OPEC bulletin

12/21–1/22

Haitham Al-Ghais appointed next OPEC Secretary General

OPEC

Monthly Oil Market Report

Download
the OPEC MOMR App free of charge!

- **Essential information on the oil market**
- **100+ interactive articles and tables detailing crude price movements, oil futures, prices and much more**
- **Analysis of the world economy, world oil supply and demand**
- **Compare data interactively and maximize information extraction**

Cooperation and community: OPEC's watchwords for 2022

The third of January 2022 was a significant date for several reasons. Not only was it notable for being the third day of the third year of the third decade of the 21st century, but OPEC convened significant meetings on the first working day of the year. By holding a Special Meeting of the OPEC Conference and a meeting of the Joint Technical Committee, as well as the 36th Meeting of the Joint Ministerial Monitoring Committee and the 24th Meeting of the OPEC and Non-OPEC Ministers on January 4, Participating countries gave a clear signal of their determination to continue the important work of contributing to oil market stability and consequently, a recovery in global economic growth.

The general trajectory of the year 2021 was one of global economic recovery and relative stability in the oil market. Indeed, the oil market avoided the turbulence seen in some other energy markets. The steady and dependable hand that the DoC provided was critical in this regard. The careful deliberations undertaken every month allowed participating countries to review market conditions, analyze current trends and take action accordingly.

Another significant outcome from the Special Meeting of the OPEC Conference was the decision by acclamation to appoint Haitham Al-Ghais of Kuwait as Secretary General of the Organization, with effect from August 1, 2022, for a period of three years. As current OPEC Secretary General, Mohammad Sanusi Barkindo noted in his letter of congratulations to Al-Ghais,

> *"From my time working collaboratively with you as Kuwait's Governor for OPEC, I know you have a great understanding of the organs and internal workings of the Organization. This will stand you in good stead and will be a great knowledge platform for when you assume the Secretary General's responsibilities."*

In its decision, the Conference expressed its appreciation to Barkindo for his leadership during his two-term tenure as Secretary General beginning on August 1, 2016. This was also underscored in a tweet from the UAE's longstanding Minister of Energy and Infrastructure, Suhail Mohamed Al Mazrouei, who said: "We also thank Brother Mohammad Barkindo, the current Secretary General of OPEC, for his fruitful efforts that led the Organization to achieve success and stability in global markets during the past years, especially at the time of the global challenges to combat the pandemic." There will be an event later in the year to celebrate Barkindo's tenure and legacy; an expression of gratitude for all he has accomplished as Secretary General.

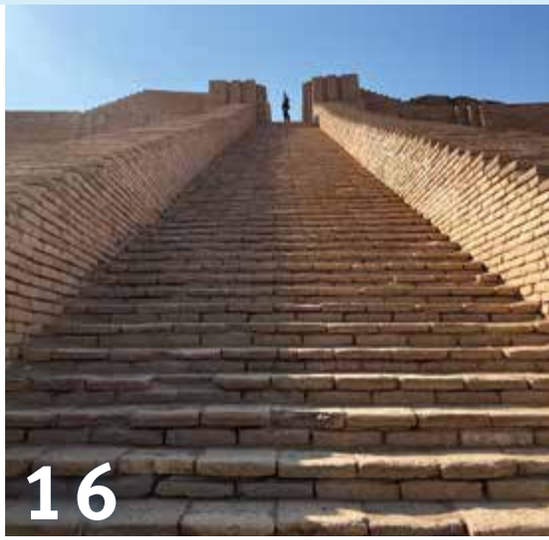
With regards to market fundamentals, there are grounds for optimism in 2022. Participating countries have carefully navigated the challenging circumstances prompted by the pandemic and ensured the market enjoys greater balance than the difficult period in April 2020. While uncertainties remain, particularly with regard to mutations in the coronavirus, the ongoing vaccination rollout and recovery in the global economy suggests oil demand will continue to expand in the year ahead.

As with previous years, 2022 will also be a year OPEC attaches tremendous importance to its dialogue with other stakeholders in the energy industry. This is particularly manifest through the activities under the DoC umbrella and OPEC's International Dialogues. The conclusion of 2021 saw the Fifth High-Level Meeting of the OPEC-China Energy Dialogue. The Meeting underscored the importance of multilateralism, dialogue and international cooperation at all levels to help overcome market challenges, as well as evolve future opportunities. The Meeting also stressed the benefits of sharing data, research and views on various key issues related to energy and technology advancement. It is intended to hold meetings under the EU-OPEC Energy Dialogue; the OPEC-Russia Energy Dialogue; the OPEC-China Energy Dialogue; the OPEC-India Energy Dialogue; the Technical Meeting on Asian Energy and Oil Outlook; the OPEC-US Dialogue and the OPEC-Africa Energy Dialogue in 2022.

Undoubtedly, a busy year lies ahead of us. However, participating countries have developed the volatility fighting-toolkit and a sense of community spirit that will enable them to respond to any challenges ahead. In this manner, they intend to sustain the optimism and hope that the dawning of a New Year brings throughout 2022.

With this, the *OPEC Bulletin* wishes all of its readers a happy, healthy and successful New Year.

Contents



OPEC bulletin

Cover

This month's cover shows the current OPEC Secretary General, Mohammad Sanusi Barkindo (r), and OPEC Secretary General designate, Haitham Al-Ghais (l) (see story on page 12).

Vol LIII, No 1, December 2021/January 2022, ISSN 0474–6279

Publishers

OPEC
Organization of the Petroleum Exporting Countries
Helferstorferstraße 17
1010 Vienna
Austria
Telephone: +43 1 211 12/0
Telefax: +43 1 216 4320
Contact: Editor-in-Chief, OPEC Bulletin
Fax: +43 1 211 12/5081
E-mail: prid@opec.org
Website: www.opec.org

Website: www.opec.org

Visit the OPEC website for the latest news and information about the Organization, and for back issues of the *OPEC Bulletin,* which are available free of charge in PDF format.

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.

Secretariat officials
Secretary General
Mohammad Sanusi Barkindo
Director, Research Division
Dr Ayed S Al-Qahtani
Head, PR & Information Department
Hasan Hafidh
Head, Finance & Human Resources Department
Jose Luis Mora
Head, Administration & IT Services Department
Abdullah Alakhawand
Head, Energy Studies Department
Dr Abderrezak Benyoucef
Head, Petroleum Studies Department
Behrooz Baikalizadeh
General Legal Counsel
Leonardo Sempértegui Vallejo
Head, Data Services Department
Ms Boshra Alseiari
Head, Office of the Secretary General
Shakir Mahmoud A Alrifaiey

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.

Editorial policy
The *OPEC Bulletin* is published by the OPEC Secretariat (Public Relations and Information Department). The contents do not necessarily reflect the official views of OPEC or its Member Countries. Names and boundaries on any maps should not be regarded as authoritative. The OPEC Secretariat shall not be held liable for any losses or damages as a result of reliance on and/or use of the information contained in the *OPEC Bulletin*. Editorial material may be freely reproduced (unless copyrighted), crediting the *OPEC Bulletin* as the source. A copy to the Editor would be appreciated.

Editorial staff
Chairman of the Editorial Board
Mohammad Sanusi Barkindo, Secretary General
Editor-in-Chief
Hasan Hafidh, Head, PR & Information Department
Editor
Mathew Quinn
Associate Editors
James Griffin, Maureen MacNeill, Scott Laury, Timothy Spence
Contributors
Ayman Almusallam
Production
Diana Lavnick
Design and layout
Carola Bayer, Tara Starnegg
Photographs (unless otherwise credited)
Herwig Steiner, Wolfgang Hammer
Distribution
Mahid Al-Saigh

Indexed and abstracted in PAIS International

Printed in Austria

OPEC Conference commemorates historic events

Dr Diamantino Pedro Azevedo, Angola's Minister of Mineral Resources and Petroleum, and President of the Conference in 2021.

The 182nd Meeting of the OPEC Conference took place on December 1, 2021, capping a year marked by a significant oil market rebound but still shrouded in uncertainty.

Meeting by videoconference for the fourth time, the OPEC Conference paused to reflect on the Organization's significant achievements and the accomplishments of the OPEC and the non-OPEC countries participating in the 'Declaration of Cooperation' (DoC).

The Conference took place five years after a series of events that led to DoC, which has been widely credited for helping to restore balance and stability to the market since the onset of the pandemic. This series of events began with 'Algiers Agreement' at the 170th Meeting of the OPEC Conference on September 28, 2016, and was followed by the 'Vienna Agreement' at the 171st Meeting of the OPEC Conference on November 30, 2016. These decisions paved the way for the

Conference President praises OPEC and non-OPEC countries in the 'Declaration of Cooperation' (DoC) for their five years of achievements, and calls for continued unity and vigilance going forward.

Member Country delegates attending the 182nd Meeting of the OPEC Conference via videoconference.

signing of the DoC in Vienna on December 10, 2016, by OPEC Member Countries and ten non-OPEC oil-producing countries.

Dr Diamantino Pedro Azevedo, Angola's Minister of Mineral Resources and Petroleum and President of the Conference in 2021, drew a page from OPEC history in his opening remarks.

"Five years ago, the 171st Meeting of this Conference gave its unanimous support to joining with ten non-OPEC oil-producing countries in the Declaration of Cooperation — one of the boldest experiments in the 150-year history of oil," Azevedo said.

"Not all of us were present at these meetings," he continued. "But all of us here today are witnesses to the astonishing success of this unique framework. Together, we set in motion two of the industry's greatest market stabilization efforts, first to address the supply-driven downturn in 2015 and 2016, and then the demand crash at

the onset of the COVID-19 pandemic — a downturn with no precedent in modern times."

A 'trusted and proven relationship'

Since the oil market took a historic dive in April 2020, the OPEC President said: "This trusted and proven relationship has worked without pause to stimulate and accelerate market stability and balance — and to support the global economy through lockdowns, ups and downs, and long periods of uncertainty."

Azevedo also thanked the OPEC Secretariat "for the consistent quality and timeliness of the research, analysis and other services they provide to our Member Countries, and for the outstanding technical support that makes our meetings possible."

The OPEC Conference took place in the midst of a serious new wave of COVID-19 in the Secretariat's host country, with lockdown measures in place in Vienna and across Austria to curb surging infections. The virtual meeting also took place just days after the discovery of a new variant, Omicron, sent shudders through global financial and commodity markets and prompted dozens of countries to impose travel restrictions.

During the OPEC Conference, Bruno Jean-Richard Itoua, Congo's Minister of Hydrocarbons, was elected as President of the OPEC Conference in 2022.

In his remarks, Azevedo applauded OPEC Member Countries and the ten non-OPEC countries in the DoC for their vision and solidarity. He also praised two key figures who have guided the strategic decisions taken to address the market challenges. "Throughout all our efforts, we have benefited enormously from the leadership of HRH Prince Abdul Aziz Bin Salman Al Saud as Chair of both the OPEC and non-OPEC Ministerial Meetings and the Joint Ministerial Monitoring Committee. With Alexander Novak, Deputy Prime Minister of the Russian Federation, as co-Chair, they have kept us moving in the direction of recovery and stability."

In the face of strict lockdown measures in Austria following a surge in infections, Azevedo wished the Secretariat Staff and their families safety and good health. "The Secretariat has remained operational throughout multiple lockdowns over the past 20 months and has never missed a beat in supporting our Member Countries, and many other important stakeholders, with excellent reports and industry-leading publications."

Issues weighing on the market

In addition to the pandemic-related risks, the OPEC President took note of other factors vexing both the oil market and economic outlook in the twilight of the year. "The planned release of oil from a number of national reserves reinforced the necessity of diligent market monitoring to avoid a return to market imbalance. And we need to pay close attention to downside risks associated with inflation spikes, rising debt levels and supply-chain disruptions.

on the Economic Commission Board's (ECB) latest assessment, the global economy is expected to grow by around 5.6 per cent in 2020 and 4.2 per cent in 2022. The ECB, OPEC's think-tank, sees oil demand growing by around 5.7 million barrels/day (m b/d) in 2021 and a further 4.2m b/d in 2022, reaching levels not seen since early 2020. According to the 2021 edition of the *World Oil Outlook (WOO),* global oil demand experienced an unprecedented decline of 9.3m b/d in 2020, chiefly due to COVID-19-related lockdowns and 3.4 per cent decline in economic activity compared with 2019.

Mohammad Sanusi Barkindo, OPEC Secretary General.

"In these uncertain times," Azevedo said, "it is imperative that we — together with the non-OPEC countries in the DoC — remain prudent in our approach and are prepared to be proactive as market conditions warrant. We need to remain united, focused and ready to adapt to any changing market dynamics, as we have always done in the five-year history of the DoC, to ensure market balance, sustainable stability, and to support growth and investments in the months and years ahead."

The OPEC President commended the role OPEC and the DoC have played in the recovery process. Drawing

Azevedo noted that some challenges facing the global oil industry have come into sharper focus during the pandemic. One example he cited is the stimulus funding provided by developed countries and financial institutions during the pandemic designed to incentivize the shift to low-carbon economies.

The discussions leading up to and dominating the UN climate negotiations in Glasgow, Scotland, further amplified the challenges and uncertainties facing the oil industry, the OPEC President said.

The 182nd Meeting of the OPEC Conference took place 19 days after the conclusion of the COP26

climate meetings in the UK. In his remarks, the OPEC President alluded to the mounting policy and investment pressures on the oil industry despite rising global energy demand.

"The potential adverse economic impacts on our Member Countries could be very significant," he said. "With global primary energy demand expected to increase by 28 per cent by 2045, this is no time to create energy pariahs, nor to side-line leading energy-exporting countries like ours."

"Our world also has an obligation to help many millions of people in Africa and other developing regions who live in energy poverty," Azevedo added. "Complex and interconnected challenges like climate change and energy poverty call for comprehensive and sustainable solutions to ensure an equitable distribution of energy. No one should be left behind."

Committed to dialogue and cooperation

Azevedo stressed that OPEC and its Member Countries "remain firmly committed to global cooperation on climate issues, and dedicated to finding inclusive solutions to support post-pandemic social and economic resilience."

The OPEC President also stressed the importance of broader dialogue and cooperation, noting the major contributions of OPEC's Energy Dialogues with other oil-producing countries, leading consumer nations and key institutions. "These regular forums further contribute to the common goal of sustaining market stability," he said.

In the five months between the 181st and 182nd OPEC Conference meetings, high-level and technical meetings took place with the Russian Federation and India, both long-time Dialogue partners, and the Gas Exporting Countries Forum (GECF), a newcomer to the dialogue series. The fifth OPEC-China Energy Dialogue was held two days later, on December 3.

These platforms have been fruitful in many ways. As an example, the 2021 edition of OPEC's industry-leading WOO broke new ground with a jointly produced chapter focused on India, the country that is expected to be the largest contributor to incremental global oil demand for the foreseeable future. The 2020 WOO included a feature box ('LNG prospects in the post-COVID-19 era') prepared in collaboration with the GECF.

Appointments for 2022

President of the OPEC Conference

*The Conference elected Bruno Jean-Richard Itoua, Congo's Minister of Hydrocarbons, as **President of the OPEC Conference** for one year, with effect from January 1, 2022.*

*The Conference elected Gabriel Mbaga Obiang Lima, Equatorial Guinea's Minister of Industry, Mines and Energy, as **Alternate President of the OPEC Conference**, for the year 2022.*

OPEC Board of Governors

*Alaa K Alyasri, Iraq's Governor for OPEC, **Chairman of the Board of Governors** for 2022.*
*Mohammad Al Shatti, Kuwait's Governor for OPEC, **Alternate Chairman of the Board of Governors** for 2022.*

Tribute

Dr Diamantino Pedro Azevedo (l), Angola's Minister of Mineral Resources, capped a busy year as President of the Conference in 2021 during the 182nd Meeting of the OPEC Conference on December 1.

In reviewing the ongoing uncertainties related to the COVID-19 pandemic, the outgoing President called for the OPEC and non-OPEC countries in the 'Declaration of Cooperation' (DoC) "to remain united, focused and ready to adapt to any changing market dynamics."

The President also thanked fellow Ministers and the OPEC Secretariat for their support, adding that "it has been an honour for me, and for Angola, to hold the Presidency of the OPEC Conference during this history-making year."

Azevedo has successfully led the Conference during 2021, deploying great diplomatic skill, as OPEC and DoC Participating Countries continued to take the necessary actions in helping stabilize the oil market.

Azevedo also stressed the importance of OPEC's extensive cooperation with the International Energy Forum (IEF) and other key institutions and their importance in underpinning efforts to share knowledge, build capacity and expand data access. "All these dialogues and exchanges are appreciated and valued by our bilateral partners," he said.

The OPEC President paid tribute to Ihsan Abdul Jabbar Ismaael, Iraq's Minister of Oil, and to the Iraqi Government, "for the extraordinary efforts that have gone into planning for a well-deserved celebration of OPEC's 60th Anniversary. Though delayed by pandemic-related travel restrictions, we look forward to commemorating the anniversary in the birthplace of our Organization, Baghdad, in the first quarter of 2022."

He added, "It is with great sadness that the last surviving delegate at the founding of OPEC on September 14, 1960, Abdullah Ismail, passed away recently. This distinguished veteran of the oil industry in two Member Countries, Iraq and the United Arab Emirates, will be sorely missed at the celebration."

Azevedo closed his remarks on a personal note. "It has been an honour for me, and for Angola, to hold the Presidency of the OPEC Conference during this history-making year," he said. "I thank all my esteemed colleagues and the OPEC Secretariat for the outstanding support you have provided."

Members of the OPEC Management and OPEC staff (l) together with delegates (above) attend the Meeting.

New Conference President for 2022

During the OPEC Conference, Bruno Jean-Richard Itoua, Congo's Minister of Hydrocarbons, was elected as President of the OPEC Conference in 2022 and Gabriel Mbaga Obiang Lima, Equatorial Guinea's Minister of Industry, Mines and Energy, was chosen as Alternate President for the same period.

Member Countries also appointed Alaa K Alyasri, Iraq's Governor for OPEC, as Chairman of the Board of Governors in 2022 and confirmed the Member Country Governors for the year.

The Conference considered various administrative matters. It also assessed oil market developments since it last met on July 1, 2021, and reviewed the oil market outlook, particularly for 2022.

The 182nd Meeting of the OPEC Conference marked the fourth meeting of OPEC's leading decision-making body since the onset of the COVID-19 pandemic in early 2020. The last in-person meeting held at the OPEC Secretariat in Vienna, the 178th (Extraordinary) OPEC Conference, took place on March 5, 2020, with special health checks and safety measures in place. The World Health Organization (WHO) declared COVID-19 a pandemic six days later, on March 11.

Haitham Al-Ghais of Kuwait appointed next OPEC Secretary General

On the first working day of the New Year, January 3, 2022, OPEC convened a Special Meeting of the Conference. Held via videoconference, under the Presidency of Bruno Jean-Richard Itoua, Congo's Minister of Hydrocarbons and Head of its Delegation, Member Countries by acclamation took a decision of great import: Kuwait's Haitham Al-Ghais (pictured above) was appointed the next Secretary General of OPEC, with effect from August 1, 2022, for a period of three years.

A busy and significant OPEC for 2022

In opening remarks at the meeting, Itoua stated: "Congo is honoured to assume the Presidency of the OPEC Conference in 2022. I would like to thank my distinguished predecessor, Dr Diamantino Pedro Azevedo, Minister of Mineral Resources and Petroleum of Angola, for the tremendous work he undertook last year. The fact that we are meeting on the first working day of the year is indicative of how busy 2022 will be. In undertaking my duties as Conference President in this significant year, I count on your support and help, as we work together to build on the accomplishments already achieved to date."

The Minister noted the significance of Congo, the most recent country to join OPEC, assuming the Presidency of the Conference in 2022. "The world has changed profoundly since Congo joined this distinguished Organization on June 22, 2018. However, the historic 'Declaration of Cooperation' (DoC) has repeatedly proven itself as an indispensable volatility-fighting toolkit that allows us to surmount challenges and contribute to oil market stability in the interests of producers, consumers and the global economy. I have no doubt that the DoC and the timeless principles that underpin it, namely, fairness, equity and transparency can serve as our guiding light in 2022," he said.

An oil industry veteran

In accordance with Article 28 of the OPEC Statute and in application of the procedure decided at the 182nd Meeting of the Conference on December 1, 2021, the Conference

decided by acclamation to appoint Haitham Al-Ghais of Kuwait as Secretary General of the Organization, with effect from August 1, 2022, for a period of three years.

Al-Ghais, a veteran of the Kuwait Petroleum Corporation (KPC) and Kuwait's OPEC Governor from 2017 to June 2021, currently serves as Deputy Managing Director for International Marketing at KPC. He chaired the Joint Technical Committee (JTC) of the DoC in 2017 and subsequently served as a Member of the JTC until June 2021.

In reacting to the news, HRH Prince Abdul Aziz Bin Salman Al Saud, Saudi Arabia's Minister of Energy, said in a statement: "I would like to offer my cordial congratulations to Haitham Al-Ghais on his appointment, by acclamation, as the next Secretary General of OPEC."

In speaking to members of the press, Al-Ghais emphasized his desire to "preserve and nurture" the historic DoC between OPEC and ten non-OPEC oil producing countries, signed on December 10, 2016, who seek to work towards sustainable stability in the oil market.

Congratulatory letter

In a congratulatory letter to the Secretary General designate, OPEC Secretary General, Mohammad Sanusi Barkindo wrote: "I am very pleased to extend to you my warmest congratulations on your recent appointment as OPEC Secretary General designate, with your tenure effective as of August 1, 2022. It is fully deserved and recognition of your positive standing within the OPEC community as a committed, knowledgeable and extremely able technocrat who can lead the Organization in the years to come."

The Secretary General continued: "From my time working collaboratively with you as Kuwait's OPEC Governor, I know you have a great understanding of the organs and internal workings of the Organization. This will stand you in good stead and will be a great knowledge platform for when you assume the Secretary General's responsibilities."

Barkindo emphasized one of the most vital components of the success story that is OPEC: people. "For all the ink spilled, words used and terms coined to describe OPEC and its Secretariat, it is at heart, a story about people and community. This has been apparent over and over again during the more than six decades since our Organization was established in Baghdad in September 1960. The visionaries who conceptualized the need for such an organization, the Founding Fathers who set it up, the Ministers and other top officials who persevered robustly with asserting Member Countries' sovereign rights, and the Staff of the Secretariat, whose tireless efforts, enthusiasm and support have provided a sound base from which OPEC can achieve its aims and aspirations," he wrote.

Gratitude for Barkindo

In its decision, the Conference expressed its appreciation to Barkindo for his leadership during his two-term tenure as Secretary General, which began on August 1, 2016. This was also underscored in a tweet from the UAE's longstanding Minister of Energy and Infrastructure, Suhail Mohamed Al Mazrouei, who said: "We also thank Brother Mohammad Barkindo, the current Secretary General of OPEC, for his fruitful efforts that led the organization to achieve success and stability in global markets during the past years, especially at the time of the global challenges to combat the pandemic."

A long-serving veteran of Nigeria's oil industry and OPEC, Barkindo has been instrumental in expanding OPEC's historical efforts to support sustainable oil market stability through enhanced dialogue and cooperation with many energy stakeholders. These efforts are widely credited with helping to stabilize the global oil market since the unprecedented market downturn related to the COVID-19 pandemic, and contributing to a global recovery.

Before being appointed Secretary General, Barkindo held a number of key roles at OPEC between 1986 and 2010, including as Acting Secretary General in 2006. He is known internationally for helping to produce the United Nations Framework Convention on Climate Change (UNFCCC) and the Kyoto Protocol as the leader of Nigeria's technical delegation to the UN negotiations in 1991. He has remained a key contributor to the UNFCCC process, including most recently at the 26th Conference of Parties (COP) meeting in Glasgow in October and November 2021.

Haitham Al-Ghais (r), OPEC Secretary General designate, President of the JTC in 2017, with Mohammad Sanusi Barkindo (l), current OPEC Secretary General.

DoC Ministers maintain a steady course

A new year begins as it ended with the decision to roll over output adjustments to support anticipated oil demand growth in 2022.

With a new year fresh on the calendar, the OPEC and non-OPEC countries participating in the 'Declaration of Cooperation' (DoC) rolled over a voluntary production adjustment plan aimed at sustaining market balance and supporting the global economic recovery.

The 24th OPEC and non-OPEC Ministerial Meeting (ONOMM), meeting on January 4, 2022, decided to adjust upward the monthly overall production by 400,000 b/d for February 2022, continuing the monthly production adjustment mechanism adopted at the 19th ONOMM in July 2021.

The first ONOMM of 2022 and the 23rd ONOMM, held a month earlier on December 2, took place against the backdrop of two anniversaries of seminal events in the history of the DoC. During the 171st Meeting of the OPEC Conference in Vienna, on November 30, 2016, OPEC Member Countries threw their support behind the landmark framework, which was then signed by all participating countries a few days later, on December 10, 2016. The inaugural ONOMM set in motion the first production adjustments by the participating producers, 1.2 million barrels/day (m b/d), which took effect on January 1, 2017.

In recalling these events, OPEC Secretary General, Mohammad Sanusi Barkindo, said on the fifth anniversary of the DoC: "The DoC is an unprecedented collaborative framework of leading oil producers that saw the need to come together during a critical juncture in the global oil industry. If it were not for this group of countries and the courageous act that they have undertaken, the oil sector would, without a doubt, be in a different situation.

"Looking back to 2016," Barkindo said, "very few believed that the collaborative efforts would grow and evolve into a major, robust cooperative force to help restore much needed stability in the global oil market. However, the 23 oil-producing countries have continued to rise to the challenges they have encountered, including instrumenting effective and visionary policies to combat the devastating impact of the COVID-19 pandemic."

Fast forward to 2022

By the start of 2022, the DoC continued to provide essential support to the global oil market. According to the final 2021 edition of OPEC's Monthly Oil Market Report (MOMR), the world's oil needs are expected to surpass pre-pandemic levels by the second half in 2022. Demand is seen growing by 4.2m b/d and reaching an average of 100.8m b/d for the year.

The market's recovery has been supported by the history-making efforts undertaken in April 2020. In that decisive month, DoC countries moved swiftly to counter the unprecedented demand collapse triggered by global efforts to contain the rapid spread of the COVID-19 pandemic. The path the DoC cleared at the 19th ONOMM, in July 2021, to return 400,000 b/d of crude to the market each month continued at the beginning of 2022 to provide crucial support for the oil market and the global economy.

The July decisions also extended the DoC's time horizon to the end of 2022, providing further clarity and assurance to the market at a time of lingering uncertainty.

Risks remain

Despite the positive outlook, the pandemic remains a persistent source of uncertainty. For example, the

discovery of the Omicron variant at the end of November, and just days before the 23rd ONOMM, triggered momentary volatility in both equity and commodity markets.

With the New Year approaching, the World Health Organization (WHO) warned on December 29 that the risk associated with the rapidly spreading Omicron "remains very high" as a number of countries, including those with high vaccination rates, set new records for infections.

In a further sign of heightened anxiety about the pandemic, the WHO Director-General, Tedros Adhanom Ghebreyesus, expressed concern about the potential for "a tsunami of cases" resulting from the combined threat posed by the Omicron and Delta variants.

The new strain caused turbulence in the global aviation industry during the busy year-end holiday travel season, forcing thousands of flight cancellations in the US market alone. The Omicron surge also upended efforts to ease containment measures in several leading economies.

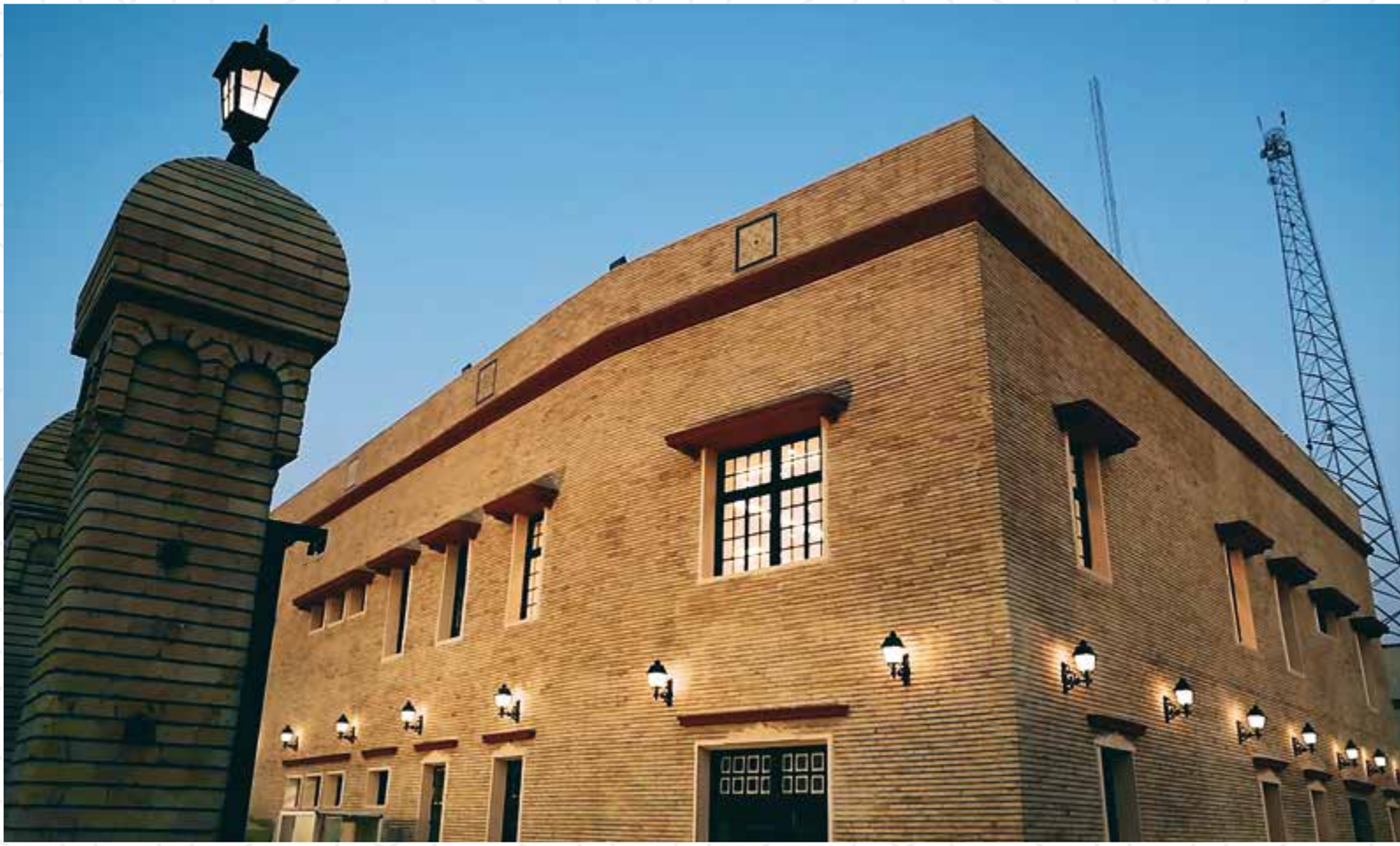
The oil market outlook for 2022, however, is underpinned by expectations that the world is in a much stronger position to deal with the pandemic, and that key sectors like petrochemicals and transportation will need more oil.

In their concluding statement of the 24th ONOMM on January 4, the Ministers also "reiterated the critical importance of adhering to full conformity and to the compensation mechanism taking advantage of the extension of the compensation period until the end of June 2022."

Mohammad Sanusi Barkindo, OPEC Secretary General, with the Director General of the Dhi Qar Oil Company (DQOC), OPEC's accompanying delegation, staff from SOMO, and Harith al-Hassani, Head of PR at the Iraqi Oil Ministry, in front of the ancient Ziggurat of Ur in southern Iraq.

OPEC Secretary General undertakes successful mission to Iraq

As the birthplace of OPEC and one of the Organization's Founder Members, Iraq has played a special role in the Organization's history. In a recent mission to the country, OPEC Secretary General, ***Mohammad Sanusi Barkindo****, expressed the Organization's sincere appreciation to the country, particularly with regard to the renovation of the Al-Shaab Hall, the site of OPEC's founding in September 1960. The* OPEC Bulletin *files this report on the Secretary General's successful mission to the country.*



The Iraqi government has undertaken extensive renovations of the Al-Shaab Hall for OPEC's 60th anniversary. The historic building is located in Baghdad's central Bab Al-Muaatham district.

Cradle of civilization

Iraq is a nation that represents humanity's common roots and shared existence; the true birthplace and cradle of civilization. This is demonstrated by incontrovertible proof. Iraq is a nation of firsts: the place where the concept of the wheel first took hold; where the first agriculture appeared; where the first system of irrigation was developed; an area where the oldest surviving form of writing hails from; where the first cities emerged; and where the first sewage system was created by the ancient Sumerians. Iraq is the land of the Rivers Euphrates and Tigris; the land of prophets and Imams.

The enormity of these innovations are mind-boggling in that they fundamentally shaped subsequent human existence but are also testimony to the enduring genius of those who lived there, the people of Iraq. For millennia, Iraq has been home to civilizations that have left their mark on the region and the world: the Sumerians, the Akkadians, the Babylonians and the Assyrians, to name but a few.

Given this litany of extraordinary firsts and the fact

Photo courtesy Zuhair Kaka – scan from the original work, Public Domain, https://commons.wikimedia.org/w/index.php?curid=75610016

Baghdad was the birthplace of OPEC in 1960.

Mohammad Sanusi Barkindo (centre left), OPEC Secretary General, with his team and Iraqi delegates on a tour to the Al-Shaab Hall in Bab Al-Muaatham.

that Iraq is the source and origin of civilization; it is with tremendous pride that OPEC can say it was also born in this prestigious nation.

From the September 10–14, 1960, representatives from five courageous oil-producing countries descended on Al-Shaab Hall in the Bab Al-Muaatham district in Baghdad: Fuad Rouhani of Iran; Dr Tala'at al-Shaibani of Iraq; Ahmed Sayed Omar of Kuwait; Abdullah Al-Tariki of Saudi Arabia; and Dr Juan Pablo Perez Alfonzo of Venezuela. As a result of the actions of these five founding fathers, visionary leaders of Member Countries, OPEC came into existence.

Much has been written about the founding of OPEC and its significance, but there are perhaps two particular legacies relevant in present times.

With the benefit of hindsight, some may have the impression that the foundation of OPEC was inevitable; however, that was not the case. The Organization's Founder Members each arrived in Baghdad with different objectives, expectations and priorities. Yet, the founders recognized that common interests outweighed any differences they may have had; that working together will always yield greater results than going alone and unity is a source of strength.

These ideals are as relevant in 2022 as they were in 1960; they are truly timeless and have served as a stable lynchpin throughout OPEC history. The founding of the Organization is an outcome of cooperation, dialogue and compromise; and this has been clearly apparent in every success OPEC has enjoyed in the subsequent 61 years and more.

Secondly, OPEC was founded in strict accordance

The team inspecting the inside of the newly renovated Al-Shaab Hall.

with the principles and purposes of the UN Charter. The Treaty establishing OPEC was later registered at the UN Secretariat on November 6, 1961. The Organization has always been proud of its close association with the UN and its role in the multilateral system.

Keen to express the Organization's gratitude and thanks to Iraq, Barkindo emphasized these points throughout his recent Mission to the country from January 6–10, 2022, following the gracious invitation of Ihsan Abdul Jabbar Ismaael, the country's Minister of Oil and Head of its Delegation to the Organization.

The Secretary General and accompanying OPEC delegation were received at Baghdad International Airport by Feras El-Sader, Senior Director General at the Ministry of Oil, and other senior officials.

Al-Shaab Hall

On January 6, Barkindo and a delegation from the OPEC Secretariat visited the Al-Shaab Hall in the Bab Al-Muaatham district in Baghdad. The hallowed hall has had a complete renovation, as part of the country's preparation to host the celebration of OPEC's 60th Anniversary. These efforts were headed by Iraq's Oil Ministry. Senior officials from Iraq's Oil Ministry were also in attendance.

During the visit, the Secretary General stated: "As we prepare to celebrate this historic event, I want to use

The team visiting the newly-rennovated Al-Muttainabi street where historical Iraqi libraries, modern and ancient books can be found.

Mohammad Sanusi Barkindo, during the visit to the ancient city of Ur.

this opportunity to extend our deep gratitude to the Government and heroic People of Iraq for preserving this historic monument — the Al-Shaab Hall in the Bab Al-Muaatham district — and wish them all the continued blessing of Allah and many years of peace, stability, growth, development and prosperity. We, in OPEC, are very proud of the leadership of Iraq in our Organization and the international oil industry."

Ancient city of Ur

On January 9, Barkindo visited the ancient city of Ur in Nasiriya in the south of Iraq. During the visit, the Secretary General stated: "It is a distinct honour and indeed a very rare privilege for me to have the opportunity of a lifetime to visit the ancient city of

Mohammad Sanusi Barkindo (l), with Harith al-Hassani, Head of PR at the Iraqi Oil Ministry, seen in Ur.

During his visit to Iraq, Mohammad Sanusi Barkindo also visited the holy shrines in Najaf and Kebrala.

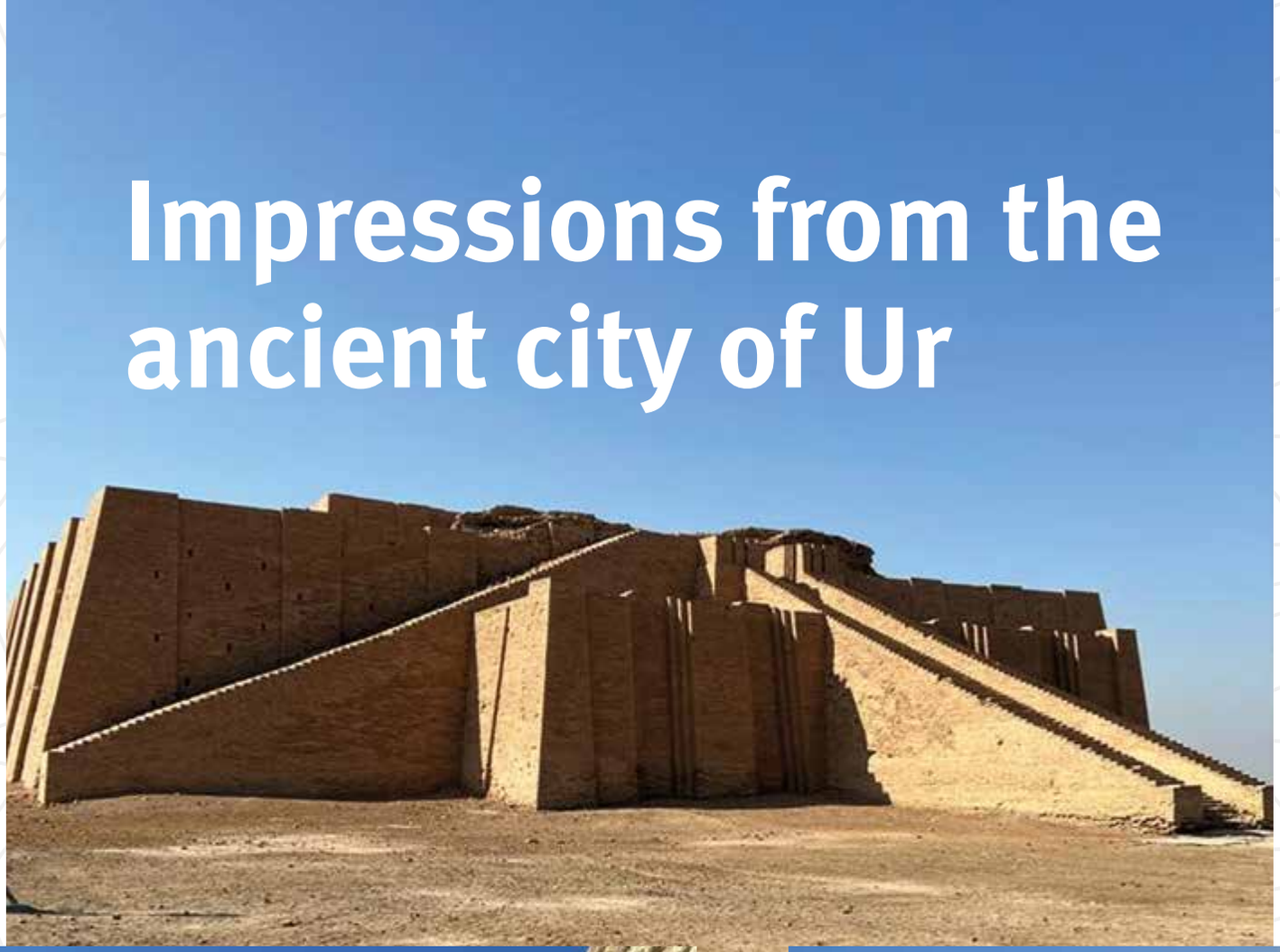
Ur — the city of Abraham, the father of all prophets (Abu Al-Anbiyaa). I want to use this historic opportunity to thank the government and the great people of this historic country Iraq for not only finding this ancient city, but also for preserving it for humanity."

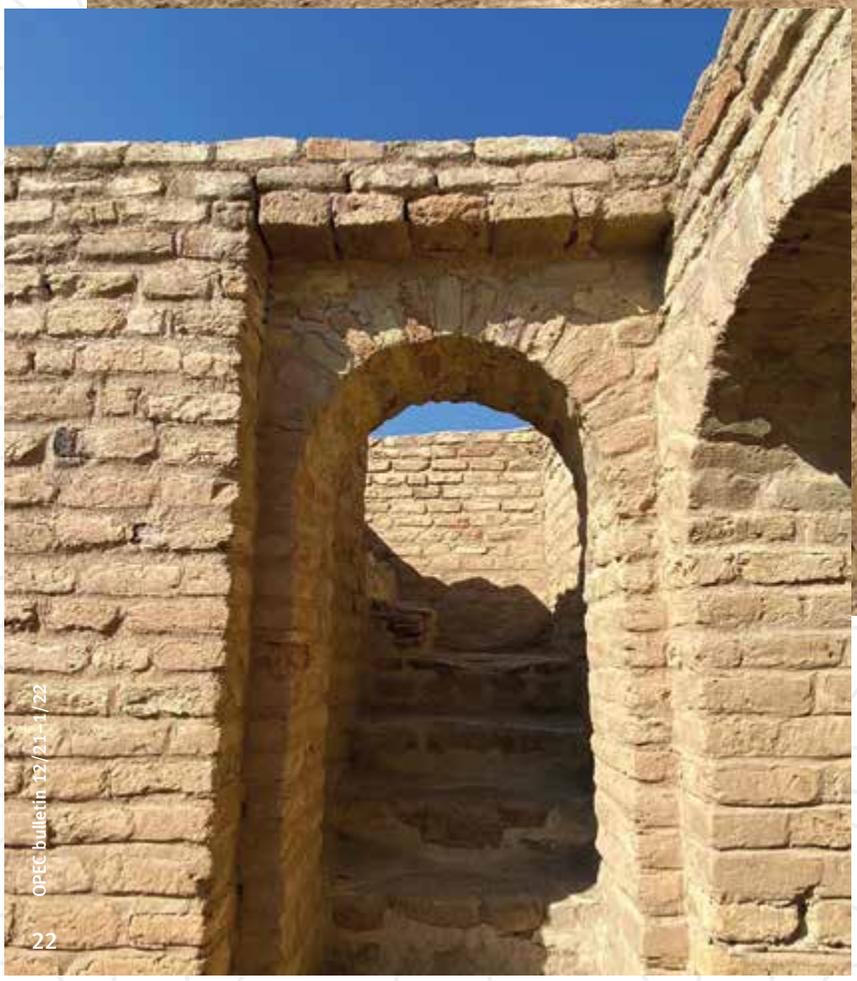
Ur is an ancient city located in historical Mesopotamia. It dates to around 6,500 to 3,800 BCE and was inhabited by several dynasties, including the Sumerians.

Successful mission

Iraq has played a unique role in the history of OPEC. Unfortunately, due to the COVID-19 pandemic, the planned celebration to take place at the Al-Shaab Hall to mark the 60-year anniversary of the Organization's founding has been postponed since the originally scheduled date of September 2020. However, given the tremendous work of the Government and people of Iraq, with the renovated Al-Shaab Hall, it is hoped a celebratory event can take place in 2022. This will also be an opportunity for the Organization to celebrate the productive relationship between OPEC and Iraq; a relationship that has been strengthened by the Secretary General's mission.

Impressions from the ancient city of Ur





OPEC extends its condolences on the passing of Abdullah Ismail

It is with great sadness that OPEC learned of the passing of Abdullah Ismail, who had been present at the 'Baghdad Conference' when the Organization of the Petroleum Exporting Countries (OPEC) was founded on September 14, 1960. The OPEC Secretariat extends its deepest and heartfelt condolences to his family and friends.

Ismail was the last surviving delegate from the historic 'Baghdad Conference'. He was at the time Iraq's Deputy Minister of Oil, playing an important role in the Iraqi delegation to the conference in support of the then Head of Delegation, Dr Tala'at al-Shaibani.

The OPEC Secretariat was extremely grateful that Ismail granted an interview to the *OPEC Bulletin* on the occasion of the Organization's 60th Anniversary in 2020. The interview touched upon many important issues related to the founding of OPEC.

The line from Ismail that highlights that the Organization "has played a key role in safeguarding the interests of oil-producing countries and embracing many legitimate rights that were impossible or difficult to acquire before OPEC" gets to the crux of the reasons behind why the Organization was established by the five Founding Members, Iran, Iraq, Kuwait, the Kingdom of Saudi of Arabia and Venezuela in 1960.

Ismail worked for Iraq's Ministry of Oil from 1952 to 1968. During his tenure at the ministry, he served in various capacities, including Director General of Oil Affairs, Director General of Oil Products Distribution Authority, Member of the Oil Management Council, Member of the Board of Directors of the Iraqi National Oil Company, and Deputy Minister of Oil.

In 1968, Ismail moved to a fellow OPEC Member — the United Arab Emirates (UAE) — to join and serve its expanding oil sector. He was involved in numerous projects of notable importance, such as the establishment of the UAE's Petroleum Department, the Abu Dhabi National Oil Company (ADNOC), and the Ministry of Petroleum and Industry. During this period, Ismail was appointed as the Deputy of the Petroleum Department, Undersecretary of the Petroleum and Industry Ministry, and Advisor to the Petroleum Department.

In looking back on his achievements, Mohammad Sanusi Barkindo, OPEC Secretary General, said: "Abdullah Ismail truly had a long and distinguished career in the petroleum industry, and in serving two OPEC Member Countries. He was at the founding of OPEC back in 1960, and 60 years later he was still able to remark upon six decades of the Organization. The OPEC Secretariat reflects on his contribution to OPEC's history with great respect and pride."

The former Deputy Minister answered a few questions from the* OPEC Bulletin *on the occasion of the Organization's 60th Anniversary in September 2020 (see OPEC Bulletin, 8–9/2020, pp14).

Question: Going back six decades, what factors led to the creation of OPEC?

Answer: The establishment of the Organization of the Petroleum Exporting Countries (OPEC) came about as a response to the price manipulation carried out by oil firms, which disregarded the interests of oil-producing countries and their people, the rightful owners of the resources.

These companies continued to reduce the oil prices, particularly in February 1959 and August 1960. This led to the understanding of oil-producing countries of the importance of unifying their position. In this context, the Iraqi government took the initiative to invite Iran, Kuwait, the Kingdom of Saudi Arabia and Venezuela to hold a meeting in Baghdad on September 10, 1960, to discuss the situation and work jointly on coordinating the oil policies of the participating countries in a way that achieves the interests of their people.

As a key participant of the historic 'Baghdad Conference', what were the main decisions taken at the meeting?

The meeting resulted in the creation of the Organization by its five Founder Members. It was also decided to host the second meeting in Caracas, Venezuela. Qatar attended the first meeting in Baghdad as observer.

By the end of the second meeting, which was held in Venezuela between January 15 and 21, 1961, it was announced that Geneva would host the Organization's Headquarters. The meeting appointed Iran's representative, Dr Fuad Rouhani, as the first OPEC Secretary General. The OPEC Statute was also approved then, which contained the internal regulations, membership conditions and categories and the decision-making mechanism.

According to the Statute, OPEC has three membership categories: Founder Member, which is limited to the five Founder Members that attended the Baghdad Conference; Full Member, which is for countries that fulfil the Membership criteria and their requests are approved by the OPEC Conference; and Associate Member, which is for countries that do not entirely fulfil the conditions to become Full Members but that may be admitted if the OPEC Conference approves their request.

How did the relocation of the OPEC Secretariat to Vienna come about?

In the Second Meeting of the OPEC Conference, it was decided to locate OPEC's Headquarters in Geneva, Switzerland, where it continued to operate until 1965 when it was moved to the Austrian capital of Vienna.

The Organization mandated the late Dr Abdul Rahman Al-Bazzaz, then-OPEC Secretary General, to explore other possibilities for hosting the Organization's Secretariat. London, Rome and Vienna were among these options. Vienna was then selected as the new home for the Organization.

OPEC is an established and respected member of the international energy community. What is the purpose of the Organization?

The Organization's objectives were detailed in the special founding decision of the Organization, which are: to coordinate and unify the petroleum policies of Member Countries and designate the best means to protect their individual and collective interests; identify the best methods that help securing stable prices in the global oil market and eliminate fluctuations; and respect the interests and rights of oil-producing countries to stable and fair income, while ensuring regular oil supply to consuming nations and securing a fair return on capital to those investing in the industries. The Organization was able to coordinate the oil supply policies of its Member Countries to balance demand and supply to protect prices in the global oil market and avoid its collapse.

As a witness to such an historic event, how important was OPEC's founding?

Although I mentioned earlier the reasons for founding OPEC, I do recall that there were a few others. These in fact led to several attempts to coordinate the oil policies of producing countries, including the efforts to coordinate the oil policies of Iran and Venezuela in 1947; the Saudi-Iraqi agreement of 1953 that allowed the two countries to coordinate petroleum policies and exchange information; and the decision of the Arab Economic Council, which is part of the Arab League, of April 1959 to hold the first Arab Petroleum Congress that was attended by many Arab and non-Arab oil-producing countries.

It is unreasonable to discuss the oil industry in Iraq or the Middle East without touching upon the Organization of the Petroleum Exporting Countries, the Organization that has played a key role in safeguarding the interests of oil-producing countries and embracing many legitimate rights that were impossible or difficult to acquire before OPEC.

The 'Declaration of Cooperation' celebrates half a decade of success

December 2021 marked the Fifth Anniversary of a key milestone in the history of OPEC and the oil industry — the adoption of the 'Declaration of Cooperation' (DoC) on December 10, 2016.

Five years ago, on December 10, 2016, OPEC Member Countries and Azerbaijan; the Kingdom of Bahrain; Brunei Darussalam; Equatorial Guinea, which later joined OPEC as a Member Country; Kazakhstan; Malaysia; Mexico; the Sultanate of Oman; the Russian Federation; the Republic of Sudan; and the Republic of South Sudan, gathered in Vienna, Austria, at the OPEC Headquarters to embark on a new era of cooperation to support sustainable stability in the global oil market. Other producers attended the meeting in support of these extraordinary efforts.

The birth of the DoC built on the successful 'Algiers Accord', signed in Algiers, Algeria, on September 28, 2016, at the 170th (Extraordinary) Meeting of the OPEC Conference, held on November 30, 2016, and the subsequent 'Vienna Agreement', adopted in Vienna, Austria, at the 171st Meeting of the OPEC Conference.

On the occasion of the Anniversary, OPEC Secretary General, Mohammad Sanusi Barkindo, said: "The DoC is an unprecedented collaborative framework of leading oil producers that saw the need to come together during a critical juncture in the global oil industry. If it was not for this group of countries and the courageous act that they have undertaken, the oil sector would, without a doubt, be in a different situation.

"Looking back to 2016, very few believed that the collaborative efforts would grow and evolve into a major, robust cooperative force to help restore much needed stability in the global oil market. However, the 23 oil-producing countries have continued to rise to the challenges they have encountered, including instrumenting effective and visionary policies to combat the devastating impact of the COVID-19 pandemic."

The inaugural OPEC and non-OPEC Ministerial Meeting saw participating countries take several decisions in view of oil market conditions and prospects in the short and medium terms, as well as in recognition of the need for joint cooperation by oil producers to achieve sustainable oil market stability in the interest of producers, consumers, investors and the global economy. It also recalled the rights of peoples and nations to permanent sovereignty over their natural wealth and resources.

Non-OPEC participants adopted a voluntary downward production adjustment, supporting OPEC's decision of the 171st Meeting of the OPEC Conference. Additionally, three non-OPEC countries joined the high-level ministerial monitoring committee established through the 'Vienna Agreement', which is

On December 10, 2016, the 1st OPEC and non-OPEC Ministerial Meeting was held in Vienna on December 10, 2016: Dr Mohammed Bin Saleh Al-Sada (second r), President of the OPEC Conference and Minister of Energy & Industry, Qatar; Alexander Novak (second l), Minister of Energy of the Russian Federation; Mohammad Sanusi Barkindo (r), OPEC Secretary General; and Eng Mohamed Hamel (l), Algeria's Governor for OPEC, and Chairman of the OPEC Board of Governors.

mandated to review the successful implementation of the decision. The Ministers also highlighted the importance of strengthening cooperation at the technical level.

The DoC has also proved to be effective during the COVID-19 pandemic, as it has enabled the DoC's 23 countries to adopt the largest-in-size and longest-in-duration voluntary oil production adjustment in the history of OPEC and the oil industry, in response to the severe oil market contraction. This decision has demonstrated the participants' continued commitment to a stable oil market.

These efforts have supported the global pandemic recovery process, and were recognized at the highest levels of government and by other international organizations and academia. Last month, the *OPEC Bulletin* published a Special Edition commemorating this milestone.

Parviz Shahbazov, Minister of Energy, Azerbaijan

In an interview with the OPEC Bulletin, *Azerbaijan's Minister of Energy, Parviz Shahbazov, shared his thoughts on the 5th anniversary of the 'Declaration of Cooperation' (DoC).*

Parviz Shahbazov, Minister of Energy, Azerbaijan.

Question: The DoC will mark its fifth anniversary in December 2021. Turning back, what contributions has this framework made to the global oil market?

Answer: First of all, a unique format of cooperation based on consensus and solidarity has been achieved. The 'Declaration of Cooperation' allowed some oil-rich non-member countries to join the process of taking concerted action in the interests of oil market stability for the first time. This initiative, a fair and creative solution in terms of taking into account the interests of market participants, was put forward by the President of the Republic of Azerbaijan, Ilham Aliyev, in January 2016 at the Davos International Economic Forum. Since its inception in December of that year, the OPEC plus cooperation format has been a contributor to stability in the oil market. In this context, the oil market currently has a more flexible and efficient monitoring mechanism. Amid a number of influencing factors, the oil industry has been protected from recession. The global oil market, which has been particularly hit by the unprecedented shocks of the pandemic, has received strong support. I think that the countries of the DoC have fulfilled a successful historical mission for five years to ensure the balance of supply and demand, oil price stability and common interests. Today, the oil market is more balanced than other energy markets, and this is our joint success.

When the DoC was signed, there were many analysts who thought it would not survive. What would you say to these sceptics today?

Such views existed not only on the eve of the signing of the DoC, but even when OPEC plus decisions were yielding concrete results. However, the market volatility in March–April 2020 confirmed the importance of this cooperation model and the monitoring process of OPEC and non-OPEC countries. Existing doubts have been replaced by high confidence. The DoC countries have managed to bring the market out of the crisis by sharing the high level of commitment and responsibility. Currently, although the market situation is optimistic, it may not be sustainable. At a time of growing uncertainty over hydrocarbons, including oil, there is a need for significant market regulation. Acute imbalance is not desirable for anyone. Stability in the energy market is in the interest of each of us, and OPEC plus decisions provide the most appropriate solutions for this common interest.

What are the benefits from efforts within DoC for your country?

Azerbaijan has further expanded its role in the regional and global energy security system by contributing to the market balance.

The oil and gas sector plays a leading role in Azerbaijani economy, and the volume of oil produced in the country and the price of this commodity are important in terms of GDP and income generation. In recent years, the share of the oil and gas sector in budget revenues and exports remains high. In 2020, the oil and gas sector accounted for 29.9 per cent of GDP, 56.7 per cent of state budget revenues and 86.5 per cent of exports. In this sense, the achievement of stability in oil prices within the framework of the DoC over the past period has been important for strengthening macroeconomic sustainability in Azerbaijan.

In this context, our activities have played an important role in the socio-economic development of Azerbaijan, improving the welfare of the population.

Participating countries endorsed the 'Charter of Cooperation' (CoC) to expand cooperation beyond the important market-balancing efforts of the DoC. What role do you see for the CoC moving forward?

The 'Charter of Cooperation' adopted in 2019 raised cooperation between OPEC and non-OPEC countries to a new level. The Charter laid the foundation for closer cooperation between OPEC+ countries to maintain market stability.

The principles and objectives set forth in the CoC include the voluntary cooperation of exporting countries for a common cause, without touching their sovereign rights over the use of national resources.

I think that the activities carried out under the CoC and the decisions taken so far, have fully justified themselves and strengthened confidence in the future of the Charter.

I believe that the CoC will continue to fulfill its worthy mission of establishing a dialogue between exporting countries, consumers, investors and key players in the world economy in general, and maintaining market balance.

As OPEC marks a fifth anniversary of the new stage, what role do you see for the DoC beyond 2022?

When the DoC was signed in 2016, one of the main goals was to achieve stability in the market, balancing supply and demand.

Recent uncertainties in the global economy attributed to COVID-19 pandemic, as well as the growing growth of green energy initiatives, reaffirm the need for an effective tool for market balance.

I think that the DoC platform will be needed beyond 2022 as an instrument of balance. Exporting countries must maintain this effective framework of cooperation and harmonize their behaviour in the oil market through mutual discussion and understanding.

OPEC well represented at ADIPEC 2021

On November 15, 2021, the Abu Dhabi International Petroleum Exhibition and Conference (ADIPEC) opened in Abu Dhabi, United Arab Emirates (UAE). Hosted by the Abu Dhabi National Oil Company (ADNOC), ADIPEC is one of the major oil and gas events of the year. Under the patronage of HH Sheikh Khalifa bin Zayed Al Nahyan, President of the UAE, the event was held with the theme, 'Unlocking new value opportunities in the energy system'. OPEC was well represented, with the Secretary General participating in several interactive sessions, panels and forums, and the Secretariat also had a stand showcasing its publications and activities. The OPEC Bulletin *team files this report.*

L–r: John Defterios, former Emerging Markets Editor, CNN, was the moderator of the Ministerial panel; panelists Suhail Mohamed Al Mazrouei, UAE's Minister of Energy and Infrastructure; Dr Mohammad Abdullatif Alfares, Kuwait's Minister of Oil, Minister of Higher Education; Dr Mohammed bin Hamad Al-Rumhy, Oman's Minister of Energy and Minerals; Gabriel Mbaga Obiang Lima, Equatorial Guinea's Minister of Industry, Mines and Energy; and Mohammad Sanusi Barkindo, OPEC Secretary General.

Ministerial panel: The new world of energy

OPEC Secretary General, Mohammad Sanusi Barkindo, participated in a panel session entitled, 'The new world of energy', along with Suhail Mohamed Al Mazrouei, UAE's Minister of Energy and Infrastructure; Gabriel Mbaga Obiang Lima, Equatorial Guinea's Minister of Industry, Mines and Energy; Dr Mohammad Abdullatif Alfares, Kuwait's Minister of Oil, Minister of Higher Education and Chairman of the Board of Kuwait Petroleum Corporation (KPC); and Dr Mohammed bin Hamad Al-Rumhy, Oman's Minister of Energy and Minerals. The session was moderated by John Defterios, former Emerging Markets Editor, CNN, Adjunct Professor, NYU Abu Dhabi.

The purpose of the session was to create an interactive discussion where speakers shared their views and opinions on the session theme, promoting friendly open dialogue and a thought provoking and stimulating discussion. In describing the topic of the event, the organizers stated: "As the world moves beyond the worst of the COVID-19 pandemic, global leaders are increasingly confident that economic recovery will accelerate, and energy demand continues to recover, but the pace of recovery still remains uncertain. Meanwhile, climate concerns have reached a tipping point, accelerating global policy action and creating a shift in global energy patterns, which can result in greater volatility in markets. In the longer-term, it poses a host of potential challenges and opportunities as countries seek to manage energy transitions."

The panel discussed the energy outlook for 2022; energy storage strategies in light of the energy transition; the role of the 'Declaration of Cooperation' (DoC) throughout the ongoing market rebalancing process; and the outcomes of the COP26 in Glasgow. Dealing with the longer term economic scars prompted by the COVID-19 pandemic was also a matter of keen discussion, both from a macroeconomic perspective and with regard to the oil market.

Leadership roundtable: Collaborating to define the global energy future

The Secretary General introduced the Leadership Roundtable, saying, "The topic of this roundtable is 'Collaborating to define the global energy future'. It could not be timelier, for we are truly living in an historic epoch. The year 2021 draws to a close with a need for reflection on the events of the last 12 months. The

Dr Mohammad Abdullatif Alfares (r), with Mohammad Sanusi Barkindo.

energy industry has been affected by a range of factors that warrant careful analysis and discussion."

He provided an overview of the three critical issues that have dominated headlines about the energy industry over the last year: the coronavirus pandemic; the climate change discussions leading to COP26 and inflationary or 'cost of living' pressures. The Secretary Genera described the process whereby the DoC participating countries carefully monitored market developments and took action to adjust supply accordingly. He also outlined the main highlights from the *World Oil Outlook 2021 (WOO)* to provide some of the longer term perspectives on the oil industry.

The Secretary General stated: "Our successes have underscored the importance of the ethos that underpins multilateralism. Ours is an enterprise that respects all participating countries and values each individual contribution to our common aims. Going it alone is not an option. All participating countries are equal and mutual respect, as both a core principle in OPEC's Statute and the DoC, has been a vital component in our 'volatility fighting toolkit.'"

The Secretary General noted how topical addressing different components of the energy trilemma has become, namely, energy affordability, security and reducing emissions, stating, "We have seen recently that the strains and conflicts related to energy affordability, energy security and the need to reduce emissions require a delicate balancing act, comprehensive and sustainable solutions, and with all voices heard, and listened to. Focusing on only one of these issues, while ignoring the others, can lead to unintended consequences, such as market distortions and price volatility. This has been evident over the past month or so in Europe, and now across the world."

The Secretary General underscored the importance of holistic policies for the energy industry, noting, "With OPEC's *WOO 2021* expecting global energy demand to expand by 28 per cent by 2045 the importance of this cannot be over-stated. It requires a holistic view of the energy sector, and not putting all our eggs in one or two baskets. We need to ensure energy is affordable for all; we need to transition to a more inclusive, fair and equitable world in which every person has access to energy as referenced in UN Sustainable Development Goal 7; and we need to reduce emissions. It is an energy sustainability trilemma, with each piece having to move in unison."

The roundtable was moderated by Alan Thomson, Managing Director and Senior Partner of Boston Consulting Group; Jamie Webster, Senior Director of the group's Center for Energy Impact; and Arthur Hanna, Independent Energy Advisor.

WOO special session

The *WOO 2021* also formed part of a special session at ADIPEC, with the Secretary General, and accompanying OPEC management, going into greater detail about the findings of the 15th edition of the publication. Barkindo recalled that back in 2016, the OPEC Secretariat decided to launch its flagship *WOO* outside of Vienna for the very first time and the venue it chose for its then 10th edition: ADIPEC.

He noted: "It could not have been a wiser choice. The event proved a great success, with ADIPEC, Abu Dhabi and the UAE providing an excellent platform, with high-level attendees, and great opportunities for discussion and debate. It has led to the WOO being rolled at various other locations across the world in subsequent years, but it is this event that has proven to be a natural home for the WOO for the last six years."

In reviewing the latest edition, Barkindo stated: "The *WOO 2021* again underscores the seismic changes that the world has undergone as a result of the COVID-19 pandemic. It has continued to upend the world over the past year, with the spread of new variants, particularly the Delta one. However, he stressed, "It is clear that the vaccination rollout in 2021, alongside huge fiscal and infrastructure packages totaling around $24 trillion, has put the global economy on the road to recovery."

Key takeaways

The Secretary General outlined the key takeaways from this year's *WOO*. As noted in the ministerial panel, he referenced the robust increase in energy demand, driven by a number of factors. "In the period to 2045, the global economy is estimated to more than double; world population is set to expand to 9.5 billion; and we need to remember that there is huge potential for socio-economic development in terms of expanding access to modern energy services for those billions who continue to go without."

He added: "Energy will be needed to power more homes, more services, more businesses, more cars, more planes, more ships … I could go on. This will require the use of all forms of energy to support the post-pandemic recovery, the energy transition and address long-term energy needs."

Barkindo highlighted that oil is expected to retain its number one position in the global energy mix and provide 28 per cent of the world's energy needs by 2045. He also noted that renewable energy is projected to experience the largest growth, rising from around two per cent to over ten per cent by 2045.

From the perspective of oil demand, he stated that given the huge 9.3 million barrels/day (m b/d) drop in global oil demand in 2020, incremental demand by 2026 is almost 14m b/d higher than in 2020, albeit only 4.4m b/d higher than in 2019. Long-term oil demand growth slows over the outlook period and total demand reaches just over 108m b/d by 2045.

On the supply side, Barkindo said that non-OPEC liquids supply is set to continue the recovery witnessed in 2021 and is forecast to expand by 7.5m b/d from its 2020 low to 70.4m b/d in 2026. Beyond the medium-term, however, he observed that "non-OPEC liquids peaks

Panelists of the WOO special session (l–r): Dr Abderrezak Benyoucef, Head of OPEC's Energy Studies Department; Mohammad Sanusi Barkindo, OPEC Secretary General; Eithne Treanor moderated the WOO special session; and Dr Ayed Al-Qahtani, Director of OPEC's Research Division.

in the late 2020s, in line with US tight oil, then slowly declines to 65.5m b/d by 2045. In fact, non-OPEC liquids is forecast to be at the same level in 2045 as it was in 2019. "It means that OPEC liquids, which recover to pre-pandemic levels around 2025, rise strongly thereafter. It reaches a level of nearly 43m b/d in 2045. In terms of market share, this implies an increase from 33 per cent in 2020 to 39 per cent by 2045."

The Secretary General additionally underscored the importance of investment and the right enabling environment to ensure that supply meets demand. "Let me stress that the return of investments is a core objective of the DoC," he emphasized, and added that "any talk of the oil and gas industries being consigned to the past and of the need to halt new investments in oil and gas is wrong-headed."

Valuable reference tool

He stressed to attendees that it was important to state that the *Outlook* is not about making predictions. "No-one has a crystal ball," he said. "The *Outlook* should be viewed as a helpful and insightful reference tool, one that underscores the Organization's commitment to knowledge sharing and data transparency."

The session also saw the participation of a number of other panelists, including Dr Ayed Al-Qahtani, Director of OPEC's Research Division, and Dr Abderrezak Benyoucef, Head of the Energy Studies Department at the OPEC Secretariat.

Dialogue with students

The Secretary General was also a featured guest speaker for an interactive dialogue session with young students from the UAE. The event is part of the Young ADIPEC Programme, which was inaugurated in 2013 as a means to involve young students from the UAE in the ADIPEC event and to inspire them to consider a career in the local and global oil and gas industry.

The dialogue initiative, which is held under the

patronage of Sheikh Nahayan Mabarak Al Nahayan, Minister of Tolerance and Coexistence and supported by the Abu Dhabi Department of Education and Knowledge, has risen in popularity and stature since its inception.

Attracting top talent

The Secretary General began his remarks by welcoming the students to the session and complimenting the organizers on the event and its role in attracting rising talent to the industry.

"I was very impressed to learn that more than 3,300 high school students aged between 14 and 17 years from across the UAE have taken part in the programme since its inception in 2013," he said. "And, now, it is great to see that this initiative continues to grow with each subsequent edition of ADIPEC as the UAE endeavours to engage and encourage students to consider careers in this industry, which offers a wide range of opportunities for talented young people."

He also told the students that it is not just petroleum engineers that are needed, but rather all areas of expertise are required for the industry to be effective.

"In addition to the traditional occupations, such as petroleum engineers and technicians, this industry continues to have a dire need for highly skilled candidates in areas such as public relations, research and development, accounting, corporate strategy and planning, as well as finance, legal and human resources," he stated. "The fact is, you are the future leaders of this industry, and we must make sure we provide you with adequate tools, training and incentives that will empower you to step up to the challenges of the future."

An industry in transition

Switching to the oil market, the Secretary General explained that the oil and gas industry continues to recover from the COVID-19 pandemic, which resulted in an historical collapse in demand last year. In the meantime, he added, the industry is endeavouring to navigate the ever-evolving and highly complex dynamics of the energy transition, which was a key theme at the recently concluded UN Climate Conference (COP26) in Glasgow.

Mohammad Sanusi Barkindo, OPEC Secretary General, with members of the Young ADIPEC Programme.

He explained the oil industry has overcome major challenges in the past and that it is prepared to tackle the energy transition as well. "It is helpful to understand that this industry is a cyclical one by nature, and it has been confronted time and again throughout history with a multitude of serious challenges, and has always been able to emerge and come out better and more resilient on the other side," he said. "Thus, I would like to encourage you all here today that the future of this industry is still bright."

Industry investment is crucial

In terms of climate change, Barkindo emphasized the fact that OPEC fully supports the need to decrease emissions, bolster innovation and enhance efficiency, however, he added that investment in the industry must be supported by global stakeholders to meet future demand and avoid unwanted volatility.

OPEC estimates cumulative oil-related investment requirements will amount to $11.8 trillion in the 2021–45 period. Of this, 80 per cent, or $9.2 trillion is in the upstream, with another $1.5 and $1.1 trillion needed in the downstream and midstream, respectively.

Going forward, he underlined the need for global stakeholder dialogue and cooperation to overcome challenges of common concern in a balanced and inclusive manner.

"As an industry, we must approach these critical issues together through dialogue and cooperation, ensuring that all voices are heard and all viewpoints are considered."

Best and the brightest

"I hope these facts make it clear to you that the industry needs you, and you have a vital role to play in the future of this industry. We need the best and the brightest young talent to rise up and help this industry successfully navigate the new energy paradigm that is currently being developed," he stated.

"The tech-savvy youth of this generation are uniquely equipped to harness the latest technologies and

innovations, and apply them to helping adapt and enhance this industry in the decades to come."

Before the floor was opened up for a question and answer period, the Secretary General quoted former US President Franklin Delano Roosevelt who was an enthusiastic supporter of youth development issues. Roosevelt said:

"We cannot always build the future for our youth, but we can build our youth for the future."

In closing, Barkindo emphasized the high importance of ensuring OPEC's Member Countries have talented young leaders to guide them into the decades ahead.

"And this is our hope both here in the United Arab Emirates, as well as in all of OPEC's Member Countries — that we can prepare and empower our young talent to lead our countries to success and prosperity in the decades to come."

Inspiring story from ADIPEC 2021

Mohamed R Almazrouei: Profile of a 'Young ADIPEC' Alumni

*At the Young ADIPEC programme held in November 2021 in Abu Dhabi, OPEC Secretary General, **Mohammad Sanusi Barkindo**, met with **Mohamed R Almazrouei**, a young and ambitious Emirati engineer, who took part in the programme in 2013 and used it to embark on a successful career path. The* OPEC Bulletin's ***Ayman Almusallam*** *reports on the meeting.*

Development of human capital, especially the youth, ranks high on the agenda of many aspiring nations, as their young populations will form the cornerstone of future growth plans. In this spirit, the United Arab Emirates (UAE) created the 'Young ADIPEC' programme in 2013 to provide its youth with the necessary support to realize their potential.

In its 2021 edition, the programme saw the Secretary General host a special interactive session to actively engage with young students as part of OPEC's participation in the leading energy event. He met Almazrouei during the gathering.

Almazrouei, who currently serves as a drilling supervisor for ADNOC Onshore, said during that meeting: "Back when I was in high school, I did not have an idea of what I am going to study at the university, but then 2013's Young ADIPEC programme showed me the way forward!

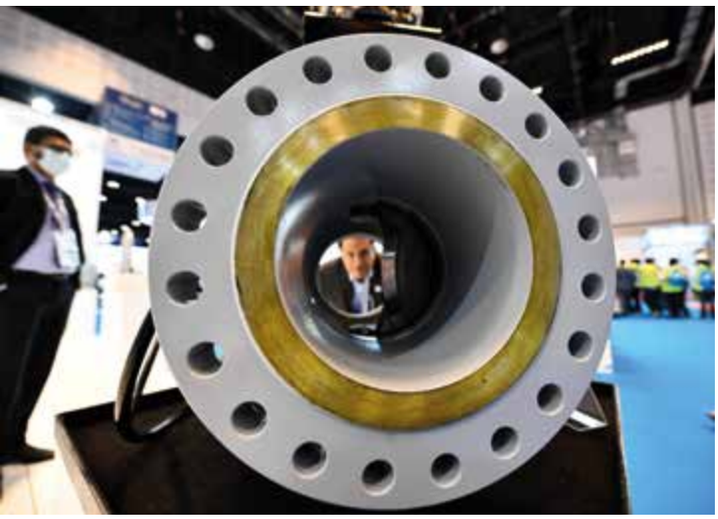
"When they showed how our country needs engineers in every field, I decided to focus my studies on engineering and technologies," he stated, adding: "As such, I chose to study mechanical engineering and I hope to use my knowledge and skills to help build the future of my country."

During the session, the Secretary General highlighted the importance of the programme, as well as the vital role of youth in the future of the energy industry.

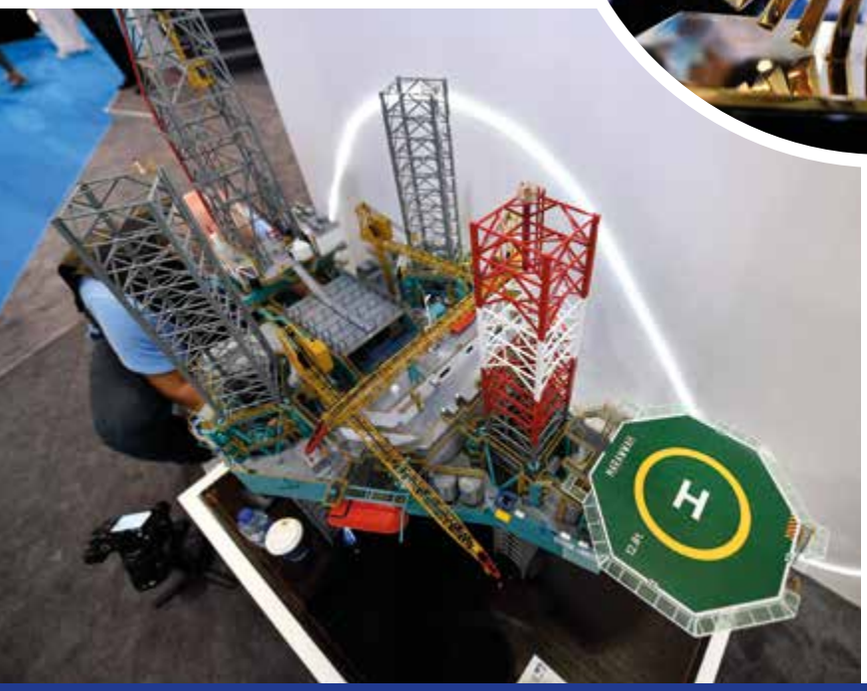
"It is great to see that this initiative continues to grow with each subsequent edition of ADIPEC, as the UAE endeavours to engage and encourage students to consider careers in this industry, which offers a wide range of opportunities for talented young people," Barkindo said.

The event was held under the patronage of Sheikh Nahayan Mabarak Al Nahayan, UAE's Minister of Tolerance and Coexistence, and supported by Abu Dhabi's Department of Education and Knowledge.

Impressions from ADIPEC 2021




ENERGY
FOR LIFE
ADNOC


H

OPEC and China talk energy security and energy transitions

The Fifth High-Level Meeting of the OPEC-China Energy Dialogue convened on December 3, 2021, via videoconference, with the meeting co-chaired by Mohammad Sanusi Barkindo, OPEC Secretary General, and Zhang Jianhua, Administrator of the National Energy Administration (NEA) of the People's Republic of China. The OPEC Bulletin *reports on the discussions that focused on the growing bilateral relations between the two parties, energy market outlooks, including energy security and energy transitions, the role of the 'Declaration of Cooperation' (DoC) in supporting oil market stability, and possible avenues for future cooperation.*

Notebook Mockup

Over the years, the OPEC-China Energy Dialogue has been held in both Beijing and Vienna, but in 2021, as was the case in 2020, the event was held remotely due to the impacts and restrictions related to the COVID-19 pandemic.

In alluding to this, Barkindo said that he very much hoped the dialogue can return to China next year. He stated that it is a "country I have very fond memories of; a place of extraordinary history and culture; and a place that continues to thrive and prosper under the astute leadership of President Xi Jinping and the Communist Party of China."

He also noted that this year marks a major milestone in the history of the Communist Party of China — the 100th anniversary of its founding, and he had been honoured to extend his compliments and best wishes to the government and people of the People's Republic of China in a video message back in July.

The importance of the anniversary, Barkindo said, was captured eloquently in remarks from President Xi Jinping:

"All the struggle, sacrifice, and creation through which the Party has united and led the Chinese people over the past hundred years has been tied together by one ultimate theme — bringing about the great rejuvenation of the Chinese nation."

Barkindo's comments also touched upon the importance and goals of China's 14th Five-Year Plan, also referenced by Zhang Jianhua. The NEA Administrator said that this year is the first year of China's 14th Five-Year Plan, and it is the historical convergence of the "two centenary" goals.

He added the country's energy progress in the plan

Zhang Jianhua (c); Li Fulong (r), Director General, Department of Development Planning, NEA; Liu Hong (l).

OPEC officials participating in the meeting.

will "focus on promoting high-quality development, coordinating the improvement of energy security capabilities, and accelerating the development of a green transformation. We will also continue to strengthen the foundation of oil and gas supply, strengthen reserve capacity building, and ensure the safe and stable operation of the power grid."

Interlinked futures

It was clear in the opening remarks of the importance of the relationships between China and OPEC Member Countries. Barkindo said: "As one of the fastest-growing global economies; one of the biggest energy consumers globally; and one of the largest importers of crude oil, China remains a critical trade partner for OPEC and its Member Countries."

The Secretary General added that "the oil market stability that OPEC, and its partners in the DoC, work so tirelessly towards, as exhibited during the COVID-19 pandemic, is vital for both producers and consumers."

With the dialogue taking place one day after the 23rd OPEC and non-OPEC Ministerial Meeting, the importance of the decision to adjust upward the monthly overall production of participating countries in the DoC by 400,000 barrels/day for January 2022, was referenced by Zhang Jianhua.

He said that the decision is of great significance for alleviating the imbalance between supply and demand and maintaining stability. He added: "We are willing to maintain close communication and strengthen cooperation with OPEC on maintaining the balance of market supply and demand and long-term stability, so as to jointly cope with challenges."

Barkindo stated that the DoC remains proactive and vigilant and, "as always, we remain open, transparent and ready to engage on how we all move forward together."

The importance of further enhancing the dialogue and cooperation between OPEC and China, was also highlighted in opening remarks from Wang Qun, Ambassador of the Permanent Mission of People's Republic of China to the United Nations and Other International Organizations in Vienna.

He stressed that "the OPEC-China Energy Dialogue has come a long way in their pragmatic cooperation, as the dialogue platform has become more institutionalized. He added that "this round of the high-level dialogue between China and OPEC is held at a critical juncture with a lot of uncertainty in the process of the global

economic recovery, especially as a result of the COVID-19 pandemic."

Energy transition

The Ambassador also pointed out that the Global Development Initiative (GDI) announced by President Xi Jinping "coincides with the essence of cooperation between China and OPEC" and "serves as an important guideline for China to deepen its cooperation with OPEC, so as to channel their efforts towards global sustainable development on the energy front."

He said: "The GDI initiative stays committed to a people-centered approach, in meeting people's aspirations for a better life through collective efforts of the international community, and outline priority areas of cooperation, especially as they pertain to climate change, green development, industrialization, as well as poverty reduction."

Barkindo also picked up on these issues, on the back of the recent COP26 meeting in Glasgow, Scotland.

He said: "What is clear is that the science tells us that tackling emissions has many paths. There is no one-size-fits-all solution, for countries or for industries.

"Moreover, there is a delicate balance between reducing emissions, energy affordability and security that requires comprehensive and sustainable policies, with all voices being heard, and listened to. Focusing on only one of these over the others can lead to unintended consequences; market distortions, heightened volatility and energy shortfalls."

He went onto commend China for its leadership in the climate change negotiations and in its goals. "China has concrete policies, as well as measures and real actions in place," he said. "There is a clear policy framework to ensure it can achieve its climate-related targets, including peak greenhouse gas emissions by the end of the decade and net-zero emissions by 2060."

From the perspective of the oil and gas industries, he said: "It will also be vital to foster its resources and expertise to help unlock a low-emissions future, through its role as a powerful innovator in developing more efficient technological solutions."

He also noted the value of technology and innovation was recently referenced in a speech by President Xi Jinping, who said: "Now more than ever, countries need to intensify cooperation and innovation in science and technology and work together to explore solutions to important global issues."

Other speakers

Other speakers and presenters at the meeting were Dr Ayed S Al-Qahtani, Director, OPEC Research Division, who provided a follow up on the 4th High-level Meeting of the OPEC-China Energy Dialogue; Dr Abderrezak Benyoucef, Head, OPEC's Energy Studies Department, who presented on 'Global Energy Markets, Short-, Medium- and Long-term Outlook'; and Leonardo Sempértegui, General Legal Counsel at the OPEC Secretariat, who provided an update on the DoC and the 'Charter of Cooperation' (CoC).

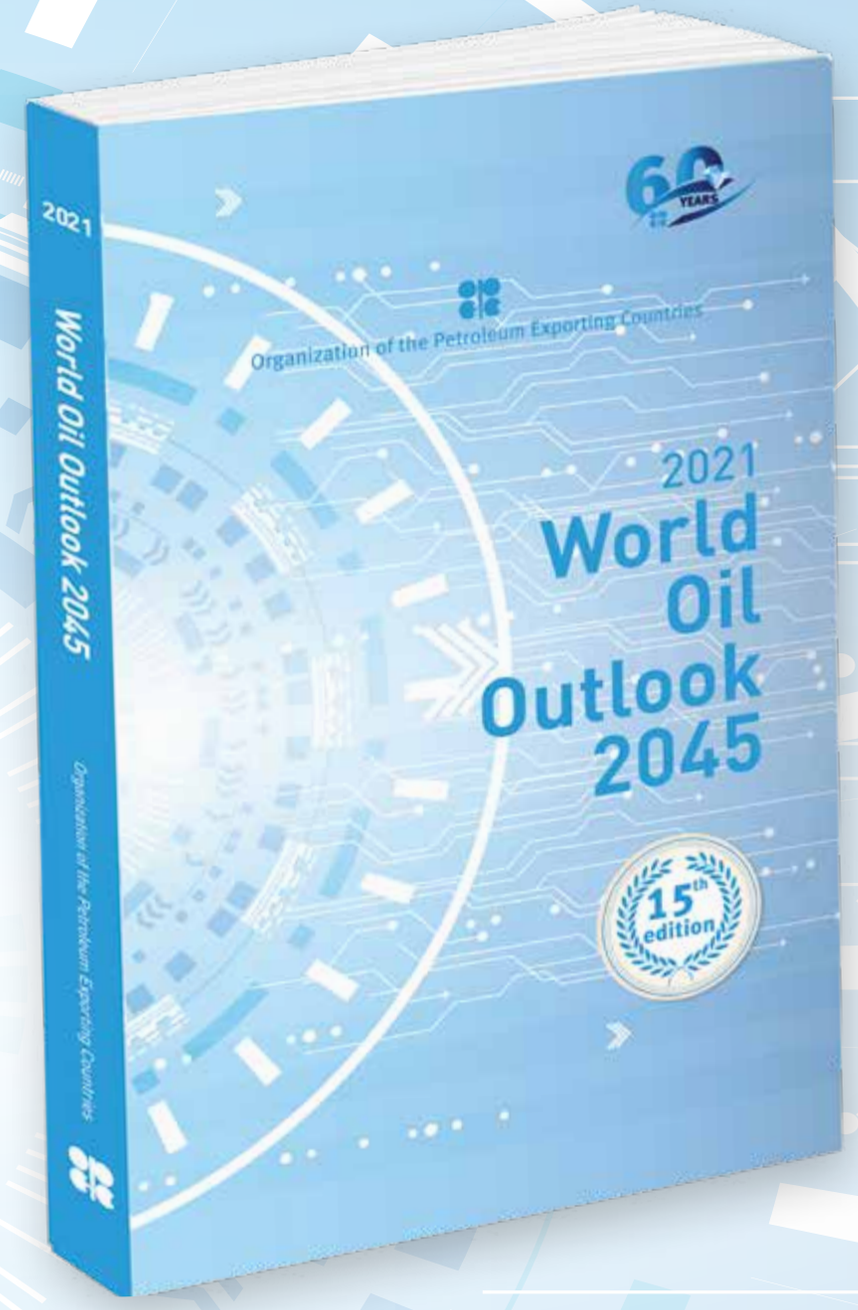
On the Chinese side, Li Fulong, Director General, Department of Development Planning, NEA, presented 'China's Energy Development Plan'; and Lv Jianzhong, Vice Director, CNPC Research Center of China Top Think Tanks presented on 'Energy Transition of Oil Enterprises and Energy Security'.

Value of dialogue

The Meeting underscored the importance of multilateralism, dialogue and international cooperation at all levels to help overcome market challenges, as well as evolve future opportunities. The Meeting also stressed the benefits of sharing data, research and views on various key issues related to energy and technology advancement.

In this regard, and away from the energy sphere, the Secretary General also offered a "big thank you to China on the recent announcement that it will deliver another one billion doses of COVID-19 vaccines to Africa. OPEC is home to seven African nations, and vaccines are vital to a durable, inclusive and equitable recovery from the impacts of COVID-19."

The next High-Level Meeting of the OPEC-China Energy Dialogue in 2022, which will be hosted by China.



Avaliable online now:

woo.opec.org

Download the app:

Android/iOS

Houston calling: WPC 2021

While not being able to attend in-person, the OPEC Secretary General, Mohammad Sanusi Barkindo, delivered remarks virtually at the 'Energy transition: scenarios for the future' session of the 23rd World Petroleum Congress held in Houston, US. The following is taken from his speech held on December 8, 2021.

"The WPC is an extremely important global petroleum event, one I have attended on many previous occasions, and this year's host Houston, the energy capital of the world, gives it even more pre-eminence.

When I am in Houston I always feel at home, with many oil industry executives, innovators and friends having their offices and homes there. I look forward to returning to Houston in the not too distant future.

It is also a great pleasure to share a platform again with my good friend, Joe McMonigle, Secretary General of the International Energy Forum (IEF). Joe has years of rich experience working on energy-related issues, both in the public and private sectors, and his views and thoughts are always welcome in any debate.

The topic of this session is — 'Energy transition: scenarios for the future'. It is very apt following on from the recent COP26 meeting in Glasgow, Scotland.

The COP26 negotiations were tense at times, but in the end, all Parties reiterated their commitment to the implementation and full operationalization of the Paris Agreement.

This was a positive step, giving the pressing need to reduce global emissions, alleviate energy poverty, counter the impacts of the COVID-19 pandemic and find a sustainable way forward that leaves no one behind.

However, as we all know the public discourse around energy, climate and sustainable development continues to be extremely emotive. This was evident in Glasgow, with some voices all but excluded, including many from our own petroleum industry.

At times, the narrative around the energy transition has been overtaken by emotional outbursts, with rational discussions based on facts, hard data and science, taking a back seat.

The parameters of the public discourse seem reduced to the question: are you for, or against fossil fuels? It is perhaps the ultimate false dichotomy. It erroneously constrains what options are available. It should not be a question about 'one or the other'. The complexity of the challenge calls for an inclusive approach; not the pursuit of a single 'one size fits all' panacea.

The challenges before us are enormous, and we have seen recently that the strains and conflicts related to energy affordability, energy security and the need to reduce emissions require a delicate balancing act, comprehensive and sustainable solutions, and with all voices heard, and listened to.

Focusing on only one of these issues, while ignoring the others, can lead to unintended consequences, such as market distortions, heightened price volatility and energy shortfalls.

Climate change and energy poverty are two sides of the same coin. We need to ensure energy is affordable for all; we need to transition to a more inclusive, fair and equitable world in which every person has access to energy as referenced in UN Sustainable Development Goal 7; and we need to reduce emissions.

It is an energy sustainability trilemma, with each piece having to move in unison.

What is clear is that the world will need more energy in the future. OPEC's recently released *World Oil Outlook (WOO) 2021* sees global energy demand expanding by 28 per cent by 2045. It underlines the need to have a holistic view of the energy sector, and appreciate what each energy source can offer.

For oil and gas, there are some who believe that these industries should not be part of the energy future, that they should be consigned to the 'dustbin of history', and that the future is one that can be dominated by renewables and electric vehicles.


Shutterstock

It is important to state clearly that the science does not tell us this, and the statistics related to the blight of energy poverty do not tell us this either.

Renewables are coming of age, with wind and solar expanding quickly, but — even by 2045 — in our *WOO* they are only estimated to make up around 24 per cent of the global energy mix. Oil and gas combined are forecast to still supply over 50 per cent of the world's energy needs by 2045, with oil at around 28 per cent and gas at just over 24 per cent.

It is important to stress that many OPEC Member Countries have great solar and wind resources, and huge investments are being made in this field. OPEC welcomes the development of renewables, which will be vital to help quench the world's growing thirst for energy.

In terms of electric vehicles, there is no doubt that they will continue to see expansion in the transportation sector. In our WOO, the share of electric vehicles in the total road transportation fleet is projected to expand to close to 20 per cent in 2045. We support their development in a sustainable manner.

However, for many of the world's population, electric vehicles do not offer a viable alternative to the internal combustion engine, primarily due to cost. There is also debate about how environmentally friendly they are considering their build process, especially the required batteries, mining for minerals and metals, and the sourcing of the vehicles' electricity.

The key point to make is that the challenge of tackling emissions has many paths. It is not just one path for all, whether that be a country or an industry. We fully believe that the oil and gas industries can be part of the solution to tackling climate change, and evolving the energy transition.

The history of Houston and the oil and gas industry is one of innovation. Of providing solutions to the most intractable of challenges.

I have no doubt the resources and expertise of our industry can be harnessed again to help develop cleaner and more efficient technological solutions, contributing to a reduction of emissions as part of unlocking a low-emissions future.

For example, carbon capture utilization and storage, blue hydrogen and others, can be utilized, as well as the promotion of the Circular Carbon Economy, to improve overall environmental performance.

We are ready, willing and able to play a key role. As we have seen through the prism of recent events, any talk of the oil and gas industries being consigned to the past and halting new investments in oil and gas is misguided.

On the investment issue, let me stress that this year's *WOO* shows that investments of $11.8 trillion will be required between now and 2045 in the upstream, midstream and downstream oil sectors.

To place this in some further context, upstream capital expenditure fell by around 30 per cent in 2020 as a result of the impact of the pandemic, and this follows drops of 27 per cent in both 2015 and 2016. Investments have not recovered since a global level of $700 billion was witnessed in 2014, and they were at only half this level last year.


Mohammad Sanusi Barkindo, OPEC Secretary General.

Let me stress that the return of investments is a core objective of the 'Declaration of Cooperation' between OPEC and non-OPEC producers, which has done so much to return balance and stability to the market since the onset of the pandemic in early 2020.

If the necessary investments are not made it could have knock-on implications, and leave long-term scars, particularly for security of supply, affecting not only producers, but consumers too.

Let me also stress how important the US will be to our energy future.

The US is a vital cog in the global oil and energy markets, as both a major producer and consumer.

We welcomed the decision of the Biden administration to return to the Paris Agreement, and take the lead at COP26. The energy transition and the global converzation around it would be incomplete without the US at the head of the multilateral table.

We also welcome the role of US oil and gas producers. They are a key part of addressing the energy transition, as are all oil and gas producers around the world.

It is OPEC's deeply held conviction that dialogue and action on the energy transition should be inclusive and broad to try and evolve it in the least disruptive manner.

We need to think and act carefully about what an energy transition actually means; and we all need to follow the right paths.

The current energy market turmoil seen across the world in recent months is perhaps an early insight into some of the issues we are dealing with, and what can occur if we do not see the bigger picture and the interwoven complexities.

We need to connect all aspects of the energy sustainability trilemma.

Our energy future is not about 'Them' or 'Us'. It has to be about 'We'. Working together we can build an energy future worthy of future generations."

OPEC participates at the European Association of Geoscientists and Engineers' Annual Conference

Dr Abderrezak Benyoucef (seated), Head, Energy Studies Department, OPEC.

The European Association of Geoscientists and Engineers (EAGE) is one of the largest multi-disciplinary professional associations for geoscientists and engineers with more than 19,000 members active in over 110 different countries and territories. Its annual conference, which took place over four days from October 18–21, 2021, in Amsterdam, the Netherlands, attracted around 4,500 delegates and 150 exhibitors to showcase the latest exploration technologies and launch new products and services for oil and gas companies to meet today's challenges. The OPEC Bulletin ***reports.***

The main sponsors of the conference included some of the largest players in the oil industry such as Shell, ExxonMobil, Saudi Aramco, BP, TotalEnergies, ENI, Equinor, Chevron, CNPC and Schlumberger, among others. The technical programme of the conference combined a diversity of topics with a high quality presentations in the areas of geophysics, geology, reservoir engineering, integrated subsurface including carbon capture utilization and storage technologies, mining and civil engineering and data and computer science for geophysics.

Various sessions on these technical topics were supplemented by the EAGE forum sessions which provided an opportunity for significant figures from the industry to share their views. The aim was to bridge the gap between science and the most pressing issues affecting the wider geoscience and engineering field. Each session tackled a different topical theme, bringing together leaders from various prominent and innovative companies, to discuss, debate and offer visions for the future. Topics for these discussion sessions included:

- The energy transition — will the great expectations be realized?
- How the oil industry is addressing the energy mix to meet the goals of the transition era;
- The role of geoscience and engineering in meeting decarbonization goals;
- Great career challenge — the changing educational opportunities for tomorrow's energy professionals;
- Geoscience and engineering: the way ahead.

The focus of the first forum addressed global energy transition issues and the pace of change in the balance of supply and demand for traditional fossil fuels and renewables. Some of the critical questions raised during the panel discussion included: What impact has the Covid-19 pandemic had on transition momentum? What role will de-carbonization initiatives and policies play? Should oil and gas companies be taking the lead?

This panel was moderated by Andrew McBarnet, EAGE Editor Emeritus, and was comprised of:

- Dr Abderrezak Benyoucef, Head of the Energy Studies Department, OPEC
- Atul Arya, Senior Vice President & Chief Energy Strategist, IHS Markit
- Berend Scheffers, Director Strategy & Technology, Energie Beheer Nederland, (EBN)

The panel was moderated by Andrew McBarnet, EAGE Editor Emeritus, and was comprised of Dr Abderrezak Benyoucef (c), Head of the Energy Studies Department, OPEC; Atul Arya, Senior Vice President & Chief Energy Strategist, IHS Markit; Berend Scheffers, Director Strategy & Technology, Energie Beheer Nederland, (EBN).

OPEC used the opportunity to offer more balance to the dominant discourse in some public forums and media regarding the energy transition. As OPEC Secretary General, Mohammad Sanusi Barkindo has said in other forums: "At times, the narrative around the energy transition has been overtaken by emotional outbursts, with rational discussions based on facts, hard data and science, taking a back seat.

"The parameters of the public discourse seem reduced to the question: are you for, or against fossil fuels? It is perhaps the ultimate false dichotomy. It erroneously constrains what options are available. It should not be a question about 'one or the other'. The challenges before us are enormous, and we have seen recently that the strains and conflicts related to energy affordability, energy security and the need to reduce emissions require a delicate balancing act, comprehensive and sustainable solutions, and with all voices heard, and listened to."

The EAGE conference was also useful for OPEC staff members in attendance to expand their knowledge on the status of technology development in the area of seismic exploration, advanced borehole seismic equipment, imaging and visualization techniques of subsurface hydrocarbons which will contribute to exploring and developing new oil and gas reservoirs in a cost efficient and sustainable manner.

The 2022 edition of the EAGE Conference will take place in Madrid, Spain, June 6–9, 2022.

OPEC participates at first ever MSGBC Oil, Gas and Power conference and exhibition

*Energy Capital and Power hosted the first-ever MSGBC Oil, Gas and Power 2021 conference and exhibition, under the patronage of **Macky Sall**, President of Senegal. The landmark event took place in Dakar, Senegal, between December 16 and 17. The MSGBC is an acronym of the countries in which the MSGBC basin, which is in actuality a collection of mini-basins, resides, namely Mauritania, Senegal, Gambia, Guinea-Bissau and Guinea-Conakry. Due to the COVID-19 restrictions and the reintroduction of lockdown measures in Austria, a team from the OPEC Secretariat was unable to travel in person, therefore, the Secretary General delivered remarks virtually. The following is taken from his speech on December 16, 2021.*

Macky Sall, President of Senegal.

Mohammad Sanusi Barkindo, OPEC Secretary General.

'Land of Teranga'

"It is a distinct honour to address the MSGBC Oil, Gas and Power Conference and we send our warmest greetings to all participants and delegates. We commend the wise leadership of Macky Sall, President of Senegal, for holding such a forward-looking and innovative conference at what is a critical juncture for the energy industry, not only in Mauritania, Senegal, The Gambia, Guinea Bissau and Guinea Conakry, but across the African continent and indeed the globe.

I would like to thank Aissatou Sophie Gladima, Minister of Petroleum and Energy, for the gracious invitation to address this distinguished gathering and such an illustrious lineup of speakers, participants and attendees. Our congratulations go to the Minister and her team, the event sponsors and organizers, and all involved who have ensured this is a prestigious and historic event.

It is regretful that due to the severity of the COVID-19 pandemic in Europe, where the OPEC Secretariat is located, here in Vienna, Austria, I cannot attend the MSGBC conference in person. However, such is the power of the world-famous Senegalese 'teranga', I feel the warmth of your welcome 3,000 miles away here in Vienna.

Senegal is known as the 'Land of Teranga', and while this is sometimes translated into English as 'hospitality', I know first-hand from my Senegalese friends, it means so much more. Teranga is a way of life, defined by a generosity of spirit, an openness and willingness to make everyone feel welcome, regardless of nationality, colour, creed, or class. It unites people, irrespective of their background, around their shared humanity.

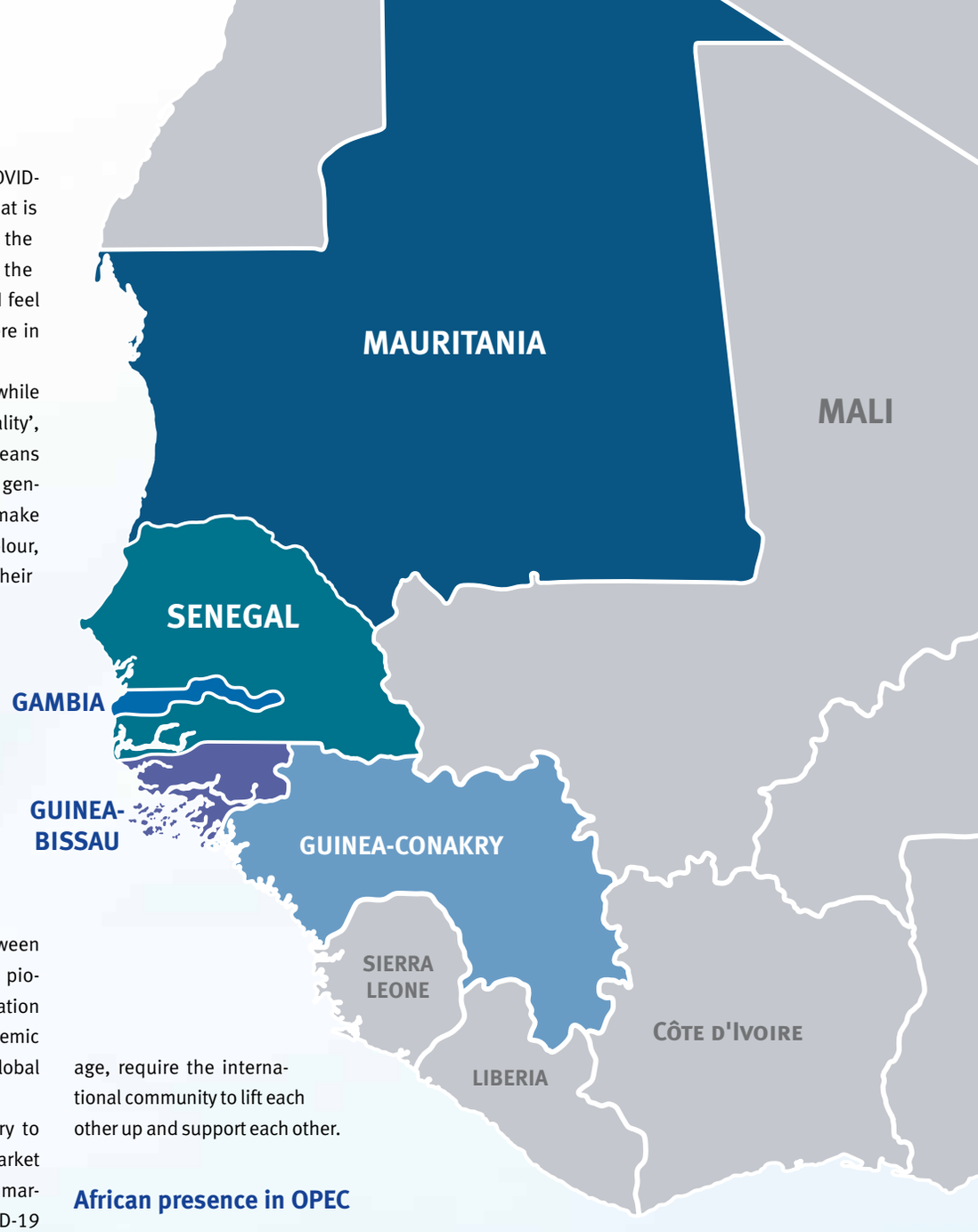
Teranga has made Senegal an example to the rest of the world, a bastion of tolerance, good neighbourliness and shared community. At OPEC, we hope that our current efforts with ten non-OPEC oil producing countries, under the 'Declaration of Cooperation' (DoC) process, displays similar characteristics of good neighbourliness, respect for diversity and a desire to act as responsible members of the international community.

Signed on December 10, 2016, the DoC between OPEC and ten non-OPEC producing countries is a pioneering framework for multilateral energy cooperation and continues to contribute greatly to the post-pandemic economic recovery as a vital stabilizing force in the global oil industry.

Indeed, the DoC has enabled the oil industry to withstand and recover from both the severe oil market downturn of 2014–16 and the unprecedented oil market contraction following the outbreak of the COVID-19 pandemic.

The objective of the 'Declaration of Cooperation' can be summarized in just four words: sustainable oil market stability. OPEC does not seek stability for stability's sake: rather we are acutely conscious of the broader social and economic benefits for all which come as a result of sustainable oil market stability. This is particularly the case for a global economy still reeling from the devastating effects of the COVID-19 pandemic.

In this context, OPEC full heartedly supports the spirit of cooperation and fraternity among nations that undergirds this conference. Our statute commits us to multilateralism and cooperation with all stakeholders in the energy industry. We recognize that the challenges of our age, require the international community to lift each other up and support each other.



African presence in OPEC

African countries have historically assumed strong, proactive leadership roles in OPEC. Angola currently holds the Presidency of the OPEC Conference and will be succeeded by Congo next year. In September of this year, we celebrated a monumental milestone, the golden anniversary of Nigeria joining OPEC in 1971.

Recent years have seen an expansion of the African presence in our Organization. Congo became a Member Country in 2018, Equatorial Guinea joined in 2017 and Gabon rejoined in 2016.

This consolidates the incredibly positive, constructive and fruitful roles played by Libya since it joined our Organization in 1962, Algeria since 1969, Nigeria since 1971 and Angola since 2006.

Many of the most significant meetings in the 61 year history of our Organization took place in African cities. From the 9th Meeting of the OPEC Conference in Tripoli in 1965, critical meetings and conferences have been held in Algiers (including our first ever Summit), Oran, Lagos, Abuja, Luanda, and Libreville. We hope this expands in the future.

Indeed, the idea for our Organization was conceived in Africa, specifically Egypt. It was at the Cairo Yacht Club in 1959, that the Gentleman's Agreement was forged which paved the way for the establishment of OPEC in Baghdad in September 1960.

Aside from the African countries who are OPEC members, two African countries have joined the historic DoC, between OPEC and ten non-OPEC producing countries, namely Sudan and South Sudan. Chad and Uganda declared their support for the DoC process in November 2017.

The strong bonds between OPEC and Africa reflect the critical role that our great continent will play in the future of the energy industry. This is one of the most dominant themes of OPEC's World Oil Outlook 2045. Our flagship publication presents OPEC's medium to long-term projections for the global economy, oil and energy demand and other factors pertaining to the industry.

The first thing to underscore is that Africa has a young and vibrant population. The Middle East and Africa region is currently experiencing a swift rate of population growth. By 2045, it is forecast to be the leading region by overall population, adding 762 million people in the period 2020–45.

We anticipate a bright future for Africa's oil industry with substantial opportunities for growth. The continent is home to five of the top 30 oil-producing countries in the world and several top gas-producing nations, including Senegal. The world will continue to rely on Africa's precious resources in the long term in order to meet the rapidly rising global demand for oil and gas.

In 2019, before the COVID-19 pandemic broke out, Africa produced approximately 8.5 million barrels/day (m b/d) of oil, which is around nine per cent of world output. The continent's proven oil reserves amounted to around 126 billion barrels at the end of 2019.

In terms of the downstream sector, last year's oil demand shock caused by the COVID-19 pandemic resulted in numerous refinery closures worldwide, and we will see additional closures in the coming years.

Looking ahead, from 2021 to 2026, we expect to see around 6.9m b/d of new refining capacity come online, mostly in the Middle East, Asia-Pacific and Africa. Africa's refining capacity is expected to increase by 1.2m b/d by 2026 from their current levels of 4m b/d.

Looking longer term to 2045, OPEC forecasts 14m b/d of capacity additions, mostly in developing countries. In Africa, long-term demand growth will lead to an increase in refinery throughputs of almost 5m b/d in 2045, up from 2.4m b/d in 2019.

These overall positive developments in the African downstream will help increase local refined product output while reducing product imports from other regions.

In terms of downstream investment, we estimate a total of roughly $1.5 trillion will be spent during the period 2021–45. $450 billion of this will be invested in new refinery projects and expansions of existing units. Most of these projects will be located in developing countries, including Africa.

Indeed, the importance of creating an investment-enabling environment is a further key conclusion from the WOO. Cumulative oil-related investment requirements amount to $11.8tr in the 2021–45 period.

An oil ship from Dakar, Senegal, surrounded by fishing boats.

Of this, 80 per cent, or $9.2re is in the upstream, with another $1.5 and $1.1tr needed in the downstream and midstream, respectively. And creating an investment friendly climate through oil market stability has been one of the objectives of the Doc between OPEC and ten non-OPEC producing countries.

We need to be cognizant of how oil and gas industry investments are being impacted by Environmental Social Governance (ESG) requirements and the climate disclosure drive from the financial community. We are concerned about the ESG footprint and stranded asset risk of the industry. The environmental aspect of ESG is perhaps outweighing the need to address the social and development issues. We need to work with all industry stakeholders to ensure an investment friendly climate, one that is sustainable and works for both producers and consumers.

OPEC at COP26

Access to capital is particularly significant given the twin challenges of sustainable development and climate change, two sides of the same coin. This was a point OPEC raised at the COP26 meeting in Glasgow, Scotland.

The COP26 negotiations were tense at times, but in the end, all Parties reiterated their commitment to the implementation and full operationalization of the Paris Agreement.

This was a positive step, giving the pressing need to reduce global emissions, alleviate energy poverty, counter the impacts of the COVID-19 pandemic and find a sustainable way forward that leaves no one behind.

However, as we all know the public discourse around energy, climate and sustainable development continues to be extremely emotive. This was evident in Glasgow, with some voices all but excluded, including many from our own petroleum industry.

As President Sall in his remarks to the 76th Regular Session of the United Nations General Assembly said:

"Our countries cannot achieve an energy transition and abandon the polluting patterns of the industrialised countries without a viable, fair and equitable alternative … Our countries, which are already shouldering the crushing weight of unequal trade, cannot bear the burden of an unfair energy transition."

Access to affordable, reliable, sustainable and modern energy, is a right for all, not a privilege of the few, and is enshrined by the UN in Sustainable Development Goal 7.

The unfortunate reality for developing countries is that a staggering 759 million people worldwide did not have access to electricity in 2019, with around 79 per cent of them located in Africa. Moreover, there were roughly 2.6 billion people or 34 per cent of the global population who did not have access to clean cooking fuels and technologies — and this includes a massive 70 per cent of Africans who have no access, exposing them to high levels of household air pollution.

The energy poverty numbers for Africa are stark. And to add in one further number, Africa accounts for only around three per cent of global emissions.

Two sides of the same coin: energy poverty and climate change

OPEC believes that there is no "one size fits all" solution to addressing climate change. Different countries around the world have varying capabilities and diverse needs. Thus, reducing emissions should have multiple paths, as set out by the Intergovernmental Panel on Climate Change (IPCC), and all of them should be regarded as potential options.

As an industry, we must approach these critical issues together through dialogue and cooperation, ensuring that all voices are heard and all viewpoints are considered.

The oil industry can play a role in working towards our common goals. It possesses resources and expertise that should be utilized in developing more efficient technologies, particularly within the sphere of Carbon Capture and Sequestration technologies (CCUS).

As I alluded to earlier, in his remarks to the UN General Assembly, President Sall, made an eloquent address that resonated with OPEC, particularly when he said:

"The promise of a better world for all can bloom in the soil of dialogue and mutual respect … To this end, we cannot be satisfied with a future of promises. We must work for a future of fulfilled promise.

"This future requires us to lay down our arms, to stand in stronger solidarity, to protect our environment, to cultivate our shared values, to accept and respect our differences … In this way, we will bring forth the world of our dreams, a world of peaceful coexistence, a better world for all."

Well said, Mr President. OPEC shares and supports this vision for a better world."

"The promise of a better world for all can bloom in the soil of dialogue and mutual respect … To this end, we cannot be satisfied with a future of promises. We must work for a future of fulfilled promise."

— Macky Sall, President of Senegal

10th DoC Technical Meeting convenes to assess post-COVID recovery

On November 25, 2021, the 10th Technical Meeting of OPEC and non-OPEC oil producing countries participating in the 'Declaration of Cooperation' (DoC) met to discuss the latest oil market developments in light of the ongoing post-pandemic economic recovery. The OPEC Bulletin's ***Scott Laury*** *reports.*

Convening on the heels of the 136th Meeting of OPEC's Economic Commission Board, which took place on November 23 and 24, 2021, delegates of the DoC Technical Meeting met virtually to discuss recent economic and oil market developments and to assess the progress of the ongoing implementation of the landmark OPEC and non-OPEC DoC.

Special session

The Meeting hosted a panel of industry experts for a special session that examined the traditional linkages between economic growth and oil demand growth, especially in the context of the post-pandemic economic recovery. Discussions also looked at how different economic sectors have been affected by the impacts of the pandemic and how this might evolve into the short-to-medium term.

In reference to the special session, OPEC Secretary General, Mohammad Sanusi Barkindo, noted that the historically close linkage between economic growth and oil demand growth had been tested by the pandemic.

"Traditionally, there has been a close relationship between economic growth and oil demand growth, but this relationship has been impacted by the varying rates of recovery around the world," he stated. "In some cases, we have witnessed mobility restrictions impact oil demand more than the economy. Additionally, the pandemic-related lockdowns we have witnessed, the latest being right here in Austria, have had different impacts

> *"The proactive and effective role this group has played has provided crucial support to the economic recovery in the aftermath of the pandemic and continues to play a highly successful stabilizing role in the oil market."*
>
> *— Mohammad Sanusi Barkindo, OPEC Secretary General*

depending on the economic sector, thus debunking our long-held views that economic growth almost always leads to oil demand growth."

The panel's presentations and the subsequent question and answer sessions considered the prospects for this evolving relationship and whether it might be temporary or more permanent in nature.

Additionally, different viewpoints were shared as to how the current policies related to the energy transition in the aftermath of the UN Climate Conference in Glasgow might impact future demand for oil.

Effective role of DoC

After providing an overview on the latest oil market outlook, the Secretary General underlined the ongoing positive impacts of the OPEC and non-OPEC producers of the DoC in providing a steady undercurrent of stability in the global oil market, particularly during the recent weeks in which volatility and uncertainty have heightened.

"I want to thank each and every participating delegation of the DoC attending here today for their enduring loyalty to our common efforts," he said. "The proactive and effective role this group has played has provided crucial support to the economic recovery in the aftermath of the pandemic and continues to play a highly successful stabilizing role in the oil market."

The Secretary General cautioned, however, that the DoC producers would need to remain highly vigilant in the coming weeks due to the ongoing volatile market conditions.

"It will be of utmost priority as we prepare for the next OPEC and non-OPEC Ministerial Meeting to remain vigilant and nimble as together we seek to effectively adapt to the ever-shifting dynamics of the current energy markets," he stated.

A nimble approach

Concluding his remarks, Barkindo drew inspiration from the 19th century British scientist Charles Darwin to emphasize the need for continued flexibility in adapting to rapidly changing times.

"In closing, let me share with you the wise perspectives of 19th century British scientist Charles Darwin, who said, and I quote: *It is not the strongest of the species that survives, not the most intelligent that survives. It is the one that is the most adaptable to change.*

And indeed — distinguished delegates, colleagues — we must continue to remain open and adaptable to change so we can better meet the challenges that await us on the horizon. Let us continue to stay unified and transparent in all that we do, so the Declaration of Cooperation will thrive and flourish in the years to come."

OPEC hosts Vienna Energy Club

OPEC had the opportunity to host the 24th meeting of the Vienna Energy Club (VEC) on November 22, 2021.

The club started in 2009 and has grown to become a premiere energy platform for Vienna and the whole world. It brings together Vienna-based organizations dealing with energy in an informal platform for discussion and an exchange of views.

OPEC Director of the Research Division, Ayed S Al-Qahtani.

"We have always been honoured to have a seat at the VEC and benefit greatly from these exchanges. We are one of the eight original members of the Club, a badge we wear with honour," said OPEC Director of the Research Division Ayed S Al-Qahtani in his welcoming remarks.

OPEC's ties stretch back with Vienna for nearly 60 years and the VEC is a reflection of this connection, he stated. Additionally, the VEC is a reflection of the city's important stature as a global energy hub and centre of international organizations and dialogue.

"A proud achievement of both OPEC and Vienna is the growth of their reputation over time as centres of excellence and dialogue. This has been a cornerstone of OPEC's vision since its inception," said Al-Qahtani.

The VEC platform is unique, he continued, adding that it is a forum of direct relevance to OPEC's relationship with Vienna and other intergovernmental bodies in and around the Austrian capital. In light of the crises that have been troubling the energy world, compounded since the appearance of the COVID-19 pandemic, the need to meet and discuss the topics of the day is more salient than ever."

Al-Qahtani added that fossil fuel industries, including the oil industry, face strong challenges from the energy transition, climate change and sustainable development.

"It seems that while the oil industry is emerging from the depths of the coronavirus pandemic, it may be heading straight into the teeth of an energy crisis."

He quoted Joe McMonigle, Secretary General of the International Energy Forum (IEF) who stated that two straight years of massive capex cuts are leading to a supply shortage that could destabilize the global economy.

The IEF backs the belief — shared by OPEC — that it is imperative investment be encouraged across the industry, despite the momentum behind a push for clean energy and a shift away from fossil fuels.

"Over the last few years, major shareholders of the Multilateral Development Banks (MDBs) have been vocal in slowing down their support of gas-related projects — the World Bank Group and the European Investment Bank dropped their support of upstream oil and gas in 2019 and financing of gas-to-power projects has been declining," said Al-Qahtani.

"Commercial financing is also shrinking as institutional investors, who traditionally have been the supporters of long-term investment projects, are becoming increasingly ESG-concerned."

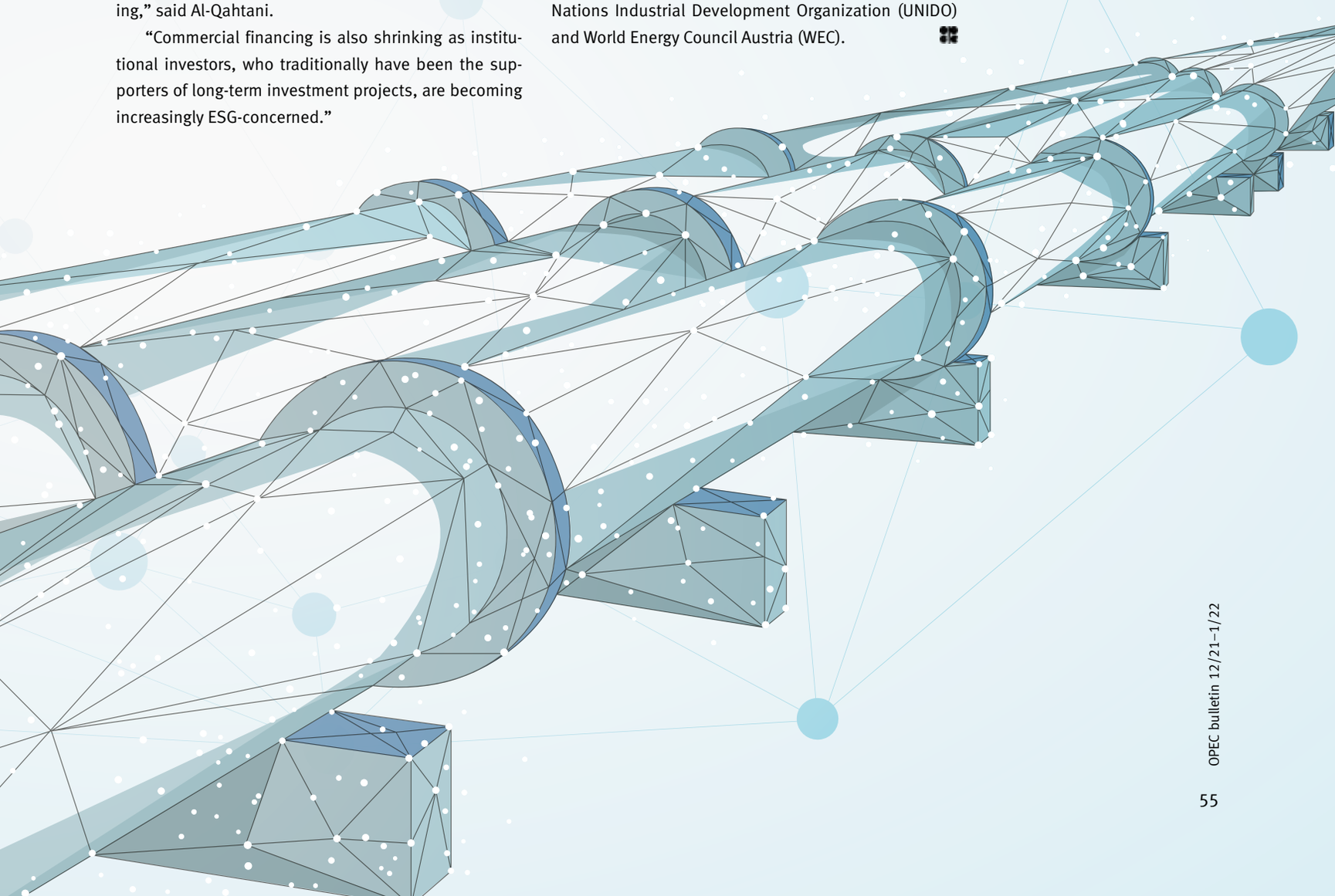
Meanwhile, demand for baseload generation is continuing to grow, he stated, supported by figures from the OPEC *World Oil Outlook*.

"The years 2020 and 2021 have brought unprecedented challenges to the world of energy and these look set to continue. It is through platforms such as ours, where we can openly debate all issues on the table, that solutions and compromises will be found for the benefit of producers, consumers and the global economy," said Al-Qahtani.

The VEC boasts many of the top participants in the international energy community, including the Energy Community (EnC); the International Atomic Energy Agency (IAEA); International Institute for Applied Systems Analysis (IIASA); the OPEC Fund for International Development (OPEC Fund); the Organization for Security and Co-operation in Europe (OSCE); the Renewable Energy and Energy Efficiency Partnership (REEEP); Sustainable Energy for All (SEforALL); the United Nations Industrial Development Organization (UNIDO) and World Energy Council Austria (WEC).

"We have always been honoured to have a seat at the VEC and benefit greatly from these exchanges."

— Ayed S Al-Qahtani



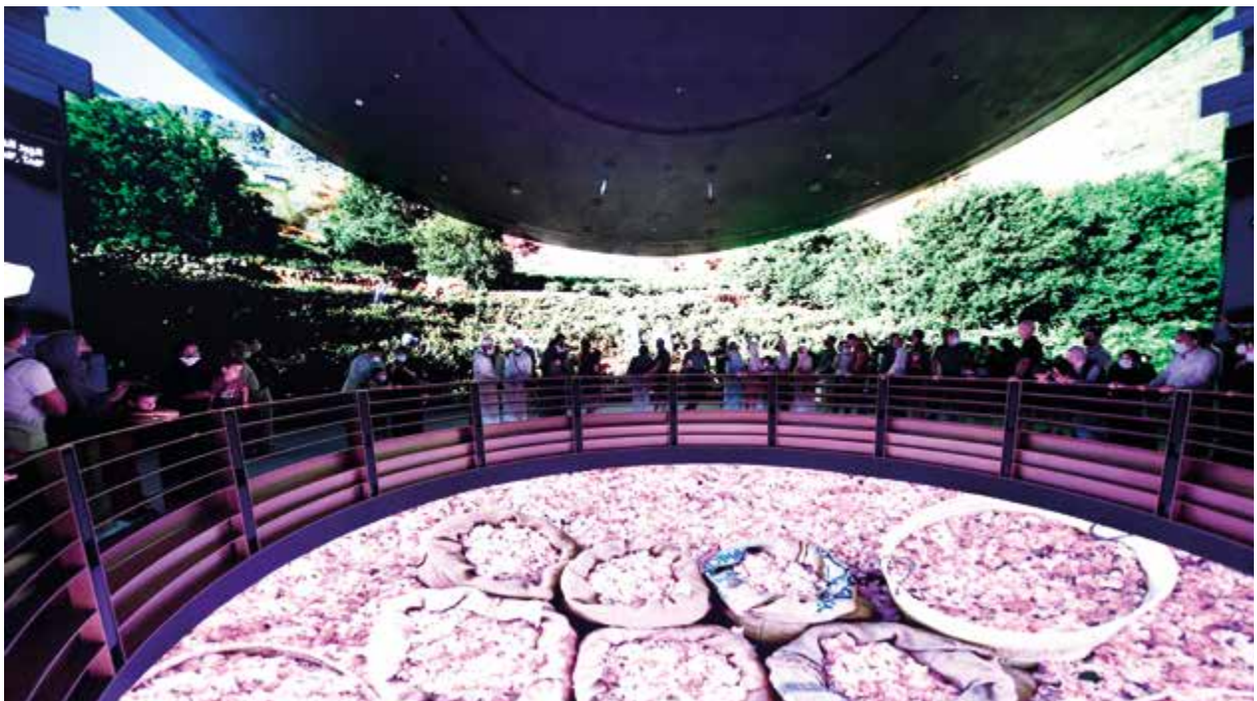
Impressions from Expo 2020

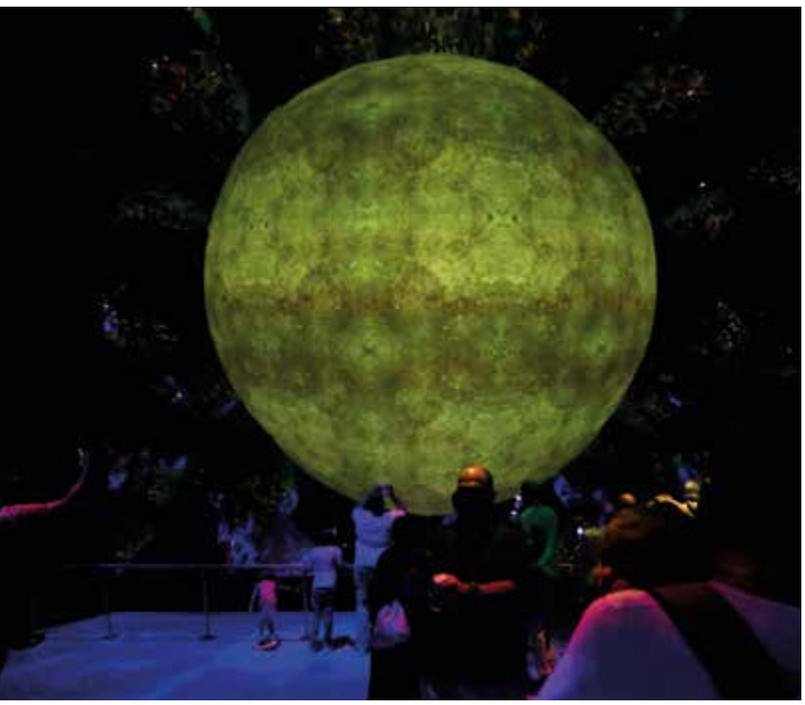
EXPO 2020 DUBAI UAE


روسيا
2020
Russia


EXPO 2020 DUBAI
THAILAND

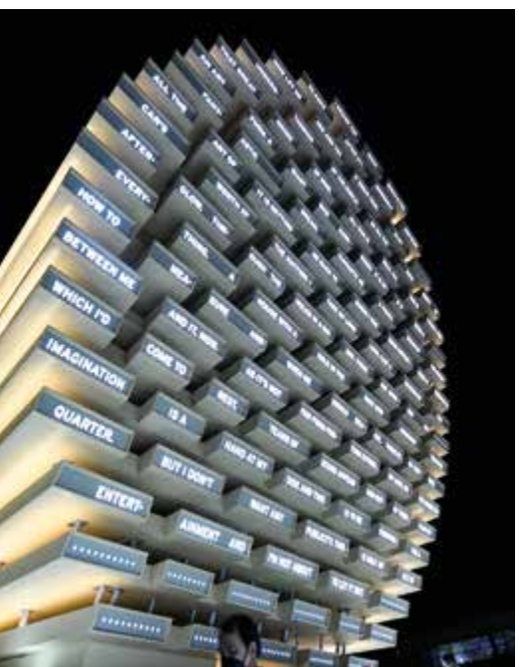

Kingdom of Saudi Arabia






Kingdom of Saudi Arabia
السعودية

EXPO 2020 DUBAI UAE



Bringing new life to old wells

An Austrian start-up venture is working with regional oil and gas producers to turn depleted wells into new sources of energy. A pilot project has been launched within 100 kilometres of the OPEC Secretariat in Vienna.

Sweeping to the east and north-east of the River Danube as it curves through Austria's capital, the Vienna Basin has been an important source of oil and gas for more than a century.

Output across the region is tiny, with the three main countries in the Basin — Austria, Czechia and Slovakia — producing a little over 13,000 b/d of crude oil combined. But leading regional producers have a reputation for pioneering innovation and technological advances to extend the productive life of oil and gas wells at home while exporting their expertise around the world.

Today, an Austrian start-up company is working to go another step by giving depleted oil and gas wells a new lease on life — supplying geothermal heat for a mainly agriculture customer base.

"The basic idea of reusing a depleted oil/gas well for geothermal purposes is not new," Werner Donke, a founding partner of Greenwell Energy, said about the local market. "Several oil and gas companies have tried

Robert Philipp (l), Asetila Köstinger and Werner Donke started Greenwell Energy in 2018.

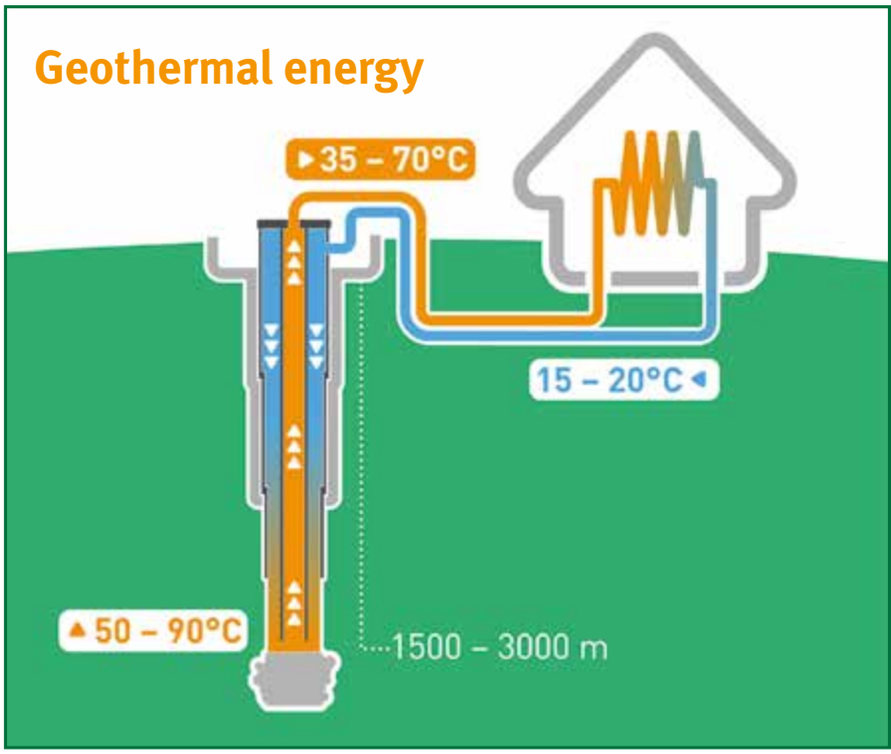
this before. However, these projects have not been commercially successful."

Greenwell has taken lessons from these experiences and applied them to a new formula. "We took the attitude of looking at what is not working and how to make it work," said Donke. Previous projects, for instance, considered geothermal on a grander scale, whereas Greenwell is starting out by focusing on serving mainly agricultural customers located near depleted wellpads.

The company, he said, "has developed processes to scout and screen possible well candidates, model their geothermal potential, identify the most suitable applications to use the generated heat and execute commercially successful projects."

The firm looks for suitable wells that have not yet been plugged and sealed and meet a crucial requirement — long-term energy potential. "One of the major technical issues is potential lifespan," said Robert Philipp, also a founder and partner in the Greenwell venture. "Any well where we can safely predict 20 years of additional lifespan we may accept for conversion."

Some depleted wells in the region are already used to store gas.



Industry veterans

Greenwell converted its first wellpad in late 2021 near the Czech village of Hrušky in cooperation with the local oil and gas producer MND, part of the MND Group. Donke, Philipp and their team installed a test container at a single wellpad to pump water in a loop to simulate various applications. The company is running tests during the winter months because it is more economical to cool the water for commercial applications.

Both veterans of the oil and gas industry, Donke and Philipp got to know each other at meetings of the Society of Petroleum Engineers and ultimately developed the idea to start Greenwell Energy. Asetila Köstinger, an innovation economist who is also a founding partner, is the firm's CEO.

Philipp previously worked at OMV, the Austrian oil and gas company with important business ties to several OPEC and non-OPEC 'Declaration of Cooperation' (DoC) countries. At OMV, Philipp was involved in environmental clean-ups and part of a team involved in decommissioning depleted wells. Donke is a former managing director of Halliburton's operations in Austria, Germany, Hungary and Romania.

The partners believe that of the estimated 800 oil and 400 gas wells currently producing in Austria alone, up to 30 per cent could be used for geothermal energy with production capacity for at least 20 years.

Advantages for oil producers

Greenwell's founders say the heat produced from these wells is both economic and sustainable. For starters, the wells have existed for decades and the geological and technical data is already available. The existing information helps in evaluating their energy potential and reduces overall capital expenditure involved in installing piping and pump infrastructure.

Since the energy source is near constant, both the cost and supply are relatively stable over the long-term, said Philipp. The main variable is the cost of electricity to pump heat to the end-user.

It is a potential win-win for all stakeholders, including European oil and gas producers that are coming under increasing policy and investment pressure to reduce their carbon footprint and raise their environmental profile.

"Greenwell's solution benefits the oil and gas company not only because it takes over its depleted well portfolio," Donke explained to the *OPEC Bulletin*. "It also increases the social and environmental perception and acceptance by giving a former hydrocarbon well a second life as a source of sustainable, renewable 'green' energy. This could also help in obtaining licenses to produce hydrocarbons if the geothermal after-use is already included in the initial development plan."

Sustainable stability

For the customer, Greenwell says it offers locally sourced, stable and affordable heat. It estimates that a 1,500 to 2,000 metre oil well could provide temperatures on the surface of around 30–60° Celsius.

"We are focusing on agricultural entrepreneurs and agricultural innovators," said Köstinger, Greenwell's CEO, noting that the heat from the depleted wells is ideal for greenhouses and food production to supply Central European markets.

She explained that there is huge demand for fruit, vegetables and specialized produce in the region, noting that four European capitals — Bratislava, Budapest, Prague and Vienna — are within relatively close proximity to the Vienna's Basin's oil and gas fields.

Founded in 2018, Greenwell has already attracted the attention of a customer interested in supplying fresh tropical fruit to nearby markets in a region known for its dark and bitingly cold winters.

Greenwell's test facility in Hrušky, a Czech village of 1,500 residents near the Austrian border, is located in a long-time oil and gas area. The nearby town of Hodonín hosts a Museum of Oil Mining and Geology featuring exhibits on the region's production dating to the early 1900s.

Blending in with the landscape

The Vienna Basin stretches from the eastern Alps across the Bohemian Massif and Western Carpathians, an area that was once at the heart of the Austro-Hungarian Empire and today falls within parts of Austria, Czechia and Slovakia. According to the Montan University in Leoben, Austria, the first discoveries of oil and gas deposits "triggered intensive and extensive hydrocarbon exploration in the Vienna Basin."

Travellers to the region would be hard pressed to know that there are hundreds of operating oil and gas wells scattered across its gently rolling hills and fertile farmland — and they are less intrusive than the increasing number of wind turbines dotting the landscape. The existing roads and other infrastructure serving wellpads provide a further cost advantage, according to Greenwell's founders, and help minimize the overall environmental footprint.

But there are limits to the geothermal potential of shut-in wells. Unlike the oil and gas previously produced at these wells, geothermal cannot be transported to other sites. And to be commercially viable, clusters of wells and wellpads are preferable to isolated ones.

Donke explained that the wellbore "serves as a closed-loop deep heat exchanger. Therefore, such a well cannot be used simultaneously with other uses such as carbon capture and storage." However, within a field of wells the geothermal applications can work in tandem with other energy resources, including hydrocarbons themselves, to support for power generation.

"Combination with other energy forms is easy," Philipp noted, adding that in areas where there is no existing energy infrastructure, the solar or winds could provide the electricity — although a reliable source of power is necessary to power the pumping system.

Harnessing the earth's heat

The idea of tapping the earth's natural pools of steaming heat for energy is as old as the Vienna Basin's oil and gas industry itself. The town of Larderello, in Italy's Tuscany region, is known to have the oldest geothermal plant in the world and has produced electricity from buried heat since 1904.

Today, the US is the global leader in generating power from geothermal sources, according to the US Energy Information Administration (EIA). The US produced 18,700 GWh of geothermal electricity in 2018, 0.4 per cent of the country's net power generation. In 2020, the US, Indonesia, the Philippines, Turkey, New Zealand and Mexico combined had 72 per cent of the globally installed geothermal power capacity.

If geothermal potential were harnessed globally, it could supply more 8.3 per cent of the world's total electricity needs and reach about 17 per cent of the global population, according to the Abu Dhabi-based International Renewable Energy Association (IRENA).

With production potential measured in kilowatts and not megawatts, Greenwell's oil and gas veterans are focusing for now on a niche market closer to Vienna. As Köstinger noted, "We don't bring the heat to the customer, we bring the customer to the heat."

Photos and illustrations courtesy of Greenwell.

IMPROVING CONNECTIVITY IN THE GAMBIA

$20m loan will help expand Bertil-Harding Highway

Gambia's capital Banjul has experienced significant population growth in recent years; however, the city's road transport infrastructure remains underdeveloped, resulting in travel bottlenecks and high transport costs.

The Gambian government, therefore, has accorded high priority to upgrading its road network under its National Transport Policy to improve accessibility and foster competitiveness and trade.

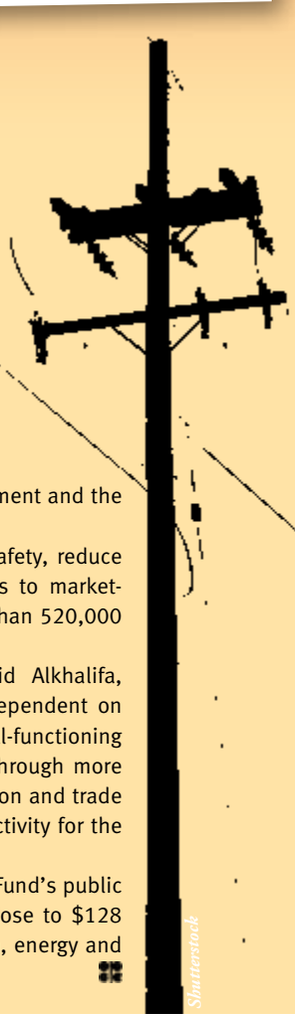
The 22 km-long Bertil-Harding Highway is an important stretch that provides a link between Old Jeshwang and the Banjul International Airport, vital to the connectivity of the area.

The recently-signed OPEC Fund loan agreement of $20 million will help expand and upgrade the Highway. Other co-financiers include the Abu Dhabi Fund for Development, the Arab Bank for Economic Development in Africa, the Kuwait Fund for Arab Economic Development and the Gambian government.

On completion the project will improve safety, reduce travel time and costs, and facilitate access to marketplaces, social amenities and jobs for more than 520,000 people in the Greater Banjul Area.

OPEC Fund Director-General, Abdulhamid Alkhalifa, said: "The Gambia's economy is heavily dependent on agriculture and tourism, which requires a well-functioning transport network. Increasing connectivity through more efficient transportation will support integration and trade and further promote social and economic activity for the citizens of the Greater Banjul Area."

In addition to the present loan, the OPEC Fund's public sector commitments to The Gambia total close to $128 million supporting transportation, education, energy and multi-sectoral projects.


Shutterstock

OPEC FUND
for International Development

Economic and social inclusion project supported with $20m OPEC Fund loan

IMPROVING CLIMATE RESILIENCE OF RURAL HONDURAN COMMUNITIES

The OPEC Fund signed a $20 million loan agreement with Honduras to co-finance a project that will enhance incomes and living conditions for some 70,000 people in rural communities, with a strong emphasis on boosting livelihoods for women and youth, reducing urban migration and strengthening the country's resilience to climate change.

The project, co-financed with the International Fund for Agricultural Development (IFAD) and the government of Honduras, will target Honduras' north-eastern region — an area characterized by high poverty levels and food insecurity. The region is also highly vulnerable to the effects of climate change, which threatens the livelihoods of small subsistence farmers that comprise the majority of the population.

The PROINORTE project will work with up to 90 producer organizations and support them to enhance their organizational and business capacities increasing access to market value chains and optimizing primary production, transformation and commercialization models.

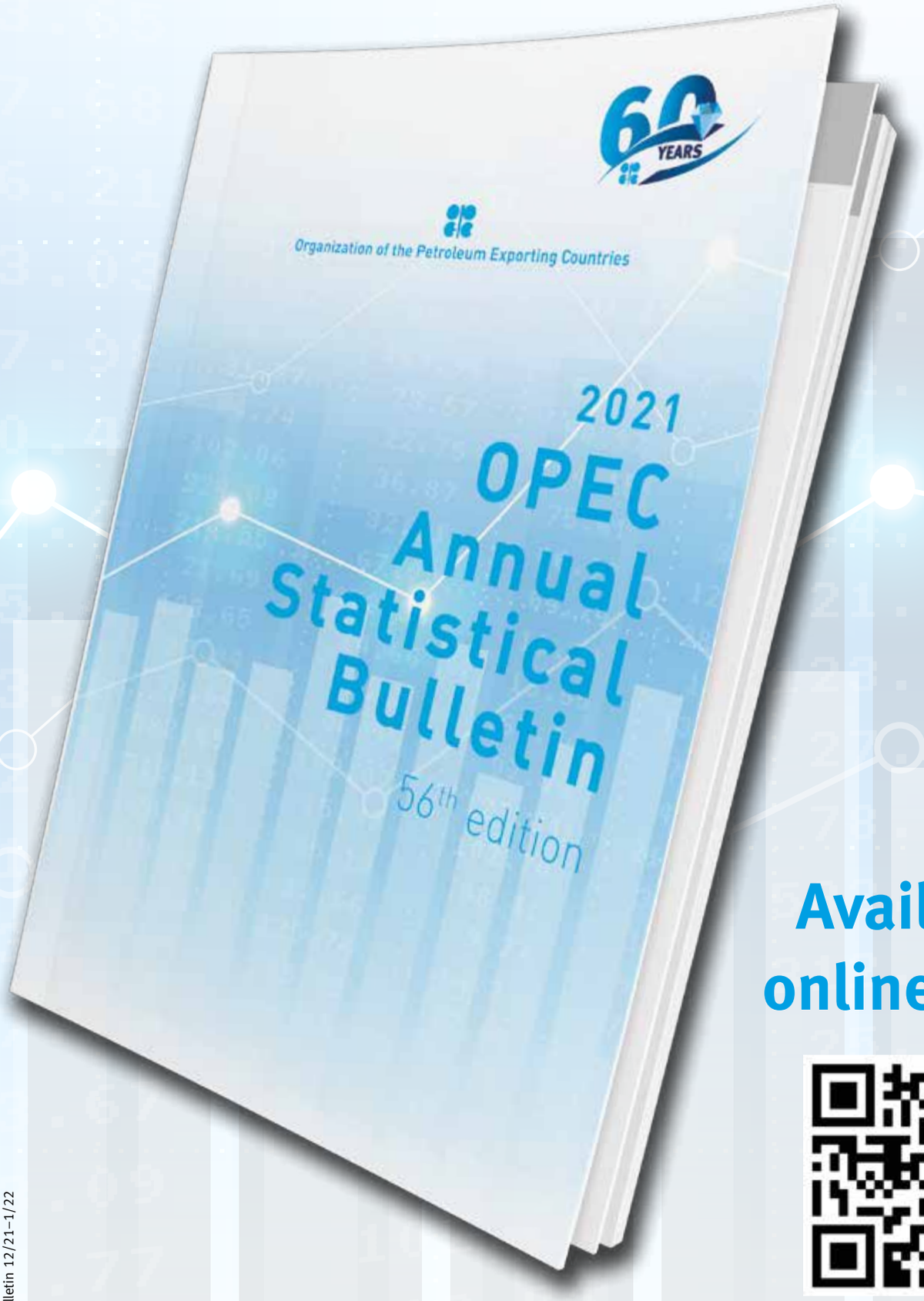
The OPEC Fund's contribution will specifically finance rural production infrastructure, water management and climate change mitigation activities, including the construction/upgrading of 220 km of roads, water storage and sanitation facilities, irrigation and food crops storage and processing facilities. In addition, around 10,500 energy efficient cooking stoves will be installed and environmental activities implemented, including reforestation of circa 1,000 hectares. Approximately 2,200 new on- and off-farm jobs will also be created under the project.


Shutterstock

> ***By providing communities with the necessary infrastructure and technical assistance, the project will promote self-sufficiency and sustainability.***
>
> ***OPEC Fund Director-General Abdulhamid Alkhalifa***

OPEC Fund Director-General Abdulhamid Alkhalifa said: "We are pleased to support Honduran rural communities that are affected by the impact of climate change, food insecurity and urban migration. By providing communities with the necessary infrastructure and technical assistance, the project will promote self-sufficiency and sustainability.

Honduras and the OPEC Fund have been partners in development since 1976. OPEC Fund's operations to the country have focused on energy, agriculture, transportation, financial (SMEs) and water and sanitation sectors, among others.



Available online now:

asb.opec.org

OPEC 8th International Seminar

... new date ... new date ... new date ... new date ... new date ...

June 29–30, 2022

Hofburg Palace, Vienna, Austria

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

'Towards an inclusive energy transition'

www.opec.org

Visit our website

www.opec.org

Review of 2021 and outlook for 2022

December 2021


OPEC Monthly Oil Market Report

13 December 2021

Feature article:
Review of 2021 and outlook for 2022

The global economy recovered strongly in 2021, supported by unprecedented fiscal and monetary stimulus in major economies, pent-up demand and increased investments. World GDP growth is estimated at 5.5 per cent in 2021 and is forecast at 4.2 per cent in 2022.

However, numerous challenges have emerged during the year, as the recovery was increasingly divergent among and within major economies.

Moreover, ongoing supply-chain issues, in combination with continued tight labour markets have led to rising core-inflation in some major economies. While some inflationary factors may qualify as temporary, the rise in wages and salaries in affected economies may turn out to be of a more sustained nature. Given the solid economic growth levels in most western economies, the unprecedented monetary stimulus may gradually be reduced in the short-term. This could potentially lead to additional challenges for highly indebted emerging economies, with foreign currency debt.

Global oil demand growth is estimated to have rebounded by 5.7 million barrels/day (m b/d) y-o-y in 2021. The non-OECD region increased 3.2m b/d, while the OECD is estimated to have added 2.5m b/d. This increase is driven by a steady rebound in economic activities and improved transportation fuel consumption, despite a resurgence in COVID-19 cases and containment measures.

In 2022, world oil demand is forecast to increase by 4.2m b/d, y-o-y, given improved COVID-19 management and rising vaccination rates, enabling economic activity and mobility to return to pre-pandemic levels, supporting transportation fuels in particular. OECD oil demand is forecast to grow by 1.8m b/d in 2022, while the non-OECD region is projected to increase by 2.3m b/d, supported by steady momentum in economic activities, particularly China, India and Other Asia. Meanwhile, as vaccination rates increase, the impact of the Omicron variant is projected to be mild and short-lived.

On the supply side, non-OPEC growth in 2021 is estimated at 700,000 b/d, impacted by major production outages in 2H21, due to weather and accidents, prolonged and unforeseen maintenance, as well as COVID-19-related safety measures in offshore platforms and drilling areas. On the other hand, non-OPEC participants in the 'Declaration of Cooperation' (DoC) continue to return their planned volumes to the market. The main drivers of growth in 2021 for non-OPEC supply are estimated to have been Canada, Russia, and China.

In 2022, non-OPEC supply is projected to see robust growth of 3.0m b/d, y-o-y, on the back of an expected gradual increase in drilling and completion activities in the US, leading to expected growth of 600,000 b/d for US tight oil output. The US and Russia are forecast to contribute two thirds of total expected growth, followed by Brazil, Canada, Kazakhstan, Norway, and Guyana. However, investment in the non-OPEC upstream sector in 2021 and 2022 is estimated at around $350 billion each, showing a 50 per cent drop compared to the 2014 level, and thereby limiting growth potential.

While the expected recovery in 2021 was surrounded with challenges, some of these are expected to continue into the next year. The expected market balance continues to be determined by the evolution of the COVID- 19 pandemic, as a key factor of uncertainty, but the successful joint efforts of the DoC continue to closely monitor all developments in a timely and vigilant manner, to be able to react to rapidly changing market circumstances.

MOMR ... oil market highlights

December 2021

Crude oil price movements — Crude oil spot prices declined in November, amid concerns regarding the emergence of the new Omicron COVID-19 variant, and easing of the energy crunch which had resulted in higher oil demand from the gas-to-oil switching. The OPEC Reference Basket (ORB) value dropped by $1.74, or 2.1 per cent, in November to average $80.37/b, amid lower prices of almost all medium and heavy sour grades in Asia, Europe, and the Americas. The year-to-date (y-t-d) ORB value reached $69.45/b, which is $28.71, or 70.4 per cent, higher compared with the same period last year of $40.75/b. Similarly, crude oil futures prices ended November sharply lower amid higher volatility after a broad selloff in futures and equity markets, amid the emergence of the new Omicron COVID- 19 variant and easing concerns about an energy crunch. The ICE Brent first-month fell by $2.90, or 3.5 per cent, in November to average $80.85/b, and NYMEX WTI declined by $2.57, or 3.2 per cent, to average $78.65/b. DME Oman crude oil futures prices fell by $2.11 m-om, or 2.6 per cent, to settle at $79.70/b in November. The spread between the ICE Brent and NYMEX WTI benchmarks narrowed further in November by 33¢ to average $2.20/b. Hedge funds and other money managers accelerated selling in November, contributing to the decline in oil prices. Combined speculative net length positions linked to ICE Brent and NYMEX WTI dropped to the lowest level since November 2020. The backwardation structure in all three markets weakened considerably in the second half of November.

World economy — The global GDP growth forecast in 2021 is revised slightly down to 5.5 per cent, from 5.6 per cent in the previous month's assessment, while the 2022 growth forecast remains unchanged at 4.2 per cent. The US is still expected to grow by 5.5 per cent in 2021 and 4.1 per cent in 2022, unchanged from last month's assessment. Similarly, Euro-zone economic growth remains at 5.1 per cent for 2021 and at 3.9 per cent for 2022. Japan's economic growth forecast for 2021 is revised down to two per cent from 2.5 per cent, after an unexpectedly strong decline in 3Q21, but forecast for 2022 is revised up to 2.2 per cent from two per cent, with ongoing 4Q21 momentum expected to be carried over into next year. Given the softening growth momentum in 2H21, China's economic growth forecast for 2021 is revised down to eight per cent from 8.3 per cent and to 5.6 per cent from 5.8 per cent for 2022. India's forecast for 2021 is revised down to now stand at 8.8 per cent, compared with nine per cent in the previous month, but anticipated momentum from 4Q21 has lifted the 2022 growth forecast to 7 per cent. Russia GDP growth forecast remains unchanged at 4 per cent for 2021 and 2.7 per cent for 2022. Brazil's economic growth forecasts for both 2021 and 2022 are also unchanged at 4.7 per cent and two per cent, respectively. The ongoing robust growth in the world economy continues to be challenged by uncertainties related to the spread of COVID-19 variants and the pace of vaccine rollouts worldwide, as well as ongoing global supply-chain bottlenecks. Additionally, sovereign debt levels in many regions, together with rising inflationary pressures and potential central bank responses, remain key factors that require close monitoring.

World oil demand — World oil demand is kept unchanged compared to last month's assessment, showing a growth of 5.7m b/d in 2021. However, oil demand was adjusted higher in 1H21, amid better-than-anticipated transportation fuel consumption in OECD, offset by a downwardly-revised estimate for 3Q21 due to increased COVID-19 cases and softer industrial production in China, as well as easing transportation fuel recovery in India. The 4Q21 oil demand was adjusted slightly lower, mainly to account for COVID-19 containment measures in Europe and the potential impact of the new Omicron COVID-19 variant. The forecast for 2022 is also kept unchanged at 4.2m b/d. Indeed, some of the recovery previously expected in 4Q21 is now shifted to 1Q22, followed by a more steady recovery throughout 2H22. The impact of the new Omicron variant is expected to be mild and short-lived, as the world becomes better equipped to manage COVID-19 and its related challenges. This is in addition to a steady economic outlook in both the advanced and emerging economies.

World oil supply — Non-OPEC liquids supply growth in 2021 remained unchanged at around 700,000 b/d y-o-y to average 63.7m b/d. The upward revisions in the US, and Canada were offset by downward adjustments to Brazil, and Norway. The 2021 oil supply forecast primarily sees growth in Canada, Russia, China, US, Norway, Guyana, and Qatar, while output is projected to decline in the UK, Colombia, Indonesia and Brazil. Similarly, the non-OPEC supply growth forecast for 2022 is also kept unchanged at around 3.0m b/d, to average 66.7m b/d. The main drivers of liquids supply growth are expected to be the US and Russia, followed by Brazil, Canada, Kazakhstan, Norway and Guyana. OPEC NGLs are forecast to grow by 100,000 b/d both in 2021 and 2022 to average 5.1m b/d and 5.3m b/d, respectively. In November, OPEC crude oil production increased by 290,000 b/d m-o-m, to average 27.72m b/d, according to available secondary sources.

Product markets and refining operations — Refinery margins in all main trading hubs weakened in November, as the performance of all product across the barrel in all regions lost ground m-o-m with the exception of Naphtha in Asia. This downturn was attributed to a rise in product outputs as refineries ramped-up run rates, following major turnarounds to replenish product inventory levels. In addition, the seasonal demand-side weakness amid renewed lockdown measures as a result of a rise in COVID-19 infection rates further weighed on product markets. Going forward, a potential continuation of a rise in global refinery processing rates will most likely lead to a widening product balance and continued weakness in product markets in the coming month. Moreover, concerns over the spread of the Omicron variant is set to add to the downside and further suppress the robust recovery in jet fuel margins witnessed in the recent months, particularly during the end of the year holiday season.

Tanker market — Dirty tanker spot freight rates remained steady in November, as the expected year-end upward momentum had yet to show. For VLCCs, the Middle East-to-East route averaged WS43, up two per cent m-o-m. While this represented an improvement over November 2020, it is still well below pre-COVID levels for this time of year. For Suezmax, the West Africa-to-US Gulf Coast averaged WS61 for a decline of six per cent. In contrast, clean tanker spot rates strengthened, with gains both east and west of Suez. Optimism for the end of the year has been shaken somewhat by the uncertainty around the impact of the Omicron variant on economic activities, as well as the persistent imbalance in the tanker market.

Crude and refined products trade — Preliminary data shows US crude imports in November partly recovered from a dip in the month before to average 6.4m b/d. US crude exports also rose for the second month to average 2.9m b/d. China's crude imports averaged 8.9m b/d in October, the lowest since February 2018, although preliminary customs data shows a recovery in November with crude imports averaging 10.2m b/d. India's crude imports feel back, following two months of gains, averaging 4.0m b/d in October. In contrast, India's product imports increased, driven by higher inflows of gasoline and fuel oil. Japan's crude imports fell for the second month in a row, averaging 2.4m b/d in October. In OECD Europe, the latest data for August shows crude imports remaining strong at 8.7m b/d, while crude exports continued to edge higher reaching 500,000 b/d.

Commercial stock movements — Preliminary October data sees total OECD commercial oil stocks up by 9.9m b m-o-m. At 2,773m b, they were 357m b lower than the same time one year ago, 207m b lower than the latest five-year average and 174m b below the 2015–19 average. Within the components, crude and products stocks rose by 9.4m b and 500,000 b m-o-m respectively. At 1,307m b, OECD crude stocks stood 154m b below the latest five-year average and 149m b below the 2015–19 average. At 1,465m b, OECD product stocks exhibited a deficit of 52m b below the latest five-year average, and were 25m b lower than the 2015–19 average. In terms of days of forward cover, OECD commercial stocks rose m-o-m by 1.0 day in October to stand at 61.7 days. This is 12.1 days below October 2020 levels, 2.7 days below the latest five-year average, and 0.7 days less than the 2015–19 average.

Balance of supply and demand — Demand for OPEC crude in 2021 is revised up by 200,000 b/d from the previous month's assessment to stand at 27.8m b/d, around 4.9m b/d higher than in 2020. Demand for OPEC crude in 2022 was revised up by 200,000 b/d from the previous month's assessment to stand at 28.8m b/d, around 1.0m b/d higher than in 2021.

The feature article and oil market highlights are taken from OPEC's Monthly Oil Market Report (MOMR) for December 2021. 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.

Monetary policies and their impact on the oil market

January 2022


OPEC Monthly Oil Market Report

18 January 2022

Monetary policies and their impact on the oil market

Feature article:

In 2021, the world economy rebounded considerably from the outbreak of COVID-19 pandemic in 2020. However, the pandemic continued to be a major challenge throughout 2021, particularly with the emergence of new variants such as Delta in 2Q21 and Omicron in 4Q21. At the same time, major central banks, including the US Federal Reserve (Fed), the European Central Bank (ECB), the Bank of England (BoE) and the Bank of Japan (BoJ), carried over their respective efforts of extraordinary quantitative easing (QE) programmes into 2021. In parallel, the global oil market continued its impressive recovery in 2021, driven by strong global oil demand, given worldwide lockdowns gradually easing and mobility increasing, and supported by the relentless efforts of the 'Declaration of Cooperation' (DoC), which continued to rebalance oil markets.

The massive monetary stimulus programmes launched by the major central banks led their balance sheets to expand significantly in 2020 and 2021. However, these QE efforts, in combination with strong underlying global demand and supply-chain bottlenecks, have resulted in higher inflation levels, which are now persisting in major economies. To curtail the potentially long-lasting impact of inflation, the major central banks have announced that they would adjust their QE programmes and consider reducing their very accommodative monetary policies.

Meanwhile, higher inflation levels have impacted economies to varying degrees. In developed, economies, US inflation has picked up strongly. In the emerging economies, particularly Russia and Brazil, inflation has been significant and led to rate hikes. In key Asian economies, including China and Japan, inflation has remained relatively low.

In the US, the Fed announced a faster tapering of already ongoing reductions in QE measures and is likely to raise key policy rates in 2022 multiple times. On the other hand, the ECB announced that it would only gradually start reducing its QE measures in March 2022 and does not plan to hike interest rates before 2023. The BoE is pursuing the fastest path, having already announced a rate increase in its December meeting, front-running the other major central banks, while ending QE measures in 2021. The BoJ, with the relatively largest monetary stimulus and an extensive history of QE policies, has announced a reduction in pandemic-related QE, but will continue with general ultra-loose monetary policy and non-pandemic-related QE.

Higher interest rates, compounded by the ongoing US economic growth recovery, will most likely appreciate the value of the US dollar relative to other currencies. This may have a few implications on the oil market. Historically, a strong dollar would cause non-US-dollar denominated net-importing economies to require more of their local currency to import crude oil. However, in the past, a gradually strengthening US dollar had a limiting effect on oil price. Moreover, significant key US interest rate hikes are expected for 2Q22, which coincides with the run-up to northern hemisphere's driving season. Therefore, any demand decrease in the oil market as a result of tighter monetary policies will likely be offset by an increase in demand associated with the driving season at a time of slowing of COVID-19 infections in the northern hemisphere should support an acceleration in oil demand.

In summary, monetary actions are not expected to hinder underlying global economic growth momentum, but rather serve to recalibrate otherwise overheating economies. With an ongoing robust oil demand forecast, and the continuing efforts of OPEC Member Countries and non-OPEC countries participating in the DoC, the oil market is expected to remain well-supported throughout 2022.

MOMR ... oil market highlights

January **2022**

Crude oil price movements — Both crude oil spot and futures prices fell for the second-consecutive month in December. Major physical crude benchmarks decreased about nine per cent, m-o-m, on growing concerns that the rapid spread of the Omicron COVID-19 variant may have an impact on the global economy and oil demand. The OPEC Reference Basket fell $5.99, or 7.5 per cent, to settle at a three-month low of $74.38/b. Crude oil futures prices extended losses in December, declining on both sides of the Atlantic, with the ICE Brent front month down $6.05, or 7.5 per cent, to average $74.80/b and NYMEX WTI declining by $6.96, or 8.8 per cent, to average $71.69/b. Consequently, the Brent/WTI futures spread widened 91¢ to average $3.11/b. The market structure of all three crude benchmarks — ICE Brent, NYMEX WTI and DME Oman — weakened in December, m-o-m. Hedge funds and other money managers extended sharp sell-offs in the first half of December, cutting combined futures and options net long positions related to ICE Brent and NYMEX WTI by about 30 per cent between early November and mid-December.

World economy — The global GDP growth forecasts for 2021 and 2022 remain unchanged at 5.5 per cent and 4.2 per cent, respectively. The US is estimated to grow by 5.5 per cent in 2021, while growth for 2022 is slightly lowered to four per cent. Euro-zone economic growth for 2021 is revised up to 5.2 per cent, while growth for 2022 remains unchanged at 3.9 per cent. Japan's economic growth forecast for 2021 is revised down to 1.8 per cent, while growth for 2022 remains unchanged at 2.2 per cent. Growth forecasts in emerging economies remain largely unchanged, with China's forecast at eight per cent for 2021 and 5.6 per cent for 2022. India's forecast for 2021 stands at 8.8 per cent, and is forecast at seven per cent in 2022. Russia's GDP growth forecast remains unchanged at four per cent for 2021 and 2.7 per cent for 2022. Brazil's economic growth forecast for 2021 is unchanged at 4.7 per cent, while growth for 2022 was revised down to 1.5 per cent. The spread of COVID-19 variants and the effectiveness of vaccines, as well as the pace of vaccine rollouts worldwide, remain key uncertainties. Moreover, supply chain bottlenecks and sovereign debt levels in many regions, together with rising inflationary pressures and the responses of central banks, remain key factors that require close monitoring.

World oil demand — World oil demand growth in 2021 is unchanged from last month's assessment at 5.7 million barrels/day (m b/d) to average 96.6m b/d. An upward revision in 4Q21, amid better-than-anticipated transportation fuel consumption in the OECD, was offset by a downward revision in 3Q21 given the latest actual data. Oil demand growth in the OECD is estimated to have averaged 2.5m b/d and, in the non-OECD region, oil demand growth is estimated at 3.1m b/d for the year. In 2022, the forecast for world oil demand growth also remains unchanged at 4.2m b/d, with total global consumption at 100.8m b/d. In the OECD, oil demand is forecast to grow by 1.8m b/d, while in the non-OECD oil demand is projected to increase by 2.3m b/d. While the impact of the Omicron variant is projected to be mild and short-lived, uncertainties remain regarding new variants and renewed mobility restrictions, amid an otherwise steady global economic recovery.

World oil supply — Non-OPEC liquids supply growth in 2021 remains unchanged at around 700,000 b/d, y-o-y, to average 63.6m b/d. Upward revisions in the US and Kazakhstan were offset by downward adjustments to Brazil, Canada, Ecuador and Norway. The 2021 oil supply estimate primarily sees growth in Canada, Russia, China, the US, Guyana, Norway, Argentina and Qatar, while output is expected to have declined in the UK, Brazil, Colombia and Indonesia. Similarly, the non-OPEC supply growth forecast for 2022 is also unchanged at around 3.0m b/d, to average 66.7m b/d. The main drivers of liquids supply growth are expected to be the US and Russia, followed by Brazil, Canada, Kazakhstan, Norway and Guyana. OPEC NGLs are forecast to grow by 100,000 b/d both in 2021 and 2022 to average 5.1m b/d and 5.3m b/d, respectively. In December, OPEC crude oil production increased by 200,000 b/d m-o-m, to average 27.9m b/d, according to available secondary sources.

Product markets and refining operations — Refinery margins in all main trading hubs rebounded in December from the downturn seen in the previous month. Margins reached their second highest levels since May 2020 and inched closer to the record highs seen in October 2021. An increasingly tighter product balance in all regions and a pick-up in fuel consumption levels, amid the end-of-the-year holidays, combined to provide positive stimulus to product markets and ultimately led to a robust performance by jet fuel, kerosene and fuel oil, despite a significant rise in global product output levels and rising COVID-19 cases. In addition, strong heating fuel demand, as well as prevailing high gas prices, particularly in Europe, lent further backing to middle distillate markets. In contrast, temporary lockdowns in December exacerbated the seasonal gasoline weakness in the Atlantic Basin, thus limiting further gains in refining economics.

Tanker market — The long-expected year-end recovery in dirty tanker spot freight rates failed to materialize in December, as lockdowns at the end of the year and softer Chinese buying limited tonnage demand. On average, VLCCs and Aframax slipped five per cent and three per cent, respectively, m-o-m in December. Suezmax managed a seven per cent gain over the month before, but remained well below pre-COVID-19 levels. For the year 2021, average VLCC and Suezmax spot freight rates witnessed their worst performance going back more than a decade. Clean rates enjoyed a better performance in December, particularly West of Suez, supported by demand on the Mediterranean routes.

Crude and refined products trade — Preliminary data shows US crude imports edged lower in the final month of the year, but managed to end four per cent higher, y-o-y, in 2021, averaging 6.1m b/d. US crude exports remained below 3.0m b/d in December and averaged 2.9m b/d in 2021, representing a nine per cent decline. The latest data for China shows the country's crude imports recovered from the low level seen in October to average 10.2m b/d in November, as state-owned refiners returned to the market. Preliminary data for December shows crude imports increasing further to 10.9m b/d in the final month of the year. This would result in China's crude imports in 2021 averaging 10.3m b/d, down around five per cent from the inflated levels seen in 2020 when Chinese buyers snapped up excess volumes in the market. In India, crude imports jumped to a ten-month high in November to average 4.5m b/d as refiners sought to replenish inventories in preparation for higher runs in 1Q22, following holidays in October and early November. Product exports from India remained steady, averaging 1.3m b/d in November, as diesel outflows remained strong and jet fuel exports increased, reflecting tightness in the Asian market due to constrained exports from China. Japan's crude imports jumped in November to the highest since March 2020, averaging 2.8m b/d, amid higher refinery runs to meet winter heating demand. The latest data shows crude imports into OECD Europe slipped in September, although tanker tracking data shows inflows picking up through November and then easing in December amid lockdown measures.

Commercial stock movements — Preliminary November data sees total OECD commercial oil stocks down by 16.0m b, m-o-m. At 2,721m b, OECD commercial oil stocks were 389m b lower than the same period in 2020, 247m b lower than the latest five-year average, and 221m b below the 2015–19 average. Within the components, crude and products stocks fell, m-o-m, by 12.7m b and 3.3m b, respectively. At 1,317m b, crude stocks in the OECD were 143m b less than the latest five-year average and 137m b below the 2015–19 average. OECD product stocks stood at 1,405m b, representing a deficit of 104m b compared with the latest five-year average and 84m b below the 2015–19 average. In terms of days of forward cover, OECD commercial stocks fell, m-o-m, in November by 0.2 day to stand at 60.7 days. This is 13.2 days below November 2020 levels, 3.6 days less than the latest five-year average and 1.5 days lower than the 2015–19 average.

Balance of supply and demand — Demand for OPEC crude in 2021 remains unchanged from the previous month to stand at 27.8m b/d, around 4.9m b/d higher than in 2020. Demand for OPEC crude in 2022 also remains unchanged from the previous month to stand at 28.9m b/d, around 1.0m b/d higher than in 2021.

The feature article and oil market highlights are taken from OPEC's Monthly Oil Market Report (MOMR) for January 2022. 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.

Table 1: OPEC Reference Basket spot crude prices

$/b

Crude/Member Country	2020 Dec	2021 Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Weeks 49-53/2021 (week ending) Dec 3	Dec 10	Dec 17	Dec 24	Dec 31
Arab Light – Saudi Arabia	49.24	54.78	61.49	65.20	64.09	67.72	72.76	74.15	71.36	75.01	82.77	80.81	75.49	72.36	75.11	75.44	74.68	78.88
Basrah Light – Iraq	49.95	54.73	61.40	65.17	63.48	66.96	71.79	73.40	70.39	73.75	81.48	79.62	74.09	71.27	73.89	74.00	73.22	77.14
Bonny Light – Nigeria	49.59	55.01	62.24	65.57	64.17	67.61	72.21	75.37	71.23	74.09	82.90	80.73	74.43	72.00	74.83	74.10	73.61	76.76
Djeno – Congo*	42.29	47.28	54.78	58.11	57.01	61.04	65.51	67.54	63.35	66.95	76.09	73.92	66.66	64.61	67.05	66.32	65.88	68.98
Es Sider – Libya	48.09	53.08	60.83	63.56	62.11	66.16	71.01	73.64	69.45	72.75	81.59	80.32	73.35	71.19	73.75	73.02	72.53	75.68
Girassol – Angola	51.50	55.84	62.99	66.04	64.00	68.39	73.47	75.45	70.93	74.76	84.47	82.29	75.16	72.91	75.41	74.92	74.43	77.58
Iran Heavy – IR Iran	49.20	54.38	60.66	64.30	63.00	66.72	71.68	72.98	70.34	74.08	82.14	80.50	74.68	72.10	74.30	74.63	73.74	77.95
Kuwait Export – Kuwait	49.36	54.83	61.31	64.86	63.75	67.54	72.54	73.80	71.06	74.92	82.74	81.13	75.38	72.76	75.01	75.32	74.44	78.66
Merey – Venezuela	32.70	37.40	42.87	46.47	46.16	49.13	53.52	54.49	51.76	54.96	62.72	61.21	54.89	53.01	54.55	54.85	54.04	57.83
Murban – UAE	49.48	54.93	60.99	64.33	63.35	66.82	72.34	73.64	69.89	73.41	82.73	82.06	74.57	72.76	73.87	74.40	73.95	78.11
Rabi Light – Gabon	49.28	54.27	61.77	65.10	64.00	68.03	72.50	74.53	70.34	73.94	83.08	80.91	73.65	71.60	74.04	73.31	72.87	75.97
Saharan Blend – Algeria	49.99	55.08	62.38	65.76	64.01	67.81	72.31	75.34	71.05	73.85	83.54	81.97	75.50	73.14	75.90	75.17	74.68	77.83
Zafiro – Equatorial Guinea	50.43	55.07	62.46	65.99	64.75	68.49	73.50	75.66	70.41	74.03	84.12	82.25	74.35	72.37	74.70	74.03	73.58	76.73
OPEC Reference Basket	49.17	54.38	61.05	64.56	63.24	66.91	71.89	73.53	70.33	73.88	82.11	80.37	74.38	71.72	74.14	74.27	73.55	77.50

Table 2: Selected spot crude prices

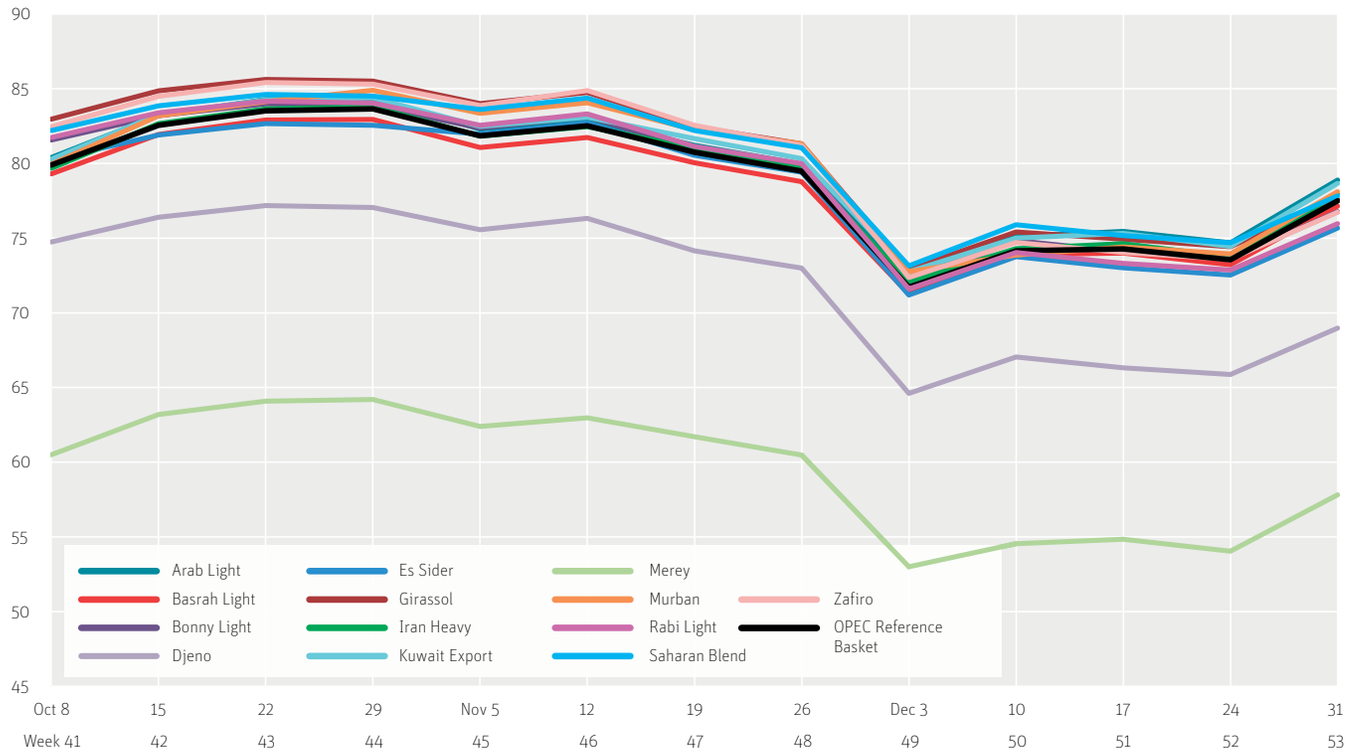
$/b

Crude/country	2020 Dec	2021 Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Weeks 49-53/2021 (week ending) Dec 3	Dec 10	Dec 17	Dec 24	Dec 31
Arab Heavy – Saudi Arabia	49.59	54.88	61.16	64.72	63.31	67.22	72.08	73.25	70.65	74.07	81.92	80.19	74.27	71.74	73.89	74.22	73.32	77.53
Brega – Libya	48.69	53.78	61.28	64.11	62.66	66.51	71.21	73.74	69.35	72.80	81.69	80.22	73.35	71.15	73.75	73.02	72.53	75.68
Brent Dtd – North Sea	49.74	54.73	62.23	65.56	64.46	68.51	72.96	74.99	70.80	74.40	83.54	81.37	74.10	72.06	74.50	73.77	73.28	76.43
Dubai – UAE	49.78	54.76	60.83	64.40	62.92	66.41	71.50	72.83	69.37	72.57	81.46	80.29	73.31	71.46	72.88	73.24	72.41	76.77
Ekofisk – North Sea	50.29	55.17	63.01	66.30	65.00	69.44	73.54	76.24	71.85	74.74	84.24	82.75	75.30	73.61	75.59	74.86	74.73	78.86
Iran Light – IR Iran	48.50	53.32	59.90	62.72	61.58	65.73	70.00	71.52	66.51	71.08	80.36	78.51	71.50	69.79	72.23	71.23	70.56	74.64
Isthmus – Mexico	46.60	52.06	58.90	61.88	60.94	64.47	68.61	69.61	65.25	68.82	78.20	75.50	68.50	63.82	67.80	68.28	68.84	72.48
Oman – Oman	50.00	54.79	60.88	64.43	63.10	66.42	71.66	72.87	69.54	72.78	81.58	80.29	73.22	70.89	72.89	73.20	72.22	76.29
Suez Mix – Egypt	48.37	53.19	59.77	62.59	61.45	65.60	69.87	71.39	66.38	70.95	80.23	78.38	71.37	69.66	72.10	71.10	70.43	74.51
Minas – Indonesia*	47.91	53.00	59.84	63.63	62.86	66.06	71.12	72.24	68.45	72.62	81.34	79.35	72.44	70.15	71.86	72.36	71.32	76.31
Urals – Russia	50.07	54.89	61.47	64.29	63.02	67.26	71.57	73.09	68.14	72.65	81.93	80.08	73.14	71.36	73.80	72.80	72.13	75.28
WTI – North America	47.05	52.11	59.08	62.35	61.71	65.23	71.38	72.58	67.73	71.46	81.36	79.11	71.87	66.89	71.30	71.23	71.98	76.42

Notes:
Brent for dated cargoes; Urals cif Mediterranean. All others fob loading port.
* *The Republic of the Congo joined on June 22, 2018.*
Sources: Argus; Secretariat's assessments.

Graph 1: Evolution of the OPEC Reference Basket spot crude prices, 2021

$/b



Graph 2: Evolution of selected spot crude prices, 2021

$/b

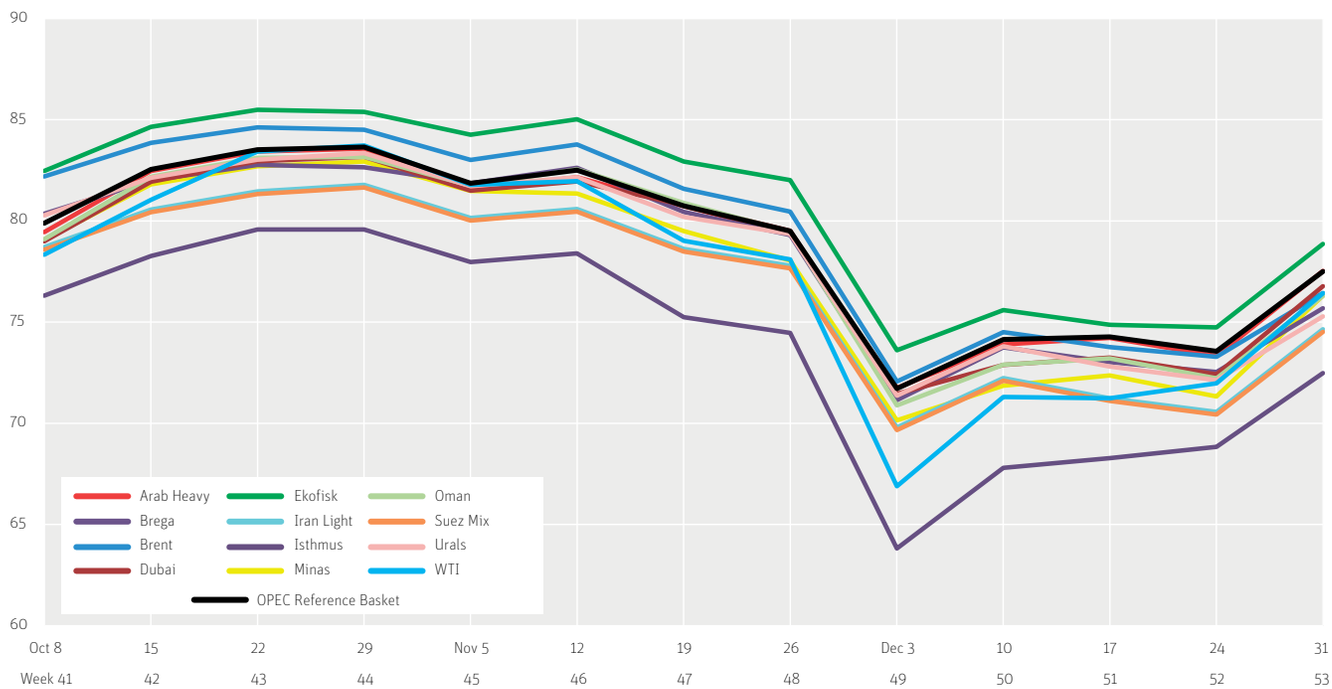


Table and Graph 3: North European market — spot barges, fob Rotterdam

$/b

		naphtha	regular gasoline unleaded	diesel ultra light	jet kero	fuel oil 1 per cent S	fuel oil 3.5 per cent S
2020	December	47.63	55.64	54.25	55.20	50.02	43.65
2021	January	55.22	63.06	59.40	60.06	55.52	48.85
	February	61.37	70.71	66.45	67.89	63.42	54.38
	March	63.36	76.83	68.66	69.93	66.22	57.31
	April	61.70	79.81	68.65	69.58	63.84	55.90
	May	65.58	83.11	73.18	74.53	65.03	57.19
	June	70.13	86.70	77.83	79.34	68.84	61.43
	July	74.43	91.10	79.27	80.29	71.11	62.09
	August	71.63	90.74	76.59	77.67	68.47	59.88
	September	75.19	93.89	82.87	84.35	73.93	64.09
	October	84.42	103.48	95.73	96.92	81.72	72.06
	November	81.41	100.77	91.26	92.83	77.65	65.40
	December	77.40	90.49	86.20	86.38	73.64	62.52

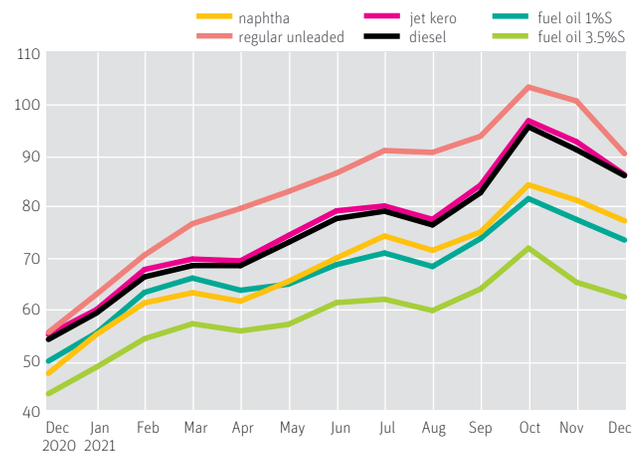


Table and Graph 4: South European market — spot cargoes, fob Italy

$/b

		naphtha	premium gasoline 50ppm	diesel ultra light	fuel oil 1 per cent S	fuel oil 3.5 per cent S
2020	December	47.08	52.12	56.16	50.76	42.21
2021	January	54.51	59.87	60.93	56.45	47.80
	February	60.28	68.13	68.54	64.62	53.13
	March	62.59	74.73	70.63	67.48	55.71
	April	60.82	75.80	70.21	65.31	54.41
	May	64.72	78.60	75.11	66.22	56.01
	June	69.56	82.43	79.92	69.97	59.94
	July	74.03	87.81	81.16	72.11	60.93
	August	71.28	85.79	78.50	70.01	58.97
	September	74.92	88.58	85.00	75.26	63.76
	October	83.83	97.74	97.63	83.38	71.40
	November	80.76	92.83	93.15	79.64	64.50
	December	75.50	86.82	87.05	75.70	61.24

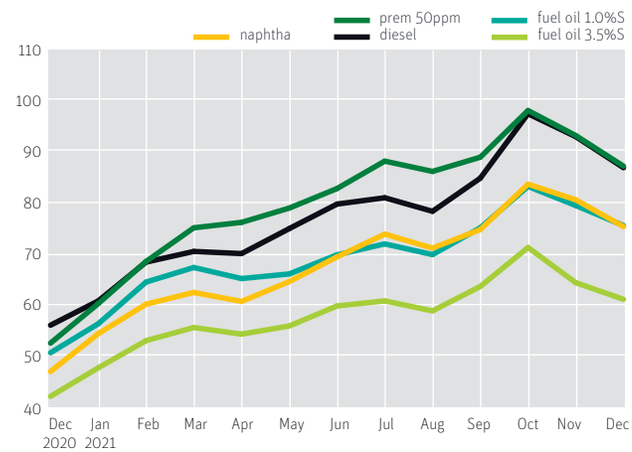
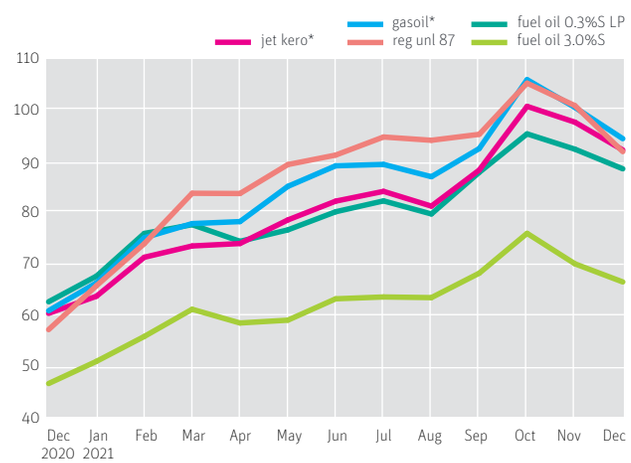


Table and Graph 5: US East Coast market — spot cargoes, New York

$/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
2020	December	57.06	60.75	60.24	62.50	46.54
2021	January	65.63	66.20	63.58	67.50	50.87
	February	73.85	75.00	71.19	75.84	55.73
	March	83.68	77.76	73.39	77.55	61.04
	April	83.63	78.15	73.87	74.30	58.36
	May	89.28	85.02	78.47	76.53	58.91
	June	91.13	89.04	82.14	80.07	63.08
	July	94.66	89.31	84.05	82.19	63.44
	August	94.02	86.91	81.17	79.64	63.31
	September	95.18	92.40	88.21	87.76	68.08
	October	105.17	105.85	100.64	95.27	75.86
	November	100.78	100.43	97.55	92.28	69.91
	December	91.80	94.33	92.12	88.45	66.37



* *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
2020	December	47.80	53.43	52.40	54.50	54.40	53.87	46.08
2021	January	55.83	60.03	58.92	58.87	58.77	58.02	50.35
	February	61.85	67.83	66.36	66.70	66.45	65.15	55.74
	March	65.03	73.43	71.47	68.75	68.39	66.82	58.97
	April	62.40	73.94	71.69	67.73	67.40	66.74	57.08
	May	65.94	76.11	74.38	72.11	71.90	71.71	57.70
	June	70.64	80.31	78.81	76.78	76.61	75.91	62.62
	July	75.57	85.14	83.08	77.93	77.72	77.25	63.53
	August	71.01	81.13	78.94	73.77	73.55	74.05	62.33
	September	75.15	84.06	82.05	79.66	79.46	79.88	69.18
	October	84.45	98.48	95.71	93.38	93.10	93.09	74.81
	November	84.21	95.01	92.15	90.84	90.65	89.09	68.76
	December	77.82	87.92	85.79	84.94	84.50	83.47	63.75

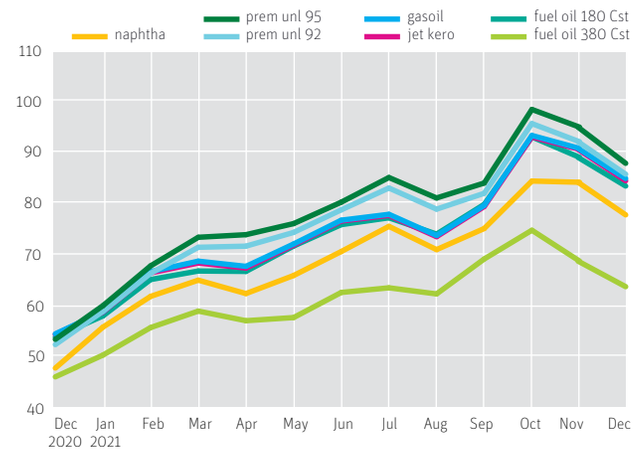
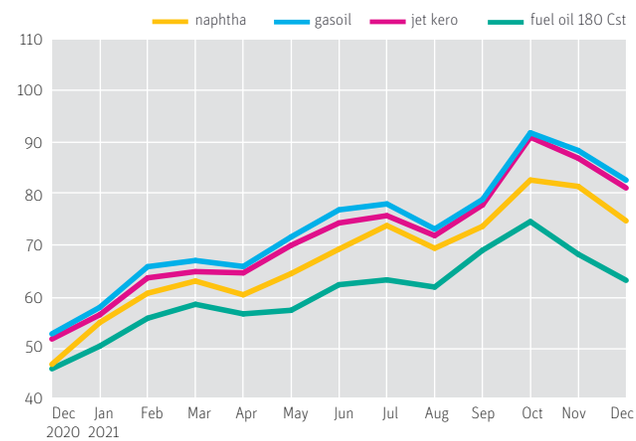


Table and Graph 7: Middle East Gulf market – spot cargoes, fob

$/b

		naphtha	gasoil	jet kero	fuel oil 180 Cst
2020	December	46.80	52.72	51.72	45.94
2021	January	54.92	57.87	56.43	50.34
	February	60.62	65.78	63.61	55.76
	March	62.99	66.98	64.82	58.47
	April	60.32	65.82	64.58	56.61
	May	64.44	71.57	69.94	57.31
	June	69.20	76.83	74.28	62.28
	July	73.78	77.98	75.70	63.22
	August	69.36	73.10	71.82	61.82
	September	73.62	78.84	77.78	68.97
	October	82.62	91.80	90.95	74.55
	November	81.38	88.36	86.86	68.20
	December	74.69	82.60	81.08	63.13

Source: Argus. Prices are average of available days.

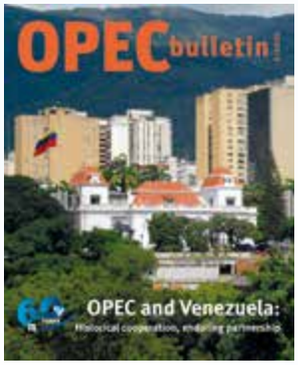


OPEC offers a range of publications that reflect its activities. Copies can be obtained by contacting this Department, which regular readers should also notify in the event of a change of address:

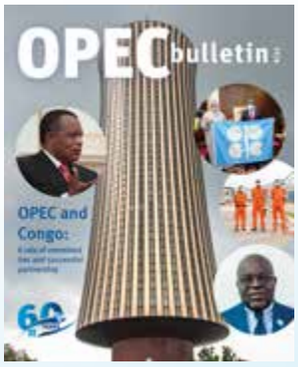
PR & Information Department, OPEC Secretariat
Helferstorferstrasse 17, A-1010 Vienna, Austria
Tel: +43 1 211 12-0; fax: +43 1 216 4320; e-mail: prid@opec.org

OPEC Bulletin
(free of charge)

November 2021

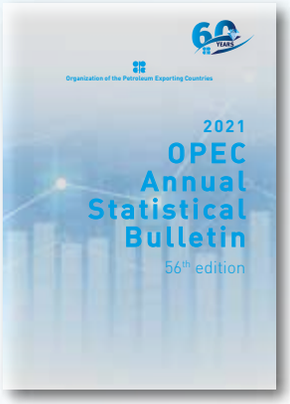


September/October 2021



August 2021

Annual Statistical Bulletin 2021



92-page book
Interactive version available at http://asb.opec.org/

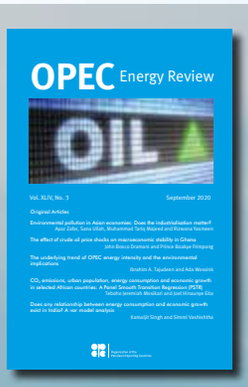
World Oil Outlook 2021
(free of charge)

OPEC Monthly Oil Market Report *(free of charge)*

- Crude oil and product prices analysis
- Member Country output figures
- Stocks and supply/demand analysis

Annual Report 2020
(free of charge)

OPEC Energy Review



Contains research papers by international experts on energy, the oil market, economic development and the environment. Available quarterly only from the commercial publisher. Annual subscription rates for 2015:

	Institutional			Personal
	Print	Online	Print & online	Print & online
Europe €	615	615	738	182
UK £	485	485	582	123
Americas $	814	814	977	203
Rest of world $	949	949	1,139	£123

Canadian residents, please add five per cent for GST.

Orders and enquiries:
John Wiley & Sons, 9600 Garsington Road, Oxford OX4 2DQ, UK.
Tel: +44 (0)1865 776868; fax: +44 (0)1865 714591; e-mail: cs-journals@wiley.com;
http://onlinelibrary.wiley.com/

www.opec.org