanda

Presenting the commemorative installation (l–r): Ebrahim Shelbaya, President of the Maadi Yacht Club Board; Tarek El Molla, Minister of Petroleum and Mineral Resources of Egypt; and Haitham Al Ghais, OPEC Secretary General.

Jablonski. Her close contacts with oil industry representatives played a key role in encouraging the meetings — to the point that the trail-blazing journalist has often been described as 'OPEC's midwife'.

Recalling the events that took place at Maadi, the OPEC Secretary General told the assembled group: "Without fanfare or headlines, delegates from Iran, Iraq, Kuwait, Saudi Arabia and Venezuela signed an agreement which would become known as the 'Maadi Pact'. In it, the five delegates encouraged their governments to establish a permanent Organization to promote cooperation and facilitate regular consultations between key oil producers."

In the following year, from September 10 to 14, 1960, representatives from the same five countries met at the Al-Shaab Hall in Baghdad's Bab Al-Muadham district to found OPEC. The seeds planted on the River Nile in 1959 would germinate on the banks of the Tigris.

Back to the future

Shifting from the past to current events, Al Ghais told the gathering at the Maadi Yacht Club, "Today, OPEC and its 13 Member Countries remain faithful to this history and steadfast in our commitment to dialogue, cooperation and oil market stability. Over the years, we have benefited greatly by working closely with other oil producers, including Egypt, in the common interest of market stability and sustainability."

As an example, the Secretary General pointed to Egypt's support for the Declaration of Cooperation involving OPEC and other leading non-OPEC oil-producing countries. "For more than six years now, our joint efforts have helped navigate the oil market through a series of unparalleled challenges," Al Ghais said.

The OPEC Secretary then expressed his gratitude to the Maadi Yacht Club for setting aside space to help tell the story of OPEC's beginnings. Both OPEC's graphics and design team and the Club worked together to design a fitting memorial in the form of a sail, inscribed with a brief history, to commemorate what Al Ghais called "our shared journey and enduring friendship".

The Maadi event kicked off a busy few days in Cairo. The Secretary General delivered a keynote address at the Presidential Opening Ceremony of the Egypt Petroleum Show (EGYPS) on February 12 *(see page 4)*. Also that day, he participated in the second edition of the High-level OPEC-Africa Energy Dialogue *(see page 10)*.

Among other events, the Secretary General on February 13 joined an EGYPS panel on 'Fostering enabling strategies, policies and frameworks — driving energy transition and climate-change actions'. He also took part in a youth forum at EGYPS.

"Over the years, we have benefited greatly by working closely with other oil producers, including Egypt, in the common interest of market stability and sustainability."

— OPEC Secretary General, Haitham Al Ghais

Dignitaries gather for a photograph at the Maadi Yacht Club.

OPEC hosts second Africa Energy Dialogue

The second edition of the OPEC-Africa Energy Dialogue took place in Cairo, Egypt, with a focus on investment, the energy transition and energy access.

The 2nd High-level Meeting of the OPEC-Africa Energy Dialogue was held in Cairo on February 12, 2023, involving leading energy partners from across the continent.

It was the first time that the event had taken place in person. The inaugural Dialogue, on June 2, 2021, was held virtually due to travel complications related to the COVID-19 pandemic.

OPEC hosted the second meeting along with Dr Amani Abou-Zeid, Commissioner for Infrastructure and Energy of the African Union (AU); Dr Omar Farouk Ibrahim, Secretary General of the African Petroleum Producers' Organization (APPO); and Anibor Kragha, Executive Secretary of the African Refiners and Distributors Association (ARDA).

OPEC Secretary General, Haitham Al Ghais, welcomed the partners by noting that the Dialogue has proven to be a win-win initiative for all participating parties.

"Excellencies, I want to thank you for your excellent leadership and staunch support for this important Dialogue. Your combined experience and knowledge of African energy affairs are highly valued, and we look forward to benefiting from your expert insights," he said.

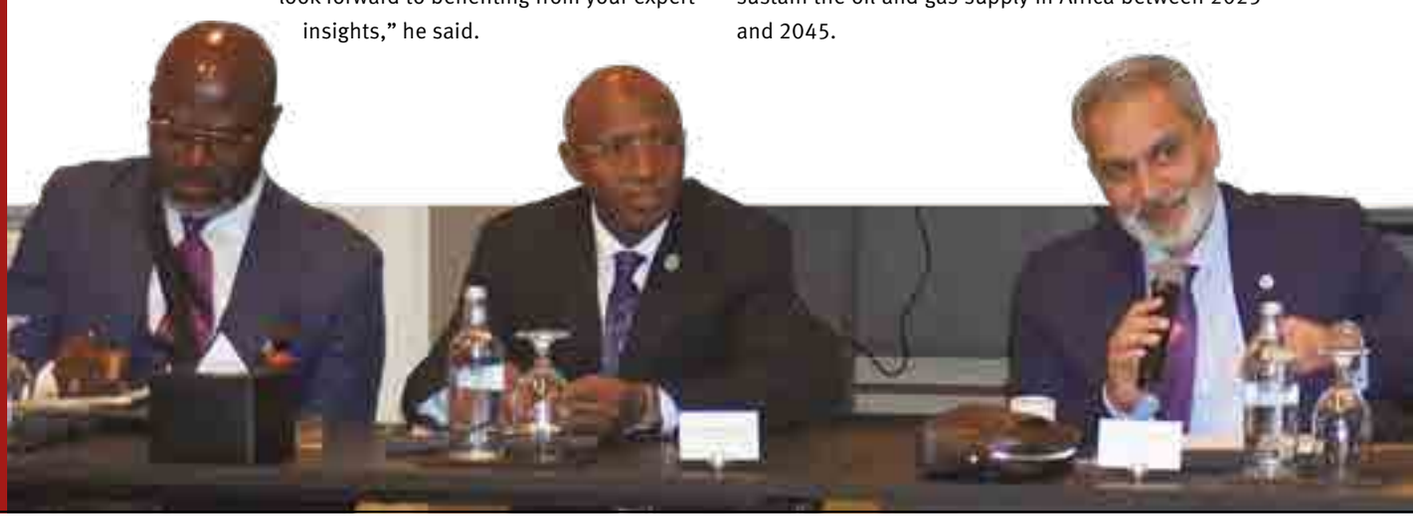
The discussions focused on the very timely issues of energy investment and finance in Africa, the energy transition, energy poverty and the way forward for the OPEC-Africa Dialogue.

Investment in Africa and beyond

Al Ghais' remarks emphasized the importance of investment to the industry, and to the African continent. He noted that at the global level, OPEC forecasts show cumulative oil-related investment requirements through 2045 to be approximately $12.1 trillion. Of this, $9.5tr will go to upstream projects, $1.6 trillion to the downstream and $1tr to the midstream.

The Secretary General also cited OPEC's 2022 study, *'Investment requirements for Africa'*, which shows that oil and gas will remain vital parts of the energy mix across the continent between 2025 and 2045.

Africa has collectively invested more than $1.37tr in its oil and gas sector over the past 60 years. However, looking ahead, OPEC's forecasts show that total cumulative investments of nearly $716 billion are required to sustain the oil and gas supply in Africa between 2025 and 2045.



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View of an oil rig located in the Red Sea, close to the Egyptian shore.

"If these investment needs are not met, we could eventually see supply shortfalls, resulting in heightened volatility," the Secretary General said, adding that that "our efforts through the 'Declaration of Cooperation' (DoC) are aimed at providing stable energy markets, which, in turn, are a pre-requisite for investor confidence and increased investment going forward."

Energy transition

Turning to the topic of the energy transition, Al Ghais said countries in Africa and around the world were struggling to find the right balance between supporting their economic development priorities while also adapting to the rapidly changing dynamics related to climate change.

"In this context, Africa is in a fragile position," the OPEC Secretary General told the Dialogue partners. "In addition to suffering serious economic setbacks due to the fallout from the COVID-19 pandemic and other factors, African countries stand to be on the losing end of the consequences of climate change."

Unfortunately, he added, "the inequalities that existed previously are now in danger of being multiplied."

The 27th meeting of the United Nations Conference of the Parties, or COP27, took place in Sharm El-Sheikh, Egypt, from November 6 to 18, 2022. Al Ghais pointed out that COP27 provided an important platform for OPEC's Member Countries "to advocate for a balanced

Haitham Al Ghais (second r), OPEC Secretary General; with (l–r) Dr Amani Abou-Zeid, Commissioner for Infrastructure and Energy of the African Union; Dr Omar Farouk Ibrahim, Secretary General of the African Petroleum Producers' Organization; and Anibor Kragha, Executive Secretary of the African Refiners and Distributors Association.

and fair process on issues related to adaptation, mitigation and the means of implementation, particularly with regard to climate finance and technology.

"We were able to successfully relay our message that there is simply no 'one size fits all' solution," he said. "Different countries around the world have varying capabilities and diverse needs."

During the COP27 negotiations, the OPEC Secretary General added, "we also emphasized the fact that any future energy and climate roadmap must be developed in accordance with the core principles of the United Nations Framework Convention on Climate Change: namely equity, historical responsibility and the principle of common but differentiated responsibilities and respective capabilities. This is essential, particularly for Africa, to ensure that its unique circumstances are taken into consideration."

"As energy stakeholders, we must continue to engage in discussions like this and collaborate at all levels to achieve our common goals."

— Haitham Al Ghais, OPEC Secretary General

Al Ghais noted that COP28 will take place later in 2023 under the leadership of an OPEC Member Country, the United Arab Emirates (UAE). "I would note here that the UAE has become a recognized leader in investing in technologies to reduce the oil industry's carbon footprint, and is therefore well-positioned to promote inclusive solutions to our world's climate challenges," he said.

Tackling energy poverty

Al Ghais also drew attention to energy poverty, which affects Africa disproportionately. The latest data shows that roughly 733 million people are still without access to electricity, and about 80 per cent are here in Africa.

In addition, approximately 2.4 billion people, or around one-third of the global population, still have no opportunities for clean cooking solutions. In Sub-Saharan Africa, 920 million are still without access to clean cooking fuels, an increase from 750m in 2010, according to the data.

"This is simply unacceptable," Al Ghais said. "At last year's Africa Energy Week in Cape Town, I made an appeal to world leaders to unite and mobilize their collective resources and political support to help reverse this tragic situation and bridge the gap between developed and developing countries."

Key engagement from Dialogue partners

AU Commissioner Dr Abou-Zeid highlighted the importance of the OPEC-Africa Energy Dialogue, stressing that the continent would require all energy sources over the longer term. She additionally emphasized

The 2nd High-level Meeting of the OPEC-Africa Energy Dialogue convened in Cairo on February 12, 2023.

the need for Africa to build capacities in the oil and gas industries, such as IT and technology, to drive value creation.

In his remarks, APPO's Dr Ibrahim thanked OPEC for the leadership role it has been playing in the Dialogue, and noted that for Africa the challenge of energy transition is much more daunting.

He pointed out that a study conducted by APPO on the future of the oil and gas industry in Africa in light of the energy transition identified three imminent challenges that African oil and gas producing countries must address if they are not to lose the 125 billion barrels of crude oil and over 550 trillion cubic feet of gas reserves located in the continent. These are the challenges of funding, technology and markets, he said.

Kragha, ARDA's Executive Secretary stated that his organization "is committed to working with its key partners via this important OPEC-Africa Energy Dialogue platform to engage all relevant parties to build on the positive outcomes of COP27 and align on actionable steps to deliver a unique, just, sustainable energy transition plan for the African downstream sector."

Africa and energy cooperation

The OPEC Secretary General concluded the event by emphasizing that Africa, despite inevitable challenges that lie ahead, will continue to be a major player in the global energy market. He stressed that global cooperation must be enhanced going forward to adequately address common challenges.

"The opportunities for the continent will be significant in years ahead, but there will undoubtedly be a great number of challenges in store as this industry continues to evolve towards a lower-carbon future," Al Ghais said. "This complex and double-sided reality is what makes global energy cooperation and events such as this one of dire importance."

"As energy stakeholders," he noted, "we must continue to engage in discussions like this and collaborate at all levels to achieve our common goals. In this regard, I look forward to our next instalment of this highly successful event."

The high-level Dialogue was followed by the 2nd Technical Meeting of the OPEC-Africa Energy Dialogue, which provided a valuable platform for the exchange of outlooks and information.

Dialogue: Breaking new ground in Africa

In 2021, OPEC and high-level representatives of the African Energy Commission (AFREC), APPO and ARDA took part in the inaugural OPEC-Africa Energy Dialogue to promote continent-wide energy cooperation.

This ground-breaking dialogue, which took place via videoconference on June 2, 2021, capped more than two years of efforts to expand dialogue, technical cooperation and research capacity between OPEC and the African continent. The inaugural high-level meeting was followed on the same day by the 1st Technical Meeting of the OPEC-Africa Energy Dialogue.

The then-OPEC Secretary General, Mohammad Sanusi Barkindo, kicked off the high-level meeting by noting that OPEC's Dialogues "have proven to be highly effective in promoting mutual understanding on key energy issues, while also enhancing our common efforts as energy stakeholders to tackle industry challenges, such as the current COVID-19 pandemic."

The OPEC-Africa Energy Dialogue stems from efforts dating to February 2019, when a recommendation was made to organize a technical partnership between OPEC and AFREC, a specialized agency of the African Union (AU) whose tasks include coordinating and integrating energy resources on the continent. The 1st OPEC-AFREC Technical Meeting was held in October 2020. This was followed by the 1st Technical Meeting between OPEC and APPO.

Since OPEC was founded in 1960, the Organization's bonds with Africa have grown stronger and more important. Today, the African continent is home to seven of the Organization's 13 Member Countries — Algeria, Angola, the Republic of the Congo, Equatorial Guinea, Gabon, Libya and Nigeria.

In addition, Sudan and South Sudan are among the non-OPEC oil producers participating in the DoC and Charter of Cooperation (CoC).

Wintering in Davos

*With the World Economic Forum (WEF) returning to the Swiss ski resort of Davos for its first winter gathering since 2020, and with the OPEC Secretary General, **Haitham Al Ghais**, in attendance, the* OPEC Bulletin *rounds up some of the key energy discussions from the event.*

For 51 weeks of the year, Davos is a popular resort for skiers, snowboarders and hikers. But for one week in January, it sees an influx of heads of state and government, ministers, business leaders, technology gurus and media, to discuss the pressing issues of the day and find potential solutions.

The theme of the 2023 meeting was *'Cooperation in a fragmented world'*, underscoring the importance attached to dialogue and ensuring that all voices are heard. The energy transition was once again a central topic, with a lot of focus on the issues of energy security, energy affordability and decarbonization. These topics were also central to the OPEC Secretary General's keynote remarks to a breakfast briefing organized by Crescent Petroleum *(see page 18)*.

Navigating the transition

Al Ghais took part in a number of roundtables with other key stakeholders, the first focused on the question: what are the key priorities to ensure energy security in a longer term energy transition? The second, looked at how the need for affordable and sustainable energy has become more acute, and what steps leaders can take to improve access to affordable energy in the immediate term, while addressing ongoing environmental priorities.

The agendas drilled down on the emerging dimensions of energy security and how these are being reflected in transition roadmaps and country actions; how countries can build resilience against energy shocks; and what collaboration mechanisms between countries can ensure reliable, secure, sustainable and affordable energy.

The OPEC Secretary General stressed again throughout his time in Davos that the magnitude of future economic growth and energy demand meant there was a need to utilize all energies, while also maintaining a focus on decarbonization. It was a message echoed by many others in various fora throughout the week.

World Economic Forum

The Secretary General sat down for an interview with Manus Cranny of Bloomberg.

In comments made to *Reuters*, Joseph McMonigle, Secretary General of the International Energy Forum (IEF) said that "energy companies have to be part of the solution here … these are big integrated companies that are really good at doing things, lots of engineers right?" He added that new technologies need the weight of big oil to be able to scale up solutions.

Aramco is one company underscoring the need to look at technologies and solutions across all energy sources. In comments during Davos week, Amin Nasser, President and CEO of Aramco, said: "Policymakers are going to have to admit that alternatives for the foreseeable future cannot shoulder the burden of delivering a reliable energy supply in the way that oil and gas does."

He stated that Aramco, for its part, is not sitting back and waiting for this realization to kick in, with the company working to supply the world with reliable energy today and at the same time positioning itself to provide lower-carbon energy in the future. He noted that Aramco is developing blue hydrogen capabilities and building one of the world's largest carbon capture and storage hubs.

"The only reliable and truly viable option is the coexistence and conventional and alternative energy sources", said Nasser. "We believe that will be the next normal."

Media interviews

Al Ghais also conducted a number of media interviews, with questions covering both short- and long-term perspectives.

In an interview with Manus Cranny of Bloomberg, the Secretary General was asked about his views on the current global economic situation. He noted that he was "cautiously optimistic", particularly given the re-

Saudi Aramco

Amin Nasser, President and CEO of Saudi Aramco.

World Economic Forum

The Forum in Davos hosted many different events over a span of five days.

opening of China after the loosening of COVID-19 restrictions. However, he took note of some fragility elsewhere, given the uncertainties surrounding such issues as high inflation and rising interest rates.

In looking at 2023 from the perspective of OPEC and 'Declaration of Cooperation' (DoC), he added that the DoC is prepared to do "whatever it takes" to help the oil market remain balanced and stable. The DoC remains fully focused on monitoring all the market's moving parts, he stated.

Talking to the *Xinhua News Agency*, the Secretary General was asked again about China's re-opening, and the importance of it to the world.

He said: "This means a lot to the global economy, to energy. And, of course, to trade between China and the rest of the world. This has a significant impact."

"Having lived in China for almost four years" he added, "I have faith in China. I have always said that when people have doubted the Chinese economy, do not discount China, China will come back."

He also highlighted the importance of the collaboration between OPEC and China. "OPEC and China have had a long-standing relationship and great dialogue, which we, as well as our Member Countries have enjoyed over so many years."

The value of dialogue was also brought home in an interview with Bloomberg Prime's Niraj Shah, in which he was asked about India. The linkages between India and OPEC, he said, is critical, stressing that this not only covers talks, but also investments between India and OPEC Member Countries.

This relationship is brought home by numbers in the OPEC's *World Oil Outlook (WOO)* 2022. In 2021, India's total crude oil imports were approximately 4.2 million barrels/day (m b/d), with around 65 per cent from OPEC Member Countries. India's oil demand is also set to rise from 4.8m b/d in 2021 to 11.1m b/d in 2045.

World Economic Forum

Joseph McMonigle, IEF Secretary General, attended the Forum.

Looking at future demand globally in his conversation with Shah, the Secretary General returned to the issue of investments. He noted investments in OPEC Member Countries, in both the upstream and downstream, but stressed that recent annual levels globally have been significantly below this, due to industry downturns, the pandemic, and the increasing focus on environmental, social and governance issues.

He said that al industry policymakers and stakeholders need to work together to ensure a long-term investment-friendly climate, with sufficient finance available.

Oil is basically irreplaceable

Returning to the long-term perspective in an interview with Frank Kane at *Arab News*, Al-Ghais reiterated that oil will be an essential part of the global energy mix for years to come.

He stated that OPEC has "a clear vision and strategy" about the development of renewables, with many Member Countries making significant investments in this area, but oil is "basically irreplaceable, in the future, as far as we can see, for the next couple of decades, at least."

"We are not climate change deniers, but we have a different approach to dealing with this issue," Al-Ghais added, highlighting the need for dialogue. He underscored the value of "common understanding, sitting around the table with one common objective, and not to point the finger at each other." He stressed the importance of "working with each other".

There were clear signs that global leaders are beginning to understand the need for hydrocarbon fuels to power economic growth, alongside the transition to renewables, said Al Ghais.

It was evidenced in many comments and commentaries from Davos, with many stakeholders emphasizing the importance of energy security, the need for all energies, and the value of technologies to help reduce emissions. As Al Ghais said in his Crescent Petroleum breakfast comments, the world needs an "all-energies, all-technologies and all-peoples approach".

Haitham Al Ghais, OPEC Secretary General, met with Deemah Al Yahya, Secretary General of the Digital Cooperation Organization (DCO), at the event.

Domes of an ice village seen at the 2023 Forum.

World Economic Forum

Davos: Daybreak discussion focuses on energy security

*On the sidelines of the World Economic Forum, OPEC's Secretary General, **Haitham Al Ghais**, participated in a lively early-morning give-and-take on the 'energy trilemma'.*

Haitham Al Ghais, OPEC Secretary General, delivers his speech.

Kicking off the first full day of the World Economic Forum (WEF) on January 17, Haitham Al Ghais joined a prominent group of guests for a timely discussion on the *'Energy trilemma: achieving availability, affordability and sustainability'*.

The breakfast event was sponsored by Crescent Petroleum, based in Sharja, the United Arab Emirates (UAE) as part of its Crescent Ideas Forum discussion series. It took place at the start of a day packed with WEF sessions.

The OPEC Secretary General opened his remarks by thanking Majid Jafar, CEO of Crescent Petroleum, for the timeliness of the discussion and organizing it during such a prominent gathering of business, political and thought leaders.

"As all who follow the energy news know, Majid Jafar is an eloquent advocate of the oil and gas business," Al Ghais said. "Under his leadership, Crescent Petroleum has become a driver of innovation and one of the big success stories in the Middle East's upstream oil and gas sector."

The Secretary General noted that the event's 'energy trilemma' topic goes to the core of OPEC's founding commitment to support a stable and sustainable oil market in the interest of producers, consumers and the global economy.

He went on to point that that OPEC's efforts have gained additional momentum in recent years through the 'Declaration of Cooperation' (DoC), involving both OPEC and leading non-OPEC oil-producing countries.

"Together, we have been front-and-centre in supporting the global market, as evidenced by the decisions at the end of 2022 to adjust oil production downward by 2 million barrels/day (m b/d). This has contributed to an improvement in spare capacity and market stability heading into the new year."

2023 and beyond

Speaking at the breakfast, Al Ghais provided the audience with a brief overview of market expectations for 2023 and beyond.

The Secretary General noted that market dynamics at the beginning of 2023 were extremely fluid, "and we are monitoring a number of moving targets on our radar screen. This is why OPEC and our DoC partners continue to be attentive to market conditions and prepared to act when necessary, a formula that has provided assurance to the global oil market for more than six years."

Alluding to the longer term, Al Ghais referenced the *OPEC World Oil Outlook (WOO)*, which was released on October 31, 2022, at the Abu Dhabi International Petroleum Exhibition and Conference (ADIPEC), noting that the global economy is expected to more than double in size between now and 2045. Oil demand is also forecast to rise by about 10m b/d in the same period, to around 110m b/d.

Investment at a 'tipping point'

He went on to warn that the oil industry was "at a tipping point", emphasizing the importance of ramping up

investment to help ensure energy security and stability over the longer term.

"Without a steady boost in investment across the value chain, it will be difficult to achieve the availability, affordability and sustainability that we are discussing this morning," he told the audience.

"Yet, we continue to face efforts to create a policy rulebook that stigmatizes hydrocarbons and seeks to divert much-needed investment away from the industry. This situation has stoked uncertainty and volatility to the detriment of producers and consumers — and ultimately global energy security," the OPEC Secretary General added.

He stressed that with global energy demand expected to rise by 23 per cent through 2045, it is essentail to have a diverse energy mix, including oil.

"Every data-based forecast that I know of shows that oil is irreplaceable for the foreseeable future," he told the audience. "Unfortunately, the oil industry has been plagued by several years of persistent underinvestment, which has manifested itself in production constraints, shrinking spare capacity and reduced refinery output."

Recent studies show that investment levels in the oil industry have risen since the severe downturn sparked by the onset of the COVID-19 pandemic in 2020. However, a surge in inflation, rising labour costs and supply disruptions have chipped away the higher capital expenditures — as they have in many industries.

Al Ghais stressed the importance of sustained investment. Referring again to the latest *WOO*, he noted that the global oil sector will need cumulative investment of around $12.1 trillion through 2045, $9.5tr of this in the upstream.

"Steady and stable investment is also essential if the industry is innovate and contribute to lowering its carbon footprint," he told the audience. "With respect to OPEC, our Member Countries are leading by example with significant investments in clean hydrocarbon technologies as well as renewables."

A number of OPEC Member Countries, he said, "are on the cutting edge in harnessing the potential of carbon capture, hydrogen and other innovations. You would expect to hear this from the OPEC Secretary General — but these efforts are getting global attention in respected sources like the *Economist* magazine."

Global dialogue and cooperation

Al Ghais praised OPEC Member Countries for their leadership in promoting dialogue and cooperaiton at the global level. As an example, he cited Saudi Arabia's steady leadership of the Group of 20 (G20) countries in 2020, as the pandemic upended the global economy and energy markets. This year, he pointed out that the UAE will play a central role in the global climate negotiations as host of the next UN Conference of Parties (COP 28).

"I welcome the UAE's decision to name a prominent oil executive, HE Dr Sultan Ahmed Al Jaber, as President-Designate for COP 28," Al Ghais told the Davos audience. "Dr Sultan is an innovator; a proven leader in moving the oil industry towards a lower-carbon future; and as the Emirates' special climate envoy, he is uniquely positioned to promote the broad-based cooperation that is needed to tackle the world's climate challenges."

In closing his remarks, the Secretary General noted that OPEC's 8th International Seminar would be taking place on July 5 and 6 in Vienna, less than five months before the start of COP28. The Seminar focuses on how to achieve a sustainable and inclusive energy transition.

"Looking to the future," Al Ghais said, "I am confident that the world can achieve a successful energy transition through an all-energies, all-technologies and all-peoples approach."

The Secretary General's breakfast remarks sparked a lively and wide-ranging give-and-take about energy security and the energy transition. The Crescent Petroleum breakfast discussion was held under the Chatham House rule.

World Economic Forum


Majid Jafar, CEO of Crescent Petroleum.

OPEC Secretary General builds bonds in India

*OPEC Secretary General **Haitham Al Ghais** further developed dialogue and collaboration with Indian leaders and other industry stakeholders during a trip to Bengaluru, India, from February 5–7, for India Energy Week (IEW). As the first major event under India's G20 Presidency, the IEW showcased India as the country that will help drive the future of energy. **Maureen MacNeill** reports.*

The Honourable Shri Narendra Modi, Prime Minister of India.

The Secretary General began his historic first visit to India by attending the opening ceremony of IEW, at which India's Prime Minister Shri Narendra Modi spoke.

There was much excitement as the Prime Minister made his way to the podium to welcome participants. "Bengaluru is full of technology and innovation and I hope you're also experiencing the energy of the young population of the city," said Modi to cheers, adding the event is the first significant event of the G20 calendar. India holds the G20 Presidency this year.

In the 21st century, the energy sector has a major role to play in developing new resources for energy, and India is one of the strongest voices in the world for the energy transition, Modi continued, adding the country has the world's fastest-growing economy.

The Prime Minister added that even in the face of inflation and geopolitical challenges, India was a global bright spot in 2022, overcoming all difficulties through its internal resilience to maintain a strong upward development curve. "In the last few years, on a major scale at the rural level, millions of people received banking facilities, free health-care facilities, safe water and sanitation, consistent electricity, etc," said Modi. "This change … has helped lift millions out of poverty … and dramatically improved their quality of life.

"Energy is a big factor in fulfilling the aspirations of Indians," said Modi. "From industries to offices, factories to homes, India's energy demand continues to rise."

The country's rising energy demand opens up opportunities for investment and collaboration, he stated, encouraging investors to step forward.

"Today, India's stake in global oil demand is at five per cent, but is predicted to rise up to 11 per cent, and gas demand is predicted to rise up to 500 per cent."

On the refining side, the country has the fourth-largest capacity in the world at 250 million metric tons per annum (mmtpa), and plans to nearly double this to 450 mmpta are already underway.

"We're continuously making our refining capacity indigenous, modern and upgraded," said Modi.

The country is looking at four pillars in the energy sector: increasing domestic exploration and production of oil; diversification of energy supply; expanding fuels like biofuel, ethanol, compressed bio gas and solar; and using electric vehicles and hydrogen to decarbonize.

Shri Hardeep Singh Puri, the Honourable Minister of Petroleum and Natural Gas, Minister of Housing and Urban Affairs (l) with Haitham Al Ghais, OPEC Secretary General, in a panel discussion.

The country completed Asia's first 2G ethanol bio refinery last August, he continued, with a plan to set up 12 commercial 2G ethanol plants.

Modi announced 500 new 'waste-to-wealth' plants, including 200 biogas plants and 300 community-based plants. Meanwhile, the country is becoming the world leader in green hydrogen, with a plan to produce 5 mmtpa of green hydrogen by the end of the decade.

In the last nine years, renewable energy in the country has risen from 70 gigawatts (GW) in 2014 to 170 GW, including a solar power capacity increase of over 20 times. Additionally, the country is number four in the world in its use of wind power capacity.

A rapid energy transition is taking place through the fast adoption of renewable energy sources and energy conservation, Modi stressed.

Minister Puri

"India Energy Week was borne out of Prime Minister Modi's long-standing vision for India's role in the global energy transition while ensuring energy security, affordability and accessibility for her citizens," stated the Honourable Minister of Petroleum and Natural Gas, Minister of Housing and Urban Affairs, Shri Hardeep Singh Puri.

He stated that last year was a tumultuous period in global energy markets, which in turn challenged global development and sparked uncontrolled inflationary and recession fears. Puri added that the World Bank estimates global growth will decelerate to its third-weakest point in nearly three decades.

"More than 60 million people visit the petrol pumps in India on a daily basis. A nation of 1.4 billion plus has to be insulated against global price rises, so that energy is accessible at an affordable cost. This is the primary focus of India's energy needs," said Puri.

India pledged to reach net-zero emissions by 2070 and cut emissions by one billion tons by the end of 2030, continued Puri. This is despite the fact that since 1890 the country's contribution to global emissions has been about four per cent, and despite being the world's fifth-largest economy and home to 17 per cent of the world's population, he added.

"Against this backdrop, India has carved out an energy agenda which is inclusive, market-based, and climate sensitive. We continue to underscore the importance of oil and gas, yet our commitment to climate change mitigation goals remains unabated."

While focusing on energy efficiencies, along with

"Energy is a big factor in fulfilling the aspirations of Indians. From industries to offices, factories to homes, India's energy demand continues to rise."

— Shri Narendra Modi, Prime Minister of India

Ministerial Roundtable breakthrough session, including (l–r): Vandana Hari, moderator; Igor Sechin, CEO of Rosneft; Shri Hardeep Singh Puri, the Honourable Minister of Petroleum and Natural Gas, Minister of Housing and Urban Affairs; Haitham Al Ghais, OPEC Secretary General; Kanchana Wijesekera, Minister of Power and Energy of Sri Lanka; and Tarun Kapoor, advisor to Prime Minister Modi in the Prime Minister's Office.

fuels of the future, including biofuels, hydrogen and renewables, the country is also taking transformative steps to increase domestic exploration and production of traditional hydrocarbons, stated Puri.

"This year's theme *'Growth. Collaboration. Transition.'* is very apt, as it underscores the need for us to collaborate and grow together. We seek to imbibe the true spirit of innovation. Achieving the net-zero goal requires global coordination and access to skills, technology and global financing."

Ministerial Roundtable

OPEC Secretary General Al Ghais participated in a gathering entitled: *'Breakthrough session: Price and supply volatility — addressing global energy security needs'* on the first day of IEW.

The session focused on addressing the immediate consequences of energy shortfalls and volatility, which resulted in a need for policy measures and direct government intervention to drive energy security, tackle affordability and accelerate access to sustainable energy sources.

Moderator, Vandana Hari, asked the participants to describe what energy security means to each of them.

Al Ghais stated: "You are right there is no one set definition for energy security, and I think the one key word I hear from fellow speakers is balance.

"At OPEC we always believe in a balanced approach to providing energy security. There are two sides to the coin of energy security. When we hear talk about energy everyone is focused on production and capacity, but there is another element to the equation, which is the security of demand."

The OPEC Secretary General pointed out the example of Bengaluru, where demand is going to rise dramatically and the economy nearly double by 2030, and triple beyond.

"OPEC believes all forms of energy will be required and this brings me back to the point about balance. The critical element is missing … the issue of investment. I personally have been talking a lot about chronic under-investment in the oil and gas sector."

The OPEC World Oil Outlook show that $12.1 trillion of investment will be needed from now until 2045, he said. "This is critical if we are able together to achieve energy security and provide sustainability and the stable flow of oil.

"Let us be realistic, we believe in the transition. We are not against the transition to cleaner fuels, but we believe we should do it by reducing emissions. The issue is not the source of fuel. The issue is the

emissions. That is what we need to work on together, an all-inclusive and just transition to make sure nobody is left behind."

The past year

When asked how the past year has been, speakers from Asian countries, such as Kanchana Wijesekera, Minister of Power and Energy of Sri Lanka, stated: "We've had a very hard year. We went through a period of long lines for petroleum requirements and six-to-eight-hour power cuts, so security is being discussed at a level like it was never discussed before.

"It impacted every sector, not just fuel requirements, not just power generation, but also food security and everyday life. Everything was shaken by energy insecurity."

The dramatic events have seen Sri Lanka examine its energy sources and look for a mix of sources to fulfil its requirements, including renewables, oil and gas, with Wijesekera stressing the need to focus more on the natural resources the country has.

"Suddenly we sit in a situation where some countries who have a resource want to sell, others have to buy at a high price they can't afford or don't get it at all," said Tarun Kapoor, advisor to Prime Minister Modi in the Prime Minister's Office.

The situation caused all countries to think about how to achieve energy security, he added. "Do we produce all energy internally or do we start investing in resources outside … to secure our energy needs?"

India's Puri stated the response to what energy security means today would be very different than in 2020-2021, or five years earlier.

"One definition anyone could or should agree to is that energy security means at least availability of supply, predictability, stability and affordability.

"But if the global system confronts what can only be called multiple crisis — food, fuel and fertilizer — and the amount of energy available for the 100m b/d required for consumption falls short by 1–2m b/d, then prices will shoot up."

The most vulnerable countries when that happens will likely be those without a bandwidth to cushion this kind of mismatch, said Puri.

"Therefore, from my point of view, I think in a large democracy like India, where 60 million people go to the petrol pump to fill up every morning, where 5m b/d of crude is consumed in a day, energy security means not having to worry about whether that crude is going to be available or not."

Over the past year, he added, "we were able to manage, and what we are

Top view of Visakhapatnam, India, overlooking the Bay of Bengal with port and oil refinery.

High-level delegates to India Energy Week 2023 pose for a group photograph.

"We have to act today, actually we have to act yesterday, in order to assure enough supply to the world tomorrow and in the coming years. We are still falling far behind in terms of investment, and this affects spare capacity."

— OPEC Secretary General, Haitham Al Ghais

doing now is to take steps to ensure that we do not ever have to face (the same situation) again."

He said this includes drastically increasing oil exploration and production and entering into long-term supply arrangements. Puri continued that the country will import oil from wherever it is available on a predictable and sound basis.

In addition, India is drastically increasing its transition to green energy, including biofuels, compressed biogas and green hydrogen.

"Coming back, I think energy security has the same ramifications for everyone, but it has far more serious implications for countries that are not oil producers and which are heavily dependent on imports and whose economic situation at that point of time means high energy prices."

Investment, investment, investment

When asked about spare capacity, the OPEC Secretary General said: "I want to stress on a very important point. We have to act today, actually we have to act yesterday, in order to assure enough supply to the world tomorrow and in the coming years. We are still falling far behind in terms of investment, and this affects spare capacity."

There is a natural decline in oil production of between four to six per cent currently and too little is being invested to meet that decline, let alone cater to additional rising demand, which will reach 110m b/d by 2045, added Al Ghais.

Furthermore, though people have spoken about

peak demand for years, demand keeps rising.

"So the reality is, we have underinvestment in supply and we have rising demand because the global population is set to rise by 1.6 billion people and the global economy is going to double in size. We have economies growing and there is not enough investment.

"We have to ensure that the message about investing in oil, in particular, in gas, brings the investors back."

Impressions of the exhibition.

The energy transition has to be built on a balanced approach, using dialogue and multilateral discussions, he added. Al Ghais continued that many OPEC Member Countries are not just investing in oil and gas production, but also in renewable energy, with projects such as carbon capture utilization and storage (CCUS), hydrogen, the circular carbon economy, solar and many others.

"Not many people see this, but this is the case, because we believe in an inclusive energy mix," he said. "We see global energy requirements increasing by about 23 per cent from now to 2045, and in our assumptions we do not see any credible way of meeting that without investment in oil. Oil will still make up about 29 per cent of the global energy mix by 2045."

Puri stated that a lot of people who work in the real world are excluded when targets are set for the green transition and the billions a year needed for investment in hydrocarbons is not forthcoming.

"If we have to do a serious transition to green energy, we have to survive the present, and we can do it responsibly. It should not mean that you dilute green energy commitments, but you have to survive the present and move to green energy."

He added that both traditional fuels and alternate fuels are required simultaneously, with no acrimony. "We have all accepted green energy targets, and it will be judged if they are doable. We need more petrol, fuel, diesel, gas.

"Today after many months I feel more comfortable with my friends from OPEC and consumer countries are ready to have a good discussion."

The OPEC Secretary General also delivered remarks to a private roundtable with India's Prime Minister Narendra Modi and CEOs of selected global energy companies, praising the ever-deepening relationship between OPEC and India and further highlighting the need for continuous investment.

The OPEC team at India Energy Week (l-r): Shakir Mahmoud A Al Rifaiey, Head, Office of the Secretary General; Behrooz Baikalizadeh, Head, Petroleum Studies Department; Haitham Al Ghais, OPEC Secretary General; Dr Ayed S Al-Qahtani, Director, Research Division; Dr Abderrezak Benyoucef, Head, Energy Studies Department; and Maureen MacNeill, Editor/Speechwriter, PR & Information Department.

Robust discussions at the 9th Asian Ministerial Energy Roundtable

The 9th Asian Ministerial Energy Roundtable (AMER9), an International Energy Forum (IEF) dialogue event, which convened on February 7, was co-hosted by India and held on the sidelines of India Energy Week. Several ministers from Asian and non-Asian countries, as well as heads of international organizations, were on hand to share their perspectives. ***Maureen MacNeill*** *reports.*

The opening session for AMER9 began with remarks from Sultan bin Ahmed Al Jaber, Minister of Industry and Advanced Technology, Special Envoy for Climate of the UAE and COP28 President Designate.

Al Jaber opened the session, stating: "As a responsible, reliable energy supplier, promoting inclusive sustainable development has been a core principle of my country the UAE. As we prepare to host COP28 later this year, this principle will guide our approach to seeking global consensus for our transformation, for our climate and for our economies.

"The UAE approaches this task with humility. The UAE approaches this task with a deep sense of responsibility and a great sense of urgency. As part of the process, we will actively listen to, and engage with the entire world."

India is critical in the transformation of what the whole world needs, Al Jaber added. "Under Prime Minister Modi's guidance, India has emerged from the global pandemic stronger than developed countries. This is the fastest-growing major economy in the world and will soon be the third largest. This is a testament to the wisdom of India's leaders and their spirit."

As India's economy surges, the country must face the fundamental question that the whole world is struggling with today, he added: how to adopt policies that are pro-growth and pro-climate at the same time.

"How can we provide for a world that will consume 30 per cent more energy by 2050 while also respecting nature and protecting our planet?" questioned Al Jaber. "How do we hold back emissions, not progress?"

Al Jaber stated that to succeed, when the debate around climate change seems to be getting more divisive, the global community must act in true solidarity.

"We must empower the global south, where almost 800 million people have no electricity and we must do it with an inclusive energy transition approach. We must eliminate energy poverty while keeping the 1.5 (°C Paris Agreement goal) alive. And we need to move from talking about the goals to in fact making it happen and getting the job done.

Al Jaber added that the UAE has spent the last two decades diversifying its energy portfolio, including investing in nuclear and hydrogen, and expanding its global renewable energy footprint to at least 100 gigawatts by 2030.

"And we need everyone on this journey with us so

Sultan bin Ahmed Al Jaber, Minister of Industry and Advanced Technology, Special Envoy for Climate of the UAE and COP28 President Designate.

Delegates at AMER9, the 9th Asian Ministerial Energy Roundtable.

that together we can triple global renewable energy capacity over the next seven years."

However, renewables alone will not be enough, he added, particularly in hard-to-abate sectors.

"When it comes to change, this also applies to the oil and gas industry. The world still needs hydrocarbons and we need them to bridge from the current energy system to the new energy system.

"We cannot under any circumstances think we can unplug the current energy system before we have actually built the new energy system. As such, we must minimize the carbon footprint, only invest in the least-carbon-intensive barrels and continue to reduce their intensity."

Energy security to the fore

In his remarks, Joseph McMonigle, Secretary General of the IEF, said that "it is no exaggeration to say the future of energy will be determined in India … India has become an example to the rest of the world in how to manage the energy trilemma, extending modern energy services to a growing population while also defending affordability and delivering on a sustainable future."

Although energy security seemed to go out of fashion for many years, the energy crisis has delivered a reality check and put the topic back on the agenda worldwide, continued McMonigle. "True global energy security cannot be a … game where the winner takes all at the expense of others. We have seen some evidence of this recently in global gas markets.

"Energy security can be achieved by investing in new production and establishing trusted partnerships between producers and consumers."

As the industry moves forward with the clean energy revolution, it will still have to rely on oil and gas for about half of the world's energy needs, he stressed.

"So while we ramp up investment in renewables to pursue the energy transition, we need to keep investing in oil and gas to support the global economy and protect quality of life for everyone. When markets are tight they send a signal … the need for investment.

"In our latest upstream oil and gas investment outlook produced in association with S&P Global, we reported a large increase in investment last year. In 2022, capital expenditure jumped by 39 per cent to $499 billion, this is the highest level since 2014 and the largest annual gain in history. But this increase did not mean a corresponding growth in drilling because costs and inflation also rose equally."

"Underinvestment in oil and gas threatens energy security and stalls progress on climate goals by increasing reliance on more carbon-intensive options. And high prices and volatility caused by underinvestment put at risk public support for climate goals.

"So we need to manage the transition. Through intensive dialogue between producers and consumers we believe that we can achieve greater energy security, market stability and transparency to the benefit of all nations."

Participants in the AMER9 roundtable.

Asian century

Shri Hardeep S Puri, Minister of Petroleum and Natural Gas and Housing and Urban Affairs for India, continued the discussion, stating that "the 21st century belongs to Asia.

"Asian economies have not only managed to bounce back faster from the impacts of the pandemic, but have also made significant progress towards clean energy … Some of the world's best solutions to the world's toughest problems, including in the energy sector, have come out of Asia.

However, he stressed that the transition that we are undertaking must be done in a realistic matter. "Unless we survive the present, we will not be able to go into the world of green and clean energy in a seamless manner.

"We have to make sure that our transition entails surviving the present in a manner which makes sure those who are most affected, those who are the most vulnerable are cushioned from the volatility that turbulence globally can cause."

The most recent budget for India is referred to as the 'green' budget, he added, with several unique features that slowly but surely help the country transition to green energy.

"Affordable energy is a vital ingredient to achieving inclusive economic growth and energy justice. Economies the world over, particularly the emerging economies, are facing the daunting task of energy security, affordability and accessibility.

"Going forward, as the challenges are likely to become even more acute, the value of preparedness against such potential shocks is going to start an era of building resilience."

India, under the leadership of Prime Minister Modi, has been making great strides in ensuring energy security for its citizens is stable, sustainable and affordable, he added.

"The Honourable Prime Minister is not only committed to the green transition, but much of the work we are doing here very clearly has a replicability and scaling not only for the countries in the global south but for anyone else anywhere in the world."

Technology in one form or other will drive the transition, he concluded.

Energy roundtable

The energy roundtable that followed included speakers from many Asian and some non-Asian countries, as well as intentional organizations. Participants exchanged views on how their countries were affected by recent energy insecurity and what their countries' goals are.

OPEC Secretary General, Haitham Al Ghais, stated that a lot has changed since the previous Asian Ministerial Energy Roundtable took place in September 2019 in Abu Dhabi, UAE, before the COVID-19 pandemic.

He said the topics being discussed at the meeting — energy security, energy poverty, affordability and decarbonization — cut to the very core of what we are all currently facing as citizens across the globe.

"The energy crisis and geopolitical issues have in turn impeded advances in the UN Sustainable Development Goal (SDG) 7 on energy access. For example, almost 90 million people in Asia and Africa who previously had access to energy are no longer in a position to pay for their basic energy needs," he stated.

"Issues around energy security and affordability have led to countries placing energy security alongside or even above their climate change agendas."

OPEC, he said, has talked about an orderly energy transition for years, one that does not discriminate against any source of energy, but rather seeks to cut greenhouse gases from all sources. He continued that averting a future energy crisis means jump-starting investment in the oil industry.

There are no climate deniers at OPEC, he continued, adding that many Member Countries are leaders in renewables, but they continue to invest in oil, knowing that all forms of energy will be required.

Asia will be the engine of economic growth and oil demand for decades to come, he noted, with India accounting for 28 per cent of the expansion in primary energy demand growth in this period. Its oil demand is set to increase from 4.8 million barrels a day (m b/d) in 2021 to 11.1m b/d in 2045, with imports mainly coming from the Middle East, home to many OPEC Members.

"I want to reassure you that OPEC Member Countries remain committed to ensuring that our Asian partners have a secure supply of oil," stated Al Ghais.

Asia focus

Pehin Dato Halbi Yussof, Minister at the Prime Minister's Office of Brunei Darussalam, focused on the importance of energy security and meeting demand within the framework of climate goals. He added that there is growing interdependence between producers and consumers.

He said his country will continue to explore and deepen its contribution to energy transition strategies to reach net-zero by 2050. First, it plans to diversify its energy base so that the renewable energy share in the energy mix is 20 per cent by 2025 and 30 per cent by 2045. Then, it wants to ensure reliable and secure energy systems, including energy storage. The third point is the adoption of emerging green technology such as hydrogen and carbon capture utilization and storage (CCUS). And finally, diversification in the transport sector will be considered.

He emphasized that each country has the right to make their changes based on the Paris Agreement principle of common but different responsibilities and respective capabilities.

Indonesia's Prof Tutuka Ariadji, Director General for Oil and Gas, Ministry of Energy and Mineral Resources stated that gas will play a big role towards the country moving to clean energy, with efforts to see gas represent 68 per cent of the energy mix. The country is also looking to export gas.

Ariadji stated that production of oil and gas is important for energy, in order to meet future demand. The country also sees CCUS as vital in reducing. Additionally, the country strongly supports suitable technologies for renewables to lower their price.

Japan's Ryo Minami, Director-General for International Policy on Carbon Neutrality, Agency for Natural Resources and Energy, Ministry of Economy, Trade and Industry, introduced the concept of the *Asian Zero Emissions Community (AZEC)*.

AZEC aims for an energy transition tailored to each country's circumstances. It is a platform consisting of Asian countries promoting decarbonization. He encouraged countries to make maximum use of Japan's resources and experience, which it willingly provides in terms of technology, finance and human resources.

He added the concept of one goal, and various pathways to carbon neutrality, is an essential one that he will bring to the G7 energy meeting and forum.

IRENA

Francesco La Camera, Secretary General of the International Renewable Energy Agency (IRENA), stated the energy transition is the only solution to addressing instability in the energy realm. La Camera said that there was a decrease for two years in a row in the cost of some low-carbon technologies, and that 250 GW of global renewable energy was added in 2021.

"Two-thirds of the renewable power 2021 was at the lowest cost and securest in the G20."

He added that though current prices may in the short term affect the transition and renewables, in the medium term he sees an acceleration in the energy transition. "There is a push from countries to decentralize the supply chain and ramp up globalized energy production … Renewables are now mainstream."

La Camera said that decentralizing the energy system is the right move to ensure energy security while also meeting social development goals.

"The parameters of energy security are changing. A system based on renewables and complemented by others is the way forward and also the way to ensure more justice … We are moving from a system with large inequities to an energy system that will ensure less injustice."

Francesco La Camera, Secretary General of the International Renewable Energy Agency.

Connecting with industry leaders

*OPEC Secretary General, **Haitham Al Ghais**, held several bilateral meetings on the sidelines of India Energy Week (IEW).*

In a meeting with Pehin Halbi, Minister at the Prime Minister's Office, Brunei Darussalam and his delegation, the OPEC Secretary General thanked the Minister for Brunei Darussalam's firm support of and commitment to the 'Declaration of Cooperation' (DoC) in the overall interests of oil market stability.

In a bilateral meeting with Shri Hardeep S Puri, Minister of Petroleum and Natural Gas and Housing and Urban Affairs of India, Puri complimented Al Ghais on speaking with wisdom and maturity in charting a way forward with as little disruption as possible to the oil market. The OPEC Secretary General thanked Puri for his hospitality at IEW and said it was an absolute honour to meet with India's Prime Minister Modi and exchange thoughts on issues of critical importance to global energy markets. He reiterated OPEC's unwavering support and commitment to India and its G20 Presidency, especially on the issues of energy, climate and sustainable development.

They discussed ways to strengthen the ongoing OPEC-India Energy Dialogue, as well as the importance of adopting a balanced, inclusive and fair approach to the energy transition.

Ryo Minami, Director General for International Policy on Carbon Neutrality, Agency for Natural Resources and Energy, Ministry of Economy, Trade and Industry for Japan met the OPEC Secretary General and addressed the importance of ensuring energy security and exchanging various perspectives on decarbonization efforts.

The meeting also highlighted the need to advance knowledge exchange and cooperation, including organizing a formal dialogue between OPEC and Japan at both the technical and high levels.

Al Ghais held a meeting with Ahmad Asadzadeh, Deputy Minister for International Affairs and Trade of IR Iran and other Iranian officials. They discussed the DoC's ongoing efforts to support sustainable stability in the global oil market, as well as the importance of the 'Charter of Cooperation' as an interactive platform for cooperation on key issues related to energy.

Joseph McMonigle, Secretary General of the International Energy Forum also met with Al Ghais, where discussions focused on a variety of energy market developments.

Pehin Halbi, Minister at the Prime Minister's Office, Brunei Darussalam.

Shri Hardeep S Puri, Minister of Petroleum and Natural Gas and Housing and Urban Affairs of India.

Ryo Minami, Director General for International Policy on Carbon Neutrality, Agency for Natural Resources and Energy, Ministry of Economy, Trade and Industry for Japan.

Ahmad Asadzadeh, Deputy Minister for International Affairs and Trade of IR Iran.

Joseph McMonigle, Secretary General of the International Energy Forum.

Director of Research presents *World Oil Outlook* at IEW

***Dr Ayed S Al-Qahtani**, Director of OPEC's Research Division, held a session on OPEC's World Oil Outlook (WOO) to a packed auditorium on February 7 at India Energy Week, briefing delegates on some of the highlights from the most recent WOO.*

Al-Qahtani pointed out that all energy forms are needed to address future energy needs and oil will retain the largest share of the energy mix by 2045.

"The global oil sector will need a cumulative investment of $12.1 trillion through 2045, $9.5tr of which will be in upstream oil."

He highlighted that enhanced global cooperation could allow for a more coherent and balanced approach to achieving the interlinked UN sustainable development goals.

In a Q&A session that followed, Al-Qahtani talked about security of supply and OPEC's role, but also raised the question of security of supply of critical minerals required for electric vehicles. He questioned how much energy it costs to get these minerals out, as well as to manage, treat and recycle them. He noted that sometimes emissions are just shifted.

Looking to the future, he noted an important challenge is the fact that more people are moving into cities and the will require mobility to be more productive.

"More than 900 million people are entering the workforce; that's 25 times the City of Tokyo. Nearly one billion people are moving to cities, imagine how much energy and how many resources they will use just in the base case."

Above and below: Dr Ayed S Al-Qahtani, Director of OPEC's Research Division, talks about OPEC's World Oil Outlook.

HRH Prince Abdul Aziz Bin Salman Al Saud, Minister of Energy of Saudi Arabia.

View of the Symposium in session.

IEF hosts Symposium on Energy Outlooks

The IEA-IEF-OPEC trilateral programme of work seeks to bolster energy data transparency and contribute to oil market stability. The Cancun Ministerial Declaration of 2010 identified specific areas of cooperation for the three organizations, including a shared analysis of energy trends and outlooks. With this, the Symposium on Energy Outlooks was born. Its 13th edition took place in Riyadh, Saudi Arabia, on February 15, 2023. The OPEC Bulletin *files this report.*

Data transparency

In remarks to the Symposium, HRH Prince Abdul Aziz Bin Salman, Minister of Energy of Saudi Arabia, noted the challenges related to being a forecaster given the wide array of uncertainties that can transpire in the energy industry. This underscored the importance of dialogue and exchanging views on the critical and indispensable tools that energy outlooks constitute.

In advance of the Symposium, the International Energy Forum (IEF) published its *'Outlook Comparison Report'*. It noted: "Promoting greater transparency of energy outlook methodologies, assumptions and data comparability can help bring stability to the market by driving informed policies and informed decision making."

These were factors that IEF Secretary General, Joseph McMonigle highlighted in his opening remarks. He emphasized that with regard to the climate challenge, there was a pressing need to encourage predictable and achievable policies.

The theme of the Symposium was *'Mending markets to make transitions work'*. In his opening remarks, OPEC Secretary General, Haitham Al Ghais stated: "OPEC attaches the utmost importance to the producer-consumer dialogue. The course of recent events has underscored the importance of further bolstering dialogue, including on energy outlooks. Impartial, data-based and fact-driven analysis is essential in grounding policy-making in realistic thinking. This is important as it keeps out politics from the decision-making process in our industry."

Joseph McMonigle, IEF Secretary General.

Dangers of underinvestment

One of the major topics of the Symposium was chronic underinvestment in the oil and gas industry. This is a factor OPEC has repeatedly stressed. As Al Ghais noted: "For the oil industry alone, which we still see making up close to 29 per cent of the world's energy needs by 2045, the global oil sector will need cumulative investment of $12.1 trillion through to 2045 according to our World Oil Outlook (WOO)."

The IEF has recently launched a report with S&P Global Commodity Insights entitled the 'Upstream Oil and Gas Investment Outlook.' It stresses that near-term economic headwinds weigh heavily on markets and investors. It also states that annual upstream investment will need to increase from $499 billion in 2022 to $640bn in 2030 to ensure adequate supplies. The estimate for 2030 is 18 per cent higher than that assessed a year ago primarily because of rising costs.

The International Energy Agency (IEA) Deputy Executive Director, Mary Burce Warlick, delivered pre-recorded opening remarks. She described the many strains being currently placed on the energy system and some policies in IEA countries aimed at accelerating the energy transition, including the Inflation Reduction Act in the US.

Invited guests, Mohamed Hamel, Secretary General of the Gas Exporting Countries Forum, and Francesco La Camera, Director General of International Renewable Energy Agency, also presented the viewpoints of their respective organizations on the energy transition.

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Energy outlook comparisons

The first session focused on what the IEF described as "the widening gap between normative and reference scenarios [that] makes dialogue on energy outlooks and market signals more important than ever."

Haitham Al Ghais, OPEC Secretary General.

Dr Ayed Al-Qahtani, Director, Research Department of the OPEC Secretariat provided an overview of OPEC's short-term and long-term outlooks. The key takeaways from his remarks were: all forms of energy will be needed to support future socio-economic growth; wind and solar energy demand will grow fastest making the energy mix more diversified; oil will retain the highest share in the global energy mix over the forecast period; oil demand growth in the medium-term will be followed by a general plateauing of demand in the long-term; uncertainty to the supply and demand outlook remains high; adequate and timely investments in the energy sector are critical; and despite significant growth in global energy demand, energy poverty remains a major issue.

Peg Mackey, Senior Oil Markets Analyst at the IEA presented on the IEA's Oil Market Report and the World Energy Outlook. She outlined the IEA's view that new policies in major energy markets are helping propel annual clean energy investment. The world is in a critical decade for delivering a more secure, sustainable and affordable energy system — the potential for faster

HRH Prince Abdul Aziz Bin Salman Al Saud (c), Minister of Energy of Saudi Arabia; with Khurram Dastgir Khan (l), Federal Minister for Power of Pakistan; and Joseph McMonigle (r), IEF Secretary General.

progress is enormous if strong action is taken immediately, according to the IEA.

Christof van Agt, Director of Dialogue at the IEF provided an overview of the IEF's Outlook Comparison Report. He stated that "the only sure antidote to high energy prices and volatility is ensuring adequate investment and supplies for both now and the future. Underinvestment threatens to undermine energy security and it can also stall progress on climate goals by increasing reliance on more carbon-intensive option in the short term."

Ministerial roundtable

At the Ministerial roundtable, Mohamed Oun, Minister of Oil and Gas and Head of Libya's Delegation to OPEC, provided an overview of some of the challenges Libya faces. Given the country's particular situation, special understanding from the international community for what the energy transition means in Libya was needed.

Khurram Dastgir Khan, Minister of Energy of Pakistan, described how climate change has impacted Pakistan, referencing the particularly devastating

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Participants of the 13th IEA-IEF-OPEC Symposium on Energy Outlooks gather for a group photograph.

flooding in 2022. While Pakistan accounts for a negligible proportion of the world's greenhouse gas emissions, it is one of the world's ten most climate stressed countries, he said. Pakistan's geography makes it vulnerable, he added, with the country calling for a just and inclusive energy transition.

Prince Abdul Aziz emphasized that the original purpose of the IEF was to be a platform for dialogue exchange. The IEF is a "house where everyone is welcome." It remains his strong belief that nothing can be achieved by producers without reaching out to consumers. He stressed that there is a need for producers and consumers to intensify dialogue with each other. "Nothing can be achieved in silos," he said.

Following the ministerial discussions, there were two further sessions, one examining medium term perspectives with a view to addressing excessive volatility and restoring oil market stability; while the final session looked at long term perspectives, particularly focusing on how to keep climate and sustainable development goals within reach.

A broad range of perspectives were provided, including interventions by the Honorable Darrel Issa, Member of the US House of Representatives; Omar Farouk Ibrahim, Secretary General of the African Petroleum Producers Organization; and Angela Wilkinson, Secretary General of the World Energy Council. The final session was moderated by HH Princess Noura Al Saud, Founding Partner AEON Strategy.

Essential need for ongoing dialogue

The many challenges facing the oil industry underscored just how critical the IEF as a forum is. Al Ghais concluded the Symposium by reaffirming OPEC's commitment to the consumer-producer dialogue and it willingness to work with all stakeholders to address the critical issues of our time.

JMMC reaffirms commitment to DoC

The 47th meeting of the Joint Ministerial Monitoring Committee (JMMC) took place by on February 1, 2023.

In its first meeting of 2023, the JMMC reviewed crude oil production data for November and December 2022, as well as the overall conformity of 'Declaration of Cooperation' (DoC) participating countries.

Haitham Al Ghais, OPEC Secretary General.

Following the review, JMMC members reaffirmed their commitment to the DoC which extends to the end of 2023 as agreed at the 33rd OPEC and non-OPEC Ministerial Meeting (ONOMM) on October 5, 2022.

During the October ONOMM, it was decided to adjust downward the overall production by two million barrels a day from the August 2022 required production levels, starting in November 2022. These decisions were reaffirmed at the 34th ONOMM on December 4, 2022.

At its videoconferenced meeting, the JMMC also urged all participating countries of the importance of full conformity and adhering to the DoC's production mechanism.

As agreed at the 33rd ONOMM, the JMMC will continue to convene every two months unless additional meetings are required. Its next regular meeting is scheduled for April 3, 2023.

The JMMC was established as part of the DoC, which was signed on December 10, 2016. It is tasked with reviewing crude oil production levels and ensuring that the objectives set out by the participating OPEC and non-OPEC countries are achieved. The committee's inaugural meeting took place at the OPEC Secretariat in Vienna on January 22, 2017.

The 47th Meeting of the Joint Ministerial Monitoring Committee in session.

Aramco signings worth $7.2bn at 7th iktva Forum

Aramco signed over 100 agreements and memorandum of understandings, valued at around $7.2 billion to help advance a diverse, sustainable and globally competitive industrial ecosystem at the 7th edition of the In-Kingdom Total Value Add (iktva) forum and exhibition.

The forum, which runs from January 30 to February 2, is held under the theme of 'Accelerating future success'. It highlights collective localization efforts in key focus areas including digital, sustainability, industrial, and manufacturing. The first day of the event attracted more than 10,000 visitors and the exhibition space included more than 290 companies.

The event, which was held under the patronage of HRH Prince Saud bin Nayef bin Abdulaziz, Governor of the Eastern Province, was also attended by the Minister of Energy, HRH Prince Abdul Aziz Bin Salman.

The gathering also provided a platform for the launch of Aramco Digital Company, a wholly owned subsidiary which aims to accelerate digital transformation within the Kingdom and the MENA region.

Ahmad A Al-Sa'adi, Aramco Executive Vice President of Technical Services, said: "The local supplier ecosystem is a top priority for Aramco as well as a major contributor to the Kingdom's economy. Through this mega programme we are helping to create a culture of innovation and provide high quality jobs for our growing population."

The iktva programme encourages the establishment of regional headquarters in the Kingdom. Since inception, more than 150 investments have been made in Kingdom including products manufactured for the first time in Saudi Arabia. The company has also established 16 national training centres (NTCs) in ten cities, covering more than 60 trades. To date, they have graduated more than 48,000 Saudi nationals.


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ADNOC's Al Jaber to head COP28 climate talks in UAE

Dr Sultan Ahmed Al Jaber, the Group CEO and Managing Director of the Abu Dhabi National Oil Company (ADNOC), will take the lead in setting the agenda for the UN climate negotiations as President-Designate of the COP28 Summit later this year.

His Highness Sheikh Mansour bin Zayed Al Nahyan, the United Arab Emirates (UAE) Deputy Prime Minister and Minister of the Presidential Court, announced Dr Al Jaber's appointment to the prominent post on January 12. The UAE is hosting the 28th Conference of the Parties (COP28), which is scheduled to take place at Expo City in Dubai from November 30 to December 12.

"I sincerely believe that climate action today is an immense economic opportunity for investment in sustainable growth," Dr Al Jaber said in a statement following his appointment. "Pragmatism and constructive dialogue must be at the forefront of our progress. As a nation at the crossroads of the globe, the UAE is well-positioned to build bridges, foster consensus and bring the world together in one shared mission to keep 1.5°C alive and protect the planet for the generations who will follow us."

Dr Al Jaber is widely recognized as an innovator and leader in moving the oil industry in the direction of a lower-carbon future. As the UAE's special climate envoy, he is well positioned to help achieve broad-based cooperation and inclusive solutions in the upcoming UN negotiations.

In addition to his position at ADNOC, which he has led since 2016, Dr Al Jaber is the UAE's Minister of Industry and Advanced Technology and Chairman of Masdar, a renewable energy company he helped establish. Masdar is partly owned by ADNOC.

Besides naming Dr Al Jaber as President-Designate of COP28, Sheikh Mansour announced that Shamma Al Mazrui, the UAE's Minister of State for Youth Affairs, and Razan Al Mubarak, President of the International Union for Conservation of Nature (IUCN), will serve respectively as the Youth Climate Champion and UN Climate Change High-Level Champion.

Oil industry needs to make its voice heard

"We really have an industry we should be proud of. I mean, for decades, the oil industry has been the source of economic development globally, and industrialization," said Haitham Al Ghais, OPEC Secretary General, in remarks on the opening evening of the Middle East Oil, Gas and Geosciences Show (MEOS GEO) 2023 in Bahrain.

Al Ghais participated in a one-on-one dialogue with moderator Eithne Treanor in front of a packed auditorium to discuss developments in the energy sector, the efforts of 'Declaration of Cooperation' (DoC) countries to support oil market stability, and the importance of a just and equitable energy transition.

In speaking on the energy transition, the Secretary General stressed that the "industry needs to be more vocal and united," stating that the issue is not about getting rid of fossil fuels; the issue is reducing emissions.

He said that demonizing the oil industry is a misguided narrative and that is was vital that all stakeholders work together to find solutions and paths forward for the energy transition.

The Secretary General added that "there are no climate change deniers at OPEC," emphasizing that the energy transition requires just, fair and inclusive solutions where all forms of energy will be utilized. "There is no one-size-fits-all solution," he underlined.

MEOS GEO is a major upstream oil & gas and petroleum geosciences event held under the patronage of His Royal Highness Prince Salman bin Hamad Al Khalifa, the Crown Prince and Prime Minister of the Kingdom of Bahrain.

The event took place from February 19–21, 2023, at Exhibition World Bahrain, a new state-of-the-art purpose-built venue, with 15,000+ global energy professionals convening for the conference and exhibition.

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Haitham Al Ghais (r), OPEC Secretary General, participated in a one-on-one dialogue with moderator Eithne Treanor in front of a packed auditorium to discuss developments in the energy sector.

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Reception for family of late former Secretary General, Mohammad Sanusi Barkindo

It was a bittersweet occasion at the OPEC Secretariat. While all staff were happy to welcome the family of the former Secretary General, Mohammad Sanusi Barkindo, back to the Organization's headquarters, the entire OPEC Family is still mourning his untimely passing.

The reception was an opportunity to commemorate the life and service of a remarkable public figure. OPEC Secretary General, Haitham Al Ghais welcomed Barkindo's wife Hadizah, son Sadique and daughter Asmau, to the Secretariat. He said: "Once again, allow me to offer my deepest condolences to your family for your loss. Everyone who was fortunate enough to know and work with Barkindo feels a profound sense of grief."

He paid tribute to the legacy that Barkindo

Dr Adedapo Odulaja, Governor of Nigeria for OPEC, offered his condolences via teleconference.

will leave the Organization and his many accomplishments in his professional career. "Simply put, Mohammad Sanusi Barkindo is an OPEC legend. He guided the Secretariat at a time of great consequence for the history of the Organization. His was a life replete with accomplishment and service. They were the recurring themes in his almost four decades of work with OPEC," Al Ghais said.

Al Ghais reflected on his own personal recollections of working with Barkindo. They had worked closely together in the first year following the signing of the 'Declaration of Cooperation' on December 10, 2016, when Al Ghais served as Chairman of the Joint Technical Committee in 2017, as well as with the Board of Governors when Al Ghais was the Governor of Kuwait. Al Ghais also recalled how he had hosted Barkindo on many occasions at his home in Kuwait.

"I know I speak for everyone who knew him when I say, the sorrow in our hearts is also tinged with a profound sense of gratitude; for his service, for his positive attitude and his dedication to duty. Everyone who met him has a story of how he touched their lives in some way; a kind word here, a shared joke there," he stated.

Al Ghais concluded his remarks by recalling the words, "Grief is the price we pay for love."

Hadizah Barkindo used the opportunity to convey her heartfelt thanks to all the staff at the OPEC Secretariat for the kind words and support that they have offered the Barkindo family at this extremely difficult time.

Dr Adedapo Odulaja, Governor of Nigeria for OPEC, joined the reception by teleconference and offered his condolences. Nigeria lost a dear son, he said, someone of whom the country was very proud. He noted that on the day of Barkindo's passing, he had received honours from the country's President, Muhammadu Buhari.

A video tribute was played showcasing many of the highlights of Barkindo's long involvement with OPEC going back to the 1980s.

Mohammad Sanusi Barkindo was OPEC Secretary General from August 1, 2016, until his sad passing in July 2022. He also served as Acting for the OPEC Secretary General in 2006.

Once again, the *OPEC Bulletin* offers its deepest sympathies to the Barkindo family.

Visit Saudi

***The Kingdom** is becoming a tourism powerhouse*

Arabia!

Saudi Arabia has been described by some as the final frontier in tourism. The Kingdom offers visitors an array of unique experiences and unparalleled heritage and culture. As the birthplace of Islam, and a millennia-old crossroads of pilgrims and traders, there is much to discover. Fortunately, it has never been easier to visit Saudi Arabia from Europe and many other destinations throughout the world. The Kingdom's four international airports connect a wealth of locations. From new air routes, a straightforward and user-friendly visa procedure and stunning destinations, visiting Saudi Arabia offers a once in a lifetime experience and memories to treasure. In recognition of the opening of new direct flight connections between Vienna and Saudi Arabia, the OPEC Bulletin *files this report.*

The breadth and scope of Vision 2030 is breathtaking and the *OPEC Bulletin* has written about many of its targets before, including some of the tremendous achievements made to date. Stunning results are being seen across almost every sector of society.

This is particularly apparent in the tourism sector. As Vision 2030's website states: "Tourism is poised to become a key driver of the Kingdom's diversified economy, aiming to contribute to the GDP by more than ten per cent." Last year, Saudi Arabia welcomed 67 million visitors, a clear indication of the tremendous progress under Vision 2030.

To support growth in the tourism sector and air connectivity, the Saudi Air Connectivity Program (ACP) was established in 2021. As its official website notes: "ACP promotes collaboration and engagement between key public and private sector players in tourism and aviation industries, driving Vision 2030's objective to establish Saudi Arabia as a global leader in tourism air connectivity." ACP is a key enabler of the Kingdom's Vision 2030 strategy.

One of the partners under the ACP, is the Hungarian airline Wizz Air. It offers 20 routes from 11 European cities to three destinations in Saudi Arabia: Dammam, Jeddah and Riyadh. On December 13, 2022, routes from Vienna to Jeddah and Vienna to Riyadh were launched — great news for *OPEC Bulletin* readers who reside in the city that is home to the OPEC Secretariat.

The direct flight from Vienna to Riyadh takes just five and a half hours. As Jozsef Varadi, CEO of Wizz Air, has emphasized: "Saudi Arabia is one of the most exciting aviation countries in the world and presents an eclectic mix of travel opportunities with must-see destinations, countless thrilling attractions and a thriving cultural scene."

In September 2019, the Kingdom launched the tourism visa. Through the fast and easy-to-use online portal, international visitors from 49 eligible countries can apply for an eVisa. Firsthand experience of the author means the *OPEC Bulletin* can attest to its outstanding convenience.

It was straightforward and hassle-free to obtain the eVisa for a recent trip to the Kingdom. The eVisa is a one-year, multiple entry visa, allowing tourists to spend up to 90 days in the country. Small wonder that visitors are flocking to Saudi Arabia.

Unparalleled history and heritage

Saudi Arabia is blessed with a fascinating heritage. The country is home to an abundance of historically important sites, spanning from the ruins of ancient towns to Jeddah's magical Al Balad, which has been described in previous editions of the *OPEC Bulletin*, and the spectacular beauty of AlUla, one of the oldest cities in the Arabian Peninsula.

One of the Kingdom's great treasures is its spectacular capital: Riyadh. The city's fusion of mediaeval and millennial makes for a captivating cultural union. It is a city where one can trace the roots of Arabia and where a bold future is also envisioned. In this city, visitors can spend time absorbing the charms of atmospheric souqs, and explore some of the world's leading museums and ancient architecture. Yet, this is also a modern

The famous elephant rock in AlUla, Saudi Arabia.

Beach at the Corniche in Jeddah, Saudi Arabia.

Sunrise view at Dammam Al Khobar Corniche, Saudi Arabia.

metropolis with spectacular high-rise buildings and a growing contemporary art scene.

Explore Riyadh

Perhaps the most famous aspect of Riyadh's modern skyline is the Sky Bridge at the Kingdom Centre. Visitors can take the high-speed lift to the 99th floor of the Kingdom Centre for the best urban vista. Suspended just under 1,000 feet above the city, the tower's curved bridge offers spectacular views. It is a breathtaking take on Riyadh's majestic skyline.

Art lovers are spoilt for choice for galleries and museums. From the Mono Gallery that promotes contemporary artists from across the country, to the Naila Art Gallery that showcases pivotal regional artists, the city's art scene has so much to offer.

Given the Kingdom's rich ancient heritage, the Antiques Museum is a treasure trove of artefacts unearthed from archaeological sites across the region. The National Museum of Saudi Arabia brings visitors on a journey through centuries of culture, art and history. From Neolithic rock art to interactive modern exhibitions, this is an intriguing fusion of entertainment and education.

Riyadh caters for visitors of all ages. Kids will delight with go-karting in the Doos Karting arena that offers a 350 metre indoor course. Shopping lovers also have a rich range of options including The Zone and Riyadh Park Mall, with everybody's favourite stores making an appearance.

Mountainous terrain in Wadi Hanifa, Riyadh, Saudi Arabia.

Saad Ibn Saud (Salwa) Palace, Diriyah, At-Turaif Province, Saudi Arabia.

The traditional old village of Dhahran Al Janub is built entirely of unfired bricks. Today the village is uninhabited.

Historical Diriyah

Twenty kilometres north-west of Riyadh, on the banks of Wadi Hanifa, lies historical Diriyah. This is the location of a World Heritage Site that relays the Kingdom's genesis story.

As the official website 'Visit Saudi Arabia' attests: "It is where Imam Muhammad bin Saud laid down the foundations of rule of the first Saudi state, which resulted an unprecedented prosperity of human civilization in the region. Its impact extended for hundreds of years. It was established after the arrival of Mani' bin Rabi'a Al-Muraydi from a small town located near Qatif, to a fertile land on the banks of Wadi Hanifa."

The At-Turaif District in Diriyah is one of the five Saudi sites included in the UNESCO World Heritage List. At-Turaif district is home to the Salwa Palace, from which the affairs of the first Saudi state were managed.

It showcases the Najdi architectural style, which is specific to the centre of the Arabian peninsula. As UNESCO states on its website: "It bears witness to a building method that is well adapted to its environment, to the use of adobe in major palatial complexes, along with a remarkable sense of geometrical decoration."

In the 18th and early 19th century, At-Turaif's political and religious role augmented, and the citadel at At-Turaif became the centre of the temporal power of the House of Saud and the spread of the Salafiyya reform. The property includes the remnants of many palaces and an urban ensemble built on the edge of the ad-Dir'iyah oasis.

UNESCO has recognized the outstanding universal value of the site. As it states on its website: "The site of At-Turaif District in Ad-Dir'iyah illustrates a significant phase in the human settlement of the central Arabian plateau, when in the mid-18th century Ad-Dir'iyah became the capital of an independent Arab State and an important religious centre. At-Turaif District

Hot air balloon festival over Mada'in Saleh (Hegra) ancient site, AlUla, Saudi Arabia.

Sun rays on Edge of the World, a natural landmark and popular tourist destination near Riyadh, Saudi Arabia.

in Ad-Dir'iyah is an outstanding example of traditional human settlement in a desert environment."

Authenticity is one of its unique strengths. Restoration work respects the original locations, plans and techniques. Particular care is taken to preserve the attributes of the authenticity of its buildings and the road network.

Additional districts in Diriyah include Al-Bujairi, which contains the Imam Muhammad ibn Abd al-Wahhab Mosque and school; Al-Suraiha, which features several houses and farms, in addition to Al-Suraiha Mosque that is one of the oldest mosques in Diriyah; and the Ghasiba District, which is surrounded by walls built from rocks.

Diriyah is as close to time travel as one can get, with opportunities to explore a complex web of ancient districts and their ruins. As the Visit Saudi Arabia website states: "You have an opportunity to stand at the gates of palaces that represent the beginning of an era that has been immortalized in history."

Taste of Riyadh

Riyadh enjoys a booming culinary scene. Visitors have options ranging from fine dining, street food and international cuisine. For the traditional Arabic experience, visitors can enjoy the heritage of 'Najd Village'.

In this restaurant, Najd architecture has been faithfully recreated, and delicious traditional Najd meals are prepared by expert chefs under the supervision of specialists in authentic Najd cuisine, such as Kabsa, Jareesh, Al-Qursan, Al-Tatli, Al-Hanini and other Saudi Najd cuisine.

In the Bujairi Terrace in Diriyah close to the main gate, Takya is a fine dining restaurant that specialises in serving traditional Saudi cuisine in a modern style. It serves a wide selection of Saudi food such as Kabsah, Jareesh, Sleeg, Kabuli Rice, Mento, and Fig Salad.

Al Masmak Fort in Riyadh was a fortress of the founder of Saudi Arabia in the 1900s and is now a museum. It is mainly made of clay and mud-bricks.

Dates: Iconic symbol of Arabian hospitality

Perhaps no food encapsulates the spirit of the Saudi diet more than the date. Anyone fortunate enough to enter a Saudi home or office will often be welcomed with an offering of dates and qahwa (Arabic coffee).

In the Quran, date palms are mentioned 22 times and the Prophet Muhammad said that a home with dates is never poor. Packed with nutrients, this delicious fruit has been a staple of the Saudi diet since ancient times.

Saudi Arabia is now the world's third-largest producer of dates. They have been cultivated and traded throughout the region for many thousands of years. They are as vital to the economy as they are to the diet. It is telling that in accordance with Saudi Arabia's Basic Law, the Saudi Arabian national emblem consists of two crossed swords with a palm tree in the space above.

Each year, 800,000 metric tons are harvested in the Kingdom and each fruit must be hand-picked as it matures. Once picked, the dates are allowed to ripen in four stages: kimri (unripe, green), khalal (full-size, crunchy, yellow), rutab (ripe, soft) and tamr (ripe, sun-dried, dark). Their deliciousness means they can be enjoyed at every stage.

Nutritional value of dates

Dates are considered a superfood. They are free of fat, cholesterol and sodium. With more potassium than bananas, dates can aid muscle recovery and help regulate blood pressure. They are popular with bodybuilders as they are packed with essential minerals and vitamins, including calcium, copper, magnesium, vitamin K and vitamin B. Furthermore, they contain anti-inflammatory properties to promote brain health and antioxidants to help fight disease.

During the holy month of Ramadan, the Prophet Muhammad broke his fast with dates and water. Many Muslims around the world follow this example, as dates offer readily available carbs for a quick boost after a long day of fasting, plus protein and fibre for slower digestion, thereby preventing a sugar crash.

Perhaps the most famous type of date is the Medjool. It is large and sweet with a mild and rich flavour. There are more than 300 varieties of date grown in Saudi Arabia, each with unique flavours and textures.

While dates can be adorned with nuts or candied fruits, or even incorporated into savory dishes, many Saudis would say that unadorned dates remain the best way to appreciate them.

Dates make the perfect gift for loved ones after a trip to the Kingdom, and several boutiques specialize in high-end dates. One can find them displayed like jewelry and packaged beautifully. The traditional method is to purchase them in a souq. Here, one can discuss with vendors about their unique varieties and barter for the best price.

A shop keeper in Medina selling various types of dates and other dried food.

Plantation of date palms intended for healthy food production. agriculture of dates is a rapidly developing industry in desert areas.

Varieties of dates

Ajwa: Widely grown in Medina. Oval-shaped, medium-sized date with black skin.

Anbra: Large size, rectangular shape and red colour. Known for helping pregnant women with delivery.

Barhi: Soft and creamy, these yellow dates are often sold still attached to their branches.

Khalas: Brown dates from eastern Saudi Arabia. Usually reddish to brownish and medium in size. Tastes like butter caramel.

Khudri: Fluffy and tender in taste, soft from the outside. They are small, dark-colored dates that have a soft, chewy texture.

Mabroom: Elongated dates have a light red to bronze skin, candy-like texture that is chewy and sticky.

Safawi: From the Al-Madina region; wrinkly dates with a deep black colour. Medium to large in size.

Saghai: Famous for their two-toned color — golden and dry tip, while the rest of the body is brown and soft. Mildly sweet, and both crunchy and soft.

Sukkari: Large with golden outer crust. Caramel-like taste. Sukkari means "sugary" in Arabic and these are among the softest and sweetest variety of dates.

Zahidi: Medium-sized with a distinctive oval in shape. Pale brown skin and a thick, golden inner flesh that surrounds a single seed. Mildly sweet, with a nutty and buttery flavour.

Enticing destination

This article has offered a snapshot of the array of options for a visitor to Saudi Arabia. It would be impossible for one article to cover everything this great nation has to offer. More information can be found at: https://www.visitsaudi.com/en.

Hopefully, *OPEC Bulletin* readers will be inspired to take advantage of the increase in travel routes, the simple visa procedure and experience the Kingdom for themselves.

All pictures courtesy of Shutterstock.

Farmer checking the sweetness of date palm fruit with Brix refractometer, a sweet test tool for testing sugar date palm fruit.

Women in OPEC: Dr Asmaa Yaseen

*Born and raised in Baghdad, Iraq, **Dr Asmaa Yaseen** has been a Member Country-appointed officer at OPEC since late October 2019, working as a Senior Modelling and Forecasting Analyst. In this interview with **Maureen MacNeill**, she shares some of her experiences in the oil industry and at OPEC.*

With a gleaming smile and infectious laugh, Yaseen tells the story of her time at OPEC and the oil industry openly and spontaneously. The gregarious Senior Analyst, based at the OPEC headquarters in Vienna, talks first about her past.

She obtained a Masters of Economy at Baghdad University in 2007, then her home government granted her a scholarship to finish a PhD degree in the US. Along with a PhD in Applied Economics, she completed a minor degree in math, as well as a Masters in Applied Microeconomics at the University of Kansas.

She was selected as an American Economics Association Fellow in 2018 towards the end of her PhD study, which included teaching graduate students microeconomics for two months in the summer at Michigan State University.

During her time studying in Baghdad, she was hired by the Oil Marketing Company (SOMO) of Iraq and currently holds the title of chief researcher at the company. Thus, she became part of the staff at the Iraqi Ministry of Oil in 2005, and is still officially part of the Ministry, at OPEC on secondment.

Prior to joining OPEC, she was head of Crude Oil Marketing to the US, a section within the Crude Oil Marketing Division. "Officially, I was an economic analyst doing mainly analysis of oil prices, supply and demand, besides managing some contracts for Basra Light and Basra Medium," she says.

Regarding her move to OPEC, Yaseen states that after returning home from her US studies she wanted to explore a different part of the industry that is research based, in fitting with her academic background.

"I wanted somewhere where I could be involved in research, but which at the same time has an industry aspect. OPEC is a perfect match.

"You are still involved heavily in developments within the oil industry, but at the same time you have to utilize all the academic tools available, especially being a modelling and forecasting analyst."

Childhood dreams

It was always Yaseen's plan to go into economics and the oil industry. "Ever since I was young, back in high school, I realized that my beloved country has a resource-based economy. There I was impressed by economics, since it provides the tools to deal with scarcity, as well as having implications for the use of resources and welfare over time, and a great variety of other complex issues of vital concern to society," she states.

She comes from a diplomatic background and family, "but I found economics more fun. I strongly believe with a good economy a country can achieve the impossible."

Her father worked closely with several education ministers prior to Saddam Hussein's administration. Eventually, he retired from government and decided to go into private business following the tragic loss of his brother (Yaseen's uncle).

Time at OPEC

When describing her time at OPEC, Yaseen borrows a sentence from the (late) former OPEC Secretary General, Mohammad Sanusi Barkindo, who said, "OPEC is a university of life."

"In terms of profession, I am learning and adding a lot to my knowledge and skills, and at the same time being able to work collaboratively with people from different backgrounds and cultures, which enhances my social and cultural experiences."

She adds that the studying and teaching experience at the University of Kansas and Michigan State University yielded great returns for her in terms of social and cultural exposure.

"Teaching undergrad and graduate students, especially in the Western mindset, gives you a chance to interact and gain exposure to the next generation's mindset.

"However, working at OPEC is a distinguished and unique career involvement. You are involved with the highest-level oil industry decision makers, who are dealing with very critical decisions in order to deliver OPEC objectives."

The downside of being so far from home is being away from family for an extended period of time, she says. This was especially difficult for Yaseen during COVID-19, in part because she lost her mother in May 2020.

Despite occasional homesickness, Dr Yaseen always feels very energetic and happy in her department, "because here at the Petroleum Studies Department (PSD) I feel like I am working with my family.

"As a woman from Iraq who lived almost eight years in the US, I consider myself to be very bi-cultural, so it was not hard for me to collaborate with people from different backgrounds. I have been working closely with some colleagues and we challenge, support and learn a lot from each other.

"The list is long but I have to highlight two colleagues who have been adding a lot to my knowledge: Dr Aziz Yayhai and Dr Joerg Spitzy. I also receive

Dr Asmaa Yaseen, Senior Modelling and Forecasting Analyst at OPEC.

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Dr Asmaa Yaseen (l) with Maureen MacNeill.

insightful comments and feedback from my head Behrooz Baikalizadeh and the Director of Research Division, Dr Ayed Al-Qahtani, who elevates my work to the next level."

Yaseen states that in observing leadership styles, including the current OPEC Secretary General, Haitham Al Ghais, she has learned valuable leadership adroitness that goes beyond the call of duty. "I really admire their great wealth of experience in handling unprecedented oil industry challenges, especially when COVID-19 first hit and in recent market developments. I am so fortunate to be a part of this history."

Yaseen believes that "OPEC is one of the finest and highest (institutions to work for) in terms of the analysts I am working with. I do not have exposure to everyone at the Organization, but everyone works in a highly professional manner. The way analysts think and work here is always proactive and goes beyond expectations. In all the OPEC work that I am involved with, the professional team keeps its shoulder to the wheel to always stay ahead of the curve."

Her day-to-day life at OPEC sees Yaseen undertaking modelling and forecast analysis. "I am responsible for modelling and forecasts on economy, supply and demand for PSD publications, especially the MOMR and ECB reports. Besides this, over the last three years I have covered the non-OECD economic sections in different PSD reports."

She calls her work a combination of expert judgement and using information acquired from quantitative measures. "It gives us some references that can be shared with policymakers, whether it is the head of PSD, DRD, the Secretary General, or the Ministers. It helps them with their decision-making."

Yaseen and her colleagues are constantly sharing information and ideas, she says. "There are a lot of heavy discussions in formal and informal settings. We (the analysts) learn from each other a lot.

"You may be the best who knows a lot about a certain topic, but it's important to discuss it with colleagues. There is much interaction between all the areas here. Nobody can work solely on whatever section they are covering."

Yaseen always reaches out to other resources and sources when researching, including in-house help from the Data Services Department when it comes to data, or articles borrowed from the OPEC Information Centre (OPEC hosts

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Kurpark Oberlaa.

one of the biggest and best energy libraries in Europe).

"There is no day here at OPEC where I do not receive valuable publications or Google or search or try to buy some books, because it is important for me as an economist and modelling and forecasting analyst to keep up even on my off time."

Yaseen's Pomeranian Spitz dog called Louie.

Vienna

Living in Vienna, where OPEC is headquartered, has been a unique experience for her, especially compared with the US and her home country Iraq, she continues.

"What I like about Vienna is the high quality of life. There is affordable public transportation, along with good water and air quality, taking into consideration the amount of green surroundings. The city is also extremely pet friendly," she says.

However, she finds Austria more difficult socially than Iraq and the US, in part because of not speaking the language. "It's a different culture. I believe people here start to build friendships in school and it is not easy to break the ice."

She says her situation improved when she got a Pomeranian Spitz dog called Louie just over two years ago, adding that everybody stops now and talks to her and him. "He was born in Ukraine, but I adopted him from Germany with the help of my brother."

In her very limited spare time, she reads a lot. "I am a book aficionado," she states. She is also learning German and going on long walks with Louie along the Danube Canal. One of her favourite places in Vienna has become the Wien Therme in Oberlaa, a large public bathing area fed by thermal hot springs.

Yaseen's term is due to end in 2027, when she will likely go back to her country and continue working within the oil industry.

"After 'graduating' from OPEC, I hope to inspire and lead aspiring females who want to go further in this industry. Hopefully, I will be a role model."

Women in the oil industry

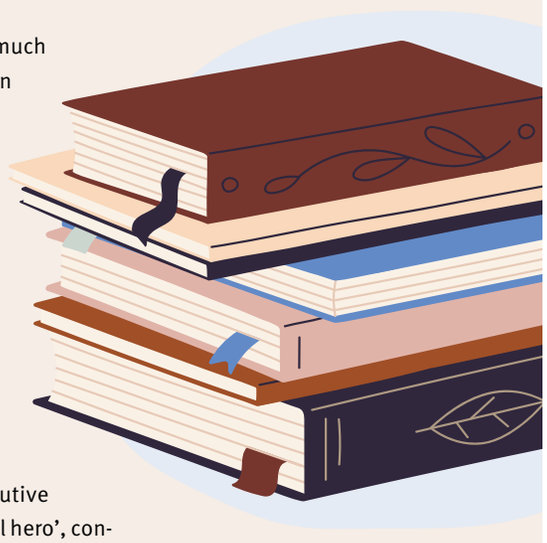
Yaseen says that the oil industry is not male dominated by accident. "We have to consider where and when the industry started, as well as think back to when the first woman graduated with a degree in this industry that allowed her to get involved.

"I personally believe that now is the right time for many women's voices to be heard. Also, I doubt that the past will carry over in the near future in view of the growing percentage of females graduating with degrees related to the oil industry."

She adds: "I think if you have what it takes you will have the support of your workmates, whether male or female, and definitely your management will count on you."

She says being female in the industry has actually granted her some kind of prerogative, considering that she is able and accomplished. "I am indeed privileged being from the Middle East, particularly Iraq. Over the course of my career, all male management and coworkers have taken me seriously, as I always show them that I have what it takes."

She adds that one does not hear much about the success stories of women in energy or the petroleum industry because the media has not shone much light on the subject.



"But I personally know and have been exposed to at least 1,000 or even more women in Iraq, Saudi Arabia, Kuwait and other OPEC Member Countries who are doing outstanding jobs.

"I want to recognize Ms Sara Akbar, a Kuwaiti chemical petroleum engineer and co-founder and former chief executive officer of Kuwait Energy, who is a 'national hero', considering her heavy involvement in the Kuwaiti oil fire suppression.

"In my opinion women voices have been already recognized as they have what it takes, but there is room to grow more and more."

Famous wins for Member Countries at FIFA World Cup

Saleh Al Shehri of Saudi Arabia in his match against Argentina in the Lusail Iconic Stadium in Qatar.

Ahmed bin Ali Ramin Rezaeian of IR Iran and Neco Williams of Wales during a match between Wales and IR Iran at the World Cup.

While both Saudi Arabia and the IR Iran failed to make it to the knockout stages of the 2022 FIFA World Cup, both OPEC Member Countries recorded memorable victories that will live long in the memory. The OPEC Bulletin *looks back as these triumphs from the November/December 2022 football extravaganza.*

The opening of the 2022 World Cup at Al Bayt Stadium.

The FIFA World Cup kicked off in Qatar with an opening ceremony at the Al Bayt Stadium featuring a live appearance from actor Morgan Freeman, a performance from K-pop icon, Jung Kook of BTS fame, a showcase of local culture, dancers, a huge fireworks display and much more.

Shortly before kick-off, prior to the opening game between Qatar and Ecuador, FIFA President Gianni Infantino addressed fans inside the stadium. He said: "Family of football. Welcome to Al-Bayt Stadium. Dear friends, welcome to Qatar. Welcome to the World Cup. Welcome to your home. Welcome to celebrate football, because football unites the world."

It would not take long before football also shocked the world.

Not enough superlatives

On November 22, the first game in Group C kicked off at the Lusail Stadium at 1pm local time. The match pitted then two-time World Cup winner and one of the pre-tournament favourites, Argentina, against Saudi Arabia.

All pre-match expectations were for an easy Argentinian win, with Lionel Messi and a host of other well-known players on the team. Saudi Arabia were given little hope by pundits and experts, but what followed was a game that accentuated the magic that football can bring.

Argentina, unbeaten in 36 matches over the previous three years, took the lead with a 10th-minute penalty from captain Messi, who was looking to cap his career by winning the tournament at the fifth attempt.

The blue and white striped shirts of Argentina went onto dominate the rest of the half, hitting the back of the net a further three times — one for Messi and two for Lautaro Martinez — but all of these were rightfully ruled out for offside.

While Argentina's lead was only 1-0 at half time, no-one envisaged what was to follow as the teams came out for the second half.

'La Albiceleste' as they are known at home in Argentina, were made to pay in a remarkable opening to the half as Saudi Arabia first leveled and then went in front in the space of five sensational minutes.

First Saleh Al-Shehri surged past Cristian Romero and fired a left-footed shot into the far corner. Cue pandemonium on Saudi Arabia's bench and among its thousands of fans in the stadium. But it did not stop there.

In the 53rd minute, Salem Al-Dawsari spun round, confusing the Argentinian defenders, swerved away from another and curled a spectacular effort from the left side of the area into the top-right corner. Incredibly, Saudi Arabia, the massive underdogs, now led 2-1.

Saudi Arabia were resolute thereafter, turning away wave after wave of Argentine attacks. Goalkeeper, Mohamed Al-Owais, made a series of saves to thwart Messi and others, to secure a famous victory. It has been heralded by many as the "greatest upset in World Cup history".

While Saudi Arabia unfortunately lost its other two group games, with Argentina winning theirs to qualify for the knock-out round, the Saudi Arabian players can now say looking back that they were the only team to defeat the 2022 World Cup champions.

A riveting dance performance at the opening event before the start of the football matches.

IR Iran's Roozbeh Cheshmi scores the opening goal during the FIFA World Cup Group B match against Wales at the Ahmad Bin Ali Stadium, Al-Rayyan.

Inspired IR Iran

Despite losing its first game to England by six goals to two, the IR Iran team remained hopeful of qualifying for the knock-out rounds, but knew a win against Wales on November 25 was a must.

Kicking off at 1am local time in the Ahmad bin Ali Stadium the match was played in sweltering temperatures. In the first half, IR Iran's Ali Gholizadeh thought he had put his team ahead, before the video assistant referee (VAR) ruled the goal out for offside.

It was all to play for in the second half and it was IR Iran who took the game to their opponents, pressing and harrying the Welsh players and creating chance after chance.

Roared on by Iranian fans in every corner of the stadium, they were unlucky not to score early in the half as Sardar Azmoun and then Gholizadeh both struck the post within the space of a few seconds.

Wales were also pushing forward in search of a goal, but this left spaces for IR Iran on the counter attack. One of these led to Welsh goalkeeper, Wayne Hennessey, recklessly bringing down Medhi Taremi. The referee initially showed a yellow card for the challenge, but this turned to red following a video assistant referee check.

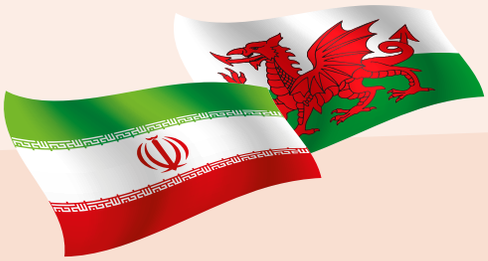
There were four minutes of normal time remaining. Could the Iranian team make the extra man pay?

IR Iran sensed the weakness and pressed their opponents high up the pitch, but it looked unlikely as the added minutes passed seven, then eight.

But substitute Roozbeh Cheshmi dramatically struck from 20 yards out nine minutes into stoppage time. It was thoroughly deserved on the balance of play, and the Iranian team and fans sensed they were on the cusp of a dramatic victory.

This was sealed when Ramin Rezaeian finished off a counter-attack to clinch a 2-0 victory.

While the Iranian team lost its last group game to miss out on the knockout stages, then players left Qatar with a victory to remember. They had tamed the Welsh dragon.



Photos: Alamy, flags: Shutterstock

Japan: embracing the old and the new

*With Japan and OPEC now holding regular dialogues, and with the country in the spotlight in 2023 given its presidency of the Group of Seven, **James Griffin** takes a look at the country's captivating contrasts of traditional and modern that makes Japan such a fascinating destination to explore.*

Nagoya Castle surrounded by cherry blossoms.

Lavishly decorated floats on the street during the Autumn Takayama Festival.

Wooden doll figures on top of a decorative Festival float.

Innovation, embracing new technologies, setting new fashion trends seem to be ingrained into modern Japan, and at the same time there is an inherent respect for tradition, old customs and nature. It is an intertwining of past, present, and future that gives Japan a distinct and captivating appeal.

Where else can you ride on a traditional rickshaw from centuries ago and travel at 300 kilometres an hour on a *Shinkansen*, colloquially known in English as a bullet train, in the same day? Stay a night in a traditional Ryokan inn that embraces centuries of culture and hospitality and the next in a modern, simplistic capsule hotel. Or see traditional geisha in Kyoto on the latest mobile phones.

The island nation of Japan, or to be correct a nation of more than 6,000 islands, is a place where eye-popping modernity and long-standing traditions harmoniously coexist.

Its Japanese names, *Nihon* and *Nippon*, are alternative readings of written *kanji* characters that typically translate as 'Land of the rising sun'. There is almost no better line for Japan. I personally recall living there back in 1997 and 1998 and how taken I was by its fascinating and multi-faceted culture that never ceases to amaze, even to this day.

The following are a few recollections and highlights of this time in Japan.

Traditional festivals

Back in 1997 and 1998 I was an English language teacher in the city of Nagoya, located between Osaka and Tokyo on the main island of Honshu. It was also an opportunity to take some of the country's many festivals, and two specifically standout.

The first was the Takayama Autumn Festival, held around Sakurayama Hachinmangu shrine in Gifu prefecture. The event is about giving thanks and marks the beginning of preparations for the end of the year. Its spring counterpart, the Sanno festival also in Takayama, offers prayers for a good harvest.

There are ornately decorated wheeled floats, some topped with marionettes, and at specific times during the day, puppeteers come and make them perform traditional dances. It is truly an impressive scene, with the puppet's movements a sight to behold. At night, floats are lit with lanterns and paraded back to their storehouses while traditional songs are sung.

It is a real artisan tradition, as showcased in the floats and marionettes, with Takayama having a long tradition of woodworking.

Shinkansen passing by Mt Fuji during spring. The super high speed bullet train runs between Tokyo and Osaka.

A battle of kites seen at the Hamamatsu Festival at Nakatajima beach.

The second was the Hamamatsu Festival, which features a battle of kites at Nakatajima beach. The history of kite-flying in the area is believed to date back more than 450 years.

It is said that up to 174 kites can take to the sky, with teams aiming to cut their opponent's string using friction alone. The aerial duel, or duels, were not easy to follow. It was a swirling melee of strings, with clouds of dust from the many moving feet. To this day, I cannot tell you who won.

Sumo

Ever since I was young, I'd had a fascination with sumo. It was the name, the elaborate hairstyles, the throwing of salt, the all-out aggressive slapping, and the *mawashi*, the loincloth worn by sumo wrestlers *(rikishi)* in competition. It is sport like no other, with fighters living year round in designated stables and a traditional diet of a stew called *Chanko-nabe*. It is a sport steeped in ancient traditions, offering a variety of insights into Japanese culture.

Sumo matches take place on an elevated ring *(dohyo)*, which is made of clay and covered with a layer of sand. The rules are relatively simple on paper; force your opponent out of the ring to win or, make him touch the ground with anything other than the soles of his feet. But the various techniques, and the complex etiquette, do not always make it easy to follow for the non-aficionado.

I attended a day of the 1997 Nagoya basho at the Aichi Kenritsu Taiikukan. We had a box for four people with floor cushions. It provided a great vantage point for the action, but if you are not used to sitting on the floor for hours on end it can become a little uncomfortable.

The overall *basho* was won by the famous *yokuzuna* (the highest rank in sumo), *Takanohana*, but it was the final act of the day that still sticks in my mind. The other *yokuzuna* of the time, *Akebono*, lost his bout to a lower ranking fighter. It led to a barrage of seat cushions being thrown from the crowd towards the *dohyo*. It felt wrong not to join in.

A lively sumo wrestling match.

Display seen in front of a Studio Ghibli merchandise shop.

The electronics district in Akihabara, Tokyo, is known to be a hub for popular culture.

Technology, manga, anime and fashion

Back in the late 1990s, Japan was a global leader in new technologies and new games. There was the Tamagotchi, a virtual pet on a keychain, the first DVD players, new games consoles from Sony and Nintendo. Although the one novel idea that grabbed my attention during my time there was the heated toilet seat.

Another attraction was the Japanese art of storytelling, or manga, whose popularity seemed to embrace young and old. Train journeys would see me reading the *Guardian Weekly,* and many of the locals flicking through pages and pages of manga. The form is believed to date back to the 12th century, with the early form of comics presented itself as detailed scrolls.

Since then, the genre and its screen counterpart, anime, have expanded even further and established a lucrative global industry. One of the most famous manga artists and anime creators is Hayao Miyazaki, who co-founded Studio Ghibli. A masterful storyteller is animated films such as *My neighbor totoro, spirited away* and *The wind rises*.

Anime and manga have always now become rooted into the local youth culture of Japan. There are shops, cafes, galleries and memorabilia in abundance. The traditional storytelling and animation methods are also now being embraced by the modern world of fashion.

Vibrant fashion sold in the ever busy Takeshita Street in the Harajuku part of Tokyo.

Street fashion in Tokyo, with Harakjuku often mentioned, has been heavily influenced, with custom-made costumes and accessories.

It has also moved beyond the streets and onto the catwalks. Major fashion labels, such as Louis Vuitton, Moschino and Prada have all embraced manga with statement pieces inspired by the signature comic style and references to characters. A further sign of the embrace of traditional culture and new trends, and this time not only in Japan, but by the broader world too.

All pictures courtesy of Shutterstock.

Firefighters faced wind and cold weather during their efforts to extinguish the fire that devastated the Redoutensaal in November 1992.

Winning a battle against wind **and** flames

Thirty years ago, the grand assembly hall in Vienna's Hofburg Palace lay in ruins following a devastating fire. With the 8th OPEC International Seminar taking place in the palace's ornate conference facilities on July 5 and 6, the OPEC Bulletin *recounts the history of the fire and the years of effort that went into restoring the elegant Redoutensaal.*

View of the Vienna Hofburg's entrance during the 7th OPEC International Seminar, held in 2018.

At 1:10 am on November 27, 1992, alarms sounded at the Vienna fire service's central barracks.

Within three minutes, the first firefighters arriving at the nearby Hofburg Palace saw flames piercing the night sky above the complex, an architectural masterpiece dating to the 13th century and an emblem of Austria's former imperial power.

Throughout that blustery November night and into the day, an estimated 240 firefighters battled a blaze that spread with devastating speed through the wood-timbered roof of the palace's grand Redoutensaal, or redoubt hall. Wind gusts complicated the fire fight and threatened other parts of the expansive palace complex.

As fire brigades struggled to bring the flames under control, hundreds of police and volunteers formed a human chain and worked throughout the night to relocate treasured books and artefacts from other parts of the palace.

Residents living in the path of the blowing smoke were evacuated and more than 60 of Vienna's world-famous Lipizanner horses stabled nearby were moved to safety. Miraculously, the fire was largely contained to the vast redoubt hall, although adjoining rooms were affected and parts of the palace suffered water and smoke damage.

Video archives from Austria's ORF broadcaster record the harrowing effort to fight the flames under difficult weather conditions. Nearby side streets were clogged with fire apparatus, with blue emergency beacons and spotlights casting shadows across surrounding buildings and cobbled streets. A mix of snowflakes and burning embers streaked across the sky.

"By 2:30 am, the ceiling of the large Redoutensaal collapsed. Half an hour later, the roof framework of the entire building area was on fire," according to the Burghauptmannschaft, the Austrian federal agency in charge of overseeing the Hofburg and other historical buildings. It was not until 8:15 am the following day, November 28, more than 31 hours after a night watchman reported the fire, that the city's fire service declared blaze extinguished, official records show.

Among those expressing sympathy to the Austrian people was Queen Elizabeth II. The British monarch's beloved Windsor Castle had been engulfed in flames only a week earlier, destroying prized art and the St George's banqueting hall. "After what happened in Windsor just a short time ago, I can understand the


© Burghauptmannschaft Österreich

Restoration work begins at the Redoutensaal.

magnitude of the loss," the Queen said in a telegram to the then Austrian President, Thomas Klestil.

The exact cause of the Hofburg fire remains unclear to this day. Although there was no loss of life, several fire personnel, who were brought from other parts of Vienna and neighbouring jurisdictions, suffered from smoke inhalation, according to news reports at the time.

Restoring the structure

It was months before reconstruction of the Redoutensaal began. Restoring the structure involved a careful balance to maintain the architectural integrity of the baroque-era hall. At the same time, it was decided to modernize the Redoutensaal to enhance its standing as a premier destination for conferences and Vienna's world-renowned balls.

"The history of the Redoutensaal … was shaped by the fire of 1992," Reinhold Sahl, President of the Burghauptmannschaft, told the daily *Kurier* newspaper on the 30th anniversary of the fire. "The historic furnishings of the hall were almost completely destroyed and its restoration was only possible thanks to the professional cooperation of all those involved. The result is a contemporary event hall with modern technical equipment that meets many requirements."

The Redoutensaal reopened in 1998 during the first Austrian Presidency of the Council of the European Union (EU).

War and diplomacy

For more than two centuries, the Hofburg and its vast complex of annexes has played an important part in international dialogue and cooperation. In 1814–15, monarchs and ambassadors from across Europe gathered in Austria's imperial capital in a bid to restore peace and rebalance power following the devastating Napoleonic wars *(see OPEC Bulletin 'Commentary', June/July 2018)*.

Vienna's lively ballroom waltzes offered a break from the demands of statecraft and the Hofburg's spacious Redoutensaal — built in the 18th century at the behest of Empress Maria Theresa — became a popular destination for ballroom dancing after a hard day of diplomacy.

More than a century later, Austria's Habsburg monarchy came to an end as the empire collapsed at the end of the first world war. In the final months of the second world war, the ousted ruling family's former palace suffered heavy damage in the battle for Vienna.

Throughout the Cold War, the repaired Hofburg became an important extension of Austria's status as a neutral go-between in the centre of a divided Europe. The imposing palace and its spacious

The renovated structure of the former dance and concert hall served as a temporary conference room for the Austrian Parliament.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meeting rooms hosted numerous high-profile diplomatic gatherings, including a two-day Summit between US President John F Kennedy and Soviet leader Nikita Khrushchev in June 1961. Exactly 18 years later, their successors Jimmy Carter and Leonid Brezhnev met at the Hofburg to sign the second Strategic Arms Limitation Treaty (SALT II).

During Austria's EU Presidency in 1998, 2006 and 2018, the Hofburg and the Redoutensaal served as backdrops for many important European meetings.

More recently, the Redoutensaal was converted into a legislative chamber while the nearby Austrian Parliament underwent renovations from 2017 until this year. The Hofburg complex also houses the offices of the Austrian President and hosts the decision-making body of the Organization of Security and Cooperation in Europe (OSCE), the Permanent Council.

Annexes containing the National Library, numerous exhibits and the adjoining squares and gardens make the Hofburg one of the Austrian capital's most popular sites for visitors.

The palace's 18th-century State Hall, housing more than 200,000 books, underwent restoration in 2022 and re-opened at the start of this year.

OPEC International Seminar

The former imperial palace complex continues to serve as a leading centre for major conferences and high-level events, including OPEC's International Seminar. The facility's central location provides ready access to fine dining, accommodation and cultural attractions, as well as proximity to the OPEC Secretariat, the OPEC Fund for International Development, Austrian government ministries, Vienna's City Hall and the University of Vienna.

Attendees of this July's 8th OPEC International Seminar who marvel at the magnificent surroundings may not realize that 30 years earlier, the opulent Redoutensaal and adjacent rooms still bore the scars of a devastating fire that broke out on that cold morning in November 1992.

The 3rd OPEC International Seminar, which took place on September 12–13, 2006, was the first OPEC Seminar to be held at the Hofburg Palace in Vienna.

During the 6th OPEC International Seminar held in 2015, then-OPEC Secretary General, Abdalla Salem El-Badri (fourth r), and other high-ranking delegates attended a luncheon sponsored by the Kuwait Petroleum Corporation, which took place in the restored Redoutensaal.

The forgotten oil producer: the Austro-Hungarian Empire

The list of the world's largest oil producers was very different in 1900 to how it is in 2023. The third largest oil producer in 1900 was an entity that does not exist now: the Austro-Hungarian Empire. Production centred on the regions of Galicia and Bukovina. At the time, they were some of the poorest regions in the empire, yet it was home to the most modern industry. These sharp contrasts are the subject of an exhibition at the Volkskundemuseum Wien *in Vienna, entitled the 'Oil Rush and the Hutsul Cult: photographic objects of dispute from Galicia and Bukovina'. The* OPEC Bulletin's ***Mathew Quinn*** *files this report.*

Announcement of the exhibition on display in Vienna.

Views of the exhibition rooms. Foto: Kollektiv Fischka/Kramar © Volkskundemuseum Wien.

The Polyglot Empire

On the eve of the First World War, apart from the Russian Empire that straddled two continents, Austria-Hungary was the largest political entity on mainland Europe, spanning almost 700,000 square kilometres. The area it covered now lies within the modern day borders of Austria, Bosnia-Herzegovina, Croatia, Slovenia, Czechia, Slovakia, Hungary, Italy, Poland, Romania, Serbia and Ukraine.

It was a large, multi-ethnic, multi-lingual state with a complex governing structure, notably the idea of dual monarchy, for the empire was the result of a merging of two older kingdoms: Austria and Hungary. The ruling family was the Habsburgs.

The Austrian-Hungarian monarchy covered all or part of today's Austria, Bosnia-Herzegovina, Croatia, Slovenia, Czechia, Slovakia, Hungary, Italy, Poland, Romania, Serbia and Ukraine.

The exhibition at the *Volkskundemuseum Wien* focuses on two constituent regions in the Empire, the Duchy of Bukovina, which is now part of Romania and Ukraine, and the Kingdom of Galicia and Lodomeria, territory which now would lie within the borders of Ukraine and Poland. In the middle of the 19th century, the discovery of oil in the regions, along with technological innovation, would transform the fortunes of the area.

The discovery of oil resulted in a stunning array of contrasts. Petroleum engineers and speculators descended *en masse* onto this hitherto underdeveloped area. Social tensions and dislocation were prompted by rapid economic change.

Photographing economic progress

Another technological innovation is responsible for the visual documentation of the area: photography. There was a desire, particularly from the rulers of the empire, to have a better understanding of Galicia and Bukovina.

Photography was a way of documenting industrial development, but there was an interest in the ethnic groups that hailed from the regions. The Hutsuls are one such group, with distinctive culture and traditions. They are the main subject of the exhibition.

Julius Dutkiewicz: Petroleum mines in Słoboda Rungórska, Kolomea, East Galicia, around 1880 © Scientific Library of the PAAS and the PAS in Cracow, FD 488.

Julius Dutkiewicz: View of Uścieryki am Schwarzen Czeremosz, District Kossów, Bukowina, around 1880 © Scientific Library of the PAAS and the PAS in Cracow, FD 497.

As the *Volkskundemuseum Wien* website states: "Hutsuls are a culturally oscillating ethnographic group in the Eastern Carpathians, located in today's Western Ukraine. In the Habsburg Empire, mysteries about their culture, their origin and their national belonging triggered vivid curiosity among artists, writers, scholars and politicians of surrounding national movements and states."

Julius Dutkiewicz was the photographer used to document the economic progress of the empire. He also took photos of the peoples of the area and his 'type photos' contributed to the idea of the ways of the Hutsuls in the popular imagination of the empire. The Hutsuls embodied the idea of a people retaining customs from a bygone era.

Photographic exhibitions were very much in vogue in the 19th century. They covered a diverse range of subject matters, including industry, agriculture and ethnography. The photos showcased at these exhibitions were also popularly reproduced as postcards. They were even presented as gifts to the Habsburg Emperor Josef and King Charles of Romania.

The National Exhibition in Lviv in 1877 aimed to correct the perception of Galicia as an area dominated by agricultural production. The exhibition contains interesting photos from that 1877 exhibition, including some collections juxtaposing traditional cottage industry products with drilling rigs.

The oil industry affected other industries

The exhibition at the *Volkskundemuseum Wien* provides a fascinating array of photos from that time, including material from the 'Ethnographic Exhibition in Kolomyia in 1880'. In 1860, the first continuous east-west rail connection was laid as far as Czernowitz.

Infrastructure connecting the oil producing regions with the centre of the empire saw an 'oil rush' in the 1870s. The items in the exhibition showcase this in detail, especially the impact of modernization on traditional ways of life.

View of the exhibition room. Foto: Kollektiv Fischka/Kramar © Volkskundemuseum Wien

Julius Dutkiewicz: Hutsul farmer from from Rosmacz, Galicia, East Galicia, around 1880 © Volkskundemuseum Wien, pos/970.

View of the exhibition room. Foto: Kollektiv Fischka/Kramar © Volkskundemuseum Wien.

Tourism also became popular in the region, following the wide dissemination of photographs and a trip to Galicia by the Emperor Franz Josef. Relevant associations published travel guides and railroads companies produced guides for their lines.

The exhibition has a final room on how photography was used to showcase various ethnic groups.

Fascinating window into a unique time and area

Nineteenth century Europe was a time of rapid social and economic changes, with ramifications in a host of ways. The exhibition at the *Volkskundemuseum Wien* is a tremendous way to see the complex interactions between technological progress, economic development and various ethnic groups of Europe.

The exhibition runs until March 26, 2023, at the *Volkskunde-museum Wien* at Laudongasse 15–19, 1080 Vienna.

Julius Dutkiewicz: Schodnica, oil wells, Schodnica, around 1880 © Photoinstitut Bonartes, GG_6029.

OPEC Secretary General's diary

*In the course of his official duties, **Haitham Al Ghais**, OPEC Secretary General, visits, receives and holds talks with numerous dignitaries. The following page records some of those events.*

January 13, 2023: Al Ghais (l) receives Ambassador Levent Eler, Permanent Representative of the Republic of Türkiye to UN in Vienna.

December 15, 2022: Al Ghais (centre r) held a bilateral meeting with Kadri Simson (centre l), EU Commissioner; and Ambassador Stephan Klement (third r), EU Permanent Representative to the UN Organisations in Vienna, IAEA and CTBTO; with OPEC and EU officials.

December 9, 2022: Al Ghais receives Ikram bin Mohammad Ibrahim, Ambassador of Malaysia to Austria.

December 6, 2022: Al Ghais (l)receives Dr Cornelia Meyer, an economist, independent energy analyst and media commentator.

OPEC

Monthly Oil Market Report

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Students and professional groups wanting to know more about OPEC visit the Secretariat regularly in order to receive briefings from the Public Relations and Information Department (PRID). PRID also visits schools under the Secretariat's outreach programme to present on the Organization and the oil industry. Here we feature some snapshots of such visits.

Visits to the Secretariat

November 21 Executives from India and officials from the University of Economics and Business (WU Wien), Vienna, Austria.

February 1 Students from the Albrecht Altdorfer-Gymnasium, Regensburg, Germany.

February 7 Students from BRG Oberpullendorf, Burgenland; and the HTL Mödling, Lower Austria.

February 15 Officials from the Multilateraler Dialog KAS, Konrad-Adenauer-Stiftung eV Österreich, Vienna, Austria.

Interview

"If your focus is development, everything now has to be climate-focused"

OPEC Fund Assistant Director-General Financial Operations, **Tarek Sherlala**, talks about the impact, implications and immediacy of the institution's Climate Action Plan.

By Howard Hudson and Axel Reiserer, OPEC Fund

OPEC Fund Quarterly: How do you position our Climate Action Plan to stakeholders?

Tarek Sherlala: Climate change has been impacting all countries, regions and sectors, so adopting a Climate Action Plan is a natural progression for us. Our development mandate requires us to respond to the enormous needs triggered by climate change and to also address the underlying issues that are holding countries back. Committing and allocating funds specifically to climate action is intrinsic to our focus on sustainable development and our engagement with partner countries. It is also very much in line with our member countries' priorities.

How are we going to deliver on this commitment?

Our Climate Action Plan was designed based on the enormous needs communicated to us by our partner countries. We're seeing more and more climate-based projects going into the pipeline of operations and are increasingly asked to provide support on energy transition. Our country managers have ongoing conversations with partner countries to better understand the particular issues they're dealing with. We will provide more financing in support of climate mitigation, adaptation and resilience, and invest in transformational technologies that contribute to flattening emission curves and improve across-the-board energy efficiencies. Our business model will incorporate joint investments with other multilateral development banks (MDBs) as well as standalone initiatives with national governments.

Are we considering a different approach or different criteria when it comes to assessing climate projects?

Development impact is front and centre of everything we do. Environment and climate are of course increasingly key considerations in assessing development impact. Social impact, institutional capacity and governance are other key criteria. We rely heavily on our Environment, Social and Governance (ESG) Policy and Results Framework, and assess underlying needs to come up with the best financing solutions. Our solutions will continue to be tailored to the specific needs of our partner countries.

Moving from 20 to 40 per cent in a rather short period of time is ambitious. How have we prepared for this challenge?

The business ecosystem has evolved considerably over the past years and climate financing is a cross-cutting theme that will involve all of us in everything we do. Climate financing opportunities already exist in abundance.

As part of our Strategic Framework 2030 we have a clear growth agenda, and are already implementing important milestones such as an enhanced ESG policy and, most recently, a Development Effectiveness Framework. Our growth agenda, and the additional resources that will be made available in the coming years, will also allow us to sharpen our focus on climate action. Our Climate Action Plan sets out an equally clear roadmap to achieve the target of 40 per cent climate financing by 2030, based on current investment trends. Helping vulnerable countries strengthen their climate policies and reinforce their Intended Nationally Determined Contributions

and climate regulations is a particular focus. Promoting transformative climate investments to drive progress on adaptation and mitigation, as well as mobilizing private capital are equally important focus areas.

The Asian Development Bank (ADB) has developed the SDG Accelerator Bond as a de-risking tool. Is this something we also might consider? And more broadly, what can we learn from our partner institutions' experiences?

We've been engaging with lots of different stakeholders as part of the launch of our Strategic Framework 2030 and are planning an SDG bond for our first issuance. Our plans are similar to those of other MDBs and we align with the best practices of counterparts such as the ADB in terms of providing the transparency and impact investors expect. Getting there we have certainly benefitted from others' experiences and will continue doing so.

Can you give us any ideas how we will be tightening up the evaluation criteria for projects?

It is essential that we track our projects comprehensively and to have really robust monitoring and reporting, not only in regards to financials but, as mentioned earlier, the full ESG and development impact. This is the standard we are aiming for and we want to make sure that we have tracked, processed and — finally — evaluated everything, from the very beginning of a project to its completion, and that we integrate lessons learned into the design of future projects. This is important for our own business, and also for transparency *vis-à-vis* our board and investors.

We said that 40 per cent climate financing by 2030 would be ambitious. But it surely is not the end of the road? Do you envisage a future where the majority of OPEC Fund projects are in climate financing?

I think climate finance is and will become the development agenda by definition. If your focus is on development, everything now has to be not only climate-related, but climate-focused. The Maldives are being inundated by rising seas. Least developed countries in Africa, which are most affected by climate adversity, are realizing that climate financing can be an opportunity that may well enable them to produce the food and generate income needed to feed their people. We all realize that if we continue on the current trajectory, we're not going to meet the 1.5°C climate target, and achieving the Sustainable Development Goals will slip out of reach. The consensus is that we all have to do more climate-focused financing, turn this challenge into an opportunity, and make it part of all our mainstream activity. The groundwork is laid. It is now up to all of us to deliver.

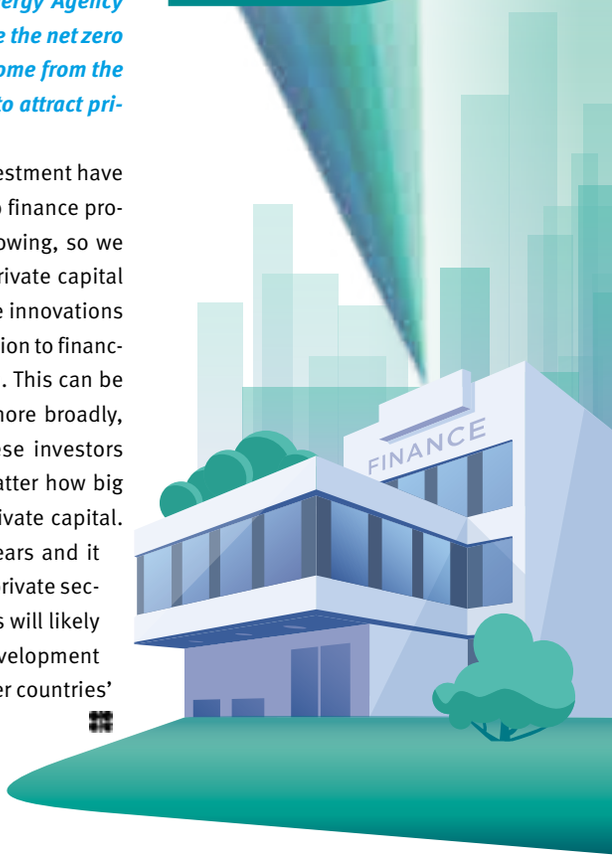
A recent report from the International Energy Agency says that $4.2 trillion is needed to achieve the net zero target, and that $3tr of that will have to come from the private sector. What can MDBs do better to attract private investors?

Opportunities to attract private sector investment have opened up in recent years. The demand to finance projects that involve climate risks is only growing, so we fully expect to mobilize private capital. Private capital will be especially instrumental to promote innovations in climate mitigation technologies. In addition to financing, one important point is risk mitigation. This can be risk sharing or de-risking. Looking at it more broadly, we need to create conditions where these investors come in and start doing business. No matter how big a pool the MDBs have, it's dwarfed by private capital. If we look into climate financing in 15 years and it becomes mainstream and profitable, the private sector will take it. That's perfect. Our partners will likely have other pressing priorities by then. Development is a journey and we aim to meet our partner countries' needs every step of the way.

The OPEC Fund Climate Action Plan target:

40%

climate financing by 2030



> **"I think climate finance is and will become the development agenda by definition. If your focus is on development, everything now has to be not only climate-related, but climate-focused."**
>
> Tarek Sherlala, OPEC Fund, Assistant Director-General, Financial Operations

Forthcoming events

The premier oil and gas machinery and technology show, March 10–12, 2023, Karachi, Pakistan. Details: Ecommerce Gateway Pakistan (Pvt) Ltd, 8, Kokan Society, Dr Azhar Hussain Road, Near Kokan Park, off: Shaheed-e-Millat Road, Karachi 74000, Pakistan. Tel: +92 21 34 53 63 21; fax: +92 21 34 53 63 30; e-mail: info@ogpoasia.com; website: www.ogpoasia.com.

Fujairah bunkering and fuel oil forum (FUJCON), March 13–15, 2023, Fujairah, UAE. Details: Conference Connection Administrators Pte Ltd, 105 Cecil Street #07–02, The Octagon, 069534 Singapore. Tel: +65 62 22 02 30; fax: +65 62 22 01 21; e-mail: info@cconnection.org; website: https://plattsinfo.spglobal.com/fujcon.html.

North Africa and Europe energy exhibition and conference, March 13–16, 2023, Barcelona, Spain. Details: Eurl Napec, Lotissement Said Hamdine, Cite 122/98 Logts AADL Bt A1, Et 1 Aprt 05 Bir Mourad Rais, 16013 Alger, Algeria. Tel: +213 55 04 68 898; fax: +213 77 07 094; e-mail: contact@napec-dz.com; website: www.naepec.com/Default.aspx?lg=en.

Gas and oil technology showcase and conference, March 13–15, 2023, Dubai, UAE. Details: Society of Petroleum Engineers, 10777 Westheimer, Suite #335, Houston, TX 77042, Tel: +1 713 779 9595; fax: +1 713 779 4216; e-mail: spehou@spe.org; website: www.gotech-dxb.com.

East Africa energy, oil and gas summit and exhibition, March 15–16, 2023, Nairobi, Kenya. Details: Global Event Partners Ltd, London Office, 20–22 Bedford Row, London WC1R 4JS, UK. Tel: +44 203 48 81 191; e-mail: enquiries@gep-events.com; website: https://eaogs.com.

Australasian oil and gas expo, March 15–17, 2023, Perth, Australia. Details: Diversified Exhibitions Australia, Level 5 636 St Kilda Rd, Melbourne VIC 3004, Australia. Tel: +61 3 92 61 45 00; fax: +61 3 92 61 45 45; e-mail: shows@divexhibitions.com.au; website: https://aogexpo.com.au.

Petroleum Istanbul, March 16–18, 2023, Istanbul, Türkiye. Details: Energy Fair Organization Inc., Bostanciyol CD. Martyrs SK, No: 44 34775 Ümraniye Y. Dudullu, Istanbul, Türkiye. Tel: +90 216 46 67 496; fax: +90 216 36 55 805; e-mail: petroleum@efo.com.t is; website: http://petroleumistanbul.com.tr/en.

Basra oil, gas and energy exhibition, March 16–19, 2023, Basra, Iraq. Details: Expotim, Fulya Mah. Vefa Deresi Sok, no:9 Sisli, Istanbul, Türkiye. Tel: +90 212 35 60 056; fax: +90 212 35 60 096; e-mail: info@expotim.com; website: https://basraoilandgas.com.

Gasification 2023, March 22–23, 2023, Munich, Germany. Details: Active Communications International, 5–13 Great Suffolk Street, 4th Floor, London SE1 0NS, UK. Tel +44 207 981 98 00; fax: +44 207 593 00 71; e-mail: claire@acieu.net; website: https://www.wplgroup.com/aci/

Oman downstream exhibition and conference, March 22–24, 2023, Muscat, Oman. Details: The World Refining Association, Bedford House, Fulham Green, 69–79 Fulham High Street, London SW6 3JW, UK. Tel: +44 207 38 48 013; fax: +44 207 38 47 843; e-mail: enquiry@wraconferences.co.uk; website: https://worldrefiningassociation.com/

European gas conference, March 27–29, 2023, Vienna, Austria. Details: The World Refining Association, Bedford House, Fulham Green, 69–79 Fulham High Street, London SW6 3JW, UK. Tel: +44 207 38 48 013; fax: +44 207 38 47 843; e-mail: enquiry@wraconferences.co.uk; website: https://energycouncil.com/event-events/european-gas-conference.

Gas ops roundtable, April 4–6, 2023, Madison, WI, US. Details: MEA Energy Association, 201 Massachusetts Avenue, NE, Suite C-4, Washington DC 20002, US. Tel: +1 202 464 2742; fax: +1 202 464 0246; website: www.meaenergy.org/education/gas/gas-ops-roundtable.

Renewable natural gas forum, April 4–6, 2023, Drummondville, QC, Canada. Details: 2828 Boul Laurier, Office 700, G1V 0B9 Québec, Canada. Tel: +1(418) 780-4001; website: https://rngforum.com.

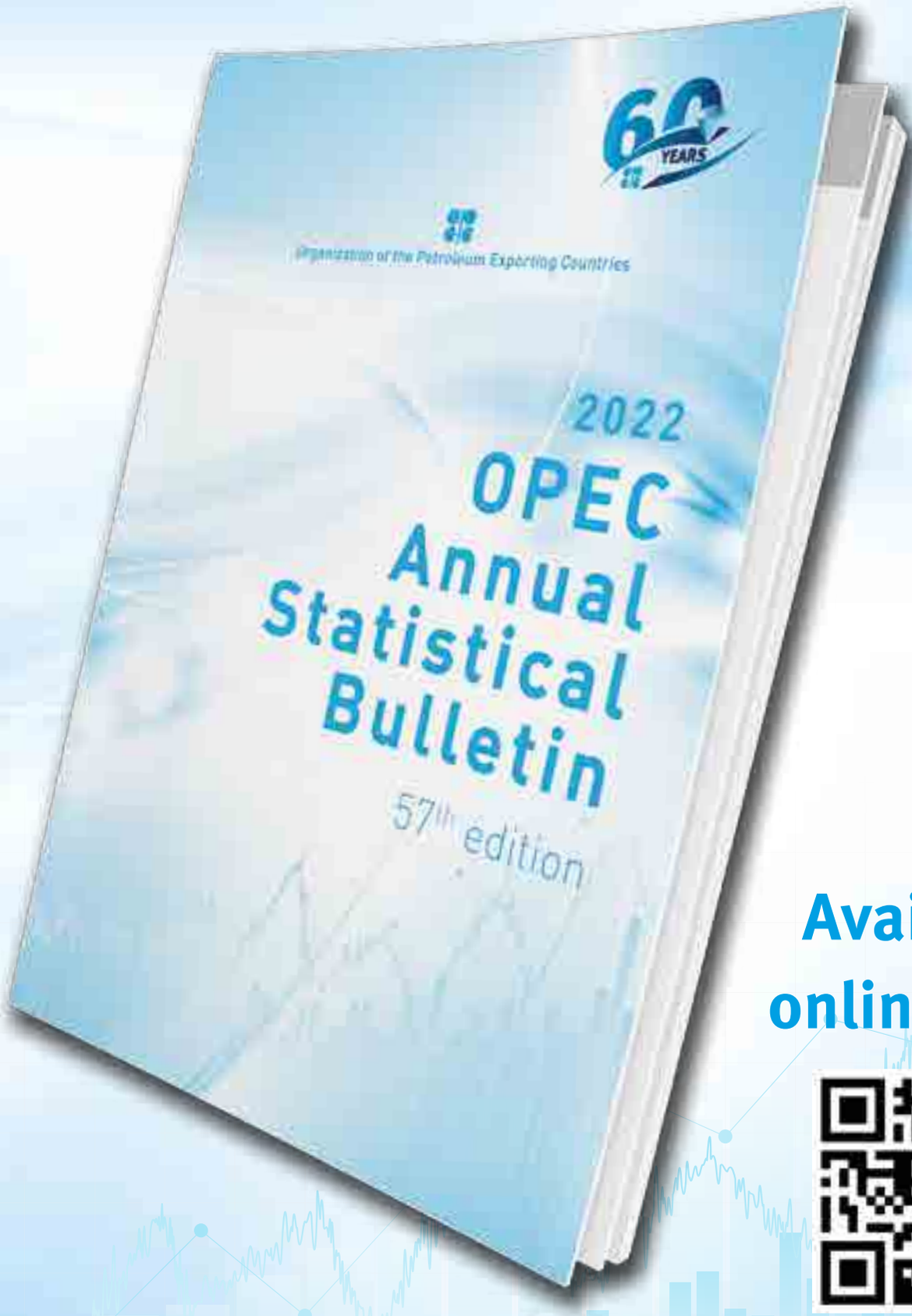
Atyrau oil and gas exhibition, April 5–7, 2023, Atyrau, Kazakhstan. Details: ITECA LLP, 42 Timiryazev str, BC 'World Trade Center Almaty', block C, 8th floor, 050057 Almaty, Kazakhstan. Tel: +7 (727) 258 34 34; e-mail: contact@iteca.kz; website: https://oil-gas.kz/en.

Africa investment exchange: energy in transition, April 17–18, 2023, RSA House, London. Details: https://africa-investment-exchange.com/events/aix-energy-in-transition-2023.

Expo gas, April 20, 2023, Kielce, Poland. Details: TARGI KIELCE SA, ul Zakładowa 1, 25-672 Kielce, Poland. Tel: +48 41 365 12 22; fax: +48 41 345 62 61; e-mail: biuro@targikielce.pl; website: www.targikielce.pl/en/expo-gas.

National oil and gas forum, April 25–27, 2023, Moscow, The Russian Federation. Details: Forum Organizing Committee. Tel: +7 (495) 640 34 64; e-mail: mail@oilandgasforum.ru; website: https://oilandgasforum.pro/en.

Digitalization in oil and gas Canada, April 26–27, 2023, Calgary, Canada. Details: Energy Conference Network, 1300 W Sam Houston Pkwy S Ste 100, Houston, TX, 77042, US. Tel: +1 (855) 869 4260; website: https://digitalizationoilandgas-canada.energyconferencenetwork.com.



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Monetary policies and their impact on the oil market

January 2023


Organization of the Petroleum Exporting Countries

OPEC Monthly Oil Market Report

17 January 2023

Monetary policies and their impact on the oil market

Feature article:

In early 2022, major central banks stepped up their monetary tightening measures in an effort to reign in increasing levels of inflation and recalibrate their overheating economies amid continued strong global economic growth. These tightening measures, in combination with the COVID-19 situation in China and the geopolitical developments in Eastern Europe, contributed to oil market volatility over the course of the year.

By the end of 1Q22, inflationary pressures forced many major central banks to become even more hawkish, most notably the US Fed, which had a considerable impact on oil markets as well. However, the trend in, and pace of, policies were not uniform in all countries.

The Bank of England raised rates by late 4Q21 and the US Federal Reserve (Fed) followed suit with an initial announcement to increase their policy rate beginning in 1Q22 and continued with more hikes until the year's end. Meanwhile, the European Central Bank (ECB) and the Bank of Japan maintained their accommodative rates for a longer period of time, in an effort to support markets and keep capitalization rates low.

These divergent monetary policies had three major results, namely, they:

1) strengthened the US dollar;
2) raised the average cost of capital; and
3) inverted the yield curve for short-to-long- term US bonds.

With regard to the first point, as most commodities are priced in US dollars, the appreciation of the US dollar, relative to other currencies, led to an increase in commodity prices, including oil. Additionally, the safe-haven appeal of the US dollar rose relative to other currencies amid the strong and rapid rise in US interest rates.

Additionally, the strengthening of the US dollar, along with the rapid monetary tightening by the US Fed, put upward pressure on non-US government bonds and increased bond market sell-offs outside the US, leading to some fragility in the global economy. Furthermore, the rise in US interest rates increased the cost of capital, hindering capital investment, notably in the oil industry. Moreover, high-interest rates weighed on investors' risk appetite and contributed to a decline in liquidity, which also affected the oil futures markets.

With regard to the third point, the rapid monetary tightening created an inverted yield curve in the US, with the consequence that short-term interest rates are higher than long-term interest rates. This is generally regarded as a warning sign that the US economy is likely to head into a recession in the coming months.

Emerging market economies also saw monetary policy divergences. China maintained its accommodative policy rates to sustain its economy. However, its economy continued to be challenged by the zero COVID-19 policy and the ongoing issues in the property and construction markets, which contributed to a y-o-y decline in oil demand for the country in 2022. Brazil raised interest rates early on, at a time when its economy received support from rising commodity prices. India resisted raising rates earlier in the year, providing a base for relatively strong economic growth in 2022, but then decided to lift rates by 2Q22. While oil demand in the country remained strong, inflation had a limited impact, as India benefited from discounted Russian crude oil imports.

By the end of 3Q22, monetary tightening policies were largely aligned across major central banks, with the exception of China and Japan. However, by year-end, Japan's central bank also became more hawkish in tightening its yield curve control measures. The extent to which monetary tightening will slow economic growth, particularly in advanced economies, and subsequently drag on oil demand in 2023 remains to be seen. In light of the ongoing challenges, OPEC and non-OPEC countries participating in the 'Declaration of Cooperation' will continue to coordinate their efforts to sustain a balanced and stable oil market in order to support healthy global economic growth.

MOMR ... oil market highlights

January 2023

Crude oil price movements — The OPEC Reference Basket (ORB) averaged $79.68/b in December, a drop of $10.05 m-o-m, or 11.2 per cent. The ICE Brent front-month fell $9.51, or 10.5 per cent, to average $81.34/b, and NYMEX WTI dropped by $7.87, or 9.3 per cent, to average $76.52/b. The Brent/WTI futures spread narrowed further m-o-m, contracting by $1.64 to average $4.82/b. The market structure of ICE Brent and NYMEX WTI weakened again as the first-to-third month spreads moved into contango in December. The combined futures and options net long positions of hedge funds and other money managers rose slightly in December compared to late-November's low levels for both ICE Brent and NYMEX WTI.

World economy — The world economic growth forecast for 2022 is revised up slightly to three per cent, given better-than-anticipated 2H22 economic performance in various key economies. The 2023 global economic growth forecast remained unchanged at 2.5 per cent. For the US, the economic growth forecast is revised up to two per cent for 2022 and one per cent for 2023. Similarly, the Euro-zone economic growth forecast is revised up to 3.2 per cent for 2022 and 0.4 per cent for 2023. Japan's economic growth forecast is revised down to 1.2 per cent for 2022, but remained at one per cent for 2023. China's economic growth forecasts remained unchanged at 3.1 per cent for 2022 and 4.8 per cent for 2023. India's economic growth forecast is revised up to 6.8 per cent for 2022 but remained at 5.6 per cent for 2023. Brazil's economic growth forecast is revised up to 2.8 per cent for 2022, but remained unchanged at one per cent for 2023. The 2022 economic growth forecast for Russia is revised up to a contraction of four per cent, followed by a small contraction of 0.5 per cent in 2023. Although growth momentum is expected to carry over into 2023, the world economy will continue navigating through many challenges, amid high inflation, monetary tightening by major central banks, and high sovereign debt levels in many regions. Moreover, geopolitical and COVID-19 related risks and uncertainties may add to the downside risk in a few selected economies.

World oil demand — The world oil demand forecast for 2022 is unchanged at 2.5m b/d. Oil demand is adjusted downward in the 3Q22, amid data showing a demand decline in the OECD and China, but non-OECD countries outside of China are revised higher. Similarly, world oil demand growth for 2023 is also unchanged at 2.2m b/d, with the OECD growing by 300,000 b/d and non-OECD at 1.9m b/d. This forecast remains surrounded by uncertainties including global economic developments, shifts in COVID-19 containment policies, and geopolitical tensions.

World oil supply — Non-OPEC liquids supply is estimated to expand by 1.9m b/d in 2022, unchanged from last month's assessment. Upward adjustments to liquids production in Russia and OECD Americas were largely offset by downward revisions to OECD Europe and OECD Asia Pacific. The main drivers of liquids supply growth for 2022 are the US, Russia, Canada, Guyana, China and Brazil, while production is expected to see the largest declines in Norway and Thailand. For 2023, non-OPEC liquids production growth remains unchanged from last month's assessment at 1.5m b/d. The main drivers of liquids supply growth are expected to be the US, Norway, Brazil, Canada, Kazakhstan and Guyana, while declines are forecast in Russia and Mexico. Nonetheless, large uncertainties remain over the impact of geopolitical developments, as well as expectations for US shale output in 2023. OPEC NGLs and non-conventional liquids are set to grow by 100,000 b/d in 2022 to average 5.4m b/d and by 50,000 b/d in 2023 to average 5.4m b/d. OPEC-13 crude oil production in December increased by 91,000 b/d m-o-m to average 28.97m b/d, according to available secondary sources.

Product markets and refining operations — Refinery margins weakened in all main trading hubs in December, as product availability continued to rise. The largest losses were in the Atlantic Basin, particularly from transport fuels, reflecting the easing tightness, especially in the middle section of the barrel. Similarly, in Asia, margins were pressured by elevated refinery runs and fuel supplies. This weighed on regional gasoil and jet/kero markets, despite the relaxation of China's zero COVID-19 policy and positive regional gasoline and residual fuel performance. Global refinery processing rates continued to rise in December, gaining nearly 700,000 b/d as refineries ramped up in line with seasonal trends. In the coming month, refinery intakes are expected to remain strong, as returning US capacity from the recent winter storm will likely offset the slight rise in offline capacity elsewhere.

Tanker market — Dirty freight rates in December fell from elevated levels as activities slowed ahead of seasonal holidays, with losses on almost all monitored routes. VLCCs on average showed the biggest decline, with spot freight rates on the Middle East-to-East route falling 31 per cent m-o-m. In the Suezmax class, dirty spot freight rates dropped 22 per cent on the US Gulf Coast to Europe route. Aframax rates saw the smallest decline, slipping around three per cent on the inter-Mediterranean route. In contrast, clean rates remained robust, up 50 per cent on the Middle East-to-East route and around 27 per cent higher in the Mediterranean. Continued tonnage demand amid ongoing trade dislocations kept clean tanker availability relatively tight.

Crude and refined products trade — US crude imports followed seasonal trends, falling to an eight-month low of 6.2m b/d in December. US crude exports remained above 4m b/d for the third-consecutive month. US product flows were broadly steady, despite a cold wave that shut-in US refineries and disrupted travel. Preliminary figures show crude imports into OECD Europe remaining at healthy levels through the end of the year, despite imports of Russian crude falling to near zero excluding flows to Turkey. OECD Europe product imports are also seen to be higher in anticipation of the impending February sanctions on Russian oil product imports. Japan's crude imports fell to a five-month low in November, averaging 2.6m b/d and marking the first y-o-y decline in 15-months. China's crude imports continued to recover in November, averaging 11.4m b/d, and preliminary data shows December flows remaining at similarly high levels. China's product exports jumped to the highest since June 2020, with diesel and gasoline outflows rising sharply. India's crude imports continued to recover from the 11-month low reached in September, averaging of 4.6m b/d in November. India's product imports rose to a seven-month high, driven by LPG flows which were the highest on record. Product exports picked up from a two-year low in the previous month, with gasoline leading gains.

Commercial stock movements — Preliminary November data sees total OECD commercial oil stocks up 2.7m b from the previous month. At 2,768m b, inventories were 26m b higher than the same month a year ago, 137m b lower than the latest five-year average and 173m b below the 2015–19 average. Within the components, crude stocks fell by 25.8m b, while product stocks rose m-o-m by 28.5m b. At 1,343m b, OECD crude stocks were 22m b higher than the same time a year ago, but 73m b lower than the latest five-year average and 108m b lower than the 2015–19 average. OECD product stocks stood at 1,425m b, representing a surplus of 4m b from the same time a year ago, but 63m b lower than the latest five-year average and 65m b below the 2015–19 average. In terms of days of forward cover, OECD commercial stocks rose m-o-m by 0.1 day in November to stand at 59.5 days. This is 0.3 days above levels seen in the same month last year, but 3.5 days less than the latest five-year average and 2.6 days lower than the 2015–19 average.

Balance of supply and demand — Demand for OPEC crude in 2022 remains broadly unchanged from the previous month's assessment to stand at 28.5m b/d. This is around 500,000 b/d higher than in 2021. Demand for OPEC crude in 2023 remained also unchanged from the previous assessment to stand at 29.2m b/d, which is 600,000 b/d higher than in 2022.

The feature article and oil market highlights are taken from OPEC's Monthly Oil Market Report (MOMR) for January 2023. Published by the Secretariat's Petroleum Studies Department, the publication may be downloaded in PDF format from our Website (www.opec.org), provided OPEC is credited as the source for any usage. The additional graphs and tables on the following pages reflect the latest data on the OPEC Reference Basket and crude and oil product prices in general.

Review of global oil demand trend

February 2023


Organization of the Petroleum Exporting Countries

OPEC Monthly Oil Market Report

14 February 2023

Feature article:
Review of global oil demand trend

Global oil demand in 2022 is estimated to have grown by 2.5 million barrels/day (m b/d), y-o-y, supported by solid economic activity from OECD and non-OECD countries other than China which saw a decline in its yearly oil requirements. However, the lifting of China's zero-COVID-19 policy in December 2022 is expected to support its oil demand in 2023. Meanwhile, the OECD is forecast to see somewhat slower oil demand increases this year, leading to forecast global oil demand growth in 2023 at 2.3 million barrels/day (m b/d), y-o-y.

In 2022, OECD oil demand increased by about 1.3m b/d, y-o-y, led by OECD Americas, which increased by about 700,000 b/d, y-o-y. In OECD Europe, oil demand grew by 500,000 b/d, y-o-y, while OECD Asia Pacific saw minor growth of 100,000 b/d, y-o-y. With regard to oil products in the OECD, jet/kerosene led demand growth, due to a recovery in airline activities, although overall demand remained 17 per cent below pre-pandemic levels in 2019. This was followed by LPG, which surpassed the pre-pandemic level by eight per cent, due to a strong petrochemical sector. Gasoil/diesel and gasoline also grew, almost reaching the pre-pandemic level, due to an improvement in economic activities and the transportation sector.

Oil demand in the non-OECD region grew by 1.3m b/d, y-o-y, with the Middle East contributing 500,000 b/d, and India and Other Asia each rising by close to 400,000 b/d, y-o-y. In terms of products, non-OECD demand growth was led by increases in gasoil/diesel, followed by gasoline and residual fuels. At the same time, jet kerosene declined slightly y-o-y. All product categories in the non-OECD region, except for jet kerosene, surpassed pre-pandemic levels.

Looking ahead, global oil demand is forecast to rise by 2.3m b/d in 2023, y-o-y. The OECD region's demand is projected to rise by around 400,000 b/d in 2023, still just below pre-pandemic levels in absolute volumes. OECD Americas is forecast to drive growth, while oil demand in OECD Europe and OECD Asia Pacific is projected to remain broadly unchanged, y-o-y. In the non-OECD, oil demand is forecast to grow by around 2.0m b/d, y-o-y, surpassing pre-pandemic levels for the second consecutive year. Demand is projected to be driven by China, Other Asia and the Middle East.

Globally, in terms of products, transportation fuels are expected to be the main drivers for oil demand. Consumption of both gasoline and diesel is forecast pre-pandemic levels and supported by expected continued growth in mobility amid an ongoing rebound in the services sector. Jet fuel demand is projected to continue its rebound, increasing by around 1.1m b/d y-o-y, as air travel continues to recover, both nationally and internationally, though it is forecast to remain nine per cent below pre-pandemic levels.

LPG growth is expected to slow, particularly in the OECD, up by 200,000 b/d y-o-y globally. Key to oil demand growth in 2023 will be the return of China from its mandated mobility restrictions and the effect this will have on the country, the region and the world. Concern hovers around the depth and pace of the country's economic recovery and the consequent impact on oil demand. Much will depend on how the government plans to manoeuvre the delicate balance of curbing COVID-19 infections versus opening up for business. Moreover, a number of global economic concerns — including the inflation levels, monetary tightening measures, sovereign debt levels, as well as geopolitical tensions — will weigh on global oil demand prospects. Amid this considerable challenge, it is important for the countries of the 'Declaration of Cooperation' (DoC) to continue coordinating efforts to support a balanced and stable oil market to help navigate these uncertainties.

MOMR ... oil market highlights

February 2023

Crude oil price movements — The OPEC Reference Basket (ORB) crude rose $1.94, or 2.4 per cent, m-o-m in January to average $81.62/b. The ICE Brent front-month increased by $2.57, or 3.2 per cent, to average $83.91/b, and NYMEX WTI rose by $1.64, or 2.1 per cent, to average $78.16/b. The Brent/WTI futures spread widened m-o-m, rising by 93¢ to average $5.75/b. The market structure of ICE Brent strengthened in January, and the first-to-third month spread flipped into backwardation. However, the forward curve of NYMEX WTI weakened further, and the first-to-third month spread moved into deeper contango. Hedge funds and other money managers raised their combined futures and options net long positions in January in both ICE Brent and NYMEX WTI, compared to December's low levels.

World economy — The world economic growth forecast for 2022 is revised up slightly to 3.1 per cent, given the better-than-anticipated 2H22 economic performance in various key economies. The 2023 global economic growth forecast is also revised up slightly to 2.6 per cent with some of the 2H22 momentum carrying over into 2023. For the US, the economic growth forecast is revised up to 2.1 per cent for 2022 and 1.2 per cent for 2023. Similarly, the Euro-zone's economic growth is revised up to 3.5 per cent for 2022 and 0.8 per cent for 2023. Japan's economic growth forecast remains at 1.2 per cent for 2022, but is revised up to 1.2 per cent for 2023. China's economic growth forecast for 2022 is revised down to three per cent, but is revised up to 5.2 per cent for 2023. India's economic growth forecast remains unchanged at 6.8 per cent for 2022 and 5.6 per cent for 2023. Brazil's economic growth forecast remains at 2.8 per cent for 2022 and is also unchanged at one per cent for 2023. The 2022 economic growth forecast for Russia is revised up to a contraction of 3.5 per cent, followed by a small contraction of 0.5 per cent in 2023, unchanged from last month. While principally the current economic momentum provides a good base for this year's growth, a slowing dynamic for the year is still likely with inflation remaining high and further lifts in key interest rates, particularly in the Euro-zone. The world economy will continue to navigate through numerous challenges including high sovereign debt levels in many regions and geopolitical developments.

World oil demand — The world oil demand growth forecast for 2022 remains unchanged from last month's assessment at 2.5m b/d. The OECD demand in 4Q22 was adjusted downward to reflect the latest data but non-OECD demand in 4Q22 was revised higher due to improvements in economic activity in some countries and a slight recovery in oil demand in China after the lifting of its zero-COVID-19 policy. For 2023, world oil demand growth is adjusted slightly upwards by 100,000 b/d to stand at 2.3m b/d. The OECD is projected to grow by around 400,000 b/d and non-OECD at about 2.0m b/d.

World oil supply — Non-OPEC liquids supply is estimated to have grown by 1.9m b/d in 2022, broadly unchanged from the previous assessment. Downward revisions to Other Eurasia, OECD Europe and Other Asia were largely offset by upward revisions to liquids production in Russia. The main drivers of liquids supply growth for 2022 are seen to be the US, Russia, Canada, Guyana, China and Brazil, while the largest declines are expected from Norway and Thailand. For 2023, non-OPEC liquids production growth is revised slightly down by 100,000 b/d from last month and is forecast to grow by 1.4m b/d. The main drivers of liquids supply growth are expected to be the US, Norway, Brazil, Canada, Kazakhstan and Guyana, while declines are forecast in Russia and Mexico. Nevertheless, large uncertainties remain over the impact of ongoing geopolitical developments, as well as US shale output in 2023. OPEC NGLs and non-conventional liquids are forecast to grow by 100,000 b/d in 2022 to average 5.39m b/d and by 50,000 b/d to average 5.44m b/d in 2023. OPEC-13 crude oil production in January decreased by 49,000 b/d m-o-m to average 28.88m b/d, according to available secondary sources.

Product markets and refining operations — Refinery margins reversed trends in January and strengthened substantially in all main trading hubs, with sizeable margin gains registered, particularly in the Atlantic Basin, backed by a firm recovery in gasoline's performance. In the US, a drop in jet/kerosene inventories drove up that products' crack spread, to become the largest margin contributor across the barrel, followed by gasoline. In Europe, robust gasoline exports to the US, amid stronger product buying interest within the region ahead of the 5th of February sanctions on Russian products, supported the products market, particularly at the top section of the barrel. In Asia, the recent lifting of COVID-19 restrictions in China, the boost in transport activity around the Chinese Lunar New Year holidays, the improvement in petrochemical activities and unplanned refinery outages in the country have all contributed to significant support for Asian naphtha and gasoline markets despite losses at the bottom of the barrel.

Tanker market — Dirty freight rates continued the previous month's decline in January, with m-o-m losses across all monitored routes. Rates slipped from elevated levels, after having been being pushed higher in previous months amid concerns about potential disruptions due to sanctions on Russian crude. However, the upward pressure eased as crude trade flows have largely adjusted ahead of the implementation of sanctions and as Russian crude was seen trading below price cap levels. VLCCs rates on the Middle East-to-East route declined 36 per cent m-o-m in January, while Suezmax rates on the US Gulf-to-Europe route dropped 37 per cent over the same period. Aframax rates on the Indonesia-to-East route gave up the gains seen in the previous month, declining 19 per cent. Clean rates fell for the first time since October, down 42 per cent East of Suez and 52 per cent West of Suez. Some of the downward pressure was due to many ship owners choosing to forego carrying Russian cargos ahead of sanctions, limiting demand for their tankers.

Crude and refined products trade — Preliminary data shows US crude imports hitting a three-year high in January, averaging 6.6m b/d. US crude exports fell back to 3.6m b/d in January, after remaining around 4m b/d over the previous three months. Japan's crude imports hit a five-month high in December, averaging just under 3.0m b/d. Japan's product imports, including LPG, recorded an 11-month high in December, driven by inflows of heating fuel. China's crude imports were steady in December, averaging 11.4m b/d. China's import of Russian crude remained broadly unchanged, while strong m-o-m increases were seen from Malaysia, the United Arab Emirates (UAE) and Iraq. Product exports from China strengthened further in December to reach the highest since April 2020, with gasoline, gasoil and jet fuel outflows increasing sharply. India's crude imports were broadly stable m-o-m in December, averaging 4.6m b/d. India's product imports continued to edge higher in December to stand at a 22-month high of 1.2m b/d, as a jump in fuel oil inflows outweighed declines in gasoline and LPG. India's product exports surged 31 per cent m-o-m to a nine-month high, with gains seen across the barrel. Estimates show OECD crude imports broadly stable y-o-y in January, despite a sharp drop in pipeline flows, while refined product exports were higher over the same period.

Commercial stock movements — Preliminary December data sees total OECD commercial oil stocks down 10.9m b from the previous month. At 2,768m b, inventories were 117m b higher than the same month a year ago, 95m b lower than the latest five-year average and 158m b below the 2015–19 average. Within the components, crude stocks rose by 5.2m b, while product stocks fell m-o-m by 16.2m b. At 1,344m b, OECD crude stocks were 72m b higher than the same time a year ago, but 36m b lower than the latest five-year average and 83m b lower than the 2015–19 average. OECD product stocks stood at 1,424m b, representing a surplus of 45m b from the same time in the previous year, but 59m b lower than the latest five-year average and 75m b below the 2015–19 average. In terms of days of forward cover, OECD commercial stocks rose m-o-m by 0.3 day in December to stand at 60.1 days. This is 2.2 days above levels seen in the same month last year, but 2.5 days less than the latest five-year average and 2.3 days lower than the 2015–19 average.

Balance of supply and demand — Demand for OPEC crude in 2022 remains unchanged from the previous month's assessment to stand at 28.6m b/d. This is around 500,000 b/d higher than in 2021. Demand for OPEC crude in 2023 is revised up by 200,000 b/d from the previous assessment to stand at 29.4m b/d, which is 800,000 b/d higher than in 2022.

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Table 1: OPEC Reference Basket spot crude prices $/b

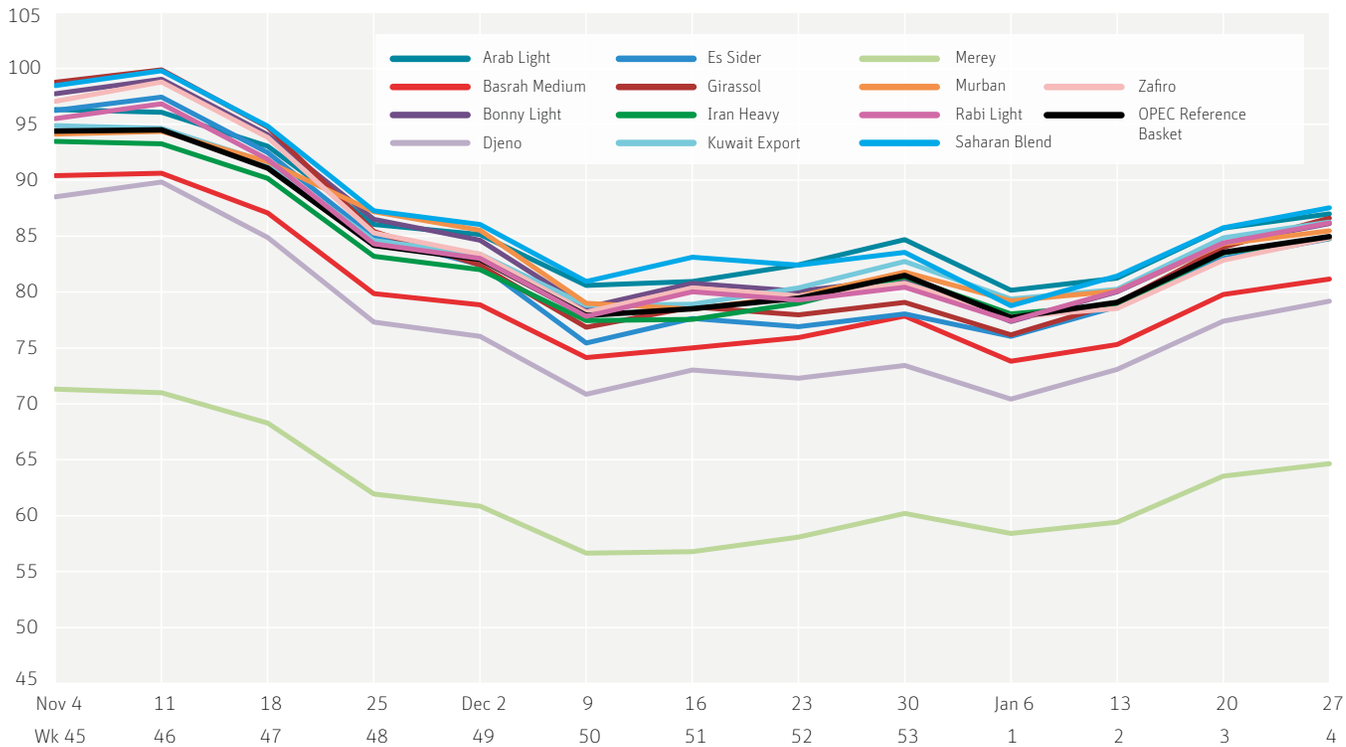
Crude/Member Country	2022 Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	2023 Jan	Weeks 53/2022–4/2023 (wk end) Dec 30	Jan 6	Jan 13	Jan 20	Jan 27
Arab Light — Saudi Arabia	86.15	93.82	112.99	107.24	116.44	117.27	108.98	104.89	99.33	96.20	91.58	82.44	83.80	84.68	80.15	81.25	85.72	86.98
Basrah Medium — Iraq	83.80	92.44	112.21	104.63	111.91	115.56	105.36	97.66	91.16	89.45	85.66	76.07	77.82	77.84	73.81	75.30	79.78	81.17
Bonny Light — Nigeria	86.85	98.76	120.68	106.39	115.07	125.22	117.58	106.08	95.73	95.02	92.84	80.69	82.36	81.19	77.37	80.03	84.34	86.12
Djeno — Congo	79.16	90.56	111.30	96.92	105.68	116.11	105.18	92.17	82.37	85.66	83.65	72.93	75.41	73.43	70.42	73.08	77.39	79.17
Es Sider — Libya	86.16	98.06	117.90	104.42	113.18	124.96	114.03	101.17	90.47	93.91	91.25	77.53	81.01	78.03	76.02	78.68	82.99	84.77
Girassol — Angola	88.28	100.78	121.58	105.28	113.95	127.03	119.15	105.99	92.26	95.61	92.76	78.69	82.05	79.08	76.17	79.01	84.00	86.62
Iran Heavy — IR Iran	85.59	93.04	112.40	106.28	115.48	115.85	107.63	102.24	97.18	93.21	88.73	79.11	81.56	81.36	78.03	78.89	83.48	84.78
Kuwait Export — Kuwait	86.28	93.84	113.28	107.46	116.82	117.26	109.19	103.82	98.69	94.72	90.13	80.46	82.94	82.72	79.38	80.24	84.84	86.25
Merey — Venezuela	63.58	71.02	88.12	83.40	88.07	92.25	84.72	80.03	73.70	71.56	66.94	58.17	61.74	60.20	58.40	59.40	63.52	64.64
Murban — UAE	85.11	94.18	112.48	104.48	109.97	117.53	105.97	98.04	92.45	93.54	90.90	80.17	82.53	81.79	79.21	80.11	84.30	85.47
Rabi Light — Gabon	86.15	97.55	118.29	103.91	112.67	123.10	112.17	99.16	89.36	92.65	90.64	79.92	82.40	80.42	77.41	80.07	84.38	86.16
Saharan Blend — Algeria	88.21	100.71	121.80	109.37	115.28	128.31	115.83	104.22	92.72	95.66	93.60	83.03	83.76	83.53	78.77	81.43	85.74	87.52
Zafiro — Equatorial Guinea	87.28	99.51	120.50	105.71	115.25	127.10	116.60	103.50	90.72	93.61	92.12	80.28	81.29	80.78	77.77	78.53	82.84	84.82
OPEC Reference Basket	**85.24**	**93.95**	**113.48**	**105.64**	**113.87**	**117.72**	**108.55**	**101.90**	**95.32**	**93.62**	**89.73**	**79.68**	**81.62**	**81.47**	**77.71**	**79.08**	**83.53**	**84.94**

Table 2: Selected spot crude prices $/b

Crude/country	2022 Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	2023 Jan	Weeks 53/2022–4/2023 (wk end) Dec 30	Jan 6	Jan 13	Jan 20	Jan 27
Arab Heavy — Saudi Arabia	85.28	92.78	112.13	106.21	115.53	115.91	107.84	101.95	96.89	93.12	88.58	78.51	79.56	80.77	76.03	76.89	81.49	82.79
Brega — Libya	86.26	98.31	118.15	105.27	114.03	125.96	114.53	101.52	90.52	93.81	91.50	77.93	81.41	78.43	76.42	79.08	83.39	85.17
Brent Dtd — North Sea	86.61	98.01	118.75	104.37	113.13	123.56	112.63	99.62	89.82	93.11	91.10	80.38	82.86	80.88	77.87	80.53	84.84	86.62
Dubai — UAE	83.34	92.11	110.49	102.91	107.83	112.89	102.87	96.33	90.98	91.04	86.12	77.09	80.75	79.54	77.08	78.04	82.59	84.01
Ekofisk — North Sea	89.37	101.34	123.27	107.22	117.46	130.39	120.37	105.29	93.02	96.02	94.32	83.22	85.67	84.03	80.97	83.36	87.49	89.27
Iran Light — IR Iran	85.19	95.38	117.33	102.40	107.82	118.61	106.76	92.07	82.45	86.95	85.71	73.42	76.79	73.81	70.74	74.31	78.94	81.10
Isthmus — Mexico	79.55	89.68	107.42	100.40	108.32	113.85	100.47	89.09	81.44	83.57	79.26	67.48	68.82	69.73	63.82	66.76	71.45	71.76
Oman — Oman	83.62	92.03	110.96	102.40	107.32	112.93	103.22	96.97	90.80	90.80	86.15	77.43	80.87	79.50	77.48	78.24	82.89	84.06
Suez Mix — Egypt	85.06	95.25	117.20	102.27	107.69	118.48	106.63	91.94	82.32	86.82	85.58	73.29	76.66	73.68	70.61	74.18	78.81	80.97
Minas — Indonesia	82.96	92.25	111.23	103.44	109.79	115.06	103.01	95.39	88.91	91.06	89.21	79.14	81.57	81.08	78.76	79.04	82.98	84.38
Urals — Russia	86.23	94.94	92.59	72.55	81.18	91.61	85.32	77.34	68.63	70.54	67.98	52.23	52.21	49.66	47.79	49.30	53.73	56.59
WTI — North America	83.16	91.70	108.52	101.77	109.86	114.36	100.25	91.57	84.00	87.26	84.15	76.50	78.19	79.29	74.30	77.08	80.23	80.31

Notes:
Brent for dated cargoes; Urals cif Mediterranean. All others fob loading port.
Sources: Argus; Secretariat's assessments.

Graph 1: Evolution of the OPEC Reference Basket spot crude prices, 2022–23 $/b



Graph 2: Evolution of selected spot crude prices, 2022–23 $/b

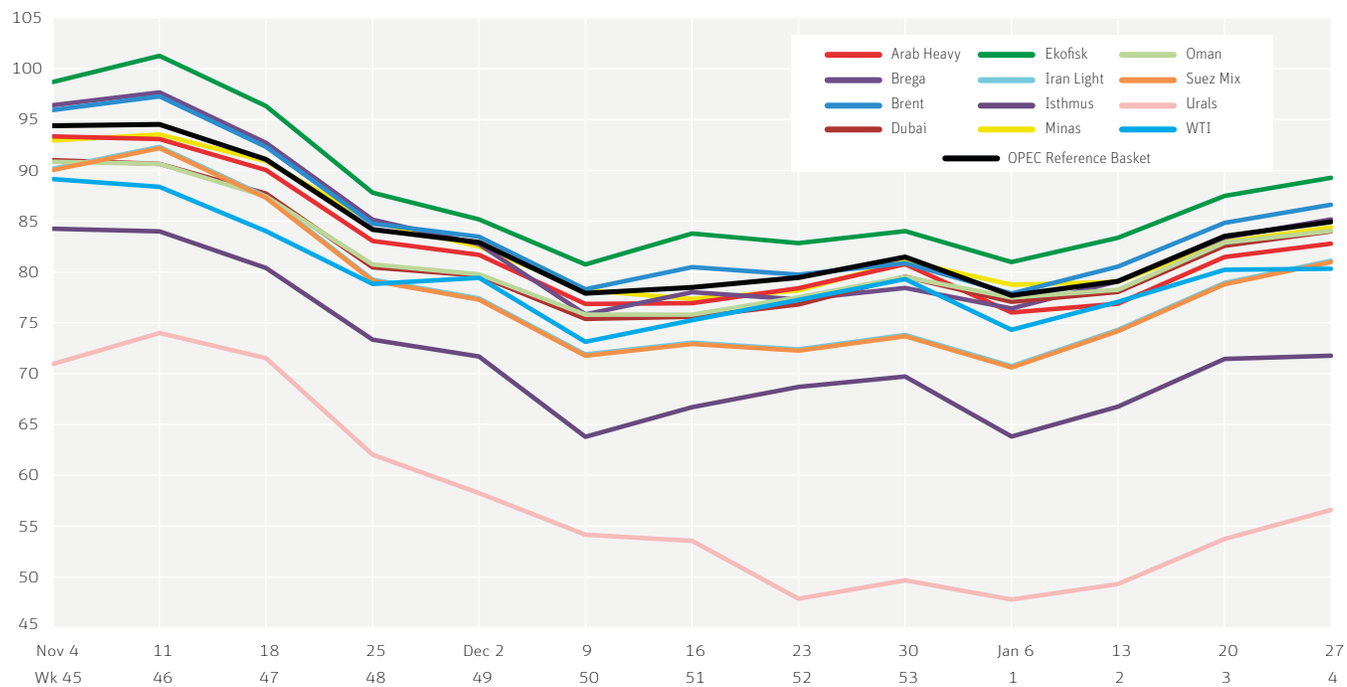


Table and Graph 3: North European market — spot barges, fob Rotterdam

$/b

		naphtha	regular gasoline unleaded	diesel ultra light	jet kero	fuel oil 1 per cent S	fuel oil 3.5 per cent S
2022	January	85.91	102.47	101.51	101.18	82.97	73.18
	February	95.37	114.12	110.60	112.77	90.83	78.59
	March	111.98	134.95	152.33	156.48	109.70	95.07
	April	100.31	133.44	156.07	151.46	97.60	89.20
	May	98.23	166.14	160.81	152.37	100.66	95.41
	June	88.76	188.54	178.57	179.29	100.23	89.69
	July	84.65	158.02	147.64	153.29	89.26	70.77
	August	72.98	137.45	143.04	143.00	90.31	75.00
	September	69.03	124.73	135.02	139.42	82.58	62.10
	October	74.30	137.02	139.35	162.90	82.06	59.29
	November	73.87	127.89	132.26	134.93	74.32	60.78
	December	65.57	110.33	121.12	120.72	64.77	55.92
2023	January	76.21	123.20	129.05	124.90	68.38	59.39

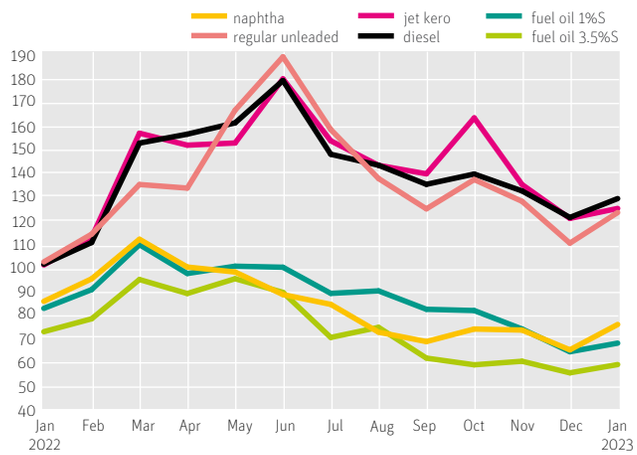


Table and Graph 4: South European market — spot cargoes, fob Italy

$/b

		naphtha	premium gasoline 50ppm	diesel ultra light	fuel oil 1 per cent S	fuel oil 3.5 per cent S
2022	January	84.89	98.09	101.29	85.58	72.09
	February	93.90	109.76	112.16	92.31	77.06
	March	110.29	130.57	155.32	114.69	93.45
	April	97.78	128.46	150.56	104.14	87.17
	May	94.86	151.69	151.88	106.96	91.99
	June	83.67	173.11	177.45	107.04	85.70
	July	82.14	141.78	145.03	95.58	70.58
	August	70.39	114.86	135.92	96.88	71.03
	September	67.00	101.21	134.05	89.44	51.18
	October	71.14	111.60	151.41	89.45	56.62
	November	70.34	115.35	133.06	80.64	57.73
	December	60.68	93.46	116.22	71.36	52.97
2023	January	73.95	102.57	126.21	74.50	54.67

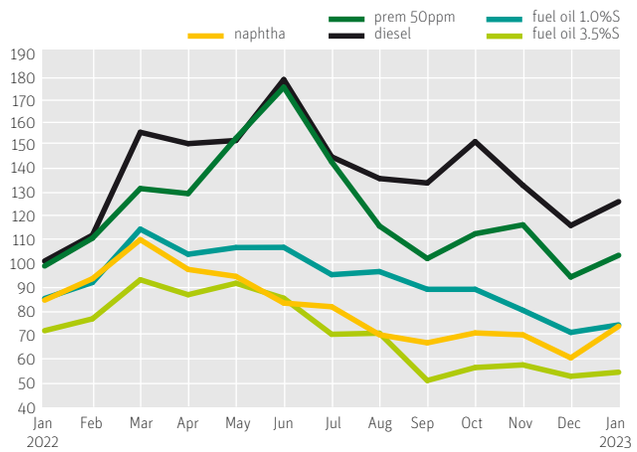
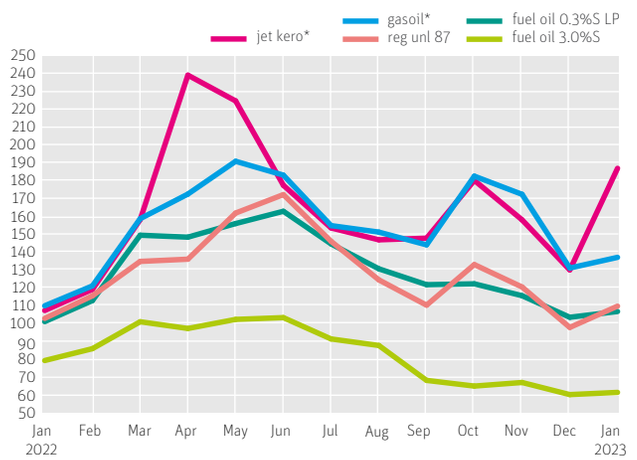


Table and Graph 5: US East Coast market — spot cargoes, New York

$/b, duties and fees included

		regular gasoline unleaded 87	gasoil*	jet kero*	fuel oil 0.3 per cent S	fuel oil 3.0 per cent S
2022	January	102.81	109.86	107.23	101.02	79.27
	February	115.43	121.00	119.03	112.79	85.91
	March	134.68	158.55	158.01	149.32	100.95
	April	135.92	172.32	238.78	148.24	97.19
	May	161.70	190.63	224.38	155.83	102.26
	June	172.02	182.90	177.23	162.70	103.26
	July	145.90	154.69	153.38	144.45	91.34
	August	124.36	151.06	146.74	130.55	87.69
	September	110.22	143.93	147.65	121.67	68.18
	October	132.91	182.33	179.98	122.15	65.00
	November	120.38	172.17	157.91	115.52	67.01
	December	97.78	130.99	129.90	103.45	60.24
2023	January	109.67	136.95	186.70	106.68	61.47



* *FOB barge spot prices.*

Source: Argus. Prices are average of available days.

Table and Graph 6: Singapore market – spot cargoes, fob

$/b

		naphtha	premium gasoline unl 95	premium gasoline unl 92	gasoil	jet kero	fuel oil 180 Cst	fuel oil 380 Cst
2022	January	84.56	98.04	96.18	97.84	97.43	95.78	72.97
	February	95.75	110.72	108.26	109.91	109.24	106.17	79.78
	March	111.42	131.07	127.47	138.51	136.25	134.32	97.61
	April	97.75	126.73	123.45	139.18	137.21	134.35	102.47
	May	95.76	146.88	140.99	145.08	143.96	142.90	96.91
	June	85.72	155.10	148.86	168.61	168.56	164.40	91.26
	July	82.70	121.56	116.35	136.82	136.22	134.90	72.69
	August	72.64	110.57	107.25	134.09	133.62	132.39	73.78
	September	68.09	97.45	93.79	124.87	124.55	120.92	59.20
	October	71.86	94.78	91.16	134.61	133.96	123.40	56.57
	November	74.22	98.27	93.11	125.91	125.41	121.01	60.78
	December	66.41	89.40	85.36	112.41	110.54	110.54	55.56
2023	January	72.52	98.83	95.49	113.98	111.94	115.07	57.98

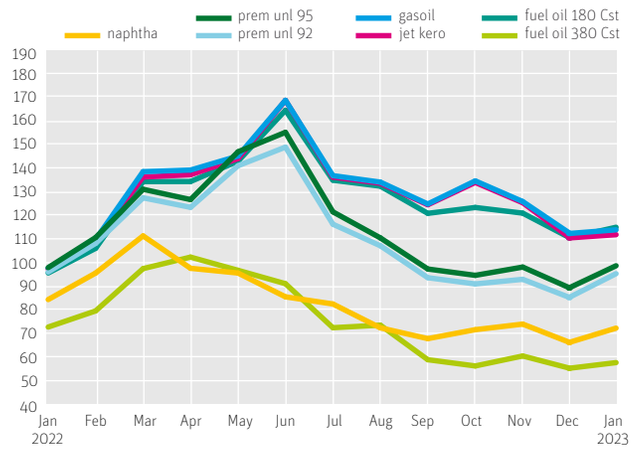
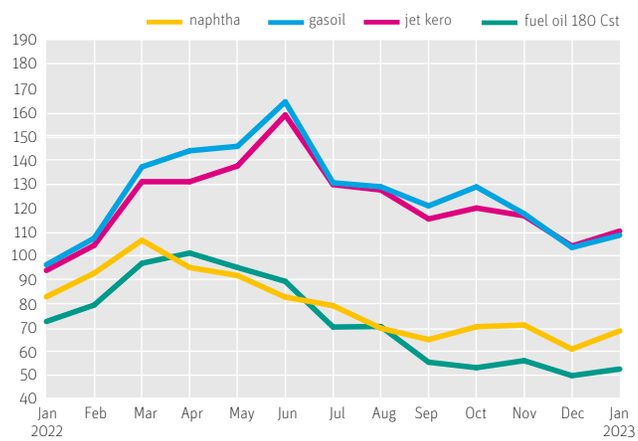


Table and Graph 7: Middle East Gulf market – spot cargoes, fob

$/b

		naphtha	gasoil	jet kero	fuel oil 180 Cst
2022	January	82.69	96.06	93.69	72.39
	February	92.53	107.14	104.15	79.25
	March	106.28	136.88	130.70	96.67
	April	94.92	143.61	130.70	100.96
	May	91.59	145.46	137.27	94.91
	June	82.56	164.03	158.55	89.14
	July	79.01	130.25	129.49	70.09
	August	69.59	128.58	127.26	70.31
	September	64.83	120.62	115.16	55.41
	October	70.20	128.57	119.73	53.12
	November	70.93	117.34	116.48	56.07
	December	60.88	103.25	103.86	49.80
2023	January	68.47	108.38	110.11	52.57

Source: Argus. Prices are average of available days.



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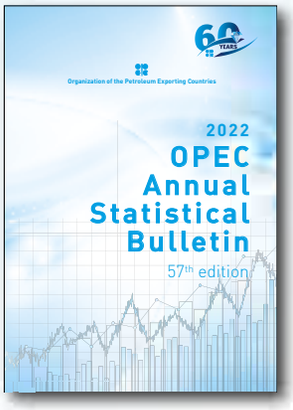

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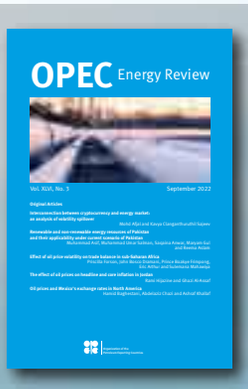

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