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Special Edition

Anniversary Declaration of Cooperation



Brunei Darussalam

Malaysia



Iraq

Algeria

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South Sudan

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Congo

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Nigeria

Equatorial Guinea

Gabon

Oman

IR Iran

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Five years on: the DoC moves from strength-to-strength

t seems like just yesterday when ministers of OPEC and non-OPEC oil producing countries joined together with a shared vision in the face of a desperate market situation and signed the 'Declaration of Cooperation' (DoC). Five years have flown by since that fateful December 10 day in 2016.

This edition of the *OPEC Bulletin* will take a look back at all that has happened over the past five years regarding the DoC, because as famous leader Nelson Mandela said: "Remember to celebrate milestones as you prepare for the road ahead."

The DoC was born from a landmark decision taken at the 170th (Extraordinary) Meeting of the OPEC Conference in Algiers, Algeria, on September 28, 2016, followed by decisions made in Vienna at the 171st Meeting of the OPEC Conference on November 30 and a December 10 meeting with 11 non-OPEC producers, when the DoC was signed. On that day, participating producers agreed on an unprecedented total downward production adjustment of 1.8 million barrels/day in order to bring balance back to the market.

As history attests, it worked like a charm, with the market quickly stabilizing and several years of positive world economic growth and prosperity ensuing.

Indeed, at this key juncture, as we look back on five years of the DOC, we see a long list of achievements and firsts from that time: the first production adjustment since Oran 2008; the first time participating non-OPEC countries committed to join OPEC in its efforts to re-establish stability in the market through voluntary adjustments to production; the first time a Joint OPEC-non-OPEC Ministerial Monitoring Committee (JMMC) had ever been created to monitor implementation of a joint decision, along with its supporting Joint Technical Committee (JTC); and the first time that a framework for sustained, structured and transparent cooperation between OPEC and non-OPEC nations has ever been established.

More milestones were to come. Following the largest-ever production adjustment of $1.8 \, \text{m}$ b/d when the DoC was signed, participants adjusted production down nearly five times more to $9.7 \, \text{m}$ b/d in April 2020 in reaction to the unprecedented demand destruction caused by COVID-19. It was the longest and deepest adjustment made in the history of the oil market or OPEC.

Faced with unparalleled market conditions following the pandemic, the DoC has once again proven to be an agile and effective tool

Another milestone was reached in June 2019 with the signing of the more permanent 'Charter of Cooperation', which is meant to provide a platform for issues of common interest such as technology, climate change and the energy transition, to name a few.

The DoC was not initially intended to be a long-term solution, but rather to manage a critical market downturn. However, those involved in that first momentous meeting recognized its importance to the oil market and the world economy — importance that has only increased

"We are happy to announce that a historic agreement was made here today," said then President of the OPEC Conference and Qatar's Minister of Energy and Industry, Dr Mohammed Bin Saleh Al-Sada, in a press conference after the first OPEC-non-OPEC Ministerial Meeting (ONOMM) in Vienna on December 10, 2016.

"The agreement has really stemmed from the sense of responsibility towards the rebalancing of the international oil market which will lead to positive results, not only for producers and exporters, but also for the consumers and to the health of the world economy, which we all require."

Speaking for the non-OPEC side, Alexander Novak, then Minister of Energy of the Russian Federation, said: "This is truly a historic event and is the first time so many countries from different parts of the world producing oil have gathered together in one room to accomplish what we have done.

"And after today's deal, I think it would be safe to say that as a result of this the relationship between OPEC and non-OPEC countries has reached a new peak and this creates a foundation for future medium- and long-term cooperation," he maintained.

The words of these inspirational leaders of five years ago still ring true today.

As the DoC turned a new page in its evolution with the COVID-19 recovery, OPEC found itself at the centre of the energy dialogue. The pandemic has triggered talk of a 'green recovery', as world leaders look in earnest to tackling the issue of climate change. OPEC Member Countries fully support the goals of the Paris Agreements, to which all are signatory, along with the United Nations Framework Convention on Climate Change's basic premise of equality and common-but-differentiated responsibility and respective capabilities.

With so much at stake for oil-producing, developing countries, DoC participants have more to discuss than ever before.

The efforts of DoC participating countries have benefited producers, consumers and the world economy at large. Additionally, OPEC's reputation as a leader in the energy dialogue has been widely recognized and supported by energy stakeholders, world leaders and academia.

Thanks to the DoC, we are confident that we can meet and overcome any future challenges. The foundation created over the past five years through trust, fairness and cooperation will continue to flourish in the years to come.





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Anniversary Declaration of Cooperation

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This month's cover reflects the 5th Anniversary of the 'Declaration of Cooperation' (DoC) between OPEC and non-OPEC participating countries.

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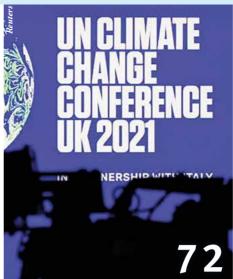
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OPEC Membership and aims

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







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e are marking many important milestones currently — including the 5^{th} anniversary of the 'Declaration of Cooperation' (DoC) — and I think it is important to reflect on and honour these milestones and the history behind them.

When we started out trying to solve the conundrum of a severe market cycle that had started in 2014, we did not know or conceive of what the DoC would become upon its signing on December 10, 2016. Our eventful journey to date has taken us down a path we could not have forseen, but which opened before us, as we reacted to market circumstances.

The 'Vienna Agreement' was reached at the 171st Meeting of the OPEC Conference held on November 30, 2016, in Vienna, Austria. This milestone meeting built on the successful 'Algiers Accord', reached in Algiers, Algeria, on September 28, 2016, at the 170th (Extraordinary) Meeting of the OPEC Conference. Together, these two meetings and the decisions taken at them paved the way for the historic DoC between OPEC Member Countries and leading non-OPEC oil producing nations to work together in the interest of sustainable oil market stability.

The volatility seen in the oil market in 2016 was



unprecedented. However, there was a strong consensus that the way forward required collaboration, leadership and extensive diplomacy — some of the key characteristics that have underpinned the Organization's work since its founding 61 years ago.

Five years ago, on the last day of November, OPEC Members called on non-OPEC oil-producing nations to join an initiative to cooperate on a regular basis to support oil market stability, highlighting the key role that non-OPEC producers can play in achieving this all-important objective. They additionally adopted oil production adjustments and established a high-level ministerial monitoring committee to review the implementation of these decisions.

The 'Vienna Agreement' constitutes an historic moment in the history of the oil industry, as well as in international cooperation and multilateralism, as it led to the institutionalization of a global framework that not only helped the oil industry immediately, but also years later when the COVID-19 pandemic broke out in 2020 and caused a severe oil market contraction.

These efforts were carried out to help restore stability in the global oil market for the benefit of all producers, consumers and investors, as well as the global economy. They additionally underpinned the Organization's views on the importance of multilateralism, international cooperation and dialogue.

On December 10, 2016, OPEC Member Countries and Azerbaijan, the Kingdom of Bahrain, Brunei Darussalam, Equatorial Guinea (which later joined OPEC), 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 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 undertook, the oil sector would, without a doubt, be in a different situation today.



Mohammad Sanusi Barkindo, OPEC Secretary General.

I like to quote ancient poet and scholar Jalal ad-Din Muhammad Rumi, who said, "As you start to walk on the way, the way appears."

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.

In response to the severe oil market contraction caused by the COVID-19 pandemic, the DoC's 23 countries adopted the largest-in-size and longest-in-time voluntary oil production adjustment in the history of OPEC and the oil industry, demonstrating their 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.

The DoC and 'Charter of Cooperation' (CoC) clearly show the necessity of multilateral engagement and international cooperation to solve world-scale problems. We hope to see this sentiment carry over into the major and pressing issues facing mankind today — and in which OPEC is heavily engaged — including climate change, sustainable development and the energy transition.

Making history:

Five years of the 'Declaration of Cooperation'

Five years ago on December 10, 2016, an unlikely group of countries came together to do something unprecedented in the history of the oil market — form the 'Declaration of Cooperation'. This historic decision has underpinned the market ever since, becoming an entity in its own right.

By Maureen MacNeill



he repercussions of the downturn which started in mid-2014 were being felt throughout the entire international oil and gas sector by producers, consumers and investors alike by the beginning of 2016. It was marked by a dramatic market decline, with the OPEC Basket seeing the largest percentage fall in the six market cycles observed over the past four decades up to that time between June 2014 and January 2016. Supply outpaced

demand, which in turn led to a sharp build in global inventories. The international oil sector was struggling to find equilibrium, making it the longest down cycle in OPEC's history.

Over the course of 2016, OECD commercial oil stock levels fell somewhat but remained more than 300 million barrels over the five-year average. There was a dramatic rise in non-OECD inventories, along with expansion in some non-OECD strategic petroleum reserves. The industry struggled under weighty pressure.

Oil-exporting countries and oil companies saw their revenues cut in half or worse, putting strains on their fiscal position and hindering their economic growth. The reverberations of this price shock also strongly affected the world economy. Many thousands of oil workers found themselves unemployed, and investment ceased, threatening future supply. In both 2015 and 2016, a dramatic contraction in oil industry investment led to combined spending for oil and gas exploration and production falling by more than \$300 billion over the two years — 26 per cent per year, respectively.

OPEC and non-OPEC Ministerial Meeting

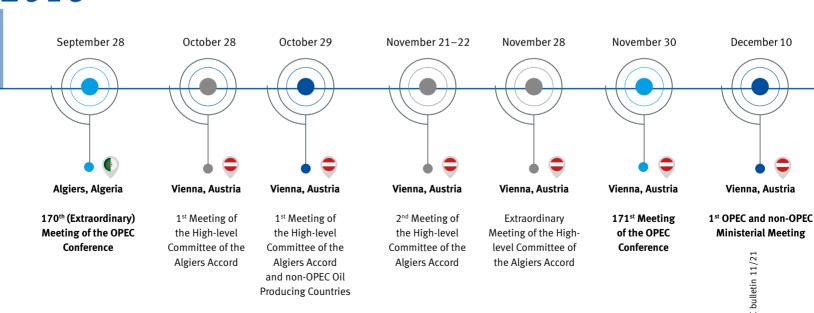
10 December 2016

OPEC Secretariat, Vienna



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.

2016







To ensure conformity with the OPEC-non-OPEC decision, the two sides set up a monitoring committee. This was comprised of three OPEC Member Countries — Kuwait (Chairman), Algeria and Venezuela, along with two countries from the non-OPEC group — Oman and the Russian Federation — which were to meet periodically to ensure full implementation of the accord. L-r: Mohammed Hamad Al Rumhy, Minister of Oil and Gas, Oman; Dr Mohammed Bin Saleh Al-Sada, Minister of Energy and Industry, Qatar, and President of the OPEC Conference in 2016; Alexander Novak, Minister of Energy of the Russian Federation; Issam A Almarzoog, Minister of Oil and Minister of Electricity and Water of Kuwait; Khalid A Al-Falih, Minister of Energy, Industry and Mineral Resources, Saudi Arabia, OPEC Conference President for 2017; Noureddine Boutarfa, Minister of Energy, Algeria; Dr Nelson Martínez, People's Minister of Petroleum, Venezuela; Mohammad Sanusi Barkindo, OPEC Secretary General.

In 2016, the gravity of the cycle became apparent to both producers and consumers alike. As it has done many times in the past, OPEC intensified its long-standing dialogue with other global actors in the energy industry and the oil market in particular. It built new pathways of communication to reach out to even more oil producing and industry participants.

Taking the helm of OPEC in the summer of 2016, OPEC Secretary General, Mohammad Sanusi Barkindo, ranged far and wide to find consensus, later termed "shuttle diplomacy". The rest, as they say, is history. This is a look back at the key moments and what they have come to represent.

2016:

The 'Declaration of Cooperation' (DoC) was the culmination of many years of hard work and repeated appeals for producers to band together to form a unified front in tackling the problems facing the industry. For OPEC, reaching this agreement was an immense achievement a concrete outcome of OPEC's past efforts at bringing producers around a common negotiating table.

Prior to this concrete decision, the 'Algiers Accord' was reached at the Meeting of the OPEC Conference, which convened in Algiers, Algeria, on September 28, 2016. The landmark move, announced at the 170th







OPEC and non-OPEC Ministers during the signing of the 'Declaration' of Cooperation', on December 10, 2016.

(Extraordinary) Ministerial Meeting, followed concern about a continuing crude oversupply and high oil inventories and the need to speed up the market's rebalancing. The Extraordinary Conference, which followed a Consultative Meeting attended by Heads of Delegation from the Organization's 14 Member Countries, decided to opt for an OPEC-14 oil production target ranging between 32.5 and 33.0 million barrels/day, in order to accelerate the ongoing drawdown of the stock overhang and bring the rebalancing forward.

The Ministers' talks, which lasted well over five hours, were held at the International Convention Centre in the Algerian capital, at the end of the three-day 15th Ministerial Meeting of the International Energy Forum (IEF). The Conference President reiterated that the communications and studies of the High-Level Committee would be presented in recommendation form to the 171st Meeting of the OPEC Conference, scheduled to convene in Vienna, Austria on November 30, 2016.

The Ministers decided to establish a High-Level Committee comprising representatives of Member Countries and supported by the OPEC Secretariat, to study and recommend the implementation of production levels by Member Countries. "Furthermore, the Committee shall develop a framework of high-level consultations between OPEC and non-OPEC oil-producing countries, including identifying risks and taking pro-active measures that would ensure a balanced oil market

on a sustainable basis, to be considered at the November OPEC Conference," said a communique issued after the Algiers meeting.

Providing more details about the initiative at a press briefing after the Meeting, OPEC Conference President and Qatar's Minister of Energy and Industry, Dr Mohammed Bin Saleh Al-Sada, explained that the Ministers had to convert their informal consultative talks into an Extraordinary OPEC Conference in order for them to make binding decisions. "As we proceeded with our discussions, which were very positive, there was a strong willingness among Member Countries to make decisions — and that could only be done through an official Extraordinary Meeting, which we unanimously agreed upon," he said.

The historic 'Algiers Agreement' most certainly reflected a consensus among Member Countries and signalled an important shift in attitudes. It was the first such OPEC agreement since the Oran, Algeria, decision of 2008 and reflected a broad recognition of the realities of the market of the day. The 'Algiers Accord' was roundly welcomed by many stakeholders.

The next landmark decision — the 'Vienna Agreement' — was reached on November 30, 2016, after intensive discussions at the 171st Ordinary Meeting of the OPEC Conference. OPEC agreed to adjust production by 1.2m b/d from January 1, 2017. Ten days later, on December 10, 2016, again in the Austrian capital, the Organization









OPEC bulletin 11/21



Impressions from the 1st OPEC and non-OPEC Meeting
December 10, 2016



"We are happy to announce that a historic agreement was made here today," said OPEC Conference President Al-Sada in a press conference after the first OPEC-non-OPEC Ministerial Meeting (ONOMM).

From the very moment the DoC was endorsed by the 24 signatories on December 10, news agencies announced a firm rise in the market, buoyed by a confidence not seen in oil circles since before the summer of 2014.

"The agreement has really stemmed from the sense of responsibility towards the rebalancing of the international oil market which will lead to positive results, not only for producers and exporters, but also for the consumers and to the health of the world economy, which we all require," said Al-Sada. He stressed that, in reaching the agreement, OPEC and non-OPEC countries had shown the "ultimate cooperation and responsibility", not only towards their countries, but also to the long-term security of energy supplies.

Also speaking at the press conference, Khalid Al-Falih, Saudi Arabia's Minister of Energy, Industry and Mineral Resources, said he was "delighted to have been part, not only of this agreement today, but more importantly of the process that has culminated in what has already been termed by people as being historic."

Al-Falih, who became OPEC's Conference President in 2017, stated that the DoC was historic because of the impact it would have in bringing stability, reducing volatility, encouraging investment in the oil sector, and serving the interests of the global economy, not just the producers and the oil and gas industry.

"It is historic given the number of countries that are participating from both OPEC and non-OPEC. And it is historic given the fact it has been a process that involved extensive consultations, until we reached the conviction that everybody was not only willing to sign this agreement, but was also extremely enthusiastic in doing so, leading me to believe that compliance and implementation is going to be very high," he noted.

Speaking for the non-OPEC side, Alexander Novak, Minister of Energy of the Russian Federation, said: "This is truly a historic event and is the first time so many countries from different parts of the world producing oil have gathered together in one room to accomplish what we have done.

"Our actions have been carried out in both the interests of producers and consumers and the primary goal of what we have done here is to ensure a stable and safe supply of energy to the world economy," Novak said. "And after today's deal, I think it would be safe to say that as a result of this the relationship between OPEC and non-OPEC countries has reached a new peak and this creates a foundation for future medium- and long-term cooperation."

The adjustment in oil production of around 1.8m b/d was designed to speed up the rebalancing of the oil market and help reduce the large oil stock overhang, which had been pressuring the market for many months.

To ensure conformity with the OPEC-non-OPEC agreement, the two sides set up the Joint Ministerial Monitoring Committee (JMMC). This was comprised of three OPEC

1st Meeting of the JMMC, Vienna, Austria, January 22, 2017.



Member Countries - Kuwait (Chairman), Algeria and Venezuela, along with two countries from the non-OPEC group — Oman and the Russian Federation — which were to meet periodically to ensure full implementation of the

The production adjustment plan was to start from the beginning of 2017 for an initial six-month period, which could be extended for another six months. It was hoped it would also lead to a return of investment that is vital for the future of the sector.

With a monitoring system in place and a structure which enhanced relations between OPEC and non-OPEC producers to be institutionalized and taken to their highest level, 2016 augured well for the future.

As senior OPEC officials have stressed, the tripartite OPEC agreements reached in 2016 — the 'Algiers' Accord in September, the 'Vienna Agreement' in November, and the 'Declaration of Cooperation' in December — took a lot of time, effort and dedication by many devoted individuals to bring to fruition. It all capped a year that will forever go down in OPEC's history as one of its most challenging, yet perhaps most rewarding.

2017:

January 1, 2017, signified the activation of the landmark OPEC-non-OPEC DoC. When the accord became 'live', the first trading moves of the New Year came under close scrutiny. The news was all good.

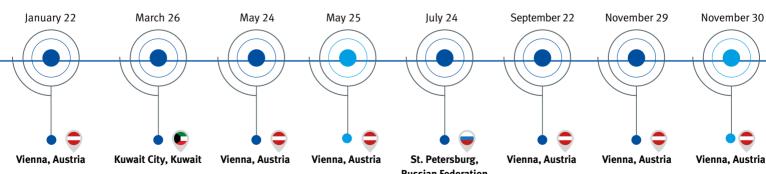


IMMC Chairman in 2017: Issam A Almarzooq, Minister of Oil and Minister of Electricity and Water of Kuwait.



JMMC Co-Chairman in 2017: Alexander Novak, Minister of Energy of the Russian Federation.

2017



Inaugural Meeting of the Joint Ministerial **Monitoring Committee** (JMMC)

2nd Meeting of the JMMC

3rd Meeting of the JMMC

172nd Meeting of the OPEC Conference and 2nd OPEC and non-**OPEC Ministerial** Meeting

Russian Federation

5th Meeting 4th Meeting of the JMMC of the JMMC

6th Meeting of the JMMC

173rd Meeting of the OPEC 3rd OPEC and non-

Conference and **OPEC Ministerial** Meeting



2nd JMMC Meeting, Kuwait City, Kuwait, March 26, 2017.

The OPEC-non-OPEC JMMC held its inaugural meeting at the OPEC Secretariat in Vienna on January 22, 2017 — and the news was again all good. The Committee's five members expressed satisfaction regarding the strong level of commitment already shown to the agreed framework of the OPEC-non-OPEC decision.

Issam A Almarzooq, Minister of Oil and Minister of Electricity and Water of Kuwait, chaired the inaugural meeting and told a press conference afterwards, "Right now, we are monitoring the data coming from the OPEC data centre — and the results so far are very promising." Meanwhile, Co-Chair Novak stated: "Based on our data and what we are seeing, there is a very good level of conformity and commitment to the agreement."

The JMMC was tasked with ensuring that the objectives of OPEC's 171st Ministerial Conference decision and the DoC were achieved through the successful implementation of the agreed voluntary adjustments in production.

The JMMC was to present a monthly production data report on OPEC Member Countries' crude oil and of participating non-OPEC oil liquid production by the 17th of each month; evaluate conformity to respective adjustments; nominate one technical contact person to form a Joint Technical Committee (JTC), which would prepare a monthly report for the JMMC and meet on a monthly

basis; report to the Conference on the effect of the implementation of the OPEC 171st Ministerial Conference Decision and the DoC on the market.

It pointed out that conformity of 92 per cent comfortably exceeded the 60 per cent achieved when the Organization's previous adjustment deal was implemented in 2009. OPEC's own figures, as compiled by the Secretariat in Vienna, estimated conformity in January as being as high as 94 per cent. This figure would climb to well above 100 per cent in the future and remain very high going forward.

In a press conference after the first JMMC meeting, Novak said that many countries were going beyond what had been agreed in December 2016 "in working strongly to the letter in the spirit of the Declaration." Novak explained that the two goals pursued by the first meeting of the JMMC were the assessment of the implementation of the DoC, as well as the mechanisms and framework of the Committee.

"As far as the first part is concerned, I can say with confidence that we are very happy to see the success of the joint action and efforts by OPEC and non-OPEC countries in their bid to stabilize the market."

It was also determined that regular technical meetings of DoC participating countries would focus on oil market fundamentals and medium-term prospects.





Co-chairs Khalid A Al-Falih (c), President of the OPEC Conference, and Minister of Energy, Industry and Mineral Resources of the Kingdom of Saudi Arabia, and Alexander Novak (l), Minister of Energy of the Russian Federation; with Mohammad Sanusi Barkindo (r), OPEC Secretary General.



3rd Meeting of the JMMC, Vienna, Austria, May 24, 2017.



Ministers and delegates to the 2nd OPEC and non-OPEC Producing Countries' Ministerial Meeting gathered for a group photograph.



Gabriel Mbaga Obiang Lima, Equatorial Guinea's Minister of Industry, Mines and Energy, stated he was very pleased that OPEC had accepted his country's request to join the Organization. The decision was taken during the 172nd Meeting of the Conference on May 25, 2017.

At a time of continuing challenges for the world's oil producers, the OPEC Conference held its 172nd Meeting on May 25 at the OPEC Secretariat. With more than 100 participants representing each of the Organization's Member Countries, the semi-annual gathering was an occasion for the Conference to consider oil market developments since it last met at the end of November 2016.

Overall, the oil market situation showed marked improvement from the 171st Meeting of the Conference. Al-Falih, the Conference President, noted: "We started with a bearish sentiment, but the market is now well on its way toward rebalancing. We have more work to do in lowering inventories toward the last five-year average, but we are on the right track."

He also reminded delegates of the main task before them, emphasizing that "nurturing a constructive and stable market environment is our highest priority." The other key objectives for the OPEC Conference "include strengthening cooperation between OPEC and non-OPEC producers, and fostering excellent relations with international energy institutions to promote greater understanding of vital issues."

In line with the decision taken at the 171st Meeting of the OPEC Conference, as well as with the DoC between OPEC and non-OPEC producers on December 10, 2016,

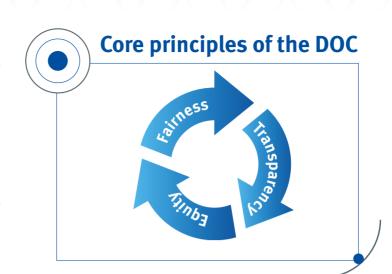
and based on analytical reports presented by the OPEC Secretariat, OPEC delegates from all Member Countries decided to extend the original production adjustment of 1.2m b/d for a further period of nine months. This was to take effect on July 1, 2017.

Conformity levels, which approached 100 per cent, were seen as unprecedented and robust, thus providing encouragement to continue the efforts.

Delegates also acknowledged the crucial role played by participating non-OPEC producers through the DoC. At the conclusion of the 172nd Conference, the request of one DoC non-OPEC country to join the Organization was formally accepted with immediate effect — thus making Equatorial Guinea OPEC's newest Member Country.

The Conference President also praised OPEC's "firm and unwavering resolve", along with that of participating non-OPEC producing countries, extolling the virtues of "the extensive process of consultations and discussions involving all ... OPEC Member Countries and the participating non-OPEC producing countries."

All signatories met once again on May 25, 2017, at the OPEC Secretariat, after the conclusion of the 172nd Meeting of the OPEC Conference, to consider recent market developments and discuss the possibility of extending the original decision. At the plenary session, delegates to the 2nd ONOMM first recalled the November 30, 2016, decision by OPEC Member Countries to implement a 1.2m b/d production adjustment effective January 1,



2017, for a six-month period, and then reviewed the subsequent decision of participating non-OPEC producers, who joined OPEC in the DoC to implement a production adjustment of nearly 600,000 b/d on December 10, 2016, for the same period.

In his opening address to the plenary, Conference President Al-Falih said the joint DoC had "played an important role in moving the market toward stability." He added that "in the absence of the [decision], the markets would have remained aimless."

Given the need to continue studying market conditions and the evolution of supply and demand factors worldwide, delegates to the Conference asked the

4th Meeting of the JMMC, St Petersburg, Russia, July 24, 2017.





Above: The ministers and representatives of the DoC participating countries participated in their first Gala Dinner on May 24, 2017, on the eve of the 172^{nd} Meeting of the OPEC Conference, and the 2^{nd} OPEC and non-OPEC Ministerial Meeting. The event was held at the spectacular Palais Ferstel in Vienna's famous first district.



 ${\sf JMMC}-$ and more specifically, the ${\sf JTC}-$ to continue its important work during the period of the nine-month extension.

Winter meeting

With the first snow flurries of the season covering the streets of Vienna, the OPEC Conference held its 173rd Meeting at the OPEC Secretariat on November 30. In his opening address, the Al-Falih noted that when the Conference last met the previous May, it was apparent that more work needed to be done, which then resulted in the DoC being extended for a further nine months. In looking back over the past six months, he stated that "the market trajectory seen since then has shown that the extension decision (in May) was right."

To underscore his comment, he pointed to hard data. He highlighted the large fall in the OECD stock overhang in terms of the moving five-year average; the hefty drop in crude in floating storage; the fact that the drawdown has applied broadly to all regions, as well as to both crude and products; and the market structure flipping into backwardation for both Brent and WTI, for the first time since 2014.

The Conference President noted that "all in all, market stability has improved and the sentiment is generally

upbeat." He said that "this gratifying outcome has resulted primarily from a near 100 per cent — or more — conformity to the production targets by the combined OPEC-12" and added that OPEC's credibility has also been enhanced.

The Conference President said that when looking at the mid to long term, the future market environment looks encouraging, underpinned by a broadbased global economic recovery that is gathering pace. Correspondingly, he said, "we continue to see further signs of strong oil demand."

While recognizing the very major achievements that had been made, he also stressed that it was important "to acknowledge that (they had) only recently passed the halfway mark on the journey towards achieving the five-year average of OECD stock levels."

First Gala Dinner

The ministers and representatives of the DoC participating countries participated in their first Gala Dinner on May 24, 2017, on the eve of the 172nd Meeting of the OPEC Conference, and the 2nd OPEC and non-OPEC Ministerial Meeting. The event was held at the spectacular Palais Ferstel in Vienna's famous first district. Although the group of dignitaries had met informally

The 3rd OPEC and non-OPEC Ministerial Meeting was held in Vienna, Austria, on November 30, 2017.





once before — for a breakfast on the historical date of December 10 when the 'Declaration of Cooperation' was signed — the Gala Dinner marked the first formal evening event. It also represented an opportunity to deepen personal relationships — and the hope was expressed that it may be the start of a wonderful tradition.

By the end of 2017, OECD commercial inventories were drawn down to below their five-year average at 2,850m b, 220m b below the amount at the beginning of the year. In fact, not only was the entire oil stock overhang eliminated from the oil market, but the market started to witness a stock deficit.

2018:

Following the successful conclusion of the 7th OPEC International Seminar that took place from June 20–21, the OPEC Conference held its 174th Meeting at the OPEC Secretariat. President of the OPEC Conference and Minister of Energy for the UAE, Suhail Mohamed Al Mazrouei, stated that the meeting was especially important given the oil market environment.

He noted that since the last Meeting of the Conference in late November 2017, the oil market situation had further improved, with the global economy strong, oil demand remaining relatively robust, the market



The 7th OPEC International Seminar took place in Vienna, Austria, from June 20–21, 2018.



At the Joint Press Conference of the 4th OPEC and non-OPEC Ministerial Meeting are (l-r): Alexander Novak, Minister of Energy, the Russian Federation; Khalid A Al-Falih, Saudi Arabia's Minister of Energy, Industry and Mineral Resources; Suhail Mohamed Al Mazrouei, President of the OPEC Conference 2018, and Minister of Energy and Industry, United Arab Emirates; Mohammad Sanusi Barkindo, OPEC Secretary General; Hasan Hafidh, Head, OPEC's PR & Information Department; and Pavel Sorokin, Deputy Energy Minister, the Russian Federation.

rebalancing, and with the return of more stability being welcomed by all stakeholders. He added that the market had also continued to see firm and unwavering resolve from OPEC and non-OPEC participants in the DoC.

Al Mazrouei said that the "Declaration fully demonstrates OPEC's commitment to sustainable market stability, with our Member Countries playing a vital role in returning optimism to the oil market; one that is central to global economic well-being." He stated that it had also caused a significant change in industry-wide and public perceptions of OPEC. "The Organization has ably demonstrated its credentials as a body committed to international cooperation, working with other producers, honouring its commitments and promoting respect among all nations."

He mentioned that this includes looking beyond the short term, with a specific focus on investment. Thus far in 2018, "the pace of investment has gradually picked up, but we are still not seeing enough robust investment

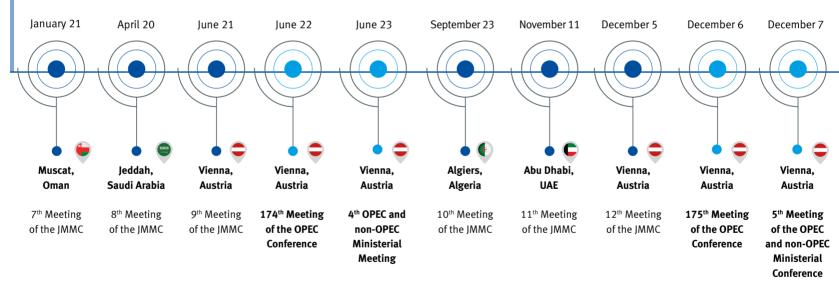


JMMC Chairman in 2018: Khalid A Al-Falih, Minister of Energy, Industry and Mineral Resources, Saudi Arabia.



JMMC Co-Chairman in 2018: Alexander Novak, Minister of Energy of the Russian Federation.

2018



in long-cycle projects. These are the baseload of future supply, the foundation of this industry's future, and will be vital to long-term global economic expansion."

In recalling the 171st OPEC Conference resolution reached on November 30, 2016, for an OPEC production adjustment of 1.2m b/d, and noting that OPEC Member Countries had exceeded the required level of conformity, reaching 152 per cent in May 2018, "the Conference hereby decided that countries will strive to adhere to the

overall conformity level of OPEC-12, down to 100 per cent, as of July 1, 2018." This would be "for the remaining duration of the above-mentioned resolution."

Additionally, the Conference considered Congo's request to join the Organization and decided to approve its admission with immediate effect.

The 4th ONOMM took place in Vienna on June 23, 2018, and was attended by delegations from all OPEC Member Countries, the ten participating



OPEC bulletin 11/21



Suhail Mohamed Al Mazrouei (on screen), United Arab Emirates Minister of Energy and Industry, and President of the OPEC Conference 2018, during the opening session of the 174th Meeting of the OPEC Conference, with Members of the OPEC management and distinguished delegates.



The 174th Conference also considered Congo's request to join the Organization and decided to approve its admission with immediate effect. Representing Congo was Jean-Marc Thystere Tchicaya, the Republic of the Congo's Minister of Hydrocarbons.

non-OPEC producing countries, as well as three non-OPEC

Al Mazrouei said that the joint decision taken on November 30, 2017, to amend the DoC to take effect for the whole year of 2018 "was welcomed by the market and it is evident that it has played an extremely important role in helping to further rebalance the market and bring about more stability. "The decision last year also pledged the full and timely conformity of OPEC and participating non-OPEC countries in accordance with the voluntary agreed production

adjustments in the DoC. In this regard, I am happy to report that we have seen overall monthly conformity levels well above 100 per cent in the months since the last Ministerial meeting."

The 24 DoC countries had made an extraordinary difference, he said, "through a common, collective and collaborative framework for cooperation. This has been broadly recognized by other producers, companies, as well as a number of global institutions."

At this point, he acknowledged a number of additional non-OPEC producers that "have joined us today in solidarity with the DoC," including Chad, Egypt, Uganda, South Africa, as well as the African Petroleum Producers Association.

Novak added, "Our decisive action has not only helped stabilize the market, but has also had an extremely positive effect on the global economy. What we started back in December 2016 has created the basis for what could become future permanent cooperation between the leading oil producers."

Accordingly, the 4th ONOMM decided that countries would strive to adhere to the overall conformity level, voluntarily adjusted to 100 per cent, as of July 1, 2018, for the remaining duration of the DoC and that the JMMC should continue to monitor overall conformity levels and report back to the ONOMM. The decision was in line with that taken at the 174th Meeting of the OPEC Conference the previous day.

Two years into the production adjustment cooperation, at the end of 2018, OPEC and non-OPEC





7th Meeting of the JMMC, Muscat, Sultanate of Oman, January 21, 2018.



8th Meeting of the JMMC, Jeddah, Saudi Arabia, April 20, 2018.



9th Meeting of the JMMC, Vienna, Austria, June 21, 2018.



10th Meeting of the JMMC, Algiers, Algeria, September 23, 2018.



11th Meeting of the JMMC, Abu Dhabi, UAE, November 11, 2018.

participating producers had effectively succeeded in adjusting the oil stock overhang to below its five-year average.

By the end of 3Q18, oil futures rallied to a four-year high as strong conformity by OPEC and participating non-OPEC nations to their voluntary production adjustments continued to support the oil market. Indeed, market stability received wide-ranging support from the dedicated conformity of the DoC producers to voluntary production adjustments, despite a significant increase in oil production in the US.

The return of stability to the oil market, along with lower development and project costs, resulted in more optimistic sentiment in the industry. This paved the way for an uptick in global oil investment. While many of the investment increases happened in US onshore projects, with shale companies lifting 2018 budgets by 15 per cent to 20 per cent in response to higher prices, conventional oil project investments around the world were also coming back on track, especially in top-quality offshore areas.

2019:

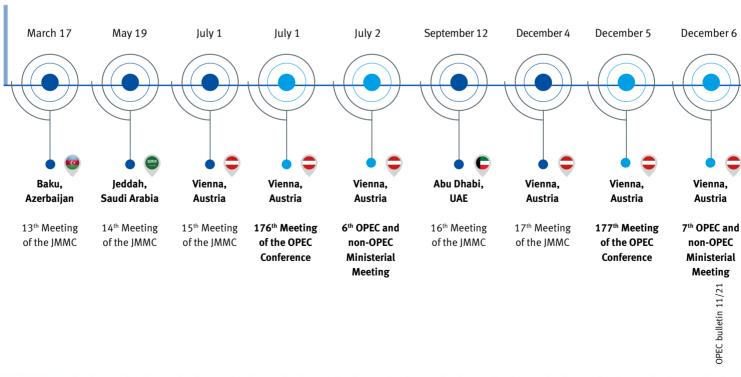
The 176th Conference began in Vienna on July 1 amid intense international interest and news attention. There was an air of euphoria as delegates from the 14 OPEC Member Countries threw their support behind a rollover of supply adjustments for nine months through to March 2020 and negotiated on a draft 'Charter of Cooperation' (CoC) with the ten non-OPEC countries of the DoC.

The Conference approved the draft text of the CoC and requested Member Countries take it through their respective national processes. In opening the 176th Conference, Manuel Salvador Quevedo Fernandez, Venezuela's People's Minister of Petroleum, and President of the OPEC Conference in 2019, pointed to the Organization's achievements and general market improvements. "Over the past 30 months or so we have had significant success in bringing down inventory levels, returning relative balance to the market, and helping evolve a more sustainability stability, in the interests of producers, consumers, and the global economy."



The 176th Conference began in Vienna on July 1, 2019, with Manuel Salvador Quevedo Fernandez (c), People's Minister of Petroleum, Venezuela, and President of the OPEC Conference; Agustín Mba Okomo (l), Equatorial Guinea's Governor for OPEC and Chairman of the Board of Governors; and Mohammad Sanusi Barkindo (r), OPEC Secretary General.

2019



Anniversary Declaration of Cooperation





Ministers display their copies of the draft 'Charter of Cooperation'.

However, DoC producers were at the same time confronted by rising liquids supply from other non-OPEC producers, particularly the US, as they sought to bring the market into a more balanced state, he said.

Quevedo told delegates from OPEC Member Countries, and a conference room packed with journalists, that despite the achievements, there are uncertainties on the horizon that call for continued cooperation. "Since our last meeting in December 2018, we saw an improvement in market conditions over the first part of the year, particularly when compared with the turbulence and volatility of the fourth quarter of 2018. However, over the past month or so we have seen a growing list of escalating uncertainties, related to such issues as trade negotiations, monetary policy developments, as well as geopolitical issues."

The Conference observed that oil demand growth for 2019 had been revised down since the last meeting of the Conference to now stand at 1.14m b/d, and non-OPEC supply in 2019 was expected to grow at a robust pace of 2.14m b/d, year-on-year. The Conference observed the potential consequences of these developments on global inventory levels, as well as overall market and industry sentiment. This backed the Conference's decision to extend the voluntary production adjustments for nine months — through March 2020.

The Conference also recognized record high conformity levels to the voluntary production adjustments by all participating countries in the DoC.

OPEC Member Countries and the ten non-OPEC DoC countries strengthened their joint efforts to support market stability during their 6th ONOMM on July 2, building





As we enter a new phase of the Declaration of Cooperation, It's time to reaffirm and advance our application; The focus is clear, our goal is stability,

Guided by fairness, transparency and equity;

Cooperation has worked, it has entered folklore,

But now we need to strengthen the bonds even more; We look to the future, but recall the scene,

In the run-up to December 2016; Back then things had been bad for a while,

Investments were shrinking, the market volatile;

Negotiations were long and there were plenty of fears,

But there was positive momentum after Algiers; An agreement was reached, the atmosphere euphoric,

What we achieved was truly historic;

Commitments are judged on their implementation, And that's been a success for the Declaration of Cooperation;

Seeking a stable balance twixt demand and supply, Participants navigated a path to comply;

To measure this, we needed a barometer,

Two committees were established, the purpose to monitor; We meant what we said, and said what we did,

Conformity was high, and inventory levels eventually slid;

Uncertainties remain, the challenge gets harder, But the future is bright, now we've a Charter.

General; HRH Prince Abdul Aziz Bin Salman Al Saud, Minister of State for Energy Affairs, Kingdom of Saudi Arabia; Alexander Novak, Minister of Energy of the Russian Federation; Khalid A Al-Falih, Saudi Arabia's Minister of Energy, Industry and Mineral Resources; Suhail Mohamed Al Mazrouei, UAE's Minister of Energy and Industry; and Haitham Al-Ghais, Kuwait's Governor for OPEC.





The 177th Meeting of the OPEC Conference. On the panel are: Manuel Salvador Quevedo Fernandez (c), People's Minister of Petroleum, Venezuela, and President of the OPEC Conference (2019); Agustín Mba Okomo (r), Equatorial Guinea's Governor for OPEC and Chairman of the Board of Governors (2019); and Mohammad Sanusi Barkindo (l), OPEC Secretary General.

on the success of the DoC. Ministers of the 24 countries also took note of the overall improvement in market conditions and sentiment, and the return of confidence and investment to the oil industry.

"I would like to take a moment and reflect on the very significant and noble achievements we have made since the beginning of our cooperation back in January 2017," Quevedo said. "Thanks to your loyal support and active contributions, we have achieved a great deal of success in restoring the oil market to balance and stability." The 6th ONOMM backed the Conference decision, agreeing to extend voluntary production adjustments for ninemonths from July 1, 2019, to March 31, 2020.

"I want to make it clear that we, the 24 participating nations of the 'Declaration of Cooperation', will remain vigilant in our efforts to ensure that the global oil market remains balanced and stable," Quevedo said in convening the meeting. "We have proven to the world over the last two years, that together we are stronger than working in silos. And, in the end, this is the only way to overcome our common challenges and achieve our common goals."

Referring to the draft text of the CoC in his remarks, Khalid A Al-Falih, Saudi Arabia's Minister of Energy, Industry, and Petroleum Resources and Chairman of the JMMC, described the day as "historic". "Together we have put into place a long-term 'Charter of Cooperation' that will be ceremonially recognized and endorsed here, which has created one of history's strongest producer partnerships, spanning the entire world from east to west, and which has committed itself to promoting market stability on a sustained and ongoing basis."

Al-Falih said: "This is great news not just for the market producers but equally — as I have repeatedly said over the last three years — for consumers, as well as our objectives to deliver market stability, which are now matched by the horsepower needed to deliver them via the formalized OPEC-non-OPEC framework that we will celebrate endorsing.

"I would like to reiterate our belief and recognition that market volatility will not disappear and that complex and rapidly changing dynamics are here to stay. This highlights the need for an institutional framework to pragmatically intervene when required. But to be effective such a framework must be sufficiently flexible and include more producer power than OPEC alone can provide," Al-Falih said.

Co-chairman of the JMMC, Novak, welcomed the cooperation and efforts to stabilize the market in his remarks to the 6^{th} ONOMM. Ministerial Meeting Ministers confirmed unanimous support and proceeded to sign the draft Charter. The Meeting requested all participating





17th JMMC delegates gather for a group photograph.



Officials of the 7th OPEC and non-OPEC Ministerial Meeting gather for a group photograph.



Role of the JMMC and JTC







"The JMMC should continue monitoring conformity levels, as well as market conditions and its immediate prospects, and recommend further actions, if deemed necessary; and furthermore, that the JTC, supported by the OPEC Secretariat, shall continue to provide its monthly technical assistance to the bodies of the 'Declaration of Cooperation'."

Source: 3rd OPEC and non-OPEC Ministerial Meeting, November 30, 2017, Vienna, Austria.

countries to take the draft text through their respective national process.

Amid applause, the OPEC Secretary General said: "Congratulations to all, excellencies and distinguished delegates, for this historic milestone. We are very proud to be part of this history." The meeting concluded with the reading of a poem on the CoC, which chronicled the rich history and the adverse circumstances that led to the founding of the DoC.

"In the course of time," Barkindo said at the press conference following the meeting, "we all agreed that we should begin to think how to institutionalize this cooperation and hence the discussions on the Charter. So the objective remains — the need to have these like-minded producing countries continue to work together in order to sustain market stability."

Building on this success, the Ministers regard the CoC as a high-level voluntary commitment, which will provide an ongoing platform for proactive dialogue and cooperation between countries of the DoC at both the ministerial and technical levels.

Winter meetings

The 177th Meeting of the OPEC Conference, held on December 5, 2019, at the OPEC Secretariat in Vienna, promised to be historic. It took place almost three years to the day since the signing of the landmark DoC on December 10, 2016.

Quevedo stated in his opening remarks that: "Three years ago, the oil market was in a perilous condition.

This situation came about as a result of the fact that from 2014 to 2016, world oil supply grew by 5.8m b/d, heavily outpacing world oil demand growth, which increased by 4.3m b/d.

"From the Algiers Meeting on September 28, 2016, to the adoption of the DoC on December 10, 2016, to the establishing of the ONOMMs, the convening of 35 meetings of the JTC, as well as 17 meetings of the JMMC, and the adoption of the CoC on July 2, 2019. In a short period of time we have achieved milestone after milestone." He added: "It has been a journey characterized by success, comradery and friendship between nations. The results speak for themselves, including the informed and judicial decision in July 2019 to extend our production adjustments to the end of March 2020. Together we made history!"

As the UN Climate Change Conference 2019 was taking place concurrently in Madrid, the Conference President spoke of the climate challenge, calling it one of the most important issues affecting the industry. "We note that COP25 is currently taking place in Madrid and OPEC Member Countries are actively engaged with the UN Framework Convention on Climate Change (UNFCCC) in these meetings. Allow me to reiterate our strong support for the Paris Agreement, and the oil industry playing a proactive role in contributing to a sustainable future, particularly through technological innovation aimed at reducing emissions."

The Conference noted that a number of critical uncertainties need to be monitored, including trade-related negotiations, macroeconomic developments and other factors. Accordingly, the Conference decided to support an additional adjustment of 500,000 b/d to the levels agreed at the 175th Meeting of the OPEC Conference and the 5th OPEC and non-OPEC Ministerial Meeting, subject to approval by the 7th OPEC and non-OPEC Ministerial Meeting to be held on December 6, 2019. The additional adjustment would be effective as of January 1, 2020.

The 7th ONOMM took place at the OPEC Secretariat. The Meeting was attended by OPEC Member Country delegations, the ten participating non-OPEC DoC countries, as well as non-OPEC observers from Brazil and South Africa. It looked to build on the decision taken on the previous day at the 177th Meeting of the OPEC Conference.

Novak said that "our agreement and the unique mechanism that has been created celebrates its third anniversary and it has shown that we have been able





OPEC's 60th anniversary in 2020; and Mohammad Sanusi Barkindo (centre r), OPEC Secretary General.

to achieve positive results." He added that the DoC is a very flexible instrument that "allows us to quickly react to changes in market conditions, to help balance it when the need arises ... in the interests of both producers and consumers."

In referencing the meeting, Novak said: "We all understand today that the eyes of global energy market are focused on Vienna. We have to assess the results of the DoC and take steps to see how it develops in the future."

The meeting backed the decision of the Conference for an additional adjustment of 500,000 b/d to the adjustment levels as agreed at the 175th Meeting of the OPEC Conference and 5th OPEC and non-OPEC Ministerial Meeting, leading to total adjustments of 1.7m b/d. In addition, it was stated that "several participating countries, mainly Saudi Arabia, will continue their additional voluntary contributions, leading to adjustments of more than 2.1m b. This additional adjustment would be effective as of January 1, 2020, and is subject to full conformity by every country participating in the DoC."

2020:

The world had just caught its breath from the 2014-16 downturn when the COVID-19 pandemic struck. Predictions starting in February went very rapidly from a bad to a worst-case-scenario situation, with oil demand dropping through the floor by up to 30 per cent and sentiment hitting rock bottom in 'Black April'.

Having the DoC already in place, with tried and true experience and the deep connections built over years, meant that its participants had simply to leap to action when the bottom fell out of the market. If there is a silver lining to this human tragedy, it's that it has brought oil market participants closer together. As OPEC reached out to every corner of the industry, it found that all were eager to share their voices and opinions, to try and battle this worst of situations together.

The dramatic spread of the coronavirus, from a single case in China to a global pandemic in less than three months, forced governments to take drastic measures to

protect public health. Besides the toll COVID-19 was taking on people, it also dented economic growth prospects and upended the oil market.

The oil market had started the New Year on a positive note, supported by additional production adjustments put into place by OPEC and non-OPEC countries in the DoC for the first quarter of 2020. "There is no doubt that in the last four weeks all the indices have deteriorated, be it in the economy, stocks, equities, financial instruments, metals, commodities and of course oil," the OPEC Secretary General told journalists in early March.

The attention of the entire oil industry focused on Vienna on March 5, 2020, at the 178th Extraordinary Meeting of the OPEC Conference. The outbreak of COVID-19 and its relentless spread served as the critical backdrop for the meeting.

Conference President, Mohamed Arkab, Minister of Energy of Algeria, reflected on OPEC's 60th anniversary in 2020, then underscored the difficult circumstances under which the Conference met. "We now convene at a time when the outbreak of COVID-19 has had a pronounced adverse impact on economic and oil demand forecasts in 2020, particularly in the first and second quarters."

The Conference noted the positive ramifications of the decision to further voluntarily adjust production at the 177th Meeting of the Conference, and subsequently the 7th ONOMM, with market sentiment improving in the weeks thereafter.

"The COVID-19 outbreak has had a major adverse impact on global economic and oil demand forecasts in 2020, particularly for the first and second quarters," said a press release. "Global oil demand growth in 2020 is now forecast to be 480,000 b/d, down from 1.1m b/d in December 2019. Moreover, the unprecedented situation, and the ever-shifting market dynamics, means risks are skewed to the downside."

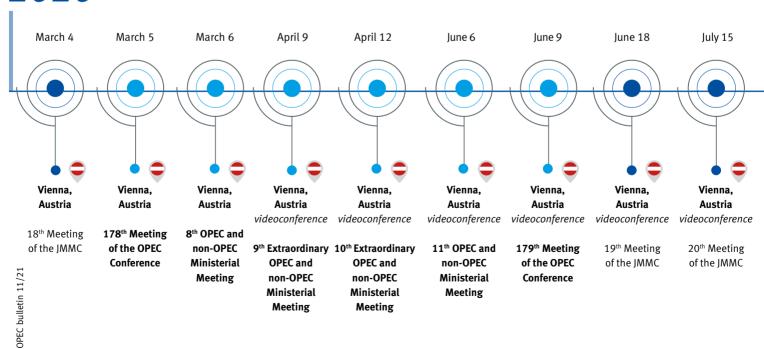
On March 6, 2020, delegates gathered for the 8th ONOMM with extraordinary health measures in place because of the coronavirus, including health checks for those entering the Secretariat. The Ministers noted that they would continue further consultations under the applicable frameworks to determine required actions to help stabilize the oil market.

Following the meeting, Barkindo told journalists assembled outside the OPEC Secretariat, "There is no doubt that in the last four weeks all the indices have deteriorated, be it in the economy, stocks, equities, financial instruments, metals, commodities and of course oil," he said. He went on to say that although the ONOMM was adjourned without a decision on additional production adjustments, "the consultations are continuing."

The World Health Organization declared the outbreak a pandemic five days later, on March 11, 2020.

For the oil market, the period from the 8th ONOMM to the 9th and 10th (Extraordinary) ONOMMs held between April 9–12 was one of the most tumultuous and chaotic months in the industry's long history. It was a period

2020





Declaration of Cooperation

Following the March 6 ONOMM, Mohammad Sanusi Barkindo, OPEC Secretary General, told journalists assembled outside the OPEC Secretariat that the Ministers had taken a close look at market conditions and the extensive information supplied by the JMMC and JTC.



Delegates to the 9th and 10th (Extraordinary) ONOMMs held between April 9–12, 2020, participating via videoconference from their home countries.

where market supply and demand fundamentals were continually up-ended. Demand for jet fuel, gasoline and diesel fell sharply; logistical capacity constraints were looming; some production was shut-in; refineries cut production and reduced their crude purchases; some companies were filing for bankruptcy; and there was the growing threat of major job losses. The industry was haemorrhaging and no one was able to stem the bleeding.

The distress was being felt by every producer, with US independents in the tight oil patch vocal about the impact on their business. This was highlighted in a call between Barkindo and Ryan Sitton, a Commissioner of the Texas Railroad Commission (RRC), on March 20, with Barkindo saying they discussed "perspectives on current developments, and the possibility of future cooperation" and Sitton stating in a tweet: "Great conversation on global supply and demand. We all agree an international deal must get done to ensure economic stability as we recover from COVID-19."

Sitton would also talk to a number of DoC ministers. Barkindo additionaly opened up a communication channel with Alberta's Energy Minister, Sonya Savage, as the Canadian province was being hit hard by the oil demand destruction.

No matter the source or who was being interviewed — energy analysts, energy ministers, journalists or experts from academia — there was unanimous agreement that the COVID-19 pandemic transported the world into uncharted territory. In its April *World Economic Outlook*, subtitled 'The Great Lockdown', the International Monetary Fund (IMF) forecast the global economy would contract by an estimated three per cent in 2020 — worse than during the 2008 and 2009 financial crisis.

This economic destruction, by extension, wreaked havoc on the global oil and gas industry, which was suffering from a massive one-two punch of unprecedented demand destruction and record levels of supply rapidly filling up storage capacity around the world.

On April 2, US President Donald Trump tweeted that he spoke with Saudi Arabia's Crown Prince, HRH Mohammed bin Salman Al Saud, who had spoken to Russian President Vladimir Putin, and "I expect and hope that they will be cutting back approximately ten million





Mohammad Sanusi Barkindo, OPEC Secretary General held a call with Ryan Sitton (above), a Commissioner of the Texas Railroad Commission (RRC), on March 20.



Barkindo also opened up a communication channel with Alberta's Energy Minister, Sonya Savage (above).

barrels, and maybe substantially more which, if it happens, will be great for the oil and gas industry!"

On April 3, a Kremlin statement emphasized that Russia was ready to cooperate with Saudi Arabia and the US on oil production, with President Putin declaring: "I believe that it is necessary to combine efforts in order to balance the market and reduce production."

Three crucial meetings

Addressing the catastrophic downturn in the oil industry would eventually entail three 'extraordinary' meetings,

two from the DoC, and one from the G20, of which Saudi Arabia held the rotating presidency in 2020.

OPEC and the DoC countries once again rose to the challenge by deciding on both the largest and the longest voluntary production adjustments in history. The 9th (Extraordinary) ONOMM began at 4pm Central European Time (CET) on April 9, and ran into the early hours of April 10. Alongside the follow-up 10th Meeting on April 12, it would prove to be a landmark in the history of OPEC and the DoC, with a number of firsts. In the end, an agreement for record production adjustments, over a period of two years, was in place, with Mexico remaining a stand out.



On April 10, 2020, the G20 energy ministers convened an emergency meeting to discuss the dire situation in the global oil market. HRH Prince Abdul Aziz Bin Salman Al Saud (l), Minister of Energy of the Kingdom of Saudi Arabia, chaired the virtual meeting.

OPEC bulletin 11/21

The 9th and 10th Extraordinary ONOMMs agreed to adjust downwards overall crude oil production by 9.7 million barrels/day in May and June 2020; from July 1, 2020 to December 31, 2020, by 7.7m b/d; and from January 1, 2021, to April 30, 2022, by 5.8m b/d.

G20 meeting

On April 10, a day after the 9th Extraordinary ONOMM, the G20 energy ministers, representing both oil producing and consuming nations, convened an emergency meeting to discuss the dire situation in the global oil market. HRH Prince Abdul Aziz Bin Salman Al Saud, Minister of Energy of the Kingdom of Saudi Arabia, chaired the virtual meeting.

"National health systems have been strained and economic growth prospects have been impaired. Global financial markets are in turmoil, as are global energy markets, with negative effects on both their stability and security. The uncertainty in energy markets has spilled over into many other sectors, including manufacturing and transport, and has slowed the pace of investment in future energy supplies, both hydrocarbons and renewables," he said. Prince Abdul Aziz added that the volatile mix of adverse factors had never before been seen by the industry, and would require an exceptional response. "Our global energy systems, from producers to consumers, are in uncharted territory and it is our responsibility to find the path forward."

Barkindo also made a statement at the meeting, stressing the importance of the G20 and its participation in the global efforts to rescue the oil market and reestablish long-term investment, the lifeblood of the industry. "We welcome the importance that the G20 attaches to oil market stability. We also appreciate that many G20 Members are large consumers of oil. In this regard, we need to appreciate that any shortfall in investments in the coming year could sow the seeds for future energy security issues in the years ahead. It is in all of our interests to support stability in this vital global industry."

In a statement released after the virtual meeting, the G20 energy ministers expressed their deep regret at the tragic loss of human life that has been brought on by the COVID-19 pandemic. "We convene today against this backdrop of a crisis that, in addition to its direct health and economic and social impacts, has also contributed to the destabilization of global oil and gas markets and compromises energy security for many nations."



US Secretary of Energy, Dan Brouillette (above), attended the G20 ministerial meeting and joined the Secretary General and Saudi Minister of Energy in emphasizing that a concerted effort among all global stakeholders would be required to blunt the downward pressure being exerted on the oil market.

Taking a proactive stance, the Ministers agreed "to use all available policy tools to maintain market stability" and "ensure that the energy sector continues to make a full, effective contribution to overcoming COVID-19 and powering the subsequent global recovery."

A unified approach will be key to achieving these goals, according to the statement. "We commit to work together in the spirit of solidarity on immediate, concrete actions to address these issues in a time of unprecedented international emergency."

Furthermore, the Ministers expressed their support for the ongoing efforts of OPEC and its non-OPEC partners to re-establish stability in the global oil market along with other producers outside the DoC. "We recognize the commitment of some producers to stabilize energy markets. We acknowledge the importance of international cooperation in ensuring the resilience of energy systems."

US Secretary of Energy, Dan Brouillette, attended the G20 ministerial meeting and joined the Secretary General and Saudi Minister of Energy in emphasizing that a concerted effort among all global stakeholders would be required to blunt the downward pressure being exerted on the oil market. "Make no mistake: Today's crisis transcends the interests of any one nation and requires a swift and decisive response from us all. Failure to act has far-reaching consequences to each of our economies."





Mohamed Arkab (c), Algeria's Minister of Energy and President of the Conference in 2020, stressed: "We are at a critical turning point, where action is required."

10th (Extraordinary) ONOMM

Last-minute diplomacy and flexibility played a huge role in the DoC's success, after a ten-day marathon stint of calls between world leaders and video conferences featuring over 40 energy ministers prior to the 10th (Extraordinary) ONOMM on April 12. The Mexican issue would remain unresolved.

Arkab, OPEC Conference President and Minister of Energy of Algeria, stressed "we are at a critical turning point, where action is required. The oil market is in an unsustainable freefall ... The world's eyes are on this large gathering of producers to provide visionary leadership at a time of crisis."

The nadir of the downturn was April 20, said Mohammad Sanusi Barkindo, OPEC Secretary General, when speaking to ministers, "or what some have called 'Bloody Monday', when the WTI May contract tumbled by more than \$50, ending the day at an incredible negative \$37.63/b, the first-ever plunge into negative territory. In other words, sellers were paying buyers!" It sent shockwaves through the industry, with many analysts calling tank tops for storage facilities in the coming weeks.

The historic decision taken to adjust production down by 9.7m b/d was widely lauded among government leaders at the highest levels, including Saudi Arabia's King Salman bin Abdulaziz Al Saud, and the presidents of Russia and the US. In fact, President Trump, who typically would not be involved with such matters, took it upon himself to help shepherd the parties to consensus.

"If OPEC+ had not acted in a decisive manner, the oversupply would have added a further 1.3 billion barrels



to adjust production down by 9.7m b/d was widely lauded among government leaders at the highest levels, including Saudi Arabia's King Salman bin Abdulaziz Al Saud.

to global crude oil stocks, and hence exhausted the available global crude oil storage capacity within the month of May," Barkindo said. In the aftermath of the Ministerial meetings, it was steadily becoming clear that the massive scale of the challenge would require a long and drawnout recovery effort by all stakeholders to restore the oil market back to balance and growth.

Barkindo stated that this is a new historic page in the world of oil. "We are witnessing today the triumph of international cooperation and multilateralism, which are the core of OPEC values."

President Trump tweeted: "The big oil deal with













non-OPEC countries

OPEC plus is done." He also thanked and congratulated President Putin of Russia and King Salman of Saudi Arabia. "I just spoke to them from the Oval Office. Great deal for all!"

Outside parties also issued statements regarding the historic DoC agreement. American Petroleum Institute President and CEO Mike Sommers said: "We welcome today's announcement of an agreement by other producing nations to follow the lead of the global marketplace—and US producers—to reduce supply to align with lower energy demand as result of the pandemic. This is a significant agreement that will foster increased stability in energy markets to the benefit of both American energy consumers and producers."

From the consumer perspective, Executive Director of the International Energy Agency (IEA) Fatih Birol tweeted: "I'm encouraged by the solidarity shown by producer and consumer countries working together to try to bring stability to the oil industry, its employees and the world economy."

June 6th Meeting of the Conference

On June 6, the 179th Meeting of the OPEC Conference and the 11th ONOMM met via videoconference to review the impact of the historic decision taken at the 10th (Extraordinary) ONOMM of April 12 and the oil market outlook for the remainder of the year and into 2021.

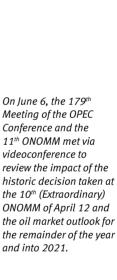
In his opening remarks to the OPEC Conference, Arkab noted that since the start of the new DoC production

adjustments on May 1, plus involuntary production drops outside of the DoC, there had been a distinct change in sentiment. "These adjustments have provided muchneeded relief to the market, and we have seen something of a tentative recovery."

The ministers were faced with numbers forecasting that global oil demand was expected to shrink by more than 17m b/d in 2Q20. While the level was anticipated to ease in the second half of the year, for the whole of 2020 the contraction was still thought to be over 9m b/d.

The Conference additionally recognized extra adjustments from Saudi Arabia (1m b/d); the UAE (100,000 b/d); Kuwait (80,000 b/d) and Oman (10,000–15,000 b/d) in June; the announcements of voluntary adjustments from several countries, such as Norway and Canada; as well as various oil company statements revising downward production plans and shutting in production, in view of the sudden and acute imbalance in the global oil market.

It emphasized that the production adjustments in May, as well as the gradual relaxation of many of the lockdown measures as a result of the COVID-19 pandemic across the globe and an economic pick-up, had contributed to a cautious recovery and the return of more stability in the oil market. Nevertheless, "with global oil demand expected to contract by around 9m b/d for the whole of 2020, consolidating this gradual recovery will require continued commitment and intensified efforts from DoC participating countries and all major producing countries."







The Meeting also subscribed to the concept of com-The Meeting also called upon all major oil producers to pensation by those countries which were unable to proportionally contribute to the stabilization of the oil reach full conformity (100 per cent) in May and June, market, taking into consideration the substantial effort with a willingness to accommodate it in July, August and made by the OPEC and non-OPEC participating countries September, in addition to their already agreed producof the DoC. tion adjustment for such months. It additionally agreed It was noted that in order to observe the fair, timely on the option of extending the first phase of the production adjustments in May and June by one further month

Later in the afternoon, the 11th ONOMM gathered, with Ecuador, Indonesia, Trinidad and Tobago as observers. The ONOMM participants supported the agreement reached at the 179th Meeting of the OPEC Conference.

(to end July 31, 2020).

and equitable implementation of the decision, the "JMMC was requested to closely review the general energy market conditions and related factors, oil production levels, and conformity levels with the DoC, assisted by the JTC and the OPEC Secretariat." Moreover, the JMMC was to meet monthly until December 2020 for this purpose.

Prince Abdul Aziz later told a press conference that



Pictured are some of the delegates to the 180th Meeting of the OPEC Conference, which was held on November 30, 2020, via videoconference.



Abdelmadjid Attar, Algeria's Minister of Energy and President of the OPEC Conference for 2020 attending the 12th OPEC and non-OPEC Ministerial Meeting, which was held via videoconference.

addressing conformity will be a critical priority for the JMMC in its monthly meetings. The Minister said that such meetings were to be undertaken on a monthly basis in recognition of the fact that "we are in crisis mode ... The Committee will react to whatever situation will prevail. We will continuously review commitments and give comfort to the market that we are still engaged, proactive and have the will and capacity to take whatever measures are necessary to stabilize the market."

Regarding the additional voluntary contributions made by Saudi Arabia, the UAE, Kuwait and Oman in June 2020, the Minister stressed that their purpose was to help the market rebalance, generate goodwill and "demonstrate how much we are willing to support the market ... These adjustments will create a better atmosphere in the hope that everyone will conduct themselves with a more committed purpose."

Winter meetings

The 180th Meeting of the OPEC Conference, which was held via videoconference on November 30, 2020, was a further sign of the commitment of OPEC Member Countries to a balanced oil market and sustainable stability. This was reflected in the ministerial talks, which then led onto the decision taken at the 12th ONOMM.

In his opening remarks to the Conference, Abdelmadjid Attar, Algeria's Minister of Energy and President of the OPEC Conference for 2020, said, "the pandemic continues to rage with cases soaring in many regions around the world. It continues to affect adversely the global economy and, consequently, the world energy markets, in an unprecedented manner. The shock to the oil industry is massive and its severe impacts will likely reverberate in the years to come.

"The global economy is still in deep recession with growth pegged at minus 4.3 per cent for 2020. Global oil demand for 2020 is expected to decline by around 9.8m b/d as the second wave of the pandemic and related lockdowns put a damper on demand.

"It is clear that a global deployment of vaccines will take time, and its effect will likely begin to be significantly apparent in the second half of 2021."

Looking ahead, Attar said the "road to recovery is long and bumpy ... and requires great patience," but

there is evidently a brighter outlook for 2021, with global economic growth at 4.4 per cent and oil demand expected to grow by 5.9m b/d, which gives rise to "cautious optimism."

He also referenced the positives of OPEC's continuing support for the global oil market, in cooperation with non-OPEC countries of the DoC. It has been "instrumental in coping with the biggest crisis that the oil market has faced since World War II. Our combined efforts through the largest and longest production adjustment in history continue to provide a vital foundation of stability in the market at a critical moment in history."

Nearly four years after signing the DoC, participating countries came together once again to help pave the way for a more stable 2021. In a meeting greatly anticipated by the global oil industry and energy stakeholders, the 12th ONOMM reconfirmed the existing commitment under the 10th (Extraordinary) OPEC and non-OPEC Ministerial Meeting of April 12 and the 11th Ministerial Meeting on June 6, and agreed to gradually return 2 million b/d to the market in phased adjustments starting in January 2021 with the voluntary adjustment production falling from 7.7m b/d to 7.2m b/d.

It also decided to hold monthly ONOMM meetings starting in January 2021 to review market conditions and decide on further production adjustments for the following month, with additional monthly adjustments









Dr Diamantino Pedro Azevedo, Angola's Minister of Mineral Resources and Petroleum and President of the OPEC Conference in 2021, at the 13th ONOMM.

amounting to no more than 500,000 b/d. The Ministers also agreed to extend the compensation period established during the 11^{th} Ministerial Meeting from January until the end of March 2021, to ensure full compensation of overproduction.

At a press conference, Novak said: "This is a good decision, which allows us to stop and pause and consider what needs to be done."

2021:

Meeting for the first time in 2021, Ministers of the DoC countries took steps during deliberations on January 4 and 5 to provide further support for the

global recovery. The 13th ONOMM kicked off 2021 by acknowledging the need to gradually return 2m b/d to the market, with the pace being determined according to market conditions.

The ministers reconfirmed their decision made at the 12th ONOMM to increase production by 500,000 b/d starting in January 2021. For January overall production would be adjusted from 7.7m b/d to 7.2m b/d; For February, the agreed adjustment reductions would be 7.125m b/d and in March 7.05m b/d. The Ministers also agreed that adjustments for April and subsequent months would be decided during the next monthly ONOMM.

Saudi Arabia announced that it would voluntarily





Alexander Novak, Co-Chair of the 13th OPEC and non-OPEC Ministerial Meeting (ONOMM) and Deputy Prime Minister of the Russian Federation.

adjust its output downwards by an additional 1m b/d for two months "with the purpose of supporting our economy, the economies of our friends and colleagues in the OPEC+ countries for the betterment of the industry at all levels," Prince Abdul Aziz said.

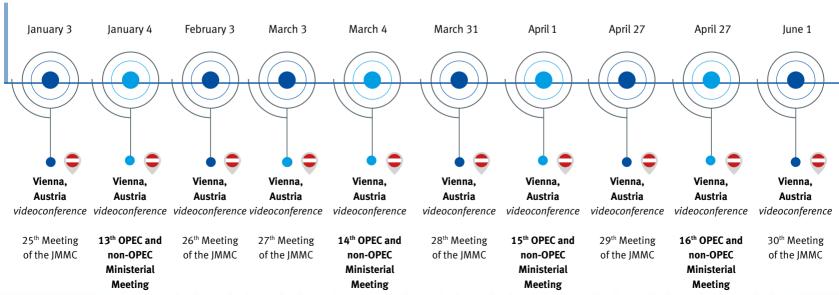
"This has not been easy. It has required painful sacrifice, commitment and responsibility on all our parts over the past four years," Barkindo said in his remarks to the 13th ONOMM. "Our results are testimony to what can be achieved by cooperation, dialogue and respect among nations, based on the principles of equity, fairness and transparency. These principles will guide us throughout this fifth year of the DoC."

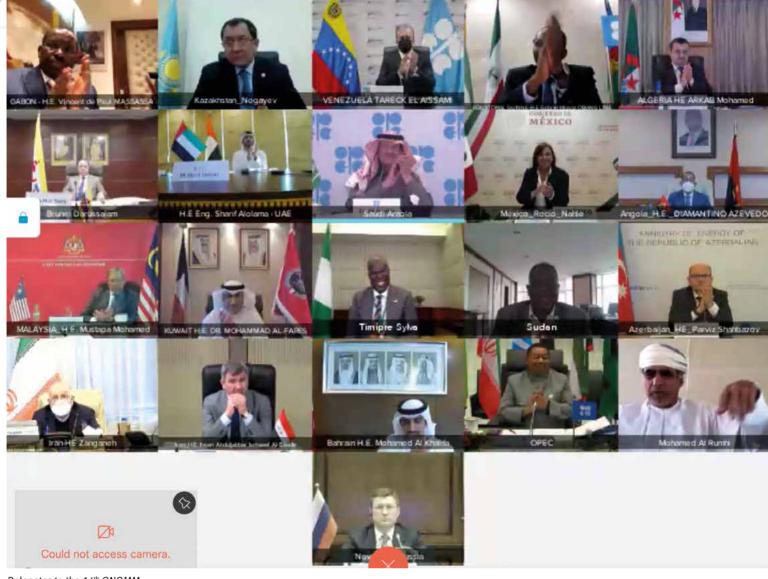
The DoC has reduced global oil supply by an unparalleled 1.9 billion barrels since the decisive 10th ONOMM stated Novak, Co-Chair of the 13th ONOMM and Deputy Prime Minister of the Russian Federation.

Prince Abdul Aziz also noted that the DoC participating countries had achieved the highest levels of conformity since the first adjustments were implemented in January 2017, and for the first time in the process, agreed on a mechanism for compensation "to make up for any past slippage from our goals".

Making his debut as President of the OPEC Conference for 2021, Dr Diamantino Pedro Azevedo, Angola's Minister of Mineral Resources and Petroleum, stated the accelerated pace of meetings is itself a by-product of the COVID-19 crisis, as the DoC participating countries seek to strengthen monitoring and proactive decision-making amidst the rolling aftershocks of the pandemic. The 13th ONOMM took place against a backdrop of heightened lockdowns and news about the spread of new, and pernicious, variants of COVID-19.

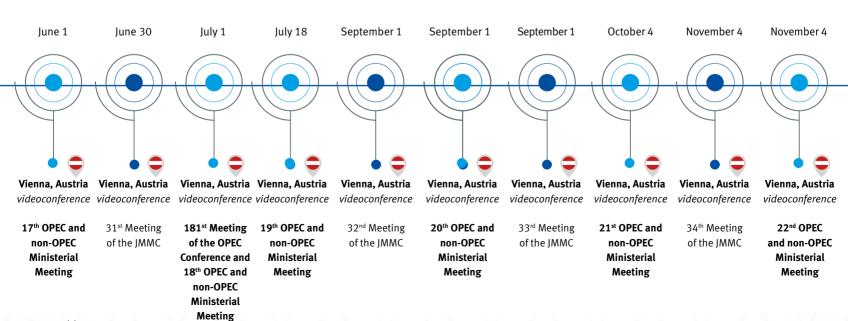
2021





Delegates to the 14th ONOMM.

2021 continued



As the two days of ONOMM discussions concluded on January 5, the World Health Organization (WHO) announced that the total number of COVID-19 cases globally had surpassed 84 million in 222 countries, with more than 1.8 million deaths reported since the outbreak

As 2020 was an exceptional, outlier year that distorts the latest five-year average of OECD commercial oil stock levels, the Meeting recommended retaining the 2015-19 average as a more representative metric, while keeping the latest five-year average for the time being.

Prince Abdul Aziz told the following press conference: "What we are doing today is not a compromise, it is not a little thing, it is not a little tweak. It is the continuity of what we have been doing."

"We are optimists," Novak told the news conference, referring to the progress on COVID-19 vaccinations and a return to economic growth. "We're optimistic about the outlook."

At the 14th ONOMM held on March 4, Ministers

approved a continuation of the March production levels for the month of April, with the exception of Russia and Kazakhstan, which would be allowed to increase production by 130,000 and 20,000 b/d, respectively, due to continued seasonal consumption patterns.

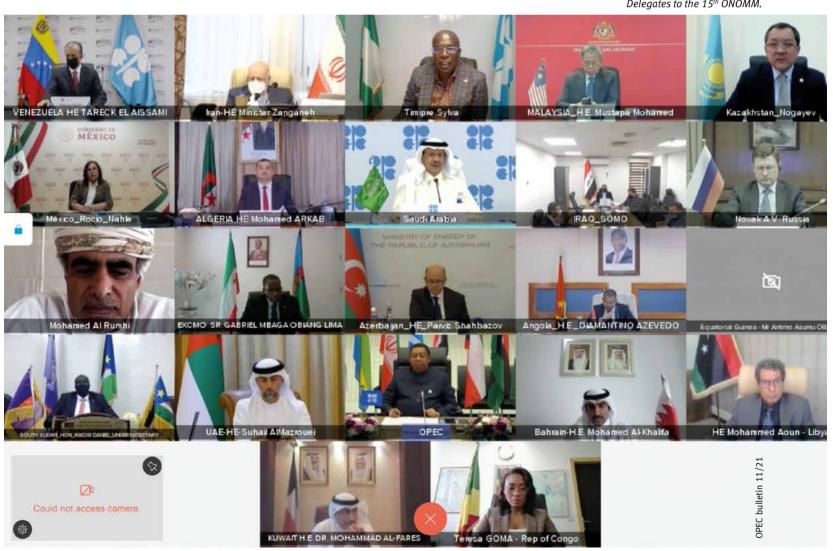
The Meeting noted that since the April 2020 meeting, OPEC and non-OPEC countries had withheld 2.3bn b of oil by end of January 2021, accelerating the oil market rebalancing.

In this regard, the Ministers agreed to the request by several countries, which had not yet completed their compensation, for an extension of the compensation period until the end of July 2021. It urged all participants to achieve full conformity and make up for previous compensation shortfalls, to reach the objective of market rebalancing and avoid undue delay in the process.

The Meeting observed that in December, stocks in OECD countries had fallen for the fifth consecutive month. It noted the significant extra supply adjustment made by Saudi Arabia, which took effect on February 1,



Delegates to the 15th ONOMM.



and commended the country's extension of additional voluntary adjustments of 1m b/d into April.

"We have a come a long way since we first agreed on the largest, and for the longest duration, production adjustments in the history of the oil industry in April 2020," Mohammad Sanusi Barkindo, OPEC Secretary General, told the ONOMM in his opening remarks.

Prince Abdul Aziz also alluded to concerns about the pace of vaccinations, noting that the "recovery in global oil demand is closely linked to vaccine acceptance and the speed at which these vaccines are being rolled out around world."

His comments were echoed by Novak, who highlighted the improving outlook but noted that the spread of news strains of the coronavirus illustrate that uncertainties remain. A year into the pandemic, however, there were signs that a number of countries, including the US, were beginning to turn the tide with accelerated vaccination efforts.

The 15th ONOMM held on April 1 noted, with gratitude, the value of the prudent policy approach by Saudi Arabia of maintaining its additional voluntary adjustments of 1m b/d in April 2021 for the third month in a row.

The Meeting approved the adjustment of the production levels for May, June and July, while continuing

to adhere to the mechanism to assess market conditions monthly and decide on production level adjustments for the following month, with every adjustment being no more than 500,000 b/d.

It recognized the improvements in the market supported by global vaccination programmes and stimulus packages in key economies but noted that the volatility observed in recent weeks warranted a continued cautious and vigilant approach in monitoring market developments.

The Meeting observed that in February, oil stocks in OECD countries fell for the seventh consecutive month, but still remained above the 2015–19 average.

The Ministers agreed that participating countries with outstanding overproduced volumes would submit their plans for implementation of any required compensation to the OPEC Secretariat by April 15, 2021.

The Meeting commended Saudi Arabia for its recently announced 'Saudi Green Initiative' and 'Middle East Green Initiative' as important contributions to global efforts to combat climate change, and welcomed Saudi Arabia's commitment to transfer knowledge and share experience as part of these initiatives. G20 leaders already endorsed the strategy, as well as the Saudi Circular Carbon Economy initiative

Improving outlook: Output adjustment changes for May-July 2021







The OPEC Secretariat team attending the 16th ONOMM.

and its 4Rs — reduce, reuse, recycle and remove — as an inclusive and balanced solution for dealing with greenhouse gases.

The 16th ONOMM held on April 27 highlighted the continuing recovery in the global economy, supported by unprecedented levels of monetary and fiscal support, while noting that the recovery is expected to pick up speed in the second half of the year. The Ministerial Meeting emphasized, however, that COVID-19 cases are rising in a number of countries, despite the ongoing vaccination campaigns, and that the resurgence could hamper the economic and oil demand recovery.

It also noted with gratitude the significant additional voluntary supply adjustment of 1m b/d made by Saudi Arabia in April and a gradual return of these volumes in May, June and July.

The 17th ONOMM held on June 1 reaffirmed the existing commitment of participating countries in the DoC to the April 2020 meeting, amended in June, September and December 2020, as well as in January and April 2021 to gradually return 2m b/d of the adjustments to the market, with the pace being determined according to market conditions.

The 181st Meeting of the OPEC Conference was held on July 1 and the 18th ONOMM on July 2. It was meant to resume on July 5, but was called off.

At the 19th ONOMM held July 18, the Meeting noted ongoing strengthening market fundamentals, as the economic recovery continued in most parts of the world with the help of accelerating vaccination programmes. It agreed to extend the decision of the 10th ONOMM until the end of December 2022 and adjust upward overall production by 400,000 b/d on a monthly basis starting in August until the 5.8m b/d production adjustment is phased out. ONOMM meetings would continue to be held to assess market conditions and decide on production adjustment levels for the following month, endeavouring to end production adjustments by the end of September 2022, subject to market conditions.

Monthly ONOMM meetings continued, with the 20th ONOMM on September 1, the 21st ONOMM on October 4 and 22nd ONOMM on November 4 reconfirming the production adjustment plan and monthly production mechanism approved at the 19th ONOMM. Monthly overall production was adjusted upward for each consecutive month





Delegates to the 17th ONOMM.

by 400,000 b/d. The compensation period was extended until the end of December at the 22^{nd} ONOMM.

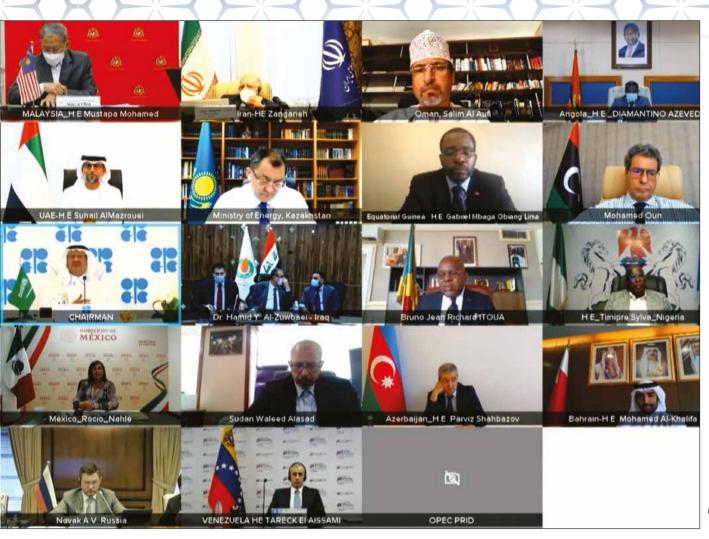
High conformity figures continued throughout the year, consistently posting over 100 per cent.

The year saw talk turn very strongly to the energy transition, with calls strong calls being made for a 'green recovery' from the pandemic. Climate change hit the top of the world's agenda, with countries and companies being asked to aim for net-zero emissions by mid-century. To this end, financial institutions increasingly determined to limit funding for fossil fuels.

By fall, a shortfall in gas and coal struck the Asian and European markets strongly, raising awareness that a smooth energy transition is essential to avoid market shocks and ensure a stable, affordable and secure supply of energy.

DoC participating countries continued to meet with various countries, organizations and entities over the year to openly deliberate the issues affecting the world and the oil industry, from the pandemic, to the energy transition and climate change, to investment.







Delegates to the 19th ONOMM.



Mohammad Sanusi Barkindo, OPEC Secretary General, with Members of the OPEC Management at the 21st ONOMM.

Ihsan Abduljabbar Ismaeel, Minister of Oil of Iraq

The distinguished Ihsan Abduljabbar Ismaeel, Minister of Oil of Iraq, answered some questions posed on the 5th anniversary of the 'Declaration of Cooperation' (DoC).



Ihsan Abduljabbar Ismaeel, Minister of Oil of Iraq.



Question: The DoC will mark its 5th anniversary in December 2021. Looking back, what contributions has this framework made to the global oil market?

Answer: When adverse consequences, caused mainly by supply side issues, hit the oil market and caused the serious challenges of imbalance and volatility, OPEC, along with its partners from non-OPEC countries, responded to the crisis immediately by adopting the most active of tools (DoC) on December 10, 2016. This landmark agreement has addressed market challenges in a very effective way and dramatically helped the oil market to restore stability. We are convinced that all concerned parties in the oil industry — producers, consumers and others — stand to gain from the continuing success of this magnificent achievement.

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

All positive results that the market has experienced since the adoption of the DoC are robust indications that the sceptics failed in their expectations. Ongoing and close cooperation amongst DoC participating countries would produce concrete and far-reaching results, and we shall continue to exert all efforts for those results to be properly maintained to ensure market balance.

How have the efforts undertaken by the DoC benefitted your country?

Iraq, one of the founding members of OPEC, is very proud to engage in this unique joint effort and is always prepared to contribute, alongside all participating countries in the DoC, to ensure the success of all OPEC+ decisions towards achieving the ultimate goal of rebalancing the oil market for the mutual interest of producing nations, an efficient and secure supply to consumers, with a fair

return on invested capital for all producers. Despite all the challenges that our country has faced, we have strived to fulfill our commitments in relation to OPEC+ decisions. To this end, there are many positive aspects that have been gained from this historical milestone. Like other countries of the world, we have availed from the outstanding achievements attained through the exceptional efforts made by all the participating countries under the DoC, which have effectively contributed to the sustainable growth of our revenues and thus led to a more stable economic environment.

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 going forward?

This instrument of cooperation serves as clear evidence of the firm will of all participating countries to align their orientations, aspirations and views towards ensuring market stability, along with strengthening long-term relationships. From our perspective, the continuation of cooperation between oil-producing countries is a key element for ensuring sustainable stabilization of the oil market, since the DoC has shown positive effects on the market.

As OPEC marks a new milestone on this 5th anniversary, what role do you see for the DoC beyond 2022?

We need to continue on the same path within the framework of cooperation. Through proper planning and permanent coordination, as well as constant monitoring, appropriate actions will be made to build on what we have achieved and to accomplish further progress. The responsibility incumbent upon us is to keep our eyes on the market, be cautious and vigilant to maintain market stability and avoid the appearance of any market imbalance.

Mohammad Abdullatif Alfares, Kuwait's Minister of Oil and Minister of Higher Education, Chairman of the Board Kuwait Petroleum Corporation

Kuwait's Minister of Oil and Minister of Higher Education and Chairman of the Board of the Kuwait Petroleum Corporation took the time to answer questions for the OPEC Bulletin on the 5th anniversary of the 'Declaration of Cooperation' (DoC).

Mohammad Abdullatif Alfares, Kuwait's Minister of Oil and Minister of Higher Education.



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

Answer: In light of the COVID-19 outbreak and its impact on the world economy and the oil sector, members of the DoC held three Ministerial Meetings between April and June 2020. In addition, OPEC Member Countries convened for the 179th Meeting of the OPEC Conference on June 6 to explore possible avenues to reduce market volatility, reaffirming the countries' commitment to a stable oil market. Simply put, it has effectively led to the rebalancing and stability of the markets that we enjoy today.

The DoC has continually supported oil market stability through dialogue and cooperation in the interest of all industry stakeholders, including producers, consumers and investors. It successfully rebalanced the market after the onset of the COVID-19 pandemic, which affected demand for energy markets, removing more than 20 million barrels per day at its peak.

The market has regained a rebalanced status, with the return of OECD stocks to below the five-year average. Market rebalancing success has largely been supported by favorable demand conditions amid deep voluntary adjustments, which helped accelerate the balancing and ease implementation procedures.

The DoC constitutes an unprecedented milestone in the history of the Organization of the Petroleum Exporting Countries (OPEC).

For the first time ever, OPEC Member Countries coordinated with non-OPEC oil producing countries in a concerted effort to accelerate stabilization of the global oil market. The remarkable success realized through this unprecedented cooperation has led to its extension multiple times. One outcome of these meetings was the largest and longest voluntary production adjustments in the history of the oil sector.

The importance of these efforts was recognized at the highest levels of government around the world. For example, the extraordinary G20 Energy Ministers' meeting on April 10 highlighted the commitment of DoC countries in promoting energy market stability and the importance of international cooperation in ensuring the resilience of energy systems. Key measures, such as monitoring compliance within the DOC cooperative framework, have worked remarkably well.

The DOC countries have maintained discipline and exhibited higher-than-expected compliance to their pledged output targets. OPEC+ output compliance has remained consistently above 100 per cent, supported by voluntary adjustments and surpassing 100 per cent in involuntary adjustments.

How have the efforts undertaken by the DoC benefited your country?

The agreement was the driver for markets to recover at a smooth pace and assured market stability, which has prevented the collapse of the industry. This would have had catastrophic consequences for all, including consumers, in terms of crude availability once the pandemic ends. We were among the different players on the world scene that have benefited from the recovery of the markets from a weak stage and volatile status. This, of course, meant better revenues, which will be translated into investment, as well as the ability to proceed with projects that support the economy of Kuwait. This will also help enhance demand for oil and secure supply. As the market required more supply when demand recovered and tightness appeared, OPEC+ decided to add 400,000 barrels/ day on a monthly basis effective August 2021. Kuwait's production has increased accordingly. Furthermore, this has pushed forward Kuwait's capability to help with production as market needs dictate to ensure market stability.

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 going forward? Building on the success of the DoC, its participants recognized the importance of establishing a more permanent platform focused on longer-term cooperation.

Thus, at the 6th OPEC and non-OPEC Ministerial Meeting, held

on July 2, 2019, OPEC Member Countries and attending non-OPEC oil producing countries endorsed the 'Charter of Cooperation'.

The Charter provides a platform to facilitate dialogue and exchange views regarding conditions and developments in the global oil and energy markets. The goal is to contribute to a secure energy supply and lasting stability for the benefit of producers, consumers, investors and the global economy.

The DoC is based on the core principles of transparency, equity and fairness, which also serve as the foundation for all OPEC interactions with non-OPEC oil-producing partners, including cooperation at the research and technical levels.

OPEC and non-OPEC producers in the DOC pursue a long-term cooperative strategy. The challenges faced are immense and the existing framework is well developed enough to deal with issues that arise, as seen during the pandemic.

The scope of the long-term cooperation goes beyond output to include long-term investment plans, as rapid investment and the bringing on of new capacity beyond what is needed in the market would create problems similar to the high output-low price strategy.

Even as the market inevitably shifts to a more competitive environment, albeit slowly, oil policy and managing producer-producer relations will continue to matter. With many countries within OPEC and non-OPEC alike having ambitious plans to increase production capacity, coordination on investment will be a challenge.

Stabilizing expectations around a higher oil price is essential for upstream investment, to reduce producers' exposure to long-term risks and to reverse the increasing flow of investment going to short-cycle projects to long-cycle and more capital-intensive projects.

As OPEC marks a new milestone on this fifth anniversary, what role do you see for the DoC beyond 2022?

The long-term objective of the DoC is to cooperate and coordinate to cater to the challenges facing the oil industry. This is pertinent to 2022 when a surplus is perceived under all scenarios to develop again, challenging the stability of markets and possibly leading to volatility.

In a world where prospects for oil demand and the speed of the energy transition are highly uncertain, the immediate benefits of pursuing effective cooperation over the short and long term are clearly more visible and certain than the alternative of pursuing competition.

Assessing its effectiveness beyond compliance levels, as well as evaluating the dynamics underlying the success of the Agreement's framework and its members' need to institutionalize a long-term cooperative and proactive oil policy framework, are of paramount importance to understanding what lies ahead and why oil policy will continue to matter in the years to come.



Shaikh Mohamed Al-Khalifa, Minister of Oil of Bahrain

The honourable Shaikh Mohamed Al-Khalifa, Bahrain's Minister of Oil, shared his thoughts on the 5th anniversary of the 'Declaration of Cooperation' (DoC).



Shaikh Mohamed Al-Khalifa, Minister of Oil, Bahrain.



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

Answer: The world has come across a turbulent environment in the past five years, including not only havoc within the energy sector, but also geopolitical tension and escalating uncertainties regarding the world economy, particularly during the COVID-19 pandemic. The DoC has been successful in providing the OPEC and non-OPEC members an efficient, effective and transparent platform for proactive dialogue and collaboration. It has contributed significantly to balancing the oil market and stabilizing the global economy.

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

The DoC members have been facing headwinds, but thanks to collective will and commitment, we have overcome common challenges and achieved the goals of the 'Charter of Cooperation' (CoC). We applaud the pivotal role that HRH Prince Abdul Aziz Bin Salman Al Saud, Minister of Energy of the Kingdom of Saudi Arabia, and Alexander Novak, Deputy Prime Minister of the Russian Federation, have played in steering the efforts of the OPEC and non-OPEC's DoC members. Whilst preserving the interest of both producers and consumers, we have a more balanced market and healthier global economy today.

How have the efforts undertaken by the DoC benefited your country?

The success of DoC members has been reflected in improved market conditions and reduced volatility in both oil producing and consuming economies. The DoC presents a forum for exchanging views amongst energy ministers and experts. It strengthens cooperation and bilateral relations between Bahrain and DoC participating countries. The privilege of accessing the OPEC Secretariat's proficient market analysis and reports has also provided us with a deeper understanding of dynamic market fundamentals, future oil outlooks, evolving global oil stock levels and the energy mix.

Participating countries endorsed the CoC to expand cooperation beyond the important market-balancing efforts of the DoC. What role do you see for the CoC going forward?

The CoC calls for policy coordination and technological cooperation. This can be the springboard to promote oil market stability and maintain a balanced global, all-inclusive energy policy of which oil and gas are a key component within the energy mix. Going forward, it could extend its role to strategize sustainable energy solutions and address environmental concerns such as reducing carbon emissions across the oil and gas value chain.

As OPEC marks a new milestone on this fifth anniversary, what role do you see for the DoC beyond 2022?

Building on the success of the DoC so far, members should continue to be responsive and attentive to the oil market, focus on the fundamentals and implement the necessary production adjustments with a fair and transparent approach. The members should also consider facilitating dialogue with a wider base of energy producers and intergovernmental organizations.

DoC participants reaffirm their ongoing commitment to a stable oil market



OPEC Secretary General, Mohammad Sanusi Barkindo, with members of the OPEC Management and OPEC staff.

On November 4, the 22nd OPEC and non-OPEC Ministerial Meeting — the governing body of the 'Declaration of Cooperation' (DoC) — convened to review oil market developments and discuss effective policies on the way forward in the interest of oil market stability. The OPEC Bulletin's **Ayman Almusallam** files this report of the meeting.



he Ministerial Meetings of the historic DoC always generate high anticipation and great interest, whether they are held in person or via videoconference. This month's meetings were no exception.

The 34th Meeting of the Joint Ministerial Monitoring Committee (JMMC) and 22nd OPEC and non-OPEC Ministerial Meeting (ONOMM) convened back-to-back on November 4, 2021, and saw participating countries confirm their readiness and determination to support stability in the global oil market.

The Meetings were chaired by HRH Prince Abdul Aziz Bin Salman Al Saud, Saudi Arabia's Minister of Energy, and Co-Chair Alexander Novak, Deputy Prime Minister of the Russian Federation.

The Ministers issued a press release, presenting the decisions adopted by the 23 oil-producing countries, including OPEC's 13 Member Countries, following the meeting's conclusion.

DoC participants used the meeting as an opportunity to reaffirm their unwavering commitment to the cooperation and its objectives of ensuring a stable and balanced oil market, along with an efficient and secure supply of oil to consuming countries. They also provided clarity to the market when other parts of the energy complex — outside the boundaries of oil markets — experienced extreme volatility and instability. The Ministers reiterated the cooperation's continuing commitment to embracing a proactive and transparent approach, which has provided stability to the global oil market.

The Meeting saw DoC participating countries confirm their decision to adopt a voluntary upward oil production adjustment of 400,000 b/d in the month of December.

The Ministers highlighted the importance of reaching full conformity regarding voluntary production adjustments and encouraged participants to utilize the compensation mechanism, if needed, and take advantage of the compensation period's extension until the end of December 2021.

The Meeting's decisions were taken in view of current oil market fundamentals and consensus on the sector's outlook and build on the outcomes of previous successful meetings, including the 10^{th} and 19^{th} OPEC and non-OPEC Ministerial Meetings held on April 12, 2020, and July 18, 2021, respectively.

DoC participants resolved to meet again on December 2 to review the oil market situation and assess the effectiveness of current policies. The 182^{nd} Meeting of the OPEC Conference will convene a day earlier on December 1.

A press conference was held following the conclusion of the 22nd ONOMM, which saw the participation of a number of Ministers and Heads of Delegation and more than 80 international journalists and analysts. It was followed by more than 2,300 people via the Organization's website and official YouTube account.

Responsible and resolute

Following the conclusion of the 22nd OPEC and non-OPEC Ministerial Meeting (ONOMM) on November 4, 2021, a press conference was held with a number of ministers commenting on the meeting's outcome. The OPEC Bulletin reports.



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

ith the 22nd ONOMM reconfirming the production adjustment plan and the monthly production adjustment mechanism approved at the 19th ONOMM on July 18, 2021, and adjusting upward monthly overall production by 400,000 b/d for December 2021, many ministers joined the subsequent press conference to express their views on the decision made.

If one word stood out from the minister's statements it was "responsible", with HRH Prince Abdul Aziz Bin Salman Al Saud, Saudi Arabia's Minister of Energy, saying that participants in the 'Declaration of Cooperation'

(DoC) were "acting in a responsible way ... we still believe what we are doing is the right job."

This word was also uttered by a number of other ministers, including Alexander Novak, Deputy Prime Minister of the Russian Federation; Suhail Mohamed Al Mazrouei, the UAE's Minister of Energy and Infrastructure; Timipre Sylva, Nigeria's Minister of State for Petroleum Resources; and Parviz Shahbazov, Azerbaijan's Minister of Energy.

Ministers were resolute in highlighting that the decision taken had been correct given the current market circumstances and the future outlook.

Data and analysis

Novak also underscored that the decision had been taken with the backing of hard data and in-depth market analysis. He added that demand for oil still faced some downward pressure from the Delta varquarter of 2022 said that "we are expecting, as usual in the first quarter, to have a surplus in the balance of supply and demand ... The 400,000 b/d we are adopting is going to take us smoothly to that position."

He also reiterated "the importance of consuming nations to us as producers. We worked with them for



Delegates and members of the press during the press conference.

iant of COVID-19. "Even now we are starting to see inventory builds in some countries," he said. "If demand continues to recover despite seasonal trends and the pandemic, we have all the cards on the table and all options to react to this demand growth," he added.

He stressed that the monthly meetings allowed the DoC "to keep a hands-on approach" and continued commitment to market stability.

Mazrouei also noted the importance of the monthly meetings and in looking at expectations for the first

a smooth recovery after the pandemic ... They are our partners."

Mohammad Abdullatif Alfares, Kuwait's Minister of Oil, Minister of Higher Education and Chairman of the Board of Kuwait Petroleum Corporation, stated, "We are transparent and collective in our decisions."

Broader energy outlook

The press conference also brought comments on the broader energy outlook, with Sylva highlighting a





Alexander Novak, Deputy Prime Minister of the Russian Federation.



Timipre Sylva, Nigeria's Minister of State for Petroleum Resources.

comparison between the oil and gas markets. This was further followed in comments from Prince Abdul Aziz.

He said: "The 28 per cent [price increase from March to November 2021] that happened to oil is nothing more than what happened as a result of the uplift that took the energy complex by surprise ... Oil is not a problem, the energy complex is going through havoc and hell, and if left unattended to, the tail will wag the dog." He added that Asia's LNG natural gas price had increased by 454 per cent over the same period, and the EU's natural gas price by 394 per cent.

In looking ahead, he also noted what he called the three pillars, stating that the world must not forfeit energy security, must ensure economic growth and the



Dr Mohammad Abdullatif Alfares, Kuwait's Minister of Oil, Minister of Higher Education and Chairman of the Board of the Kuwait Petroleum Corporation (KPC).

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Rocío Nahle García, Mexican Secretary of Energy.

well-being of the world population, and make sure climate change is attended to.

He said that "we are willing to work with everybody to attend to these issues" and highlighted Paragraph 29 of the recent G20 Rome Leaders' Declaration. It noted: "As we are recovering from the crisis, we are committed to maintaining energy security, while addressing climate change, and guaranteeing just and orderly transitions of our energy systems that ensures affordability, including for the most vulnerable households and businesses."

He also stressed on the importance of investments, in this regard, stating that "this industry has been battered, people need signals, market signals, for them to invest."



Parviz Shahbazov, Azerbaijan's Minister of Energy.



Hasan Hafidh,
Head of OPEC
Public Relations
& Information
Department,
attending to the press
conference.

OPEC and GECF mark new milestone in cooperation

The second High-Level Dialogue between the two Organizations takes place at a pivotal time for oil and gas.



Mohammad Sanusi Barkindo, OPEC Secretary General, with members of the OPEC Management and staff.

he 2nd High-Level Meeting of the OPEC-GECF Energy Dialogue was held on October 27 with the respective Secretaries General underscoring the growing importance of enhanced cooperation between the two Organizations.

The Dialogue took place two years after Mohammad

Sanusi Barkindo, OPEC Secretary General, and Yury Sentyurin, Secretary General of the Gas Exporting Countries Forum (GECF), signed a memorandum of understanding (MoU) to strengthen cooperation through the exchange of knowledge, experience, best practices, and timely, quality information and data.

The MoU was signed on October 3, 2019, on the sidelines of the Russian Energy Week in Moscow. The inaugural OPEC-GECF High-Level Dialogue took place virtually on November 4, 2020, and was hosted by OPEC; this year's meeting also took place remotely, with the GECF as host.

In his opening remarks, Barkindo thanked his GECF counterpart for not only hosting the 2nd High-Level Meeting of the OPEC-GECF Energy Dialogue, but for "continuing to be a pillar of collaborative support with OPEC and other international organizations.

"In hindsight, our MoU was extraordinarily visionary," Barkindo said. "The COVID-19 pandemic began just a few months later, triggering one of the darkest periods in the modern history of energy. Yet the pandemic has also been a vivid reminder of how important cooperation and dialogue are in reassuring the energy markets — especially during periods of great uncertainty."

Both Secretaries General pointed out that the MoU has enabled a significant expansion of exchanges that directly benefit each Organization's Member Countries. The Dialogue series is strengthened by regular technical meetings. The third of such technical meetings was held on October 20.

In his opening remarks, Sentyurin said: "Together, OPEC and the GECF can count on their respective competencies to ensure that the global economy heals after the devastation of coronavirus and that a reliable and secure energy supply serves humanity like never before."

The GECF Secretary General continued: "Notwith-standing the prevalent reductionism and the 'cancel culture', the GECF, together with stakeholders like OPEC, aspires to present a balanced energy-transition roadmap to the international community for a constructive and informative debate. The GECF-OPEC relationship in fact demonstrates the power of constructive debate to unlock the full potential of the world's energy system."

Pivotal timing

The Dialogue took place at a pivotal moment for two reasons.

First, tightness in the global gas market had triggered concern about the ripple effect of rising industrial demand colliding head-on with peak heating season in northern hemisphere countries.

Second, the high-level Dialogue came four days before the opening of the COP26 climate conference in Glasgow, Scotland, the lead-up to which fuelled calls for decarbonization and divestment in oil and gas.

Barkindo's remarks alluded to the need to support data- and science-based discussions on the climate and the energy future as he underscored the importance of collaborative efforts in this process.

"The important exchanges of data and expertise that are a result of our enhanced cooperation contribute extensively to objective and informed discussions about our world's energy markets. Furthermore," he said,

"they have enriched the content and quality of sister publications such as OPEC's *World Oil Outlook (WOO)* and the GECF's *Global Gas Outlook*. This level of collaboration attests to the respect and trust that exists between our two great Organizations."

He further noted that such collaboration signals the importance that OPEC and the GECF give to data sharing and transparency. Both Organizations are key participants in the Joint Organisations Data Initiative (JODI). Data, Barkindo said, is a vital pillar for strategic planning and sound decision-making.

Energy stability and sustainability

Turning to the COP26 climate talks that began on October 31, the GECF Secretary General Sentyurin noted that enhanced collaboration between the two Organizations further contributes positively to efforts of the international community to address important climate issues.

In his remarks, Barkindo said the prospects for a hoped-for positive outcome of the COP26 negotiations looked uncertain. "The constructive dialogue that is vital to the success of this UN-led process has been overshadowed by efforts to decelerate the use of traditional fuels like oil and gas and accelerate the energy transition," he said.

The Secretary General emphasized that OPEC and its Member Countries fully support a multilateral approach to addressing climate change and the energy transition, and are fully on board when it comes to achieving the



Yury Sentyurin, Secretary
General of the Gas
Exporting Countries
Forum (GECF), attending
the 2nd High-Level
Meeting of the OPECGECF Energy Dialogue via
videoconference.

objectives of the Paris Agreement as mapped out in the painstaking negotiations of 2015.

"We fully participated in these negotiations," Barkindo said, adding: "Unfortunately, the energy conversation taking place in the lead-up to Glasgow has become dominated by emotions and rhetoric rather than data and science. Energy stability and sustainability cannot be built on soundbites and headlines.

"As all of us here know," he continued, "the objective consensus of the leading energy outlooks is that our world will need a broad portfolio of fuel choices to support the post-pandemic recovery and, in the longer term, meet the needs of expanding populations and economies. Our OPEC outlook expects global primary energy demand to grow by 28 per cent between 2020 and 2045."

Drawing from the WOO, he noted that in 2045, oil and gas together are expected to continue to provide more than half of the world's energy needs — with oil at 28 per cent and gas around 24 per cent. "These two fuels will be the heavy-lifters of our world's economy and energy system for the foreseeable future," the OPEC Secretary General stressed, "supplying power and heat to homes; driving industrial machinery; keeping the world moving in the air, on land and at sea; and providing the feedstock to meet the rising demand for petrochemicals."

Investing in the future

He pointed to the need for continued investment, especially in the wake of sharp declines in 2020, noting that in the oil sector alone, around \$11.8 trillion in capital investment will be required in the upstream, midstream and downstream between 2020 and 2045. According to the *WOO*, around 80 per cent of this, or \$9.2 trillion, will be needed in the upstream alone.

"The push to deprive the industry of capital could side-track our efforts to invest in innovation, technology and new generations of highly-skilled workers to lead our industry into a lower-carbon future," Barkindo said. "Today, it is of utmost importance that Organizations like OPEC and the GECF continue to work hand-in-hand to ensure that we remain in a strong position to provide secure, stable and sustainable supplies of energy."

During the Dialogue, the Secretaries General pointed out the many commonalities between the two Organizations.

"The bonds that bring our Organizations together run far deeper than the geology that has linked oil and gas since the beginning of time," Barkindo said. "We have many Member Countries in common; share like-minded founding principles; actively participate in many of the same high-level discussions and initiatives; and support commodities that are essential to the current recovery and the world's future energy needs. A number of non-OPEC countries in the GECF also participate in the 'Declaration of Cooperation' and 'Charter of Cooperation', and are steadfast contributors to ongoing oil market stabilization efforts."

Sentyurin cited the example of expanding cooperation between the GECF and OPEC in their flagship research publications, saying the two outlooks help shed light on the importance of the oil and gas industries in meeting the world's growing demand for energy.

Capacity-building

One of the newest aspects of the OPEC-GECF cooperation that has evolved over the past two years is the capacity-building programme aimed at improving the exchange of data, information and practices. The first programme took place this year in Venezuela, a country that has been instrumental in the founding and subsequent growth of both Organizations.

In his closing remarks, Barkindo paid special tribute to the Secretary General of the GECF. "He combines both deep technical knowledge of the industry and exceptional leadership qualities," the OPEC Secretary General said. "This combination of attributes has been very evident during the years, and is particularly evident in the growing relationship between OPEC and the GECF."

He added that the Organizations' relationship has grown in a very short time.

"The areas of collaboration identified in the OPEC-GECF memorandum of understanding — including the exchange of knowledge, best practices, information and data — contribute enormously to improved preparedness and more effective decision-making within our Organizations and Member Countries," the OPEC Secretary General said. "In this respect, the steps that have been taken to expand cooperation between OPEC and the GECF have proven to be visionary, timely and beneficial in addressing issues of mutual interest, including the pandemic recovery process, climate change and energy access."

He closed his remarks by drawing from the font of wisdom of the 19th-century Russian novelist Ivan Turgenev, who said: "If we wait for the moment when everything, absolutely everything is ready, we shall never begin."

Expanding ties date to early 2019

OPEC and the Gas Exporting Countries Forum (GECF) agreed to strengthen cooperation in research and the sharing of best practices through a memorandum of understanding (MoU) signed in Moscow on October 3, 2019.

The purpose of the MoU is to establish and strengthen cooperation in order to carry out activities and share experiences, views, information and best practices in areas of mutual interest. Areas of cooperation identified in the MoU include:

- Energy market monitoring, analysis, modelling and forecasting;
- Energy market research studies covering the short, medium and long term, and their methodologies;
- Energy market data and statistics, data and statistical operational topics (such as methodologies of data gathering, assessment and dissemination);
- Energy initiatives and developments aimed at sustainability, along with environmental and social responsibility;
- Other areas and matters involving common interests and concerns.

OPEC and the GECF also agreed to cooperate, where possible and appropriate, on the exchange of information and data; hold expert meetings and internal bilateral workshops to promote the exchange of knowledge and experience; and cooperate on seminars, workshops, conferences and publications. Also under the MoU, OPEC and the GECF may further identify any other appropriate means to further their cooperation.

The signing of the MoU followed discussions that took place earlier that year between the Secretaries General on the sidelines of the 9th IEA-IEF-OPEC Symposium on Energy Outlooks. The symposium took place at the International Energy Forum (IEF) Secretariat in Riyadh, Saudi Arabia.

At their meeting of February 27, 2019, the Secretaries General recognized the numerous areas of mutual interest to both Organizations, including the fact that they have many Member Countries in common. They emphasized their desire to continue working closely together, both at a high level, as well as at the technical level.



Algeria, Equatorial Guinea, IR Iran, Libya, Nigeria and Venezuela are members of both Organizations.

OPEC Member Countries Angola, Iraq and the United Arab Emirates (UAE) are GECF Observers.

The GECF, headquartered in Doha, Qatar, is an international governmental organization established with the aim to support the sovereign rights of its member countries over their natural gas resources and their abilities to develop, preserve and use such resources for the benefit of their peoples, through the exchange of experience, views, information and coordination in gas-related matters. The GECF was established during the First Meeting of Ministers held in Tehran, IR Iran, on May 19–20, 2001.

A memorandum of understanding to strengthen cooperation through the exchange of knowledge, experience, best practices, and timely, quality information and data, was signed on October 3, 2019, on the sidelines of the Russian Energy Week in Moscow, by Mohammad Sanusi Barkindo (r), OPEC Secretary General, and Yury Sentyurin (l), Secretary General of the GECF.

Five and counting

The 5th High-Level Meeting of the OPEC-India Dialogue took place on October 29. The flourishing relationship has risen to new levels, including a standalone chapter focused on India in the OPEC World Oil Outlook.



 ${\it OPEC Secretary General welcoming the Indian team via videoconference.}$

he first High-Level Meeting of the OPEC-India Energy Dialogue took place in New Delhi in December 2015, marking a new milestone in relations between OPEC and one of the world's leading energy-consuming countries.

This year, India once again hosted the Dialogue via videoconference, a sign of the ever-evolving nature of the cooperation. The collaboration has grown to include exchanges of data and technical meetings and the hosting of Indian interns at the OPEC Secretariat. It has been underscored by the contribution from India of a standalone chapter on the country's energy outlook in OPEC's World Oil Outlook 2021, with Hardeep Singh Puri, India's Minister of Petroleum and Natural Gas and Minister of Housing and Urban Affairs, participating in the official launch virtually on September 28.

"We hope that this dialogue continues to flourish," Mohammad Sanusi Barkindo, OPEC Secretary General, told Puri. "The benefits are manifold, particularly given

that India imports around 70 per cent of its crude oil from OPEC; our Member Countries are forging ever-closer investment ties; and India will continue to be one of the major drivers of global economic and oil demand growth on its path to becoming a global economic powerhouse.

"Our dialogue reaches the very highest of levels," the OPEC Secretary General said. "Last week I had the pleasure to participate in the India Energy Forum by CERA Week, which included a session with His Excellency, the Honourable Prime Minister, Narendra Modi. His leadership is taking India to even greater heights."

The Secretary General also pointed to the positive relationship between OPEC and CEOs of major Indian oil companies, along with high-level management. Puri's own close contact with OPEC since becoming Minister in July 2021 was highlighted. "We have met on a number of occasions and we have always benefitted from your expertise, particularly the insights garnered during the COVID-19 pandemic," Barkindo said.







OPEC Secretary General with members of the OPEC management and staff.

Wide-ranging discussion

The Dialogue touched on a number of topics, including the impact of the COVID-19 pandemic on global energy markets and its potential ongoing implications in the coming years. Participants in the high-level meeting also discussed the post-COVID energy recovery in India, highlighting both the opportunities and challenges; the overall energy market outlook in the medium and long term; oil supply security issues; and the roles of the 'Declaration of Cooperation' (DoC), the 'Charter of Cooperation' (CoC) and measures being taken to maintain oil market stability.

In his opening remarks, Puri noted that cooperation between India and OPEC has intensified across a range of fronts, including at the technical level. He also raised the issue of energy market volatility and current high energy prices. In that context, he underlined the importance of seeking market stability for the benefit of producers and consumers. He also addressed the issue of price differentials between different regions.

The Minister emphasized India's commitment to eradicating energy poverty, noting that the core of Indian government policy is to provide equitable access to clean, affordable and sustainable energy to all Indians. He added that India would continue to develop all possible energy sources, while being fully cognizant of the sustainability dimensions.

India has shown great resilience in its energy system with its petroleum product demand recovering and surpassing pre-COVID-19 levels, Puri said. This has been aided by India's successful vaccination drive.

The OPEC-India Energy Dialogue took place two days before the opening of the COP26 climate talks in Glasgow, Scotland, a topic that surfaced on a number of occasions during the meeting. For his part, Puri stressed the importance of avoiding "zig-zags" in the transition from traditional to new energies. "If the transition is orderly, it is to the benefit of the producers and consumers."

In his remarks, Barkindo noted that India's support for the producer-consumer dialogue has greatly contributed to OPEC's success in pursuing sustainability of the oil market in recent years, particularly during unprecedented challenges as a result of the COVID-19 pandemic.

The OPEC Secretary General referred to the pandemic-induced demand destruction that occurred in April 2020. In response, OPEC and non-OPEC producers in the DoC agreed on April 12, 2020, to help counter the massive oil demand decline by undertaking the largest and longest production adjustments in the history of the oil industry.

"The subsequent flexibility to adjust to shifting market circumstances has demonstrated the full commitment of all participants to sustainable market stability," Barkindo told the Minister and other industry stakeholders attending the high-level meeting. "The decisive action also benefitted from support institutions, such as the G20, where India plays a key role. We welcome India's support for the actions we undertook."

Outlook remains cautiously optimistic

The Secretary General expressed optimism about the global economic rebound. However, he also drew attention to uncertainties, such as very high debt levels, in both governments and the private sector; rising inflation; global supply-chain issues; as well as the challenges facing many gas, coal and electricity markets across the world.

The Secretary General then emphasized the importance of OPEC and the DoC remaining proactive, flexible and vigilant in their goal of a balanced and stable market. He added: "As always, we remain open, transparent and ready to engage on how we all move forward together." In this regard, he stated that "there is no substitute for



Ministry of Petroleum and Natural Gas

Government of India

international dialogue and working together as the most effective means of acting in the best interests of consumers, producers and the global economy."

"The current turmoil we see in the gas, coal and electricity markets has also shed further light on how we approach the energy transition, particularly in the lead-up to COP26," he added. "It is clear that we need to have a holistic view of the energy sector that underscores the need to utilize the strengths of all energies, which is evident in the seven key pillars of India's energy policy."

In addition, he said it was vital the energy transition also focus on the trilemma of energy affordability, energy security and emissions reductions. "Focusing on only one of these issues, while ignoring the others, can lead to unintended consequences and unwanted effects such as market distortions and price volatility."

Enriching producer-consumer dialogue

Both leaders stressed the fundamental value of ongoing dialogue and cooperation to ensure a better understanding between key oil-producing nations and leading oil-consuming countries, like India, and the continued importance of oil to the world's economy.

Puri noted that per capita energy consumption in India is one-third the global average, and that will grow along with the country's economy. "We will be dependent

on traditional energy for many, many years to come," he said. The Secretary General welcomed India's commitment to the dialogue and India's Minister expressed his appreciation for the deepening relationship and dedication to the joint undertaking.

In his closing remarks, the OPEC Secretary General quoted Indian Prime Minister Modi, "We walk together, we move together, we think together, we resolve together, and together we take this country forward," saying there is no substitute for dialogue and cooperation in the interests of consumers, producers and the global economy.

Widely attended

The Dialogue drew a number of participants from a number of OPEC Member Countries, including Angola, IR Iran and Iraq. Representatives of several non-OPEC DoC participating countries, including Azerbaijan and Bahrain, along with leading energy organizations such as the African Petroleum Producers Organization (APPO) and the Organization of Arab Petroleum Exporting Countries (OAPEC) also attended.

Prior to the High-Level Meeting, experts from OPEC and India held their regular technical meeting to discuss matters of common interest and importance in the energy sphere, along with future potential activities.

The next High-Level Meeting of the OPEC-India Dialogue is scheduled to be held in 2022 at the OPEC Secretariat in Vienna.

2015 to today: The OPEC-India Energy Dialogue

ith India's close proximity to the Middle East, its relationship with many OPEC Member Countries has historically been strong. Given its major economic expansion of the past two decades and the growth in its energy demand, this connectedness has multiplied.

The first ever High-Level Meeting of the OPEC-India Energy Dialogue took place in New Delhi in

December 2015. The meeting was chaired by Dharmendra Pradhan, India's then-Minister of Petroleum and Natural Gas and Skill Development and Entrepreneurship, and Abdalla Salem El-Badri, OPEC Secretary General at the time. Both Pradhan and El-Badri underscored the importance of OPEC to India, and vice versa.

In December 2016, the new OPEC Secretary General, Mohammad Sanusi Barkindo, met with Pradhan at Petrotech, an international oil and gas conference held in New Delhi. The Minister officially welcomed the Secretary General to India, on behalf of Prime Minister Narendra Modi and his government, and congratulated him for his ongoing efforts to ensure a return to oil market stability. The Second High-Level Meeting of the dialogue was held in May 2017 in Vienna.

In April 2018, Barkindo, on a visit to India, also made a pilgrimage tour to one of the world's oldest refineries, Digboi, and oil well No 1 in the remote north-eastern corner of the country, which is the birthplace of the oil industry in India's Assam state.

The Third High-Level Meeting of the dialogue was held in 2018 in India, following the second annual India Energy Forum. Both parties reiterated the continued importance of the dialogue as an indispensable forum for fostering good relations, facilitating knowledge exchange and pooling technical expertise.

The OPEC Secretariat hosted the 4th High-Level Meeting of the OPEC-India Dialogue on November 5, 2020 via videoconference. Co-chaired by Barkindo and Pradhan, the meeting focused on the implications of COVID-19, discussing the repercussions of the pandemic and its significant impact on both the world economy and energy markets, including oil. Participants also deliberated on medium-term energy and oil prospects and challenges.

India hosted the 5th High-Level Dialogue, which took place virtually, on October 29, 2021.

The dialogues are bolstered by regular technical meetings, workshops and other interactions.

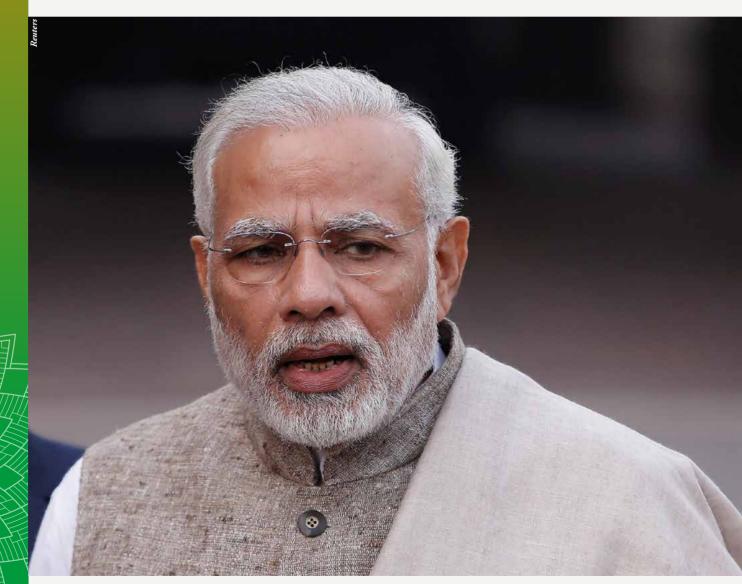


Delegates at the 2nd Highlevel Meeting of the OPEC-India Energy Dialogue, Vienna, May 22, 2017.

Excerpted from **'OPEC 60 years and beyond: A story of courage, cooperation and commitment'**, © Copyright OPEC, 2020. ISBN 978-3-200-07364-7.

Indian PM Modi welcomes oil and gas leaders to the India Energy Forum

OPEC Secretary General, **Mohammad Sanusi Barkindo**, and a host of global oil and gas leaders, joined **Narendra Modi**, Prime Minister of India, in a high-level session on October 20 at the India Energy Forum by CERAWeek.



Narendra Modi, Prime Minister of India.

n his remarks to the interactive session with Prime Minister Modi, Barkindo praised the growing partnership between the Organization and India. "OPEC's relationship with our strategic dialogue partner, India, continues to go from strength-to-strength," he stated, adding that "we truly value the Prime Minister's support and guidance for this vital cooperation."

He added: "India's openness and transparency to explore ways to further enhance the joint collaboration and to work together to address a variety of key energy issues, such as energy security, energy access and sustainability, should be applauded." The dialogue was further advanced at the 5th High-Level Meeting of the OPEC-India Energy Dialogue that was held on October 29 (see page 66).

Looking to the future, Barkindo said that "the relationship between India and OPEC will be pivotal in the years and decades ahead, as we face up to the challenges and opportunities of building a sustainable energy future that leaves no one behind."

The Secretary General also took part in a panel session with Tarun Kapoor, from India's Ministry of

Petroleum and Natural Gas and Jeff Currie, Global Head of Commodities Research, Goldman Sachs. The session, entitled 'Will high prices accelerate the transition away from oil?' was moderated by Jim Burkhard, Vice President, Oil Markets, Energy & Mobility, IHS Markit.

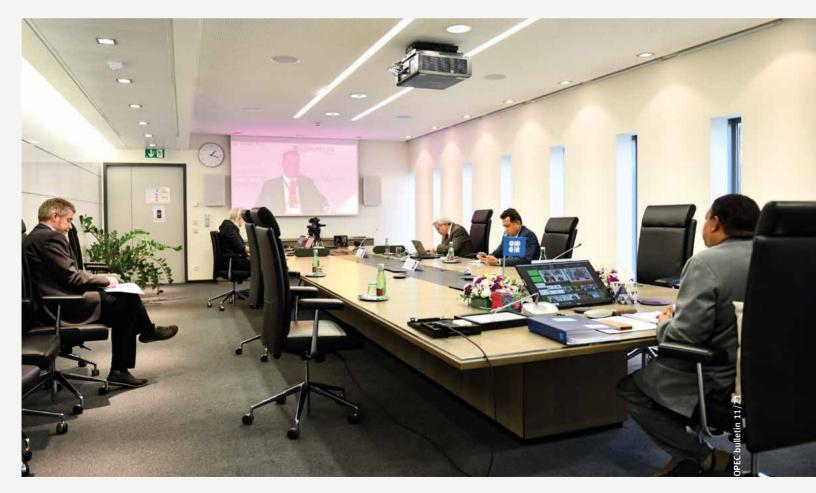
During the panel session, the Secretary General highlighted the importance of oil and gas globally, noting that both will continue to constitute key parts of the global energy basket, with oil still expected to contribute 28 per cent by 2045.

On the energy transition, Barkindo underscored that to tackle climate change comprehensively, it should also be addressed through the prism of energy poverty. "They are two sides of the same coin," he said.

Additionally, he stressed that discourse in this regard should be led by science and reliable data, not by emotions, to ensure that identified solutions are inclusive, fair and comprehensive.

The Secretary General also highlighted the importance of investment in the energy sector, and the right enabling environment for it so as to ensure that supply meets demand.







UN Climate Change Conference makes headway

The UN Climate Change Conference — COP26/CMP16/CMA3 — took place from October 31 until November 13 2021, in Glasgow, the UK, after a year of delay. World leaders, negotiators, climate advocates and other delegates attended all sessions and events in-person, amidst the ongoing COVID-19 pandemic. Climate negotiations ended a day later than scheduled, with Parties adopting the 'Glasgow Climate Pact' and agreeing after six years of intense negotiations upon unresolved issues required for the full operationalization of the Paris Agreement.



he Glasgow negotiations were held against the backdrop of the devastating impacts of the pandemic for all nations, including developing countries, in particular those whose economies have taken a major toll, with rising levels of indebtedness and a series of deeply interconnected social, economic and environmental challenges. Approximately 40,000 delegates registered for COP26, which is a recordbreaking number of participants. Yet owing to inadequate vaccine access and despite the offer made by the COP Presidency to provide vaccines to accredited participants, the attendance of delegates from developing countries was hampered.

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Following the opening joint-plenary sessions, the World Leaders Summit convened on November 1–2, with a focus on the need for increased climate action, including on enhancing the provision of finance to developing countries and recognizing the importance of international cooperation. Particular attention was paid to declarations and initiatives among governments, including the following:

More than 130 countries signed the 'Glasgow leaders' declaration on forests and land use', aiming to work collectively to halt and reverse forest loss and land degradation by 2030;

A total of 109 countries have signed the 'Global methane pledge', which relates to a 30 per cent reduction of methane emissions over 2020–30 while moving towards using the best available inventory methodologies to quantify emissions;

United Nations Climate Change

- The US and China published a joint climate declaration (the 'US-China Joint Glasgow Declaration on Enhancing Climate Action in the 2020s'), agreeing to join efforts to address climate change, including by reducing methane emissions, phasing down coal, promoting decarbonization, protecting forests and conducting technical cooperation;
- India's commitment to achieve net-zero emissions by 2070, along with reaching 50 per cent renewable energy by 2030, and Nigeria's pledge to reach netzero emissions by 2060.

On official negotiations, the UNFCCC Subsidiary Bodies considered and decided on various substantive issues, including unresolved items related to the Paris Agreement rulebook, and building on informal consultations convened virtually in 2020 and 2021.

Technical negotiations on items under the governing bodies took place the first week and continued the second week on a limited set of issues. Many outstanding critical issues were elevated to the ministerial level





At the closing plenary, Executive Secretary Patricia Espinosa thanked all Parties and stated that 'negotiations are never easy'.

on the second week and were considered in Presidencyled and ministerial consultations. A number of stocktake meetings were also held for the COP26 President to report on the work done so far and to inform Parties on the way forward, aiming to reach consensus on the Glasgow outcome.

The Glasgow Climate Pact

In regard to the cover decision — the Glasgow Climate Pact — Parties took note of the findings of the recently released IPCC AR6 Working Group I report and the UNFCCC Synthesis Report on nationally determined contributions (NDCs), which highlight, among other things, the urgent need for a significant increase in the level of climate ambition between now and 2030, aiming to reduce global emissions by 45 per cent by 2030 relative to the 2010 level. Taking into account implementation of all submitted NDCs, concerns were also raised due to the aggregate global emission level, which is estimated to be 13.7 per cent above the 2010 level in 2030.

As a result, the cover decision requests 'Parties to align their targets in their NDCs with the Paris Agreement temperature goal by the end of 2022, taking into account different national circumstances'. Moreover, the UNFCCC Secretariat will annually update the synthesis report on NDCs and make these reports available at every CMA session. Parties also decided to hold an annual high-level

ministerial roundtable on pre-2030 ambition starting next year at CMA 4.

Recognizing the importance of the global goal on adaptation for the effective implementation of the Paris Agreement, Parties welcomed the launch of the two-year Glasgow-Sharm el-Sheikh work programme to define a new global goal on adaptation. The decision also urges developed countries to 'at least double their collective provision of climate finance for adaptation' to developing countries from 2019 levels by 2025, in the context of achieving a balance between mitigation and adaptation.

On matters related to climate finance, the 4th biennial high-level dialogue on long-term climate finance was held, along with the 1st high-level ministerial dialogue on climate finance. On these occasions, the need to fulfill the commitment of providing \$100 billion per annum from developed to developing countries was reaffirmed, and eventually a process was agreed towards setting a new collective quantified goal by 2024. Additionally, two reports of the Standing Committee on Finance were launched; these are the biennial assessment and overview of climate finance flows 2020 and the needs determination report of developing countries. Negotiations focused on adaptation finance as well, including the 4th review of the Adaptation Fund and the membership of its board. The cover decision emphasizes the challenges faced by many developing counties in 'accessing finance and encourages further efforts to enhance access to finance, including by the operating entities of the Financial Mechanism'.

In addition, Parties decided that the Santiago Network on Loss and Damage will be provided with funds to support technical assistance to developing countries in addressing, averting and minimizing the loss and damage from the adverse impacts of climate change. A Glasgow Dialogue has been established to discuss arrangements for the funding of associated activities, to be concluded in June 2024.

On the Paris Agreement rulebook, Parties reached an agreement on Article 6, which deals with cooperative approaches among Parties using market and non-market mechanisms. Following intense negotiations launched in 2016 on a complex and contentious issue, the decisions adopted include guidance on cooperative approaches under Article 6.2; rules, modalities and procedures for the mechanism established by Article 6.4; and a work programme for the framework of non-market approaches





UN Secretary-General António Guterres.

under Article 6.8. In 2022, an Article 6.4 supervisory body will start work to draw up methodologies and administrative requirements for the market, and a *Glasgow Committee on Non-Market Approaches* has been established to take forward the development of climate cooperation under Article 6.8.

On common timeframes for NDCs, Parties are encouraged to communicate an NDC in 2025 with an end date of 2035, in 2030 an NDC with an end date of 2040, and so forth every five years thereafter. On the enhanced transparency framework (ETF), Parties agreed on tables and formats to account for and report on targets and emissions. On the global stocktake, which includes an assessment of mitigation, adaptation and the means of implementation and support (eg finance), Parties approved the two registries for NDCs and Adaptation Communications that serve as channels for information flowing towards this process. The first stocktake is planned to take place in 2023 and the first round of technical dialogues will begin early next year, with Parties having agreed on a non-exhaustive list of inputs that will feed into the stocktake.

Matters relating to the forum on the impact of the implementation of response measures were also considered, focusing *inter alia* on how the forum can implement its six-year workplan and how to form a basis for inputs to the global stocktake. It was decided that the Katowice Committee on Impacts (KCI) will prepare a synthesis report for the stocktake by February 2022, and a two-day workshop will be held in June 2022 to advance the implementation of workplan activities.

During negotiations on all substantive items, developing countries highlighted the need to properly consider the principles of equity and common-but-differentiated

responsibilities and respective capabilities (CBDR-RC) enshrined in the UN Convention and the Paris Agreement. It was stressed that enhanced ambition by 2030 should be implemented on the basis of these principles, best available science, in the light of national circumstances and in the context of sustainable development and efforts to eradicate poverty. Developed countries underscored the importance of a balanced and ambitious outcome that could put the world in the right direction towards reducing global emissions and support collective efforts to 'keep 1.5°C within reach'.

At the closing plenary, Executive Secretary Patricia Espinosa thanked all Parties and stated that 'negotiations are never easy ... to seek an outcome that is acceptable to all', which is 'the nature of consensus and inclusive multilateralism'. Congratulating all Parties on finalizing the Paris Agreement rulebook, she said that 'this is a significant accomplishment!' Alok Sharma, COP26 President, expressed his gratitude to the UNFCCC for working with Parties 'to deliver a successful COP26'. UN Secretary-General António Guterres also said that 'the approved texts are a compromise. They reflect the interests, the conditions, the contradictions and the state of political will in the world today.'

To this end, many participants faced challenges accessing the negotiations due to COVID-19 restrictions, the atmosphere was often tense, yet all Parties reiterated their commitment to Paris Agreement implementation, in the context of sustainable development and efforts to eradicate poverty.

The next UN Climate Change Conference (COP27/CMP17/CMA4) will convene in Egypt in November 2022, while the United Arab Emirates will host COP28 in 2023.



Secretary General Mohammad Sanusi Barkindo delivers the OPEC statement at the High-level Segment

his is no ordinary time. It is a landmark COP, where the future of humanity is at stake. With negotiations of such magnitude and consequence, we must remember the often ignored scientific fact: climate change and energy poverty are two sides of the same coin. The delicate balance between reducing emissions, energy affordability and security 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.

We need to ensure energy is available and affordable for all; we need to move towards a more inclusive, fair and equitable world in which every person has access to energy, aligned with SDG 7; and we need to reduce emissions. It is an energy sustainability trilemma, with each piece having to move in unison. The science tells us that tackling emissions has many paths. There is no one-size-fits-all solution, for countries or industries. The narrative that the energy transition is from oil and other fossil fuels to renewables is misleading and potentially dangerous to a world that will continue to be thirsty for all

energy sources. The capacities, national circumstances, and development priorities of developing countries must be taken into account.

The adverse socio-economic impacts on developing countries due to mitigation activities should be considered, to identify remediation measures and share best practices. Financing is critical to reach climate targets set in developing countries' NDCs. Developing countries have underscored the need for enhanced support, including financial resources, technological development and transfer, and capacity building, as well as a new collective goal for climate finance, to aid adaptation and back increased ambitions for climate mitigation action. OPEC advocates putting multilateralism at the centre of energy, climate and sustainable development. We remain committed to the UNFCCC process, particularly the core elements of equity, common-but-differentiated responsibilities and national circumstances. The oil and gas industry can 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. OPEC subscribes to a sustainable path forward; one that works for us all.

Excerpts of OPEC Member Country statements at the High-level Segment

Ms Samia Brahamia Moualfti, Minister of Environment, Algeria



Six years after the adoption of the Paris Agreement, still the effects of climate change are intensifying. Like many countries in the world, Algeria suffers from exacerbation of extreme weather phenomena, such as unprecedented rise of average temperatures and heat waves, in addition to desertification, land degradation and water scarcity, as well as flooding rain that causes massive human and material losses.

Although it contributes little to the global warming problem, (Algeria) has become the most affected by these climatic changes. For this reason, we stress the need to clarify the means of funding mechanism implementation for effective climate action, concluding with effective binding and fair results that put the Paris Agreement into actual implementation and take into account all the interests of countries, especially the most affected by climate change such as developing countries and Africa, with the need to establish an appropriate framework based on mechanisms that allow all states that are part of the Paris Agreement to benefit from carbon-market-related opportunities and other related initiatives.

Algeria remains committed to the implementation of the Framework Convention and the Paris Agreement, in accordance with its national capabilities and the principles on which these frameworks are based, where the right of the Algerian citizen to live in a healthy environment has been emphasized, and a better standard of living as well as the principles of sustainable development and preservation of natural resources in the government programme, as directed President of the Republic, Abdelmadjid Tebboune.

Algeria seeks to contribute to achieving the goals regulated by the Paris Agreement, but due to its limited potential and the growing needs of its population, it still urgently needs sufficient technical and financial support to fully comply with the International frameworks accredited to address climate change and the negative wastes of this phenomenon.

João Lourenço, President of the Republic of Angola



The Republic of Angola considers climate change one of the greatest challenges facing humanity, due to the set of direct and indirect effects it cause to the economic and social life of nations, a fact that constitutes a real challenge to development.

Currently, the national energy matrix already incorporates 62 per cent 'clean' energy sources, aiming to reach 70 per cent by 2025. We approved the National Strategy for Climate Change 2021–35, aiming to achieve the goals set out in the Paris Agreement, as well as an important environmental legislative package, containing the instruments that will enable a decisive contribution to the global effort to mitigate the causes and adapt Angola to

the effects of climate change. Angola is aligned with the international consensus on sustainable development, including Africa -2063, in line with the Sustainable Development Goals.

Angola defined its NDC to reduce carbon intensity in the production of electricity in a horizon until 2025, and complementary actions in the field of sustainable management of forests, transport and agriculture. Adaptation actions to improve the climate resilience of our communities and protect social and economic investments were also included. We reiterate the firm commitment and determination of Angola to remain engaged in climate action, and to the adoption of a low-carbon development model.

Denis Sassou Nguesso, President of the Republic of the Congo



My country, the Republic of the Congo, is located at heart of the Congo Basin, an immense massif of forests and peat bogs, which is today the first net carbon trap on the planet after the deforestation of the Amazon. The Congo Basin provides an invaluable ecosystem to the world. But, what does it receive in return? Alas, very little.

Indeed, the industrialized countries, which bear the historical responsibility for climate change, are reluctant to mobilize the funding necessary to fulfill their commitments. The great difficulties facing the application of Article 6 of the Paris Agreement, which commits rich countries to supporting the mitigation and especially adaptation efforts of developing countries, are clear proof of this.

The Republic of the Congo, for its part, has already submitted its revised NDC to the Convention Secretariat. Our ambitions, which take into account all sectors of greenhouse gas emissions, have been enhanced, and the Republic of the Congo is a model student in the global ecology contest.

I have been repeating this at all forums since the Rio Summit in 1992, the Congo Basin countries, in general, and the Republic of the Congo, in particular, are fully determined to preserve this vast territory. However, this commitment goes hand in hand with the equally inexorable desire to pursue our economic and social development for the well-being of our populations. These two goals are not mutually exclusive, they complement each other.

To demand from us a slowdown in our development so that the planet can breathe better would indeed be profoundly unjust and even immoral.

This is why, if you will allow me, I would like to once again make the plea here for the Blue Fund for the Congo Basin, a joint initiative of the member countries of the Congo Basin Climate Commission that the Kingdom of Morocco has joined and which is just waiting to be matched with the commitments of all of our partners.

By taking the decision to protect and conserve the Congo Basin for the good of humanity, we have been able to carry out our responsibilities. Now, it is up to everyone else to do their part.

Ali Bongo Ondimba, President of Gabon



Gabon is the most carbon-positive country on earth, net absorbing more than 100 million tons of CO_2 every year. I plan to keep it that way and will submit a new NDC post-Glasgow. I call on countries that are not on track, particularly the 20 nations that represent 80 per cent of global emissions, to submit new NDCs in line with 1.5 degrees.

We must establish a Marshall Plan on climate. We need to rebuild trust, by honouring the pledge of \$100 billion per year. This symbolic commitment will need to be multiplied tenfold beyond 2025, in order to meet the real needs of developing countries. We must clearly define our common adaptation goal.

Even if we achieve our 1.5°C target, climate change will still entail enormous costs. Within this framework, nature-based solutions are an effective environmental and economic response. Finally, we must demonstrate strong leadership to all those who are watching us, in particular to future generations. I call on all negotiators to be flexible and to finalize the 'Paris Agreement's rulebook'.

Statement on behalf of Dr Mahammad Ebrahim Raisi (pictured below), President, IR Iran (delivered by Ali Salajegheh, Vice President and Head of the Department of Environment of Iran)



The government of Islamic Republic of Iran is committed alongside with other nations to combat climate change and global warming with the full support of the Supreme Leader. The government and Iranian environment department whose head is of the rank of vice president, have devised a very ambitious national plan to cope with the consequences of climate change.

We are facing a relevant question raised by members of parliament when they are in the legal process of ratification of the Paris Agreement, that question is: if the Islamic Republic of Iran becomes a full member of the Paris Agreement while unilateral coercive sanction or measures are imposed on the whole country of Iran, how the government would be able to implement its commitments if it is unable to receive any international assistance — financial or technical assistance — from the international community? That question still remains unanswered. And I put the same question before you Mr President and all member states around this table. Why are blind coercive measures imposed on my country and few others, which not only inflicts suffering on a nation but also undermines the global efforts to combat climate change for the benefit of the humanity?

Sheikh Sabah Khaled Al Hamad Al-Sabah, Prime Minister of Kuwait



The State of Kuwait, in compliance with the provisions of the Paris Climate Agreement, has updated its NDC document on October 12, 2021. Kuwait has a package of development projects based on a vision that will avoid an increase in greenhouse gases equivalent to 7.4 per cent of its total emissions until 2035, as sustainable development plans and programmes have been approved at the national level for transition to a low carbon-equivalent economy based on projections of their future emissions in a business as usual scenario for the period 2015–35.

The State of Kuwait attaches great importance to diversifying sources of energy production in the country, including introducing renewable energies and replacing fossil fuels with liquefied gas to ensure the sustainability of energy supply for future generations. We have come a long way, voluntarily and deliberately and according to the possibilities available to us, to rehabilitate our facilities, oil and industrial industries, and turn to modern oil refineries to produce clean fuel.

The State of Kuwait seeks to adopt a national

low-carbon strategy until 2050 built on the principles of a circular carbon economy, working to promote reduction and elimination, reuse and recycling of greenhouse gases, in addition to enacting legislation and laws related to the reduction of emissions and adaptation to their negative effects on the national level, in line with local and regional and international environmental commitments.

The State of Kuwait actively participated in the Clean Development Mechanism (CDM) programme within the Kyoto Protocol and we look forward to participating in the mechanisms of Article VI of the Paris Climate Agreement related to market and non-market mechanisms and joint cooperation.

Muhammadu Buhari, President of Nigeria



Attaining national and global climate change goals will require adequate and sustained technical and financial support to developing countries.

Greater effort should be channelled towards assisting developing nations to meet their NDC commitments through the pledges made by the developed countries to provide at least \$100 billion yearly. Easier access to climate finance has become imperative in view of the COVID-19 pandemic, which really battered the economies of developing countries.

Nigeria is committed to net zero by 2060 ... Our transition plan also highlights the key role that gas will play in transitioning our economy across sectors, and the data and evidence show that Nigeria can continue to use gas until 2040 without detracting from the goals of the Paris Agreement. Gas will be key for addressing the clean cooking challenge, which is also a challenge of deforestation,

and for giving our electric grid the stability and flexibility to integrate renewables at scale. Nigeria will need to integrate an unprecedented 7GW additional renewable capacity each year to achieve net-zero.

Nigeria's commitment to a just transition is reflected in our ambitious Energy Compact, which includes the Government's flagship project to electrify 5 million households and 25m people using decentralized solar energy solutions.

I am happy to state that the 2022 budget, which I recently submitted to our National Assembly, is the first cross-sectoral, gender and climate-responsive budget ever prepared in the annals of our history.

The National Assembly has also passed the Climate Change Bill, which provides a framework for achieving low greenhouse gas emissions, inclusive green growth and sustainable economic development.

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



The Kingdom of Saudi Arabia believes that we all have to renew our efforts to implement the UNFCCC and the Paris Agreement, and that we all should keep in mind the principle of shared, yet distinct, responsibilities among different countries. Equally, we should all be conscious of the special circumstances of the Less Developed Countries, and we should work together to help these countries mitigate the impact of climate change policies, without compromising their sustainable development.

In light of this, the Kingdom has recently launched the Saudi Green Initiative (SGI) and the Middle East Green Initiative (MGI), which aim to reduce carbon emissions in the Middle East by more than ten per cent of the current global contributions. Over the past decade, recognizing the increasing importance of prioritizing our climate change ambitions, the Kingdom has revised its NDC, pledging to reduce emissions by 278 million tons/ year by 2030, more than double the previous goal set in 2015.

It has also announced its ambition to achieve net zero by 2060, within the Circular Carbon Economy (CCE) framework, and in line with the Kingdom's developmental and diversification plans, and the dynamic baseline of its NDC, providing that the necessary technologies for this approach are mature and available. This will help ensure that the Kingdom maintains and enhances its leadership role in promoting the security and stability of energy markets. Furthermore, the Kingdom has announced its intention to join the Global Methane Pledge, which aims at limiting methane emissions by 30 per cent compared with 2020 levels. To realize these ambitious plans, the details of more than 53 Saudi initiatives have been published, with more than \$185 billion of investment.

These initiatives include increasing the share of renewables in the power mix to 50 per cent, launching the Saudi Energy Efficiency Programme, establishing one of the largest hydrogen hubs in the world in NEOM as the Kingdom aspires to produce 4 million tons of green and blue hydrogen annually, and setting up the largest CCUS complex, with a capacity of 44m t/yr by 2030. In addition, the Kingdom is establishing a \$10bn fund for deploying CCE technologies in the Middle East, Africa and developing countries. The Kingdom has also launched a global initiative to provide clean cooking solutions to more than 750m people.

It is imperative that we recognize the diversity of climate solutions, and the importance of emissions reduction as stipulated in the Paris Agreement, without any bias towards or against any particular source of energy.

Sultan Ahmed Al Jaber, Minister of Industry and Advanced Technology and Special Envoy for Climate Change of the United Arab Emirates

We approach this conference in a spirit of cooperation, dialogue and partnership, in the same way that we have welcomed the world to Expo 2020 Dubai, where we are "connecting minds and creating the future".

Sustainable growth has long been an essential part of the UAE's development journey, our nation's Founding Father, Sheikh Zayed bin Sultan Al Nahyan, set out the



principles of sustainability in all sectors. These principles have been integral to our nation's efforts to protect the environment, diversifying energy sources, and developing policies to reduce the impact of climate change. The effects of climate change are relevant to all nations ... small or large ... developed or developing ... rich or poor. Today, there is an even more urgent need to redouble efforts and strengthen action to reduce emissions and adapt to the impact of climate change — through a realistic, inclusive and integrated approach that focuses on practical and commercially viable solutions ... as well as the application of cutting-edge technology and innovation. The UAE sees an opportunity for economic growth with positive social impacts through this approach to climate action. We must hold back emissions, not growth and progress.

We have entered a new era of transition in the energy sector. The UAE views this as an opportunity to focus on new paths towards the future. We believe that investing in low-carbon solutions in the energy sector will drive economic prosperity. Last month, the UAE launched the Net Zero by 2050 Strategic Initiative. This is in line with the vision of the UAE leadership and reflects the ambitions we have outlined for the 'Next 50' years of our nation.

We have, for example, committed more than \$1bn in development aid for clean energy projects in more than 70 countries. Alongside IRENA, headquartered in the UAE, we have announced \$400m in new funding for the Energy Transition Accelerator Platform, or ETAF ... to boost investment and solutions in renewables. Further — alongside the United States and over 30 other countries — we have launched the Agriculture Innovation Mission for Climate to accelerate innovation for agri-tech. The UAE has invested over \$17bn in clean energy projects in six continents around the world.



High-level experts convene for

8th Joint IEA-IEF-OPEC Workshop on the Interactions between Physical and Financial Energy Markets

On October 21, 2021, the International Energy Agency (IEA), the International Energy Forum (IEF) and the Organization of the Petroleum Exporting Countries (OPEC) co-hosted the 8th Joint IEA-IEF-OPEC Workshop on the Interactions between Physical and Financial Energy Markets. The OPEC Bulletin's Scott Laury reports.



he high-level Workshop was co-chaired by OPEC Secretary General, Mohammad Sanusi Barkindo, together with Joseph McMonigle, Secretary General of the IEF, and Keisuke Sadamori, Director of the Office for Energy Markets and Security at the IEA.

More than 110 participants attended the eighth edition of the event, which constitutes one of the three regular dialogues held under the IEA-IEF-OPEC joint work programme that was established and endorsed by Energy Ministers at the 12th International Energy Forum in Cancún, Mexico, in 2010. The other two dialogues consist of the Symposium on Energy Outlooks and the Symposium on Gas and Coal Market Outlooks.

The Workshop's two sessions were devoted to one of the most pressing issues for the industry — ensuring adequate industry investment to meet rapidly rising demand for energy around the world within the changing paradigm of the energy transition. The event's theme was entitled the 'Impact of changing trends in financial markets on world oil supply'.

In his opening remarks, Barkindo emphasized the importance of collaborative events such as this one to

enhance dialogue and cooperation amongst stakeholders across the industry.

"It is exactly these types of close collaboration that we will need to see more of in the weeks and months ahead as this industry continues to rise to the challenge of adapting to the paradigm shifts that are currently taking place."

Industry investment crucial

Referring to the highly anticipated United Nations Climate Change Conference (COP26) in Glasgow, the Secretary General noted that investment would be one of the deciding issues for the industry in the years ahead.

"This pivotal Conference and its outcomes will have far-reaching effects on what the future of this industry will look like in the medium to long term," he said. "Our discussions today are very timely and are fully aligned with the key debates that will be taking place in Glasgow.

Oil and gas, he said, will continue to be an important contributor to the world's rising energy needs in the medium to long term, adding that primary energy demand

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is forecast to increase by a very significant 28 per cent in the period to 2045.

He emphasized the need for a widespread and concerted approach from industry stakeholders to make sure that adequate investments are locked in for the years ahead, especially after last year's historic plunge in demand, which dealt the industry a major setback.

"Last year, we witnessed the largest-ever decline in energy and oil demand due to the COVID-19 pandemic. The industry is still reeling from the devastating impacts of this crisis, during which we saw investment

"The fact is — we must endeavour to achieve the right balance between meeting future energy needs and addressing climate change." drop by a massive 30 per cent in 2020," he stated. "We will need to see an — 'all hands on deck' — approach by stakeholders across the value chain in order to secure adequate levels of investment that will enable the industry to meet rising demand around the world."

Despite these setbacks, he said that the oil market continues to recover at a steady pace as a result of the easing of lockdown measures, increased mobility, large-scale vaccination campaigns and unprecedented government financial stimulus.

"We must also recognize the ongoing highly effective joint contributions of the OPEC and non-OPEC producers of the 'Declaration of Cooperation', which have provided a vital stabilizing force in the oil market," he added.

Global oil demand, he pointed out, has recovered and is now forecast to reach just over 108 million barrels/day (m b/d) by 2045, after sinking to a low level of 90.6m b/d in 2020.

In terms of investment requirements, the Secretary General made reference to this year's *World Oil Outlook*, which estimates cumulative oil-related investment requirements at roughly \$11.8 trillion for 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.

"This investment challenge comes at a time in which our industry is experiencing massive changes related to global efforts aimed at mitigating the adverse effects of climate change," he stated. "Some voices in the industry continue to call for an accelerated transition to a carbon-free economy, which even includes some radical

proposals for a discontinuation of investments in oil and gas."

In this regard, he said that OPEC and its Member Countries would be fully engaged in the COP26 discussions and debates on this issue to ensure that a balanced and equitable approach is adopted.

"Make no mistake, OPEC supports the need to reduce emissions, enhance efficiency and advance innovation, but industry investment cannot be compromised as a result," he said. "Industry investment — in addition to ensuring security of supply in the years ahead — is essential to advancing the innovation and technology that will be instrumental in further improving the environmental footprint and reducing emissions."

The investment issue must remain a top priority for the industry, he emphasized, otherwise the industry could find itself in the undesirable situation of having to deal with a supply shortfall and the resulting volatility that this would trigger.

"The current tightness observed in the natural gas markets is a good reminder to us that we cannot undermine investment," he stated. "The fact is — we must endeavour to achieve the right balance between meeting future energy needs and addressing climate change. It is thus that I call upon all industry stakeholders to advocate for a fair, inclusive and balanced approach in Glasgow. It is only just that all voices are heard and all viewpoints are considered during these crucial talks."

No one left behind

In terms of energy poverty, the Secretary General reminded attendees of the unfortunate reality that a staggering 800 million people worldwide did not have access to electricity in 2019, with around 79 per cent of them located in Africa and 19 per cent in Asia.

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 — this includes a shocking 70 per cent of Africans who have no access, exposing them to high levels of household air pollution. This is all the more ironic when one considers that Africa accounts for only around 3 per cent of global greenhouse gas emissions.

"We must understand that the everyday realities in Belgium, for example, are vastly different than the realities in Burkina Faso, and these different circumstances must be considered in any discussions related to climate change and the energy transition," he added.

Physical and financial markets

Turning to the topic of the interactions between physical and financial markets, the Secretary General noted that there was currently no disconnect between the physical and financial markets as was the case in April 2020, but that the crude financial market was not accurately reflecting or pricing the prevailing physical crude market conditions, and thus there is a lag between these two markets.

"We see several factors in the crude physical market that are playing a role in the financial market, including high gas and coal prices, low investment in the oil and gas sectors and inflation," he said. "Moreover, we are seeing refinery maintenance and low oil product stocks in some regions also pushing financial markets higher."

Noting that the crude financial market is the largest energy market in terms of volume and market liquidity, the Secretary General said that given the interactions between different energy financial instruments, disruptions in other energy markets can have an impact on the crude financial market.

"Given the limited market liquidity of gas and coal compared to the oil futures market, this could prompt investors to shift more money into the oil futures market as it could be used as an instrument for inflation hedging," he said. "Although the financial industry may downplay the impacts of financial flows on oil price movements, they also recognize that oil as a financial asset has other functions in the investor's portfolio, including diversification and inflation hedging."

ESG policy pressure

Shifting to the issue of pressure from environmental, social and governance (ESG) interests to transition investment away from oil and gas, the Secretary General noted that global banking and financial policies are creating "signaling effects towards ESG-related strategies" that might have an effect on developing countries' access to financial markets, which is limited without the help of multilateral funds.

"ESG mandates are limiting the investment pool for fossil fuels, and this in spite of the recent increase in profitability," he stated. "One prime example of this is in the US oil industry, where pressure from investors on companies to prioritize shareholder returns has limited the supply response."

Finally, Barkindo made reference to OPEC's firstever *Technical Workshop with Energy Companies*, which



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 — this includes a shocking 70 per cent of Africans who have no access, exposing them to high levels of household air pollution.

recently brought together national and international oil companies from both OPEC and non-OPEC oil-producing countries to discuss the role of petroleum in the energy transition

"During our discussions, there was a consensus

that there is no light switch that one can simply 'turn on' to activate the energy transition. It will rather be a gradual and measured process that will take time and patience, especially if it is to be achieved in a responsible manner that leaves no one behind."

In closing, Barkindo drew on the wisdom and

"During our discussions, there was a consensus that there is no light switch that one can simply 'turn on' to activate the energy transition."

inspiration of Winston Churchill, quoting the iconic leader: Success is not final, failure is not fatal: it is the courage to continue that counts.

"Thus — delegates, colleagues — as the world prepares to convene in Glasgow next week, let us have the courage to unite as an industry and continue working together to find solutions that will benefit all involved parties."



No discussion on the future of the energy and oil industries is complete without due regard being given to the growing importance of Asia. As the world's most populous continent, it will be the engine of economic growth and the epicenter of energy demand. For this reason, over the last several years, OPEC has made the Technical Meeting on Asian Energy and Oil Outlook a regular feature in its calendar of events. The most recent iteration of the meeting took place in November 2021, and the event once again underscored its value as a forum of knowledge exchange on pressing energy issues.

The 7th Technical Meeting on Asian Energy and Oil Outlook was held via videoconference on November 8, 2021. The event was aimed at enabling technical exchange



among experts from major energy- and oil-consuming countries. Delegates from a diverse range of OPEC Member Countries, as well as government officials from Asian nations and key players from the private sector, attended the meeting. Experts from the OPEC Secretariat participated as presenters and discussants. The discussions focused primarily on the Asian energy and oil outlook, energy and policy analyses of key countries in the region, as well as associated uncertainties within the context of global developments.

Dr Ayed S Al-Qahtani, Director, of OPEC's Research Division, opened the meeting by emphasizing that strengthening and enhancing cooperation with its partners in

the energy industry is a priority for OPEC.

"Our dialogue with Asian stakeholders is particularly important given the significance of the continent for the future of demographic change, economic growth and energy demand. This was apparent in the most recent version of OPEC's flagship publication, the *World Oil Outlook (WOO)* 2045," he said.

He then provided an overview of the conclusions from the WOO pertaining to Asia, OPEC's views on solutions to the climate challenge and OPEC's recent market stabilization efforts under the 'Declaration of Cooperation' (DoC).

Perspective from the World Oil Outlook

Al-Qahtani then described the pivotal role Asia will play in the future of the world's energy outlook, stating, "The WOO forecasts that global GDP will increase from \$125 trillion in 2020 to almost \$270 trillion in 2045. China, India and Other Asia combined account for 48 per cent of global GDP in 2045."

The Director continued by stating, "Global energy demand is set to increase from 275.4 million barrels of oil equivalent/day (m boe/d) in 2020 to 352m boe/d by 2045. China, India and other developing nations, including those in Asia, will continue to drive global energy demand growth. As the WOO shows, India's economy is on a growth trajectory that requires substantial energy, with the anticipation of more energy-intensive industrial output driven by population expansion and increasing urbanization."

The Director concluded his remarks by reminding participants about the interdependent nature of the oil industry, stating, "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."

Emerging trends and technologies

The meeting was divided into two sessions: **Session I** was entitled, 'Oil and energy market developments: drivers, challenges and long-term global outlooks (Asian perspectives, key drivers and strategies).' **Session II** addressed 'Asian energy demand outlook under carbon-neutral policies, medium- and long-term perspectives.' Experts presented on the policies of India, Korea and Japan.

One of the main takeaways was that an inclusive approach is needed for policies that promote emissions reductions. The cost and pace of such targets requires careful monitoring. Furthermore, due consideration must be given to unintended consequences for policy, however well-intentioned the decisions. Multiple pathways will be necessary to achieve emissions reductions.

The comprehensive presentations and thought-provoking discussions that followed facilitated a fruitful and productive exchange among participants. The significance of pursuing such initiatives designed to promote cooperation, through dialogue and technical exchange, was reiterated.

The contributions of senior experts across the industry enhanced knowledge-sharing and information-exchange. Therefore, the participants recommended continuing this instrumental technical dialogue and close interaction on a yearly basis and exploring the possibilities of expanding it.



OPEC Secretary General highlights the critical role of African oilproducing countries in the energy sector

Inaugural African Energy Week dominates the global energy conversation

From November 9 to 12, the city of Cape Town hosted the first ever African Energy Week (AEW), which attracted many industry stakeholders from different backgrounds to discuss issues in the energy industry globally and in Africa. OPEC's Ayman Almusallam files this report.



ver four days, the energy sector and its actors turned their heads with great interest to Cape Town in South Africa to engage in and debate on important topics related to energy across the globe, as well as in Africa, including energy poverty, energy access, the energy transition and the climate change challenge.

The event was organized by the African Energy Chamber (AEC) under the theme 'Making energy poverty history by 2030'. It saw the participation of ministers, policy- and decision-makers, senior officials, advisors, analysts, journalists and others. More than 1,700 rapid tests against COVID-19 were carried out during the event to ensure utmost safety and a healthy environment.

Among the participants were Mohammad Sanusi Barkindo, OPEC Secretary General; Bruno Jean-Richard Itoua, Congo's Minister of Hydrocarbons; Gabriel Mbaga Obiang Lima, Equatorial Guinea's Minister of Industry,

Mines and Energy; Mohamed Oun, Libya's Minister of Oil and Gas; Gwede Mantashe, South Africa's Minister of Mineral Resources; Puot Kang Chol, South Sudan's Minister of Petroleum; Dr Adedapo Odulaja, Nigeria's Governor for OPEC; and Dr Omar Farouk Ibrahim, Secretary General of the African Petroleum Producers' Organization (APPO).

Africa: Key player in energy future

OPEC Secretary General Barkindo delivered a keynote address at the opening session.

In the pre-recorded video message, the Secretary General highlighted the importance and timeliness of AEW 2021, noting that the four-day event managed to bring together a plethora of energy industry stakeholders from across Africa to tackle important current and future issues.

The Secretary General underlined key contributions

Nj Ayuk, Executive Chairman of the African Energy Chamber, opened the conference by praising and thanking South Africa and the city of Cape Town for the excellent arrangements made to host the conference.



Mohammad Sanusi Barkindo, OPEC Secretary General, participated in the 2021 edition of the event by delivering a keynote address at the opening session.

made by African OPEC Member Countries to the success of the Organization, stating that "African countries have historically assumed strong, proactive leadership roles in OPEC."

The Organization currently has seven African Members, namely: Algeria; Angola, which holds the Presidency of the OPEC Conference in 2021; Congo; Equatorial Guinea; Gabon; Libya; and Nigeria.

Referencing OPEC's *World Oil Outlook (WOO) 2021*, the Secretary General underscored the critical role that Africa's oil-producing countries are set to play in meeting current and future energy demand.

"The world will continue to rely on Africa's precious resources in the long term in order to meet rapidly rising global demand for oil and gas," he said, noting that "we foresee a bright future for the African oil industry with significant opportunities for growth."

On the future of energy, the Secretary General stressed that "access to affordable, reliable, sustainable and modern energy is a right for all, not a privilege," and emphasized that "the energy poverty numbers for Africa are stark." He underlined that these facts must be reflected in dialogues and conversations, including those on climate change.

"OPEC has argued for an energy transition that is broad and inclusive, equitable and fair, and that reflects common-but-differentiated responsibility and respective capabilities," he highlighted, adding that the Organization believes that there is no one-size-fits-all solution to combating climate change.

The Secretary General additionally addressed a number of key issues relevant to Africa's oil industry, including its potential in the upstream and downstream sectors, as well as the importance of investment and the right enabling environment to ensure that supply meets demand.

"Creating the stability in the oil market necessary to attract the required levels of investment has been one of the primary motivations behind OPEC's collaborative efforts with ten non-OPEC countries under the 'Declaration of Cooperation' umbrella," Barkindo highlighted.

Africa: the continent of tomorrow

In addition to the remarks delivered by the OPEC Secretary General, a number of ministers, dignitaries and high-level officials addressed the conference and its audience.





Panelists of the session on the African oil and gas sector and its importance to global energy growth.

Nj Ayuk, Executive Chairman of the African Energy Chamber, opened the conference by praising and thanking South Africa and the city of Cape Town for the excellent arrangements made to host the conference.

He added that while no one foresaw the outbreak of the COVID-19 pandemic, its effects continue to be felt by all, such as restricting in-person gatherings. The AEW 2021 succeeded in restoring some normality in this regard, he noted.

As the conference's organizer, he stated that the event aims to provide a sense of hope to participants, as well as others, following the outbreak of the pandemic and its devastating impact.

The Executive Chairman highlighted that energy producers provide the energy required to drive growth and development. In this context, he emphasized that the energy transition must be just for all.

Ayuk continued by underscoring the importance of ensuring energy access for all, including those deprived of less-polluting cooking fuels, and the need to support crucial activities, such as operating hospitals, especially in the difficult times caused by the pandemic.

The Executive Chairman pointed out that this is not the time to turn away from fossil fuels, rather investment



Gwede Mantashe,
South Africa's Minister
of Mineral Resources
and the conference's
host, thanked all
ministers, as well as
the Secretaries General
of OPEC and APPO, for
participating in the
event and welcomed
attendees to Cape
Town.

Gabriel Mbaga Obiang
Lima, Equatorial
Guinea's Minister of
Industry, Mines and
Energy, expressed his
joy at visiting Cape
Town and accepting his
invitation to attend the
conference.



Irene Etiobhio, Senior Petroleum Industry Analyst in the Energy Studies Department, presented OPEC's World Oil Outlook 2021 at the African Energy Week.



in Africa's energy industry should be propelled forward. He encouraged supporting smaller communities and nations, as well as the youth. He also addressed the climate change challenge in his remarks.

Ayuk concluded by highlighting the need to take responsibility, noting that going forward African nations must "do better, create better and make better."

In his address, Minister Mantashe of South Africa, the conference's host, thanked all ministers, as well as the Secretaries General of OPEC and APPO, for participating in the event and welcomed attendees to Cape Town.

The Minister highlighted that Africa enjoys a great

wealth of natural resources, which should be used for the purpose of development, to enable a brighter future for the continent and its people.

On the energy transition, he noted that Africa is relatively less polluting compared with other continents, adding that discussions held to address this topic possess a geopolitical factor. He also highlighted the positive role that technology can play in the energy transition.

The Minister additionally encouraged cooperation between African countries, including in gas and liquefied natural gas (LNG).

Congo's Minister of Hydrocarbons thanked the AEC

and its Executive Chairman Ayuk for organizing an African conference on the continent.

The Minister praised the efforts undertaken by the 'Declaration of Cooperation' (DoC) in support of global oil market stability, noting that the DoC's 23 participants have gone above and beyond duty to support the cooperation's overarching objective, including holding ministerial meetings on a monthly basis to review market developments and take suitable decisions.

Minister Itoua stressed that it is vital for African countries to discuss the energy transition. In this context, he recalled several statements that underscore the continent's critical future role in general, and within the energy industry in particular. He added that a balanced approach must be pursued.

He described the Kingdom of Saudi Arabia as an exemplary model that has succeeded in becoming a leading global oil producer, while demonstrating firm commitment to climate change mitigation.

The Minister encouraged establishing an 'African Green Initiative', in reference to the green initiatives recently launched by Saudi Arabia.

He also highlighted the importance of developing fruitful and positive cooperation between African countries and regions to achieve relevant required purposes and objectives.

Gabriel Mbaga Obiang Lima, Equatorial Guinea's Minister of Industry, Mines and Energy, expressed his joy at visiting Cape Town and accepting his invitation to attend the conference. He commended the conference's organizers for the successful hosting of the event.

The Minister pointed out the event's importance to Africa and its oil-producing nations, despite the prevalent risks associated with the COVID-19 pandemic. He also highlighted the importance of developing a just and equitable approach to the energy transition.

Minister Oun of Libya promoted the role of international cooperation and multilateralism, encouraging African countries to join efforts.

The Minister underlined that Africa has an abundance of various resources — sufficient to secure a decent standard of living for all.



Dr Omar Farouk Ibrahim, Secretary General of the African Petroleum Producers' Organization (APPO), underlined the conference's importance for Africa's energy industry.



Dr Adedapo Odulaja, Nigeria's Governor for OPEC.

He invited investors to look into various investment opportunities in Libya's national energy sector, encouraging them to explore the OPEC Member Country's untapped reserves, especially those that are offshore. He also noted that Libya has started to develop green hydrogen.

Bruno Jean-Richard Itoua, Minister of Hydrocarbons of Congo, stressed that it is vital for African countries to discuss the energy transition.



Mohamed Oun, Minister of Oil and Gas of Libya invited investors to look into various investment opportunities in Libya's national energy sector.



South Sudan's Minister of Petroleum used the opportunity to commend the efforts made by the DoC for the benefit of producers, consumers, investors, as well as the global economy at large.

He added that the DoC's objective is to help accelerate the rebalancing process in the global oil market, noting that this approach has demonstrated solidarity among participating countries.

In his remarks, APPO's Secretary General underlined the conference's importance for Africa's energy industry, adding that the gathering aims to discuss the future of energy, given the growing debate on the energy transition. He noted that climate change is not a new concern, but that it has recently been elevated to the top of the global agenda. He emphasized that climate change is undeniable, adding that it is unrealistic expectation for Africa to refrain from using its great reserves of oil and gas, which are essential in ushering in much-needed development. Oil must become more climate-friendly, he stressed.

In this context, Dr Ibrahim recalled the key principles of the United Nations Framework Convention on Climate Change (UNFCCC), namely equity and 'commonbut-differentiated responsibilities and respective capabilities.'





Morning greetings by a traditional South African cultural group.

OPEC at AEW 2021

The OPEC Secretariat participated in the AEW 2021.

Irene Etiobhio, Senior Petroleum Industry Analyst at the Energy Studies Department, took part in a panel session that focused on the African oil and gas sector and its importance to global energy growth. APPO's Secretary General and Anibor Kragha, Executive Secretary of the African Refiners and Distributors Association (ARDA), were among the panelists.

Etiobhio also presented OPEC's World Oil Outlook (WOO) 2021, with a focus on Africa and its energy sector, in a special session. The presentation was followed by a panel discussion, in which Minister Lima of Equatorial Guinea and Mohamed Amin Adam, Ghana's Deputy Energy Minister, participated. A video outlining the WOO's key messages was screened during the session.

OPEC's Public Relations and Information Department attended the event, hosting a stand at the conference's exhibition.

> OPEC's Public Relations and Information Department hosting a stand at the conference's exhibition, which was attended by OPEC's Ayman Almusallam (l). Among the visitors to the stand were Nj Ayuk (r), Executive Chairman of the African Energy Chamber; and Aissatou Sophie Gladima, Senegal's Minister of Petroleum and Energy.



The Kingdom paves the way forward for global climate dialogue

Saudi Arabia launches three milestone green initiatives

For many decades, Saudi Arabia has demonstrated unparalleled leadership and commitment to key global matters. Its pivotal advocacy in supporting a stable oil market serves as a testament to these efforts. This tradition has continued to inspire the Kingdom to lead by example, as it launched three landmark initiatives in October 2021 to address climate change. The OPEC's Ayman Almusallam reports on the launch of these initiatives.

OPEC bulletin 11/2:



n October 23, 24 and 25, the world turned to the Kingdom of Saudi Arabia, whether inperson or virtually, as the OPEC Founder Member hosted the inaugural 'Saudi Green Initiative Forum', the 'Youth Green Summit', and the 'Middle East Green Initiative Summit'.

For three days, delegates from various countries and of different rank and background eagerly conversed and discussed various issues related to climate change and associated mitigation efforts. These included leaders, policymakers, senior officials, representatives from the private sector, experts and academics, among others.

A number of Heads of Delegation to OPEC and Ministers of non-OPEC oil-producing countries participating in the 'Declaration of Cooperation' (DoC) took part in the meetings, such as HRH Prince Abdul Aziz Bin Salman Al Saud, Saudi Arabia's Minister of Energy; Bruno Jean-Richard Itoua, Congo's Minister of Hydrocarbons; Mohammad Abdullatif Alfares, Kuwait's Minister of Oil,





Mohammad Sanusi Barkindo, noted, in March, that the 'Saudi Green Initiative' and the 'Middle East Green Initiative' represent an important contribution to global efforts to combat climate change.

"The recently announced initiatives are timely and form an important part of the Kingdom's efforts to address environmental challenges and climate change. With these initiatives, the Kingdom continues to steer its global engagement on energy and environmental policies through the principle of 'common-but-differentiated responsibilities'," the Secretary General said.

Ambitious targets announced

At the opening of the Saudi Green Initiative Forum, HRH Prince Mohammed bin Salman presented a set of ambitious environmental initiatives that will serve as a roadmap to help protect the environment and tackle the challenge of climate change. He also highlighted that the Forum is mandated to monitor the impact and success of the projects.

The Crown Prince noted that among the projects is an initiative that aims to achieve a reduction of around 278 million tonnes/year (m t/yr) in emissions by 2030, emphasizing that the new target represents more than a 100 per cent increase in emissions reduction since the announcement of the initiative earlier in 2021.

He also announced the Kingdom's aim to reach netzero emissions by 2060 through the Carbon Circular Economy approach, which was endorsed by the G20 during Saudi Arabia's Presidency in 2020.

He emphasized that this ambitious target aligns with the Kingdom's economic diversification and development plans, adding that it will be achieved in a fashion that maintains Saudi Arabia's leading role in supporting the stability and security of global energy markets. He noted that technology can provide support in achieving these targets.

HRH Prince Mohammed bin Salman continued by highlighting that the Kingdom intends to join the Global Methane Pledge as part of the country's efforts to decrease emissions generated from methane by 30 per cent by 2030. He noted that Saudi Arabia is committed to delivering a cleaner and greener future.

On forestation efforts, the Crown Prince outlined his country's plan to grow around 450 million trees and rehabilitate 8 million hectares of degraded land in the same time period to help alleviate emissions by 200 million tons. He added that the Kingdom aims to reach its target

"... among the projects is an initiative that aims to achieve a reduction of around 278 million tonnes/ year in emissions by 2030 ..."

— HRH Prince Mohammed bin Salman bin Abdulaziz

Minister of Higher Education, Chairman of the Board of the Kuwait Petroleum Corporation (KPC); Timipre Sylva, Nigeria's Minister of State for Petroleum Resources; and Parviz Shahbazov, Azerbaijan's Minister of Energy.

The initiatives, which were announced by His Royal Highness Prince Mohammed bin Salman bin Abdulaziz, Saudi Arabia's Crown Prince, Deputy Prime Minister and Minister of Defence, in March of this year, continued to receive positive responses from across the globe.

In welcoming the initiatives, OPEC Secretary General,



of protecting 30 per cent of its total land area through increasing the amount of land designated for protection.

He underlined that Riyadh, which hosted the momentous events, is set to become one of the world's most sustainable cities, featuring a wide range of sustainability-related solutions.

HRH Prince Mohammed bin Salman highlighted that the Kingdom is sparing no effort and is continuing to play an important role in tackling common concerns on a global scale, believing that the way forward requires cooperation to address the climate change challenge, as well as a green transformation that delivers socioeconomic progress.

The Crown Prince underscored the Kingdom's firm commitment to the marine world, with the announcement that Saudi Arabia will join the Global Ocean Alliance and create the Ocean Exploration Foundation and a global centre for tourism sustainability.

HRH Prince Mohammed bin Salman highlighted that the outlined initiatives contribute by more than 700 billion Saudi riyals to the growth of the green economy, adding that the Saudi Green Initiative will secure notable opportunities for investment and job creation for future generations, while enhancing international ties that will have a positive impact regionally and globally.

Turning point

In a special session, Saudi Energy Minister, HRH Prince Abdul Aziz Bin Salman Al Saud, thanked all participants for attending the Forum. He stressed that this year's events are a prelude of many to come.

He highlighted the ongoing remarkable transformation occurring in Saudi Arabia, noting that it is being guided by exemplary leadership, aspirations and ambitions. He stated that it is time to "move it forward to a better future that will be led by this generation and generations to come," adding, "I am empowered by a young leader, who has a vision."

On the landmark initiatives, the Minister emphasized that the Kingdom aims to become an inspiring nation by being an example to others. He added that ensuring gender equality is among the key objectives of the initiatives.

HRH Prince Abdul Aziz noted that Saudi Arabia has embraced ambitious nationally determined contributions (NDCs), in reference to the emissions reduction



target announced earlier by the Crown Prince. He outlined that the Circular Carbon Economy (CCE) will support achievement of this target, highlighting that CCE is a holistic concept that links energy, economic and ecological systems.

The Minister continued by emphasizing the growing importance of international cooperation regarding technology advancement and implementation, as well as research.

In reference to the Kingdom's carbon neutrality plan announced earlier in the Forum, the Minister underlined that though his home country aims to achieve carbon neutrality by 2060, it will explore possibilities to reach this date earlier depending on various conditions, including oil market conditions.

HRH Prince Abdul Aziz noted that the country's national economic growth is largely driven by energy exports. In this context, he highlighted that a set of

key performance indicators (KPIs) and milestones have been developed for the purpose of monitoring to ensure accountability.

He continued by stressing that the Kingdom aims to use renewable energy sources to power around half of these efforts.

Saudi Arabia intends to back climate finance efforts by providing the necessary support to existing financial institutions, he said, adding that many of the scenarios presented at the Forum emanated from the Paris Agreement on climate change.

The Minister highlighted that the world will continue to require all sources of energy, while it also needs to address the climate change challenge. In this context, he emphasized the need to explore all possible solutions, noting that they must be comprehensive and inclusive — effective both in tackling climate change and supporting energy security.



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



Mohammad Abdullatif Alfares, Kuwait's Minister of Oil, Minister of Higher Education, Chairman of the Board of the Kuwait Petroleum Corporation (KPC).

Countdown to Glasgow

In a later session, Saudi Arabia's Energy Minister was joined by Dr Sultan bin Ahmad Sultan Al Jaber, UAE's Minister of Industry and Advanced Technology and CEO of ADNOC Group; Patricia Espinosa, Executive Secretary of the United Nations Framework Convention on Climate Change (UNFCCC); and Marco Alvera, CEO of Snam. It was moderated by Frederick Kempe, President and CEO of the Atlantic Council.

The discussion focused on the COP26 meeting in Glasgow and possible implications for national strategies in the Middle East, as well as on how countries can cooperate to achieve constructive outcomes.

Minister Al Jaber began by praising the Kingdom's leadership, as well as congratulating its youth for launching a bold, long-term and strategic initiative, highlighting that these efforts represent serious steps toward change in the climate change dialogue. He added that the initiatives serve as great examples on how the region can realize a change in this critical discourse, stating they will help facilitate change and fill untouched gaps.

The Minister continued by reiterating the UAE's commitment to addressing global concerns, noting that the plan to achieve net-zero status by 2050 is central to the country's 50-year plan and economic diversification efforts. He welcomed all interested stakeholders to approach the UAE for possible cooperation and partnership.

On energy, Al Jaber acknowledged that the industry faces a notable drop in investment, among other issues, including meeting future energy demand and securing the future energy mix.

The Minister emphasized that countries should be as progressive and solution-oriented as possible during COP26 negations. He stressed that a 'one-size-fits-all' approach cannot be followed, adding that the economy should continue to be central in the development of possible solutions. He noted that nations should concentrate on answering challenges, rather than challenging answers.

The session also saw Snam's CEO arguing for the need to invite consuming nations to help develop CCE in the interest of ensuring that all concerns and needs of industry stakeholders are reflected in the concept.



HRH Prince Abdul Aziz Bin Salman Al Saud reiterated his country's unwavering commitment to the initiatives and regularly holding associated events, adding that the Kingdom will establish a foundation tasked with ensuring the continuity of gatherings.

The Minister also highlighted the need to remain attentive to energy security, sustainable economic growth and sustainable prosperity, while addressing the climate change challenge. He added that one should not be compromised for another.

At the session, the UNFCCC Secretary General confirmed receiving Saudi Arabia's NDCs.

Potentials and risks

Among the participants was the Prince of Wales, HRH Charles, who delivered a special address.

The Prince underscored the timeliness of holding these gatherings, as two major global events were approaching: the G20 Leaders Summit in Rome and COP26 in Glasgow.

On the world's situation, Prince Charles noted that the COVID-19 pandemic has revealed the interactivity of various global domains, such as economy, environment and health.

He also acknowledged the various risks associated with rising temperatures, including increasing needs for energy and water, adding that the initiatives presented by Saudi Arabia can help in this regard.

The Prince also recognized the remarkable potential for renewable energy sources in the region, highlighting that Saudi Arabia's participation and leadership in the energy transition is vital.

Prince Charles concluded by putting forth his hope that the solutions and ideas identified at the Forum will be brought to the discussion table in Rome during the G20 Summit.

The role of sport

HRH Princess Reema bint Bandar bin Sultan Al Saud, the Kingdom's Ambassador to the United States, highlighted the possible role that sport can play in supporting climate change mitigation efforts.

She stated that sport in general can be transforming and educating, adding that it creates harmony among all and challenges individuals to be better. She noted that some of these attributes can support climate change ambitions.

HRH Princess Reema also announced Saudi Arabia's intention to sign the United Nations framework for sport, highlighting that the Kingdom continues to pursue positive societal change. She called on all national Olympic committees to support the framework.

HRH Princess Reema concluded by reaffirming the Kingdom's firm commitment to its initiatives, noting that Saudi Arabia must now deliver on its promises and monitor progress.

Energy giants

National and international oil companies also took part in the Forum.

Amin Nasser, President and CEO of Saudi Aramco, expressed his excitement regarding the Kingdom's new target to achieve net-zero emissions by 2060. He noted that this is a historic moment, given the target was announced by one of the world's leading oil-producing countries.

Nasser continued by stressing that Aramco aims to achieve carbon neutrality in oil production by 2050, adding that this juncture will be complex and filled with milestones and challenges. He noted that setting the goal will help accelerate efforts.

The CEO additionally underscored the need to maintain current energy resources and develop new ones, such as blue hydrogen and renewables. He stated that investing in gas, for example, will help in achieving the carbon neutrality target.

On Aramco's production, Nasser noted that the energy giant is currently expanding its production capacity.

Nasser noted that an investment crisis has been looming since 2016, stressing that this has impacted global spare capacity, which by extension affects the oil industry and the global economy.

He reiterated the sage words of HRH Prince Abdul Aziz on the critical issues of energy security, sustainable economic growth and sustainable prosperity, highlighting the importance of global energy security.

The Aramco CEO underlined his confidence in the role of technology in providing viable solutions to emissions mitigation or elimination, adding that technological advancement will lead to cost reductions.

"... the industry faces
a notable drop in
investment, among other
issues, including meeting
future energy demand
and securing the future
energy mix."

— Dr Sultan bin Ahmad Sultan Al Jaber



Timipre Sylva, Nigeria's Minister of State for Petroleum Resources.

On the energy transition, Nasser highlighted that the way is long and complex, and emphasized the need for an orderly and holistic approach. He noted that the development of relevant policies must take into account several factors, namely affordability, reliability and global energy security, adding these policies should be inclusive, not decisive.

Patrick Pouyanné, Chairman and CEO of Total Energies, also participated in the session, where he highlighted that energy is seeing a strong rebound in demand.

Pouyanné used the opportunity to commend OPEC Member Countries and non-OPEC oil producing nations participating in the DoC for their joint efforts in monitoring the global oil market to support its stability.

On the outlook for energy, he acknowledged that innovation is emerging from various parts of the industry, noting that current progress seems promising.

Referencing the energy transition, Pouyanné emphasized that the elimination of oil does not represent a solution, adding that developing countries should receive the support they need in the transition process. This is necessary to avoid the outcome in which developed countries reach carbon neutrality, while other nations remain behind, he said.

Pursuit of balance

A group of Heads of Delegation to OPEC, DoC Ministers and other dignitaries participated in a ministerial panel entitled 'The balancing act — sustainability and economic development.'

Minister Alfares of Kuwait began by congratulating the Kingdom on its recently launched initiatives, as well as its ambitious plan to reach net-zero status in the coming decades. He highlighted that constructive developments in any country in the region can generate a wider positive impact on the region as a whole.

The Minister continued by outlining the evident effect of climate change on Kuwait, underlining that the challenge is a fact that must be addressed.

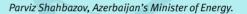
He noted the importance of energy security, economic development and sustainability. He also underscored that in the context of the energy transition, time and education are required.

Minister Alfares said that the management of the energy transition requires clear practical policies, adding that any climate change roadmap should take into consideration the national circumstances of all countries.

The Minister stated that his country looked into introducing renewable energy sources in two key sectors: oil







and electricity generation, adding that Kuwait is currently developing a plant with two gigawatt production capacity.

Minister Sylva of Nigeria joined others in praising the Kingdom for developing a bold and innovative initiative, stressing that other countries can adopt it either partially or fully.

The Minister emphasized that Nigeria is likely to embrace a similar initiative, taking into account the country's national circumstances. He added that it is challenging to ensure energy access while pursuing ambitious goals, noting that there are multiple ways to achieve carbon neutrality, not just one.

On the Petroleum Industry Bill, the Minister emphasized the potential benefits of the newly passed legislation, including the promotion of using and investing in gas.

The Minister described climate change as "real". He highlighted that it is ineffective to follow one path in this regard, as some countries will lag behind. He noted that accepting multiple methods to achieving net-zero status will allow for the development of an inclusive solution that leaves no one behind.

Minister Sylva used reaction to the COVID-19 pandemic as a model for building global consensus, explaining that energy poverty requires a similar approach.

Minister Shahbazov of Azerbaijan thanked the

organizers for extending the gracious invitation to attend the Forum.

During the discussion, the Minister underscored the leading role that Saudi Arabia has played in providing energy balance, especially in the global oil market. He added that the host country's new initiatives demonstrate how it will address climate change while continuing to support global development.

He pointed out that Azerbaijan has adopted a green growth policy, which has been endorsed by Ilham Aliyev, the President of Azerbaijan.

He continued by reiterating the comments of HRH Prince Abdul Aziz on energy security, sustainable economic growth and sustainable prosperity, highlighting the importance of striking the right balance among these

Shahbazov highlighted the importance of multilateralism and realism in pursing this path.

Sustainable development for all

Another high-level session focused on sustainability and how to ensure justice in the energy transition, during which Minister Itoua of Congo thanked Saudi Arabia for the opportunity to attend the Forum.

He praised the Kingdom for demonstrating how a key global oil and gas producer can lead efforts related to climate change, including developing ambitious initiatives and projects.

The Minister also emphasized the importance of ensuring that the transition is just and equitable and focuses on socioeconomic growth for all countries and peoples, as well as their wellbeing. He noted that solutions must be inclusive.

Minister Itoua also underscored the need for dialogue between all stakeholders, including producing and consuming countries, developing and developed nations and the public and private sectors.

During the discussion, Dr Abdulhamid Alkhalifa, Director-General of the OPEC Fund for International Development, thanked the organizers for extending an invitation to the OPEC Fund, noting that the Forum reminded participants of the most pressing matters facing the planet, including sustainable development and developmental issues.

The Director-General noted that the transition is challenging. He stated that some countries do not have their basic needs met and face challenges with simple development plans, stressing the need to differentiate between countries and regions based on their capacities and resources.

He continued by outlining that a balanced approach should be adopted, whereby the importance of the environment is acknowledged, while mitigating unwanted effects that impact the economy or society.

Alkhalifa also highlighted the roles of education, the private sector and small and medium enterprises (SMEs) in mitigating risk.

In a different session, Mohammed bin Abdullah Al-Jadaan, the Kingdom's Minister of Finance, underscored the need to define the transition in order to better address it, as well as to avoid an energy crisis in the future. He highlighted the world's growing demand for energy.

World leaders gather

At the inaugural Middle East Green Summit held in Riyadh, many leaders and dignitaries joined together, as well as international officials in the domains of environment and climate change.

The Summit saw participants review various programmes announced by Saudi Arabia with the aim of achieving the initiative's objectives, highlighting that the plans are set to support efforts and cooperation on a regional scale to reduce and finally eliminate carbon emissions.

Among the initiatives is a project dedicated to planting 50 billion trees in the region, which represents five per cent of the global target for afforestation.

The participants issued a joint *communiqué* following the conclusion of the Summit.

In it, the Kingdom announced its plan to establish several bodies during the Summit to support the success of the initiative, including a regional hub for climate change, regional centre for carbon extraction use and storage, regional centre for sustainable development of







Saudi Minister of Finance Mohammed Al-Jadaan gestures as he speaks during the Saudi Green Initiative Forum to discuss efforts by the world's top oil exporter to tackle climate change in Riyadh, Saudi Arabia.

fisheries and a cooperative platform to accelerate the implementation of CCE.

The joint *communiqué* also outlined that these centres and programmes will play "a significant role in creating the infrastructure necessary to protect the environment, reduce emissions and raise regional coordination."

The Kingdom announced its intention to establish a regional initiative for clean fuel solutions for cooking to help more than 750 million people globally, as well as a regional investment fund supporting CCE technology solutions. The press release noted that around SAR 39 billion is required to achieve these goals.

According to the joint *communiqué*, gathered leaders called for advancing coordination and joint efforts in the interest of protecting the environment, adding that a Green Initiative Foundation should be established to support the summit and ensure implementation of the initiatives' objectives.

The Summit highlighted the importance of cooperation and joint effort, in addition to creating a regional roadmap and functional methodology to overcome challenges and achieve the goals of the Middle East Green Initiative. The meeting underscored the aim of the initiative, noting that it will help promote regional sustainable

development, as well as preserving and restoring biodiversity for the benefit of all.

The *communiqué* concluded by thanking Saudi Arabia for the country's leading efforts in environment and climate change, as well as for the gracious invitation extended to participate in the Summit.

The meeting also saw the leaders agree to hold further Middle East Green Summits periodically in the interest of creating implementation plans to realise the initiative's goals.

Future generations

In addition to hosting the 'Saudi Green Initiative Forum' and the 'Middle East Green Initiative Summit', the Kingdom hosted the 'Youth Green Summit'.

The gathering was based on the firm belief that the youth are tomorrow's leaders, thinkers and pioneers. It featured several workshops, sessions and discussions on topics of great relevance, such as the future role of youth, the possible contributions of youth to actions related to climate change, technological innovation, emissions reduction, marine life preservation, land degradation reduction and renewable energy.

UAE celebrates 50 years since its founding

The United Arab Emirates (UAE) continues to mark one success after another. Over the past 50 years, the OPEC Member Country has managed to accomplish record achievements in many domains, including global leadership and diplomacy, world economy and energy, and social progress and gender equality. In this article, the OPEC Bulletin's **Ayman Almusallam** will explore these milestones, as well as the momentous 'Year of the 50th'.

ecember 2 is a date of special importance to the UAE, as it marks the day of the formation of the union. However, this year, the date will carry additional value and sentiment, as the country and its people celebrate the 50th Anniversary since the nation was unified in 1971.

Given the event's significance, the Emirati leadership has spared no effort to organize a befitting celebration across the country, including establishment of the UAE Golden Jubilee Committee in December 2019, which is headed by HH Sheikh Abdullah bin Zayed Al Nahyan, Minister of Foreign Affairs and International Cooperation, with HH Sheikha Mariam bint Mohamed bin Zayed Al Nahyan as Deputy Chair.

This announcement was made by HH Sheikh Khalifa bin Zayed Al Nahyan, President of the UAE.

In the announcement, the President highlighted that the 'Year of the 50th' should embrace three key

principles: promote the festive spirit that engages all people who deem the UAE to be their homeland; invite Emirati nationals to contemplate the values and achievements of the past in acknowledgement of the UAE's Founding Fathers; and inspire the youth to develop their ambitious visions for the next 50 years, while providing support to enable national achievements in furtherance of the March of Development, Progress and Prosperity.

Sheikh Khalifa said: "[The] 'Year of the 50th' represents a historic defining moment in our journey that started immediately after the declaration of the UAE's union in 1971. It is an acknowledgement of the resolute will and strong determination our Founding Fathers had while building up the nation. It also comes in recognition of the sincere efforts made by our citizens for our nation to become what we see today — one of the best-growing and fastest-developing countries in the world.

Aerial view of the Dubai Palm Jumeirah, UAE.





HH Sheikh Zayed bin Sultan Al Nahyan, the Founder and first President of the UAE and former Ruler of Abu Dhabi.



HH Sheikh Khalifa bin Zayed Al Nahyan, President of the UAE.

"[The] 'Year of the 50th' is an opportunity to contemplate the achievements made over 50 years at a time when we are gearing up for the next journey," he emphasized.

Sheikh Khalifa noted: "We are living in a rapidly changing world. Amid this change, there are opportunities up for grabs to drive innovation and creativity. Therefore, we will have to double [the] efforts to generate novel ideas and quality initiatives to preserve our heritage and values and protect the cultural diversity of our society. As such, these initiatives should contribute to creating a better tomorrow with a brighter future for our nation."

The 'Year of the 50th' started on April 6, 2021, and is planned to last until March 31, 2022.

Brief history

While the UAE was founded in 1971, the region's rich history dates back thousands of years. For example, it is

reported that Bedouin communities inhabited the area in the Palaeolithic Age and survived by fishing and collecting plants. Found artefacts in Sharjah, Umm Al Quwain, Ras Al Khaimah and Abu Dhabi serve as testaments to those civilizations.

The region was also populated during the Bronze and Iron Ages. The latter saw the first use of the falaj irrigation system, which facilitated the extraction of groundwater to support farming activities, especially in dry weather.

In more recent years, the area witnessed a number of historical moments, including the emergence of Islam, the arrival of the Portuguese and Dutch and the British era.

This unparalleled heritage culminated in the unification of seven independent Emirates — Abu Dhabi, Dubai, Sharjah, Ajman, Umm Al Quwain, Ras Al Khaimah and Fujairah — to successfully establish the United Arab Emirates.

HH Sheikh Zayed bin Sultan Al Nahyan, the Founder



HH Sheikh Mohammed bin Zayed Al Nahyan, Abu Dhabi Crown Prince, Deputy Supreme Commander of the Armed Forces.



HH Sheikh Mohammed bin Rashid Al Maktoum, Vice President and Prime Minister of the UAE, and Ruler of Dubai.

and first President of the UAE and former Ruler of Abu Dhabi, underscored the importance of a united country and remarked, "In harmony, in some sort of federation, we could follow the example of other developing countries."

The other Founders of the Union are Sheikh Rashid bin Saeed Al Maktoum, former Ruler of Dubai; Sheikh Khalid bin Mohammed Al Qasimi, former Ruler of Sharjah; Sheikh Rashid bin Humaid Al Nuaimi, former Ruler of Ajman; Sheikh Ahmed bin Rashid Al Mualla, former Ruler of Umm Al Quwain; Sheikh Saqr bin Mohammed Al Qasimi, former Ruler of Ras Al Khaimah; and Sheikh Mohammed bin Hamad Al Sharqi, former Ruler of Fujairah.

UAE's Founder Father: visionary and astute leader

When one looks at the world's history, the importance of leadership and skilful management becomes evident, particularly in setting ambitious paths for countries to achieve notable prosperity. The UAE is a prominent example of this narrative, as its late, great Founder Sheikh Zayed strived to form a thriving and aspiring nation.

Sheikh Zayed was born in Al Ain. He was the youngest of four sons of HH Sheikh Sultan bin Zayed Al Nahyan, former Ruler of Abu Dhabi.

He was known for his diplomacy and listening skills, as well as his patience and wisdom. He endeavoured to trigger a sense of belonging to the nation by empowering all Emiratis to be involved in the country's remarkable success.

He was the Ruler of Abu Dhabi from 1966 to 2004. He also served as the UAE's first President since the union

was formed until he passed away in 2004, following unanimous election by the rulers of the other emirates.

Among his principal achievements was paving the way to unify the UAE to become a key player in world affairs with an ever-growing national economy and role as a leading energy producer. This vision ensured a stable and prosperous country.

Prior to the UAE's founding and following the withdrawal of Great Britain from the region, Sheikh Zayed spared no effort in approaching the rulers of the other emirates to build reliable and strong ties. It is understood that his enthusiasm was a crucial factor in the unification process.

Leading by example

The current leadership of the UAE has continued to follow in the successful steps of the country's Founder, Sheikh Zayed.

Under the guidance of Sheikh Khalifa, the UAE has without a doubt been elevated in stature and rank at both the global and regional scales, serving as an inspiring example for many other countries.

HH Sheikh Mohamed bin Zayed Al Nahyan, Crown Prince of Abu Dhabi and Deputy Supreme Commander of the UAE's Armed Forces, and HH Sheikh Mohammed bin Rashid Al Maktoum, UAE's Vice-President, Prime Minister, Minister of Defence and Ruler of Dubai, have both played a significant role in developing and implementing the necessary plans to yield the historic success that the UAE has enjoyed over the years.

In energy, the UAE has continued its rich tradition of leading by example. This is particularly apparent in its growth and continuous advancements, for which it has advocated. In fact, the OPEC Member Country has benefited from the results of this strategic vision and well-delineated plans for many decades.

The Emirate of Abu Dhabi initially joined OPEC in 1967. The membership was later transferred to the UAE in 1974, marking the beginning of an historic era between the Organization and the oil-producing country.

Since then, the UAE has demonstrated a unique leadership role in the Organization's affairs, as well as an unwavering commitment to OPEC's mission and objectives, especially regarding sustainable oil market stability.

These efforts were further expanded when OPEC Member Countries and a group of non-OPEC oil-producing countries joined hands in December 2016 to cooperate

and engage on a regular basis in the interest of oil market stability, which led to the inception of the landmark 'Declaration of Cooperation' (DoC).

The UAE has played a crucial role throughout the DoC's consultation and implementation processes. The multilateral framework has helped the group overcome two global oil cycle downturns — in 2014–16 and 2020–21 — the latter caused by COVID-19.

The country also advocated for the establishment of the 'Charter of Cooperation' (CoC) between OPEC and non-OPEC countries, ushering in a new era of international cooperation.

The framework provides its participants with an interactive platform that aims to promote oil market stability, as well as collaboration regarding technology, for the benefit of producers, consumers, investors and the global economy at large. It was endorsed at the 6th OPEC and non-OPEC Ministerial Meeting held in Vienna, Austria, in July 2019.

Suhail Mohamed Al Mazrouei, UAE's Minister of Energy and Infrastructure and Head of its Delegation to OPEC, continues to model exemplary leadership and sagacity within the Organization, as well as profound technical knowledge and expertise, especially at the Meetings of the OPEC Conference and OPEC and non-OPEC Ministerial Meetings.

Land of achievements

In recent years, the UAE has gone above and beyond expectations to further advance its already-thriving journey. From hosting a world expo, to developing nuclear energy, to becoming an international hotspot for tourists, the UAE has left no stone unturned in reaching new milestones, including some that many see as impossible or unachievable.

In fact, the UAE is expected to continue rising, maintaining its global position as a pioneering nation.

Among the recent milestones celebrated by the OPEC

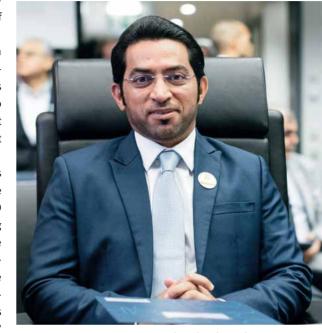
Member Country is the 'Year of Zayed', which marked 100 years since the birth of the Founder Father Sheikh Zayed.

In commemoration of the landmark event, the President of the UAE named the year 2018 as the 'Year of Zayed'. Various events and initiatives were held inside and outside of the country that exhibited the nation's legacy and promoted the values embraced by the Founder Father.

Additionally, the UAE is currently hosting Expo 2020 in the Emirate of Dubai.

Between October 1, 2021, and March 31, 2022, people of different backgrounds and ages will turn their heads with great interest to Dubai to undergo new experiences, learn about different cultures and acquire knowledge about other nations.

In an online statement, the event's organizers states: "With up to 60 live events each day and more than 200 pavilions, the Expo site is coming alive during its 182-day feast for the senses. Its dynamic, diverse and everchanging entertainment programme features an array of internationally celebrated names and the sounds, rhythms and sights of a global cast of performers."



Eng Ahmed Mohamed Alkaabi, the UAE's Governor for OPEC.

The UAE of tomorrow

By capitalizing on its rich heritage, and guided by its remarkable present, the UAE will continue soaring to achieve many new horizons in the years ahead. The unprecedented success story lived by the UAE demonstrates how wise leadership and the will of a people, along with abundant resources, can transform a nation, enabling it to steadily climb the ladder of prosperity. Hence, it is without a doubt that the best days for the OPEC Member Country are yet to come.

Al Wasl Plaza dome at the Expo 2020 in Dubai is the central hub for the exposition.





Roman Marshavin, World Bank, Executive Director for Russia

Alexey Morozov, World Bank, Advisor

limate change is one of the greatest challenges of the 21st century. The latest report of the International Panel on Climate Change projects that in the coming decades the world will be facing increasing heat waves, longer warm seasons and shorter cold seasons. As we are witnessing with our own eyes, climate change also causes longer patterns of unpredictable and extreme weather. One can argue about the reasons behind the energy crisis in Texas during the winter of 2021, but one thing is obvious — Texans had not experienced such a prolonged, freezing winter for

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a long time. A few months later, the winds in the North Sea suddenly stopped blowing, sending the UK into an energy crisis and pushing several domestic energy suppliers out of business in several days. To tackle the climate change challenge, the global community long ago joined efforts towards finding ways to minimize humans' impact on nature.

Finally, on November 4, 2016, the Paris Agreement entered into force, aiming to limit global warming to well below 2°C compared with pre-industrial levels. Countries have been actively working ever since on accelerating climate action — the latest example being the COP26 summit which took place between October 30 and November 13, 2021. International organizations and especially financial institutions stepped in to support the climate agenda, and among them the World Bank Group (WBG),

green:

A new bank for a low-carbon future

by playing a leading role in helping to shape the climate dialogue and support climate financing. In 2021, the WBG launched the Climate Change Action Plan 2021–25 (CCAP), which sets out the ambitions and objectives of the WBG leadership on climate change adaptation and mitigation financing for adaptation, including increasing climate financing targets to 35 per cent on average over the fiscal years 2021–25. In its 2021 Energy Policy to Support Energy Access and a Low-Carbon Transition in Asia and the Pacific, the Asian Development Bank announced its ambition to deliver \$100 billion in cumulative climate financing from its own resources between 2019–30.

Investment needs

As renewable energy is considered to be an important component of the green transition, a substantial share of funds provided by Multilateral Development Banks (MBDs) is aimed at increasing renewable capacities, especially in developing economies — the main clients of those institutions. And yet, investment needs are still enormous. Tackling the green transition comes at a price. According to the World Bank (WB), the cost of meeting growing energy demand while transitioning aggressively to low-carbon pathways in large and middle-income economies in Asia alone could be in the range of \$650 billion annually or \$13 trillion over 20 years. Between 2015 and 2020, the WB provided \$9.4bn in financing for renewable energy and energy efficiency projects in low- and middleincome countries. While this amount is significant, it is obvious that the efforts of the WB and other existing MDBs will not be sufficient to fund a green transition.

At the same time, while recognizing the importance of the climate agenda, decision-makers cannot lose sight of the development goals facing humanity, and especially the poorest. It would be a grave mistake to sacrifice

development exclusively for the sake of lowering emissions. According to the United Nations Conference on Trade and Development (UNCTAD), at the current level of investment in SDG-relevant sectors, developing countries face an annual gap of \$2.5tr. Estimates for total investment needs in developing counties alone range from \$3.3tr to \$4.5tr per year for basic infrastructure (roads, rail and ports; power stations; water and sanitation); food security (agricultural and rural development); climate change mitigation and adaptation; health and education.

At today's level of investment, both public and private, in SDG-related sectors in developing countries, the average annual funding shortfall over 2015-30 is expected to be around \$2.5tr.2 This does not leave developing countries much room to maneuver, as the fiscal space is rapidly shrinking. Governments would need to make tough choices and set their priorities straight. Although the cost of renewable generation has been falling, deploying wind or solar generation still requires quite sensitive budget sacrifices and significant baseload build up. By channeling scarce public and international funds into deployment of renewable technologies, a real possibility looms that in addition to not making a significant impact on solving climate change challenges, those governments may end up depriving their populations of financing that could be used for more immediate, basic purposes, like health care, education and food security.

Ensuring a just transition

As far as energy is concerned, switching to gas-to-power (especially combined with carbon capture technologies) is considered by many to be a reliable, affordable and environmentally prudent option that could enable a just transition without causing abrupt and risky sacrifices.

This is true not only in least-developing countries, but also in middle-income and even high-income economies. In the US, for example, the growth of wind and solar (126 TWh) between 2015 and 2018 was accompanied by a similar increase in gas-fired power production capacity (134 TW).³

In Germany, a report by Wartsila Oyj shows that to phase-out coal power plants by 2038 the country would need as much as 12 GW of new natural gas-fired power plants.4 When a lightening strike led to the blackout of an extensive portion of the UK grid in London in 2019, it ignited conversations on the need for resilience in the grid, as it became apparent that battery storage alone will not be enough to guarantee security of supply in light of the increasing penetration of renewables in the energy mix.5 "With nuclear unsuitable for providing anything but baseload due to the time and expense required to kick a reactor into gear, the CEO of Statera, A UK power supplier noted, fossil fuel gas offers the best route — even if counter-intuitively — to a carbon-neutral future for the UK."6 Two years later, when the wind stopped blowing in the North Sea, the UK faced one of the biggest energy crisis in its history. Gas and coalfired electricity plants were called to provide baseload electricity, sending electricity prices to \$395/MWh. This even resulted in the restarting of a coal power plant in Nottinghamshire — one of the very few left, and slated for closure by 2024.

While industry experts may have different opinions regarding how long natural gas will remain a transition fuel helping to lay the path towards a green future, the majority of them agree that gas-powered generation will continue to play a key role in the energy transition, at least for some time. Mohammad Sanusi Barkindo, the OPEC Secretary General, mentioned that "oil and gas will continue to have an important role to play well into the future ..." and "... it has much to offer in this regard, including some of the world's cost cutting-edge technologies and advanced innovations, which can all be leveraged to promote a lower-carbon future."

According to the International Energy Agency (IEA), "the links between electricity and gas markets are not going to go away any time soon. Gas remains an important tool for balancing electricity markets in many regions today ... and ... will remain an important component of electricity security."8

According to Deloitte: "The hydrocarbon business model still has a lot to offer, especially for resources at the bottom of the cost curve, and can adapt with new

clean energy technologies (eg, carbon capture and hydrogen-based energy storage) that abate emissions on a significant scale."⁹

And yet, finding MDB financing even for development of gas-to-power plants is becoming more difficult. The WBG and the European Investment Bank have dropped their support of upstream oil and gas in 2019 and financing of gas-to-power projects has been declining. Over the last few years, major shareholders of the MDBs have been vocal in slowing down their support of gas-related projects. To get their approval, those projects have to be located in low-income countries with no economically and technically feasible alternatives to clean energy sources in sight. These projects would also need to have a significant positive impact on energy security, energy access and development.

As a result, such projects are often facing greater scrutiny from MDB stakeholders compared with green-labelled investments. On top of that, MDB staff are often discouraged from coming up with conventional fossil fuel-based projects, even when all or most of the applied conditions can potentially be met. Commercial financing is also shrinking as institutional investors, who traditionally have been the supporters of long-term investment projects, are becoming increasingly ESG-concerned, gradually disposing of their holdings in projects that have any connection to fossil-fuel powered generation.

As interest in gas-to-power projects in the eyes of MDBs and institutional investors is shrinking significantly, while demand for baseload generation is apparently continuing to grow, it is unclear who is going to assist developing countries in transitioning toward a green future. Even worse, underfinancing creates a real possibility of future market movements that could lead to a deficit of fossil-based products (in the end even Tesla cars still use a lot of plastic in their construction).

Developing a solution

When it comes to capital markets, the global community has developed a solution for dealing with the assets that banks are hesitant to hold, but which have strategic or other substantial value. During the financial crisis it has been customary for governments to pool all such 'assets' into a special purpose vehicle, thus lifting the burden off the shoulders of commercial banks and the private sector and pooling them together under strict supervision of regulators or some specifically designated governmental agency with the appropriate expertise.

A similar 'pooling' approach could be used regarding the energy assets that become less attractive to the world development community. In our opinion, the time has come to launch a discussion on establishing an international multilateral bank that will used the highest fiduciary standards, employed by the international community, and will rely on the expertise of top world experts to assist developing countries in identification, appraisal, financing and supervision of environmentally and socially acceptable fossil fuel-based energy projects.

Major oil and gas producing countries could be the founders of such international financial institution, mobilizing funds and applying their top knowledge and expertise for the common good. There is at least one existing and quite successful example of major fossil fuel producers pooling their funds to help the global community to tackle their development challenges.

In 1976 the Member States of OPEC have established the OPEC Fund for International Development. Recently the OPEC Fund has expanded its role in financing the energy sector with its Energy for the Poor Initiative and participation in the UN Sustainable for All Initiative.

Possible financial tools

We believe that launching such a Bank (we suggest naming it 'International Bank for Sustainable Energy Future' or IBSEF) would enable developing countries to develop reliable and cost-efficient power sources, while enabling just transition. The IBSEF would provide countries with so much needed financing and/or leveraging tools to financially back the fossil fuel-based facilities.

Those funds may be used for example, for developing environmentally conscious gas-powered generation, to help countries minimize natural-gas related emissions through development of low-carbon gases, carbon management solutions or deploying technologies at the existing fossil-fuel based facilities that could reduce their carbon impact.

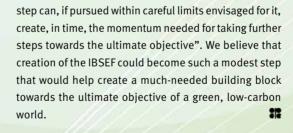
At the same time, a specifically designed, transparent

governance structure that would include a independent board of environmental experts, would ensure that this financing is used efficiently, prudently and the best balance is achieved between the countries' national priorities, their NDCs and the interests of the global community.

Key to a green tomorrow

The world's road to a low-carbon future will not be easy and will be full of new challenges as we move forward. However, this journey cannot be undertaken without engaging oil and gas producers, as they hold one of the keys to the world's green tomorrow. It is in our hands to ensure that during this journey the world uses its best minds and resources, and that no one along this road is left behind.

As Ibrahim Shihata, one of the founders of the OPEC Fund, noted:10 "The experience of the OPEC Fund shows ... that a modest, but well-structured





^{1.} https://www.worldbank.org/en/topic/energy/overview#3

^{2.} https://unctad.org/press-material/developing-countries-face-25-trillion-annual-investment-gap-key-sustainable

^{3.} https://www.csis.org/analysis/how-will-natural-gas-fare-energy-transition

^{4.} https://www.bloomberg.com/news/articles/2021-06-21/phasing-out-coal-will-require-germany-to-build-new-gas-plants

^{5.} https://www.pv-magazine.com/2019/08/30/energy-storage-is-not-enough-a-renewables-grid-needs-flexible-gas-back-up

^{6.} Ibid.

^{7.} https://www.opec.org/opec_web/Static_files_project/media/downloads/publications/OB082021.pdf

^{8.} https://www.iea.org/news/statement-on-recent-developments-in-natural-gas-and-electricity-markets

^{9.} https://www2.deloitte.com/us/en/pages/energy-and-resources/articles/oil-and-gas-industry-outlook.html

^{10.} The OPEC Fund for International Development. The Formative Years. 1983.

IMPROVING LIVES OF SMALL-SCALE FARMERS IN RWANDA

Solar irrigation solutions led by NGO Energy 4 Impact reap rewards for agricultural communities

n OPEC Fund supported Solar Irrigation Rwanda (SIR) market development programme — completed in November 2020 — makes a compelling case for solarpowered irrigation as a means of increasing agricultural productivity and profitability in sub-Saharan Africa.

Agriculture employs nearly 70 per cent of the population in Rwanda and is vital to the country's economic growth and poverty reduction strategies. However, most agricultural workers are small-scale subsistence farmers dependent on rainwater for irrigation. In 2017, only two per cent used machine-powered irrigation and nearly all of that was fueled by diesel. Increasing productivity in the agriculture sector is widely recognized as a key accelerator of socioeconomic development in Rwanda and machine-powered irrigation is critical for improving yields, reducing vulnerability to droughts and changing rainfall patterns, enabling multiple cropping practices, and thereby increasing food security for the entire region.

Implemented by Energy 4 Impact between February 2018 and November 2020, the SIR programme was funded by a \$1 million grant from the OPEC Fund and worked in ten districts of Rwanda to support solar irrigation projects fed by mobile and stationary solar water pumping systems. Altogether 1,450 farmers adopted solar irrigation systems 212 through SIR.



Peter Weston, Director of Programs at Energy 4 Impact, says: "The encouraging results from SIR show increases in uptake of solar irrigation by way to go in terms of scaling up







ABOUT SOLAR-BASED IRRIGATION

Key findings were that solar-based irrigation solutions require market-building efforts to exploit their full potential. Creating a sustainable and equitable market for new farming technologies in rural off-grid regions requires concerted efforts across a number of fronts:

- Raising farmer awareness of the potential of solar irrigation
- Addressing system affordability through subsidies and third-party financing
- Building the capacity of farmers to use solar irrigation systems

- Working with suppliers to identify bestperforming systems
- Creating new distribution channels and delivery models
- Strengthening links between farmers and offtakers
- Improving the accessibility of government subsidy schemes
- Creating favorable policy and regulatory frameworks; and
- Ensuring the participation of women agricultural workers.

The full report is available here: https://bit.ly/3bfzSwA

1,450 farmers adopted solar irrigation

systems through SIR



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Recent developments of global

oil inventories

Global oil inventories, which serve as a tangible measure of the oil market balance, are grouped in three major components. The first group is OECD's commercial oil stocks and Strategic Petroleum Reserves (SPR). Clearly, the OECD commercial stocks serve as a key indicator of the status of the oil market balance, as they are frequently published by national government reporting systems, and as the seasonal variations in the OECD commercial stock levels are linked to oil demand through an inverse relationship.

The second major group is the non-OECD commercial inventories and SPR, which have become more important in recent years as non-OECD oil demand has increased, taking a higher share than the OECD in total world oil demand and requiring more stockpiling. However, inventory levels in the non-OECD are hard to track due to a lack of complete data. In the absence of regularly reported data, stock levels in non-OECD are often estimated using information released by companies and ministries, as well as data published in the JODI database. The final group is oil at sea, which includes 'oil afloat' and 'oil in transit'.

In the 2Q20, the global oil market saw oil supply heavily outpacing world oil demand, leading to a drastic surge in global oil inventories, within a short span of a couple of months. In response to this critical situation, in April 2020, OPEC and non-OPEC oil producing countries participating in the 'Declaration of Cooperation' (DoC) announced voluntary productions adjustments commensurate with the huge oil stock surplus, to achieve the rebalancing and stabilization of the global oil market.

Since its historic peak in June 2020, global oil inventories have declined significantly. At the end of September 2021 they had fallen by 938 million barrels, with all components witnessing stock draws.

Over this period, total OECD commercial and

November 2021

SPR stocks have dropped by 411m b and 46m b, respectively, while non-OECD and oil at sea have fallen by 320m b and 160m b, respectively.

Moreover, OECD commercial oil inventories, compared with the latest five-year average (2015-19), reached a high of around 270m b in June 2020, clearly



reflecting a huge supply excess. This surplus has since declined to a deficit of 163m b at the end of September 2021, mainly driven by the DoC's successful efforts to stabilize the market and supported by higher refinery crude runs, which indicates an improvement in oil demand on the back of an economic recovery following the initial impact of the COVID-19 pandemic.

Clearly, the global stock draws during the first three quarters of 2021 were largely due to efforts of the DoC and a pick up in global oil demand, which outpaced global supply by 100,000 b/d, 1.5m b/d and 2.2m b/d in 1Q21, 2Q21 and 3Q21, respectively. This is equivalent to a total implied stock draw of 342m b.

With these market developments, the countries participating in the DoC continue their course to increase production starting August 2021, to gradually return adjusted production volumes by 400,000 b/d on a monthly basis, until the phasing out of the total 5.8m b/d adjustment in 2022. The DoC will continue to review market conditions on a regular basis, reaffirming participating countries' commitment to ensure adequate supply and support efforts to maintain global oil market stability.

MOMR ... oil market highlights

November 2021

Crude oil price movements — Crude oil spot prices surged by more than 12 per cent in October, on the back of soaring energy prices in Europe and Asia. Strong oil market fundamentals, compounded by expectations of higher oil demand in the winter months from 'gas-to-oil switching', have supported both spot and futures prices. The OPEC Reference Basket (ORB) increased \$8.23 or 11.1 per cent, m-o-m, in October to average \$82.11/barrel. Year-to-date, the ORB averaged \$68.33/b, for a gain of \$27.77, or 68.4 per cent, compared to the same period last year. In the futures market, the ICE Brent front-month contract rose \$8.87 or 11.8 per cent, m-o-m, to average \$83.75/b in October, while NYMEX WTI increased \$9.68 or 13.5 per cent, m-o-m, to average \$81.22/b. Consequently, the Brent/WTI spread narrowed by 81¢ to stand at \$2.53/b in October. The market structure of all three major oil benchmarks - Brent, WTI and Dubai strengthened, moving deeper into backwardation on further declines in OECD commercial oil stocks in September and the prospect of stronger near-term market fundamentals. Hedge funds and other money managers boosted bullish positions related to NYMEX WTI in October as data showed ongoing drawdowns in inventories at the Cushing, Oklahoma, trading hub. However, speculators cut bullish positions related to ICE Brent.

World economy - Global economic growth forecasts for both 2021 and 2022 remain unchanged from the last month's assessment at 5.6 per cent and 4.2 per cent, respectively. For the US, lowerthan-expected economic growth in 3Q21 has resulted in a downward revision for both 2021 and 2022. The US economy is now expected to grow by 5.5 per cent in 2021 and by 4.1 per cent in 2022. Euro-zone economic growth for 2021 is revised up slightly to 5.1 per cent, after continued strong growth in 3Q21, and remains at 3.9 per cent for 2022. Japan's economic growth forecast for 2021 is revised down slightly to 2.5 per cent, due to ongoing COVID-19-related socialdistancing measures in 3Q21, while the forecast for 2022 remains at two per cent. After a strong recovery in the first half of the year, China's economic growth forecast remains at 8.3 per cent in 2021 and 5.8 per cent in 2022. Similarly, India's economic growth forecast for 2021 is also unchanged at nine per cent for 2021 and 6.8 per cent for 2022. Russia remains at four per cent for 2021 and at 2.7 per cent for 2022. Brazil's economic growth forecast is also unchanged for 2021, but was revised down slightly to two per cent for 2022. 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 requiring close monitoring.

World oil demand — World oil demand growth is revised lower by around 160,000 b/d, compared to last month's assessment, to stand at 5.7m b/d. Revisions mainly account for slower-than-anticipated demand from China and India in 3Q21. Global oil demand is now estimated to reach 96.4m b/d in 2021. For 2022, growth in global oil demand remains unchanged compared to the previous month's assessment, to stand at 4.2m b/d. World total demand in 2022 is now estimated to reach 100.6m b/d, around 500,000 b/d above 2019 levels. Marginal upward revisions in OECD Europe, due to better economic views in some European countries, were offset by softer growth in industrial fuel demand in OECD America and Latin America.

World oil supply - Non-OPEC liquids supply is expected to grow by 700,000 b/d in 2021, unchanged from last month's assessment, to average 63.6m b/d. This is despite a marginal upward revision of 20,000 b/d from the US, Canada, and Mexico, which were offset by a similar downward adjustment in the non-OECD. The main drivers of 2021 supply growth continue to be Canada, Russia. China, Norway, Brazil and Guyana. The forecast for non-OPEC liquids supply growth in 2022 is also unchanged at 3.0m b/d to average 66.7m b/d. Russia and the US are expected to be the main drivers of next year's growth, contributing increments of 1.0m b/d and 900,000 b/d, respectively, followed by Brazil, Canada, Kazakhstan, Norway, Guyana and other countries in the DoC. OPEC NGLs are forecast to grow by 100,000 b/d both in 2021 and 2022 to average 5.2m b/d and 5.3m b/d, respectively. In October, OPEC crude oil production increased by 220,000 b/d m-o-m to average 27.45m b/d, according to available secondary sources.

Product markets and refining operations -

Product markets in all main trading hubs retained their previous month's strength in October, as refining economics continued to trend upwards, posting solid gains. Further declines in refinery processing rates attributable to the peak maintenance season weighed on product inventory levels and continued to keep product balances tight. This drove middle distillates to retain their position as the strongest margin contributors in the Atlantic Basin. In Asia, sustained fuel demand, amid limited product exports from China as refiners focused on supplying the domestic market, provided considerable support to Asian fuel markets, particularly at the top and middle sections of the barrel.

Tanker market — Dirty tanker spot freight rates gained some positive momentum in October, with increases across all classes. VLCCs and Suezmax

enjoyed the highest rates so far this year, with gains averaging 16 per cent and 29 per cent, respectively, m-o-m, while Aframax rates were up 22 per cent m-o-m. For VLCCs, the Middle East-to-East route gained 17 per cent m-o-m. For Suezmax, the West Africa-to-US Gulf Coast increased 35 per cent. In the clean market, spot freight rates strengthened, as a 22 per cent gain West of Suez offset a six per cent decline in the East. The tanker market's performance is likely to improve through the end of the year, as concerns regarding an energy crunch in the power sector over winter support tonnage demand for crude and products, particularly in Asia.

Crude and refined products trade — Preliminary data shows US crude imports in October eased from their summer highs to average 6.1m b/d, while crude exports averaged 2.8m b/d, supported by a pickup of flows to Europe. The latest data for September shows China's crude imports fell back, averaging 10.0m b/d, as independent refiners remained on the sidelines, due to a lack of crude import quotas. In India, crude imports hit a five-month high, averaging 4.3m b/d in September, as refiners boosted runs amid a recovery in economic activity. Japan's crude imports declined from the previous month's peak but still remained at a relatively good level of 2.5m b/d in September as refiners looked toward preparations for winter. In OECD Europe, the latest data for July shows crude imports remaining strong at 8.6m b/d, while crude exports continued to edge higher, reaching 400,000 b/d amid a return of flows to Asia.

Commercial stock movements — Preliminary September data sees total OECD commercial oil stocks up by 18.5m b, m-o-m. At 2,805m b, inventories were 374m b lower than the same month last year; 206m b lower than the latest five-year average; and 163m b lower than the 2015-19 average. Within the components, crude and products stocks fell by 9.3m b and 9.2m b, m-o-m, respectively. At 1,334m b, OECD crude stocks stood 118m b below the latest five-year average and 103m b below the 2015–19 average. At 1,471m b, OECD product stocks stood 89m b below the latest five-year average, and were 60m b below the 2015-19 average. In terms of days of forward cover, OECD commercial stocks fell 0.2 days, m-o-m, in September to stand at 61.5 days. This is 12.4 days lower than the same month last year; 2.8 days below the latest five-year average; and 0.7 days lower than the 2015-19 average.

Balance of supply and demand — Demand for OPEC crude in 2021 was revised slightly down by 100,000 b/d from the previous month to stand at 27.6m b/d, around 4.9m b/d higher than in 2020. Demand for OPEC crude in 2022 was also revised slightly down by 100,000 b/d from the previous month to stand at 28.7m 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 November 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.

Table 1: OPEC Reference Basket spot crude prices \$/b																		
	2020			2021										Week	s 40-44	ı/2021 (week en	ding)
Crude/Member Country	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Oct 1	Oct 8	Oct 15	Oct 22	Oct 29
Arab Light — Saudi Arabia	40.32	42.98	49.24	54.78	61.49	65.20	64.09	67.72	72.76	74.15	71.36	75.01	82.77	78.36	80.40	83.21	84.29	84.36
Basrah Light – Iraq	40.60	43.12	49.95	54.73	61.40	65.17	63.48	66.96	71.79	73.40	70.39	73.75	81.48	77.24	79.30	81.93	82.90	82.94
Bonny Light — Nigeria	39.64	41.91	49.59	55.01	62.24	65.57	64.17	67.61	72.21	75.37	71.23	74.09	82.90	78.19	81.56	83.21	83.98	83.86
Djeno – Congo*	32.56	35.09	42.29	47.28	54.78	58.11	57.01	61.04	65.51	67.54	63.35	66.95	76.09	71.11	74.75	76.40	77.17	77.05
Es Sider – Libya	37.71	40.24	48.09	53.08	60.83	63.56	62.11	66.16	71.01	73.64	69.45	72.75	81.59	76.85	80.25	81.90	82.67	82.55
Girassol – Angola	40.72	44.11	51.50	55.84	62.99	66.04	64.00	68.39	73.47	75.45	70.93	74.76	84.47	79.26	82.96	84.85	85.62	85.50
Iran Heavy — IR Iran	40.24	42.88	49.20	54.38	60.66	64.30	63.00	66.72	71.68	72.98	70.34	74.08	82.14	77.55	79.67	82.67	83.65	83.79
Kuwait Export – Kuwait	40.38	42.99	49.36	54.83	61.31	64.86	63.75	67.54	72.54	73.80	71.06	74.92	82.74	78.31	80.28	83.27	84.25	84.39
Merey – Venezuela	26.23	27.07	32.70	37.40	42.87	46.47	46.16	49.13	53.52	54.49	51.76	54.96	62.72	58.08	60.49	63.20	64.08	64.20
Murban – UAE	41.06	43.09	49.48	54.93	60.99	64.33	63.35	66.82	72.34	73.64	69.89	73.41	82.73	77.11	79.95	83.19	84.13	84.89
Rabi Light — Gabon	39.01	42.12	49.28	54.27	61.77	65.10	64.00	68.03	72.50	74.53	70.34	73.94	83.08	78.10	81.74	83.39	84.16	84.04
Saharan Blend – Algeria	39.76	42.59	49.99	55.08	62.38	65.76	64.01	67.81	72.31	75.34	71.05	73.85	83.54	78.12	82.20	83.85	84.62	84.50
Zafiro — Equatorial Guinea	39.99	43.41	50.43	55.07	62.46	65.99	64.75	68.49	73.50	75.66	70.41	74.03	84.12	78.21	82.45	84.49	85.42	85.30
OPEC Reference Basket	40.08	42.61	49.17	54.38	61.05	64.56	63.24	66.91	71.89	73.53	70.33	73.88	82.11	77.46	79.89	82.55	83.52	83.64

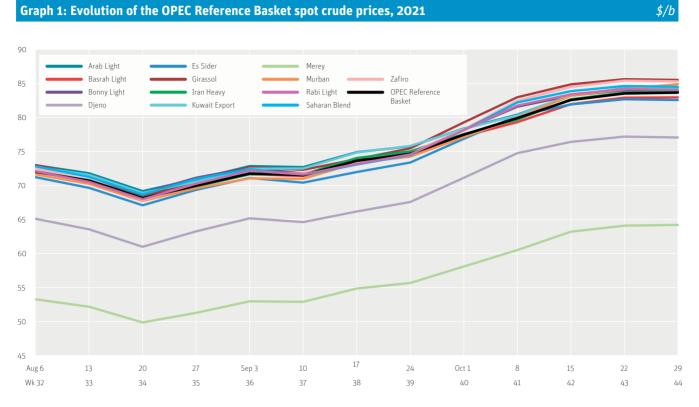
Table 2: Selected spot crude prices \$/b																		
	2020			2021										Week	s 40-44	/2021 (week en	ding)
Crude/country	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Oct 1	Oct 8	Oct 15	Oct 22	Oct 29
Arab Heavy — Saudi Arabia	40.61	43.28	49.59	54.88	61.16	64.72	63.31	67.22	72.08	73.25	70.65	74.07	81.92	77.41	79.44	82.46	83.43	83.57
Brega – Libya	37.81	40.69	48.69	53.78	61.28	64.11	62.66	66.51	71.21	73.74	69.35	72.80	81.69	76.91	80.35	82.00	82.77	82.65
Brent Dtd — North Sea	40.01	42.54	49.74	54.73	62.23	65.56	64.46	68.51	72.96	74.99	70.80	74.40	83.54	78.56	82.20	83.85	84.62	84.50
Dubai – UAE	40.70	43.33	49.78	54.76	60.83	64.40	62.92	66.41	71.50	72.83	69.37	72.57	81.46	76.18	78.99	81.93	82.94	83.17
Ekofisk – North Sea	40.14	42.64	50.29	55.17	63.01	66.30	65.00	69.44	73.54	76.24	71.85	74.74	84.24	79.11	82.46	84.65	85.49	85.39
Iran Light — IR Iran	38.69	41.78	48.50	53.32	59.90	62.72	61.58	65.73	70.00	71.52	66.51	71.08	80.36	75.01	78.71	80.56	81.46	81.78
Isthmus - Mexico	38.15	40.26	46.60	52.06	58.90	61.88	60.94	64.47	68.61	69.61	65.25	68.82	78.20	72.81	76.30	78.26	79.58	79.57
Oman — Oman	41.11	43.83	50.00	54.79	60.88	64.43	63.10	66.42	71.66	72.87	69.54	72.78	81.58	76.24	79.09	82.18	83.12	83.17
Suez Mix — Egypt	38.56	41.65	48.37	53.19	59.77	62.59	61.45	65.60	69.87	71.39	66.38	70.95	80.23	74.88	78.58	80.43	81.33	81.65
Minas - Indonesia*	39.30	41.42	47.91	53.00	59.84	63.63	62.86	66.06	71.12	72.24	68.45	72.62	81.34	76.75	79.07	81.80	82.70	82.93
Urals — Russia	40.26	43.35	50.07	54.89	61.47	64.29	63.02	67.26	71.57	73.09	68.14	72.65	81.93	76.58	80.28	82.13	83.03	83.35
WTI - North America	39.53	41.52	47.05	52.11	59.08	62.35	61.71	65.23	71.38	72.58	67.73	71.46	81.36	75.30	78.33	81.04	83.43	83.72

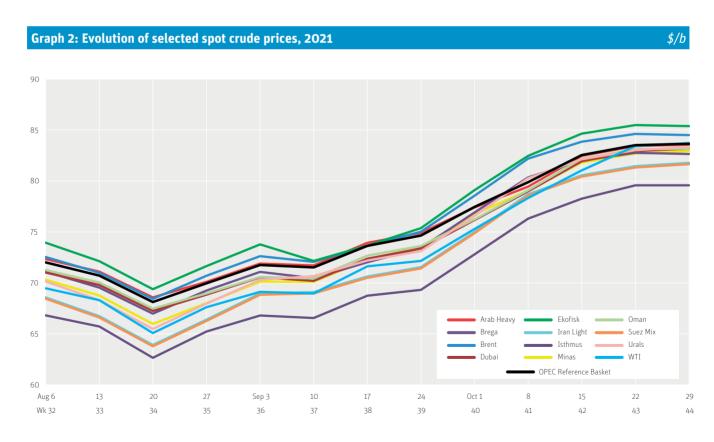
Brent for dated cargoes; Urals cif Mediterranean. All others fob loading port.

* The Republic of the Congo joined on June 22, 2018.

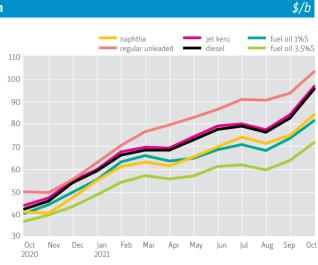
Sources: Argus; Secretariat's assessments.



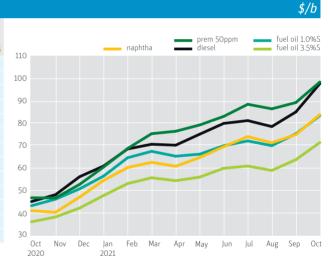








Tabl	e and Grap	h 4: South I	European m	arket – spo	ot cargoes, f	ob Italy
		naphtha	premium gasoline 50ppm	diesel ultra light	fuel oil 1 per cent S	fuel oil 3.5 per cent S
2020	October	41.07	46.18	45.12	43.27	36.10
	November	40.34	46.11	48.17	46.17	38.25
	December	47.08	52.12	56.16	50.76	42.21
2021	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



Tabl	e and Grap	h 5: US East	Coast mar	ket — spot (cargoes, Nev	v York
		regular gasoline unleaded 87	gasoil*	jet kero*	fuel oil 0.3 per cent S	fuel oil 3.0 per cent S
2020	October	50.53	48.45	47.99	51.96	38.47
	November	50.01	52.02	51.83	55.55	42.30
	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



\$/b, duties and fees included

Source: Argus. Prices are average of available days.

^{*} FOB barge spot prices.

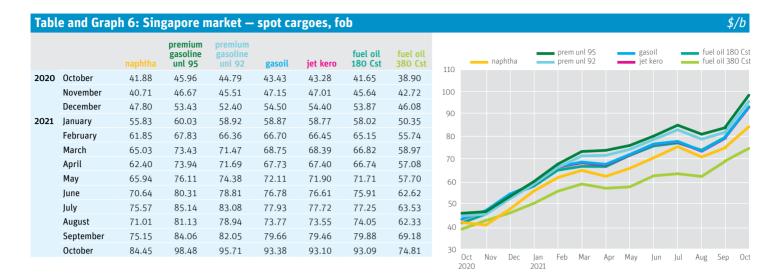
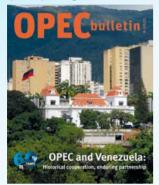


Table and Graph 7: Middle East Gulf market — spot cargoes, fob \$/b fuel oil 180 Cst fuel oil 180 Cst gasoil jet kero 110 2020 October 41.99 40.06 38.45 41.39 40.43 43.95 42.48 November 45.55 100 December 46.80 52.72 51.72 45.94 90 2021 January 54.92 57.87 56.43 50.34 63.61 February 60.62 65.78 55.76 80 March 62.99 66.98 64.82 58.47 70 April 60.32 65.82 64.58 56.61 May 64.44 71.57 69.94 57.31 60 June 69.20 76.83 74.28 62.28 50 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 30 Dec Sep Oct Oct Nov Feb 2020

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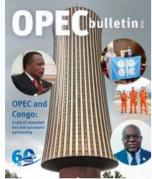
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