# OPEC bulletin §

## Welcome to Mexicol

CERAWeek: Energy, Climate and Security

*JMMC:* Conference Notes

de la



**OPEC** International Seminar

Save the date

**July 5–6, 2023** Hofburg Palace, Vienna, Austria



The 8<sup>th</sup> International OPEC Seminar will be held under the theme:

'Towards a sustainable and inclusive energy transition'

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## The power of **teamwork**



n the course of putting together the various content features for this issue of the *OPEC Bulletin*, it started to become apparent that there was a recurring theme threading its way through the various articles. That theme is teamwork.

And what's interesting is that despite the wide variety of topics covered in this edition, from energy to diplomacy to sport to space travel, this theme was a common strand.

In mid-March, the Secretariat welcomed back former Secretary General Abdalla Salem El-Badri for a special reception. In addressing the staff at this special event, El-Badri underlined the vital importance of teamwork and cooperation, adding that the Secretariat's staff were "the engine that drove the Organization forward." During his tenure, El-Badri's laser focus on teamwork with global energy partners resulted in the establishment of stakeholder dialogue initiatives, which now include Africa, India, Russia, China, the European Union, the International Energy Agency (IEA) and the International Energy Forum (IEF). These dialogue events, along with the landmark Declaration and Charter of Cooperation, will continue to be pillars of OPEC's global energy cooperation efforts with stakeholders across the industry.

In this edition, we also chronicled Venezuela's participation at the World Baseball Classic, which provided ten days of gripping competition between the world's best baseball teams. There will be no spoiler alert here – you will have to read the feature to see how it all turned out, but let's just say Venezuela displayed teamwork at its best!

Our feature on the SpaceX Mission 6 launch represents an historic moment for the UAE, marking the first Emirati astronaut to fly on a commercial space capsule and the second to board the International Space Station. Sultan Saif AlNeyadi joined three other astronauts, two from NASA and one from Russia, to go where no Emirati has been before. The success of this international space mission is yet another textbook example of global teamwork at its best.

OPEC Secretary General, Haitham Al Ghais, in addressing the 2<sup>nd</sup> High-level Meeting of the OPEC-Africa Dialogue in February, emphasized that the only way forward in addressing future global challenges is through teamwork with industry partners. He put it this way:

"Our meeting today is part of OPEC's extensive programme of dialogue initiatives, which include the European Union, China, India, Russia, as well as international organizations and global corporations. We look forward to exploring avenues for enhanced dialogue with other energy producers and consumers as well. These initiatives underpin our belief that cooperation and dialogue among all energy stakeholders are absolutely essential to effectively address our common energy needs."







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This month's cover shows the Temple of the Inscriptions in Palenque, Mexico (see feature on page 18).

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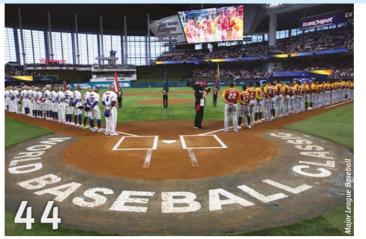
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#### **OPEC Membership and aims**

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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#### Contributions

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

#### **Editorial policy**

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## Energy, Climate and Security

For one week in March, the world's oil and energy industry leaders descend on Houston for the annual CERAWeek conference. With over 900 speakers and more than 5,000 delegates in 2023, including the OPEC Secretary General, **Haitham Al Ghais**, the OPEC Bulletin reports from a city described by many as 'the energy capital of the world'.

n Texas, some will say that the 20<sup>th</sup> century did not begin on January 1, 1901, but nine days later on January 10, when the Lucas No. 1 well blew at Spindletop near Beaumont. The gusher was said to have spewed oil more than 100 feet into the air, and it was the start of Texas' economy being profoundly affected by petroleum ever since.

This history of Texas seeps into the fabric of the annual CERAWeek conference with many attendees from the state. But the event now not only underscores the local, it is about the global nature of the oil and energy industry. This was evident in the overall theme of this year's event: 'Navigating a Turbulent World: Energy, Climate and Security'.

#### **OPEC SG speaks**

The challenges related to energy, climate and security were clear in the one-on-one session the OPEC Secretary General held with moderator Carlos Pascual, Senior Vice



Haitham Al Ghais (r), OPEC Secretary General; with Carlos Pascual, Senior Vice President, Geopolitics and International Affairs, S&P Global Commodity Insights. President, Geopolitics and International Affairs, S&P Global Commodity Insights.

In talking about OPEC and the Declaration of Cooperation (DoC), Al Ghais said that "the key thing that we focus on is always trying to make sure that there is stability, there is adequate supply to the market."

When asked about the future of the DoC or what many call OPEC+, Al Ghais said it was vital to look at the history of OPEC and the DoC. "It is critical and important to have OPEC+," Al Ghais told attendees, turning the question around and asking what the oil market situation would be like without OPEC and the DoC.

"There would be more market instability, more volatility, and that is something not in the interest of producers or consumers," he said.

In regard to market balance and stability, and looking ahead, he noted that "we have seen a significant shortfall in investments in the oil sector" in recent years. He added that projects can take a long time to come into actual energy production since the typical span is a "few years at best" and up to seven years or sometimes more before new ventures come online.

As the global economy doubles in size, and the global population rises by 1.6 billion by 2045, energy demand will increase by 23%, said Al Ghais, but "there is no imaginable way renewables can alone meet the demand."

He said the oil industry alone needs \$12.1 trillion in investments to 2045. "Unless this happens, I am afraid, honestly, that we could be facing issues in the future with regard to energy security and, accordingly, affordability," he added.

"We are investing already, but it's a global responsibility that OPEC cannot shoulder on its own," he stressed. From the perspective of OPEC, he highlighted that Saudi Arabia has plans to reach 13 million barrels a day (mb/d), the United UAE is targeting 5 mb/d, Kuwait aims to hit 4 mb/d, Iraq is expanding significantly, and other Member Countries are seeking to grow production too.

On the flip side of security of supply, Al Ghais also stressed the importance of security of demand. "With security of supply, there is also a requirement for security of demand, and the two fit in together like hand and glove," he said.

#### **Energy transitions**

When asked whether the energy transition is viewed as an opportunity or a threat for OPEC, Al Ghais said it is



"absolutely an opportunity ... It is something that we are already embracing. We believe this is an opportunity for us to meet our Paris Agreement goals."

Continuing, he added: "I think it is important to look at the whole issue of energy transition, which I prefer to call energy transitions, by the way, not transition, with a sense of reality as there is no one-size-fits-all solution." He added that the world's energy future is an 'and' question not an 'or' one, with all energies required.

Given that the oil and gas industries are still expected to make up over 50% of the energy mix by 2045, Al Ghais also stressed the need to further transform and decarbonize operations.

He said the oil industry is part of the solution, with its resources and expertise being harnessed to help develop efficient technological solutions, ones that can contribute to a reduction in emissions as part of unlocking a low-emissions future. Dr Sultan Al Jaber, CEO of the Abu Dhabi National Oil Company (ADNOC), UAE Minister of Industry and Advanced Technology, Special Envoy for Climate Change and President-Designate of COP28.

Al Ghais speaks to a packed conference room at CERAWeek 2023.





Haitham Al Ghais (I). OPEC Secretary General. met with Mike Sommers, President and CEO of the American Petroleum Institute ...



... with the Rt Hon Graham Stuart, the UK Minister for Energy Security and Net Zero ...

Al Ghais added that energy transitions should "focus on different countries' capabilities, circumstances, their potentials, their financial capabilities, and so forth.

"When we talk about transition here in the US or in Europe, it means nothing to many others around the world. What we take here for granted, such as switching on the light, is not available in other places in the world," he added, noting there are hundreds of millions in Africa alone who have no access to electricity.

The Secretary General said that it is vital that all voices are at the table in talks about energy security, energy access and decarbonization, and looking forward to COP28 in Dubai, the UAE, later this year, he added: "We at OPEC stand fully behind the UAE to bring on board everybody."

#### **COP28** and the UAE

The upcoming COP meeting was the focus of a CERAWeek speech given by Dr Sultan Al Jaber, the

President-Designate of COP28 on the first day of the conference. Al Jaber is also the CEO of the Abu Dhabi National Oil Company (ADNOC), the UAE Minister of Industry and Advanced Technology, and Special Envoy for Climate Change.

Addressing the audience, Al Jaber said: "Energy leaders in this room have the knowledge, experience, expertise and the resources needed to address the dual challenge of driving sustainable progress while holding back emissions."

"This industry must take responsibility and lead the way," he added in reference to the oil and gas sector. "Let us remember that progress is made through partnership not polarization."

Speaking of the magnitude of the problem, he said: "I believe that the challenges we have to address must include all parties working together on fast-tracking solutions – solutions that the world urgently needs."

He added: "Every government, every industry, every business and every individual has a role to play. No one



Skyline of downtown Houston.



... with Rene Ortiz, former OPEC Secretary General and former Ecuadorian Oil Minister ...

... and with Andrew Critchlow, head of EMEA news at S&P Global Platts; here seen presenting a framed copy of the September 16, 1960 edition of Platt's Oilgram News Service, which reported on the formation of OPEC.

can be on the sidelines, and this industry [the energy industry], in particular, is integral to developing the solutions."

He went on to outline how the UAE has been a leading force in tackling loc al as well as global challenges head-on by adopting a positive mindset and working with like-minded partners from all over the world.

"The truth is we have been on this path for more than two decades. We have always balanced economic growth with environmental responsibility and put climate action at the heart of our development agenda. We were the first country in our region to commit to the Paris Agreement, the first to set out a pathway to net zero, and we have diversified our energy mix into solar, nuclear and hydrogen. We have also introduced demand-side management and energy efficiency across the board," he said.

He concluded his address by stating his belief that the transformation of the global energy sector presents a significant opportunity for human and economic growth, one of the biggest since the First Industrial Revolution.

"It is this industry's opportunity to reinvent itself and lead again. Let me call on you to decarbonize quicker, future-proof sooner and create the energy system of the future today," he said. "Let us unite a divided world with a COP of solidarity, a COP of action, and a COP for all. All of us need to be pulling in the same direction because there is more energy and unity than division."

#### **CERAWeek sidelines**

Throughout his time at CERAWeek, the OPEC Secretary General also regularly underscored the value of cooperation in looking at both the challenges and opportunities ahead.

This included the regular dialogues OPEC undertakes annually at CERAWeek with North American independent oil companies, the financial investor community and on climate change and sustainability.

The Secretary General also held a number of bilateral meetings on the sidelines of the event, including with Mohamed Arkab, Algeria's Minister of Energy and Mines; Mike Sommers, President and CEO of the American Petroleum Institute; and the Rt Hon Graham Stuart, the UK Minister for Energy Security and Net Zero. Talks focused on global oil and energy market outlooks, the investment challenges facing the industry, energy security and the energy transition.

**CERAWEEK** 

by S&P Global

There was also the opportunity to meet with former OPEC Secretary General and Ecuadorian Oil Minister, Rene Ortiz, a regular at the CERAWeek event. Ortiz was OPEC Secretary General from January 1979 to June 1981.

In a surprise, the OPEC Secretary General also received a framed copy of the September 16, 1960 edition of Platt's Oilgram News Service, which reported on the formation of OPEC with the headline 'Baghdad Parley Approves Permanent Organization'. The copy was presented to the Secretary General by Andrew Critchlow, head of EMEA news at S&P Global Platts.

# Welcome to Mexico!

In a first formal visit to Mexico by an OPEC Secretary General, **Haitham Al Ghais** was welcomed to Mexico's National Palace by President Andrés Manuel López Obrador. Al Ghais also spent time with Mexican

Energy Secretary, Rocío Nahle García, a constant in Declaration of Cooperation (DoC) ministerial meetings since assuming her role in 2018. The OPEC Bulletin reports on the engagements.





he National Palace, or the *Palacio Nacional*, is the seat of the federal branch of the Mexican government. Located on Mexico City's main square, *Plaza de la Constitución (El Zócalo)*, it has also served as the official residence for the President of Mexico since 2018.

We were welcomed to the palace and made our way through a maze of rooms to where the Secretary General was met by President López Obrador. The two greeted each other warmly, with Secretary Nahle García, Rogelio Ramírez de la O, Minister of Finance and Public Credit, Octavio Romero Oropeza, Director General of Pemex, and a delegation from the OPEC Secretariat also present.

The two discussed a variety of topics, including recent oil market developments and the future outlook, the need for just and realistic energy transitions and OPEC's ongoing cooperation with non-OPEC producers, including Mexico, in the DoC.

> Al Ghais thanked the President for his country's staunch support for the DoC since it was inaugurated, and said going forward he hoped that Mexico and OPEC could further enhance collaboration at both technical and ministerial levels.

Andrés Manuel López Obrador, President of Mexico (l), with Haitham Al Ghais, OPEC Secretary General.

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The National Palace building at Plaza de la Constitución is a historical landmark in Mexico City.

The Diego Rivera fresco mural, seen in the National Palace of Mexico City, portrays the history of Mexico in intricate detail.

> Obrador says that every year his birthday on March 21 is commemorated throughout the country with a national holiday. Juarez was the first indigenous President of Mexico.

A further highlight of the grandiose palace features a series of murals of Diego Rivera, painted between 1929 and 1935. Nothing can really prepare you for the scale of the endeavor, with some said to be as large as 70 metres by nine metres.

The crowded composition is an unbelievable sight with its bright colours, striking characters, rich traditions and many historic moments in the country's history interwoven together. We are told the mural consists of three distinct sections across three walls, thematically divided in chronological order: ancient Mexico, the colonial past to the present, and the future.

What stands out from our only brief viewing of the West Wall is an eagle with a serpent in its mouth sitting atop a cactus, mirroring the insignia found at the centre of the Mexican flag.

#### **Energy Ministry**

After leaving the National Palace, the Secretary General and Secretary Nahle García traveled to the Mexican Energy Ministry where a joint event was held in front of a packed room of industry leaders and journalists.

Both referenced the earlier meeting with President López Obrador, which Al Ghais said had been "excellent" and a real positive for OPEC and Mexico relations. He also stressed the importance of Mexico's role in the global petroleum market.

Nahle García said that the significant visit by the Secretary General to Mexico was recognition of the role Mexico has played in the oil market for the past 85 years.

She also emphasized how the relationship between Mexico and OPEC had flourished since the initiation of the DoC at the end of 2016. She added that since President López Obrador began his tenure in 2018, she

Following the meeting, the President tweeted (translated from Spanish): "We are pleased to receive the Secretary General of the Organization of the Petroleum Exporting Countries (OPEC), Haitham Al Ghais and his companions. It is the first time that an authority representing oil-producing countries visits Mexico. We understood each other well, very well."

#### **Surprise tour**

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President López Obrador engaged further with the Secretary General and the OPEC delegation on a surprise tour of parts of the National Palace. This included passing the paintings of all the past Mexican Presidents, including Benito Juarez, who the President said was one of the most important presidents in the country's history.

Juarez served as the 26<sup>th</sup> President of Mexico from 1858 until his death in office in 1872, and López



Officials gather for a commemorative photograph (l–r): Shakir Mahmoud A Al Rifaiey, Head of OPEC's Office of the Secretary General; Octavio Romero Oropeza, Director General of Pemex; Eng Rocío Nahle García, Secretary of Energy of Mexico; Andrés Manuel López Obrador, President of Mexico; Haitham Al Ghais, OPEC Secretary General; Rogelio Ramírez de la O, Minister of Finance and Public Credit; and James Griffin, Editor/Speechwriter at OPEC's PR & Information Department.

had been instructed to participate at multiple OPEC dialogue initiatives and in many decisions, covering around 30 ministerial meetings.

In particular, she recalled the meetings of April 2020 with the decisions taken to help counter the impact of the COVID-19 pandemic, and highlighted how these had enabled more balance and stability in the market. She also emphasized that within OPEC "there is respect for the energy policies designed for each nation."

#### Importance of oil

Al Ghais stated that OPEC and its Member Countries share historical bonds with Mexico, and congratulated the President, Secretary Nahle García and the government for their energy vision and the positive investment approach towards increasing refining capacity, specifically noting the Olmeca refinery project at Dos Bocas (see page 12).

"Refining is a critical component for the entire value chain", he said.

He also highlighted the need for a just and orderly energy transition, specifically noting that global energy demand is set to increase 23 per cent by 2045, with the world economy more than doubling in size, and the global population rising by 1.6 billion.

Al Ghais stressed that this increase in demand will need to be met by all energy sources, adding that oil, and the resources that Mexico possesses, will be required in the decades ahead. He said that oil is still set to represent around 29 per cent of the global energy mix in 2045, at a level of around 110 million barrels a day.

## **Mexican self-sufficiency**

The Olmeca (formerly Dos Bocas) refinery is the cornerstone of President **Andrés Manuel López Obrador**'s plan to make the country self-sufficient in diesel and gasoline. Whilst in Mexico, OPEC Secretary General, **Haitham Al Ghais**, visited the complex, which is currently under construction, as well as other facilities, such as the Litoral A processing platform in the Bay of Campeche, and the Mexican Petroleum Institute, which aims to advance the technical and technological capabilities of the oil and gas industry.

Rocío Nahle García, Mexico's Secretary of Energy (l), with Haitham Al Ghais, OPEC Secretary General.

t is an early start in the city of Villahermosa in southeast Mexico and a stunning season to visit the capital city of the Mexican state of Tabasco. Spring is in the air and the colourful flamboyán, guayacán and macuilis are blossoming out across its streets. These provide a vivid backdrop as we head to the airport to start a tour of the some of the state's major oil facilities. Villahermosa, located about 50 km south of the Gulf Coast, is often referred to as the 'Energy City of Mexico.' From the airport, it is a helicopter ride out to the Gulf of Mexico, home to a vast array of oil field operations. The trip sees us sweep across wetlands and mangrove forests, and then onto the warm waters of the Gulf.

The destination is Litoral de Tabasco one of the largest oil producing business units in the country. Litoral de Tabasco covers an estimated area of 7,400 km<sup>2</sup> and is located in the southwestern portion of the Bay of Campeche. Its main reservoirs contain light to super light oil ranging from 30° to 51°API, as well as natural gas and condensate.

According to Pemex, Litoral de Tabasco provides around 19% of the country's total crude oil production, second only to Ku-Maloob-Zaap. In the fourth quarter of 2022, Pemex says the country's average liquids production, without considering partners, was 1.78 mb/d, which compares to 1.75 mb/d production in the fourth quarter of 2021. Litoral de Tabasco also produces 13% of the country's natural gas.

The complex we are heading for is the Litoral-A processing central platform, which is located around 50 km from the coast. Litoral-A sits in water depth of approximately 26 m, and the whole complex is about 1 km in length.

Approaching from the air it looks imposing as we sweep past its many platforms and onto the helicopter landing area. Its massive, complex and

 inter-joined networks are all monitored by a dedicated on-site team. A floating village on the ocean, one that never sleeps given the need for it to be working 24–7.

> We walk the length of the facility and are given an overview of the complex by the management team. This is a workplace that would keep you fit, physically, given the steps that have to be navigated, and mentally, given the precision required to run the platform.

#### **Olmeca refinery**

To complement the visit to Litoral-A, we then take the helicopter back to the mainland, and

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Arriving at the Litoral-A processing central platform.

Rocío Nahle García, Mexico's Secretary of Energy (I), with Haitham Al Ghais, OPEC Secretary General, during a visit to the Olmeca refinery.

Mexico Visit

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#### on to another impressive site, the Olmeca refinery project, also in the state of Tabasco.

We tour the 586-hectare refinery with the Secretary of Energy, Rocío Nahle García. It is a project close to her heart, having been tasked to oversee the project by President López Obrador.

She says the President told her when the project was first announced that she would take charge of the project, and he had confidence in her and in the Mexican engineers and technicians to be able to fulfill this commitment to the people of Mexico.

Nahle García is fully into the refinery's details, explaining to us how the project originated and what is being built. She also takes note of what areas still need

#### Oil storage tanks at the Olmeca refinery.



Delegates tour the Mexican Petroleum Institute.

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to be worked on as the team builds towards a July 2023 deadline to begin the first processing of crude oil.

She tells us that it is expected that the refinery will begin processing 170,000 barrels a day (b/d) by this month. The government says that the refinery will eventually have a capacity to process 340,000 b/d, producing 170,000 barrels of gasoline and 120,000 barrels of ultra-low sulphur diesel.

In a press release from the Ministry of Energy in July 2022, it was also highlighted that the project has 35,236 direct workers on-site, with 12% women, and more than 230,000 indirect jobs are being generated.

"The new Olmeca Refinery in Dos Bocas is a reality and a source of pride for Mexicans," says Nahle García.

The facility is being developed on a site near the Dos Bocas maritime terminal. It includes 17 processing units, including a combined distillation plant, a delayed coking unit, a fluid catalytic cracker unit, a naphtha hydrotreating unit, a naphtha reforming unit, a sulphur recovery plant, a gas recovery and treatment facility, as well as a hydrogen-producing plant. Alongside this, there is a 280-megawatt cogeneration power plant, administrative areas and large storage infrastructure, including 56 vertical tanks to store liquids and 34 spheres to store gas with a total combined capacity of 15 million barrels.

The scale from the ground looking up, and from the top of the coking unit looking down, is truly remarkable. A sprawling but intricate site of buildings and pipes, of concrete and steel. We were told that the amount of concrete used is similar to 23 Azteca stadiums, and the amount of steel, compares to ten Eiffel Towers.

Nahle García informs us that the Olemca refinery development is part of Mexico's National Refining Plan, which also includes the rehabilitation of six

existing Pemex-operated refineries at Cadereyta, Madero, Minatitlán, Salamanca, Salina Cruz and Tula. In 2021, under President López Obrador, Pemex also fully acquired the Deer Park refinery in Houston, Texas, which can process up to 340,000 b/d.

The National Refining Plan targets a total of 1.8 mb/d of crude processing capacity at the seven Mexican refineries.

#### Instituto Mexicano del Petróleo (IMP)

The following day, the Secretary General and his accompanying delegation, were also given a tour of the Mexican Petroleum Institute, alongside Nahle Garcia, and with the Institute's Director General, Marco Antonio Osorio Bonilla, as host.

The IMP's purpose is to generate technical and technological capabilities for the oil and gas industry, with Bonilla stressing that this covers all operational parts of the value chain, from upstream to downstream.

He added that the institute has been in place for more than 50 years, and his team looks to solve high-impact technological problems in order to achieve business goals, and focus on generating economic value.

Nahle García stated that the people who work in this great Institution are specialists who contribute to Petróleos Mexicanos, but above all to Mexico. She also highlighted that IMP works internationally with other countries and companies.

Al Ghais visited many of the Institute's key research areas, receiving detailed explanations of the functions of the Pilot Plant, as well as Microscopy and Transitometry laboratories. This also included the demonstration of some state-of-the-art technologies that the institution has developed.



View of the Olmeca refinery.

#### **Self-sufficiency**

The importance of energy self-sufficiency for the country was made clear in all the visits and discussions while the Secretary General was in Mexico.

When touring the Olmeca refinery, Nahle García said that President López Obrador and the government are fully committed to the clear objective of ensuring energy self-sufficiency for the country, with the new refinery is a key part of this in terms of gasoline and diesel.

This was also highlighted in a presentation given by Octavio Romero Oropeza, Director General of Pemex, just after the OPEC visit. During the daily morning press conference held by President López Obrador, the head of Pemex specifically highlighted compliance with the goal to achieve the country's energy independence.

He said that significant progress has been made because, while in 2018 there was a national deficit of 901 trillion b/d (tb/d), this figure has been lowered and the goal is for this deficit to drop to only 34 tb/d by 2024. The goal of energy self-sufficiency is now within reach.



Meeting with staff members of the Institute: Marco Antonio Osorio Bonilla, Director General of the Instituto Mexicano del Petróleo (l); Haitham Al Ghais, OPEC Secretary General (r); and Rocío Nahle García, Mexico's Secretary of Energy (second l).

OPEC bulletin 3-4/23

## Palenque: A jewel of the Maya

**Aexico** 

Hidden deep in the jungles of southern Mexico, the ancient ruins of Palenque are an astonishing site to behold. Lost for many centuries, the archaeological site means taking a step back in time to observe how Mayas viewed the world around them, and to explore their relationships with architecture and nature. It is a truly unique experience. ith the sun setting over the jungle backdrop to Palenque, our guide welcomes us to one of the best examples of Maya civilization in the world. As we enter the UNESCO World Heritage Site, there is a sense of serenity about the surroundings, a calmness instilled by the knowledge that this is now an historical site.

This was not the case when Palenque was one of the most important Mayan cities, from around AD 250–900. Then it was a political hub, the capital of a powerful dynasty that dominated a region stretching from northern Chiapas to southern Tabasco. Palenque prospered as an inland trade centre, which allowed it to control a large territory and form alliances with other cities, such as Tikal, Pomoná and Tortuguero.



The site is located on a natural limestone shelf 200 metres above the flat tropical savanna, affording spectacular views of the lowlands. It is also easy to see why the location was chosen beyond the views. It forms an excellent defensive position against any invaders, it has fertile hills, plentiful vegetation, and streams and waterfalls run throughout. Its original Maya name was *Lakam'ha*, which means 'place of many waters'.

Given its layout, it is clear that water was central to its construction. To control the water, we were told by our guide that the Maya built sophisticated schemes, with Palenque having one of the best-preserved systems of underground water control in the Maya region, featuring subterranean aqueducts, bridges, dams and walled channels that guided streams around the city.

Although there was no time to visit, the surrounding area also has many beautiful waterfalls, such as the Cascadas de Agua Azul and the Cascadas de Misol-Ha.

#### **Temple of the Inscriptions**

The first building we came upon is perhaps the most famous of all at Palenque, the Temple of the Inscriptions. It has an imposing and majestic presence along with its surroundings, and it is clear that its construction would have been one of great significance for the people of the city.

The temple owes its name to the fact that its walls are covered with one of the longest carved inscriptions of the Mayan area, including 617 glyphs. The structure was built during the time of K'inich Janaab' Pakal, or Pakal the Great, who ruled between AD 615 and 683, the year of his death.

We were told his reign was a period of advancement and prosperity for the inhabitants of Palenque, and on his death, his remains were interred in a sarcophagus that was placed in a funerary crypt located 25 metres below the temple's floor.

The tombstone that covered the sarcophagus was 3.8 metres long, 2.2 metres wide and weighed 7 tonnes.

Mexico Visit

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It is said to be one of the crown jewels of Mayan art and perhaps the most important funerary monument in Mesoamerica. It has ornately carved bas-reliefs, as does the crypt, and shows Pakal at the centre of the universe, surrounded by various Mayan representations of gods and nature.

The tomb was discovered on June 15, 1952 by French archaeologist Alberto Ruz Lhuillier, who did extensive work on the site. The Palenque Site Museum that is found on the road leading up to the site is now named after him and provides a historical perspective of the site, with many artifacts unearthed from the ancient city on display.



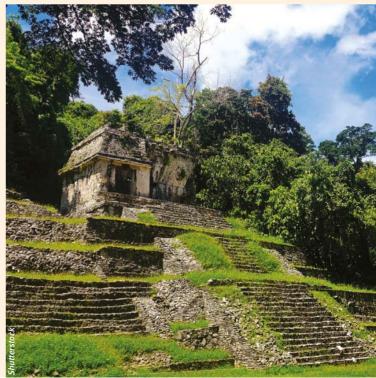
Next to the Temple of the Inscriptions there is a platform on which other buildings were erected, one of which is now called the Temple of the Red Queen. This is due to the discovery of a tomb by Mexican archaeologist Fanny López Jiménez and other National Institute of Anthropology and History staff in 1994, which held the remains of a woman covered with bright red cinnabar powder and accompanied offerings.

While her true identity remains unknown, given the richness of the burial site, historians believe that she was a person of great importance. The tomb has been dated to between AD 600-700, and objects in the tomb - the funeral mask and other items in the sarcophagus - were similar to those found in the tomb of Pakal. The Palanque Site Museum has a Red Oueen Pavilion dedicated to her.

Moving further into the site, our guide walked to what she called El Palacio, or The Palace. This is the largest complex in Palengue and would serve both political and administrative functions, as well as a residential area for members of the ruling families.

This fortress-like building, which we are told was added to by several different rulers, is once again elaborately decorated. Crumbling walls and terraces, many being renovated, conceal a large, inner courtyard. Walking through the intricate design, there is a sense of the lost, grandiose world of Palenque.

#### The Temple of the Red Queen.



One of the most striking features of the palace structure is its painted stucco sculptures, found on piers, walls and roofs. These depict religious and chronological scenes. We were told the limestone artwork would have been painted with bright colours. The backgrounds and bodies of humans were painted red, while blue was reserved for royal, divine and heavenly objects and personages; and things belonging to the underworld were painted yellow.

Beneath the building is a labyrinthine of tunnels that reaches through the foundations – a sign of the Maya connection with the underworld.

Our guide also points to a tower structure that dominates the complex, one that would likely to be visible for miles from the flat tropical savanna below. We were told that it would likely have been used as an observatory or watchtower, and probably as a means of defense for the city too.

#### Hidden gem

As the sun dips further on the horizon, we wander back through the ruins and reflect on the advanced and incredible achievements of Maya civilization. Everything built in Palenque was done without the benefit of metal tools, the horse or the wheel. It was created exclusively by the vision and determination of the people. Their understanding of the world around them and their accomplishments in the spheres of

Howler monkeys can be found in the jungle around Palenque.



science, art and architecture underscore how perceptive, inventive and ingenuous the Maya were.

As we leave, from the dense forest above, we hear howls that stop our group in its tracks. It almost sounds like the roar of a big cat, but our guide tells us they are the shrieks of the local howler monkeys that are considered to be among the loudest animals on Earth.

We spot them in the trees above, grasping branches with their hands and tails and moving seamlessly along the canopy. The vocals come again, a loud, deep, guttural growt that echoes through the surroundings. It is almost like a sign that we should leave; Palenque is home to them and other jungle animals at night.

The ancient city of Palenque is evidently a product of a golden age of the Maya. A testament to a civilization that was at the height of its powers, and for visitors, it is a privilege to explore this historic past.

Getting there:

Palenque is located in the state of Chiapas. There is a small airport, but there are few scheduled flights, except to and from Mexico City. The next closest airport is at Villahermosa.

The drive time to Palenque is approximately two hours from Villahermosa airport, 12 hours from Cancun, 8 hours from Merida, and 15 hours from Mexico City.

#### How to get around Palenque:

Once you are at the site, the only way to get around Palenque is to walk. From the main entrance, walking paths connect the major temples and areas of the UNESCO World Heritage Site. There are maps on information boards, but a guide or guidebook will be helpful.

The site is open daily to visitors from 8.00 to 17.00 daily.

#### Palenque on-site Museum:

The museum's current location was opened to the public in 1994 and is considered one of the most notable museums in the Maya region.

The museum is open to visitors from 9.00 to 16.00 daily.

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## Mexico's National Museum of Anthropology

On many lists, it is the number one attraction to see in Mexico City. The Museum of Anthropology is so extensive that traveler sites suggest spending a whole day or more exploring the many collections and exhibits covering four square kilometres in 23 exhibition halls. With a few hours available, the OPEC Bulletin wanders through some of the most famous collections.

he National Museum of Anthropology is considered one of the world's most comprehensive natural history museums. Located within the famous Chapultepec Park, the museum holds thousands of artifacts from Mexico's historic past. As we approach the museum, however, it is a sight someone spots behind us that initially grabs our attention. Our guide points through the trees, around 100 feet up, where there are five men atop a pole. From a distance, it looks like a very interesting form of bungee jumping, but we are told this is the Danza de los Voladores, or the Dance of the Flyers. It is a tradition dating back centuries.

> After a few minutes, four of the five men launch themselves backwards, still tied to the pole, and slowly and elegantly descend to the ground. The fifth remains on top of the pole, dancing and playing a flute and drum. We are told that the ritual is symbolically connected with fertility, corn and the harvest.

While it may look dangerous to an outsider, it is also evident that the whole event is well controlled and designed. A total of 13 rotations are completed by each descender – totaling 52 – cleverly mirroring the years in the Aztec calendar's 'century', which we will hear more about in the museum.

#### **Entering the museum**

The Museum was founded in 1825 and acquired its present name in 1939. In 1964, it opened the present building that contains a school, a library of some 300,000 volumes, a film archive and public auditoriums. Today, the museum is widely regarded as a national treasure.

The layout comprises exhibition halls on multiple levels, which are built around a central courtyard. In the centre of this is a vast square pillar, known as *El Paraguas* in Spanish, or The Umbrella. It is a stunning feature, with water running over it, and was designed to represent the human connection to nature.

#### Walking through the civilizations

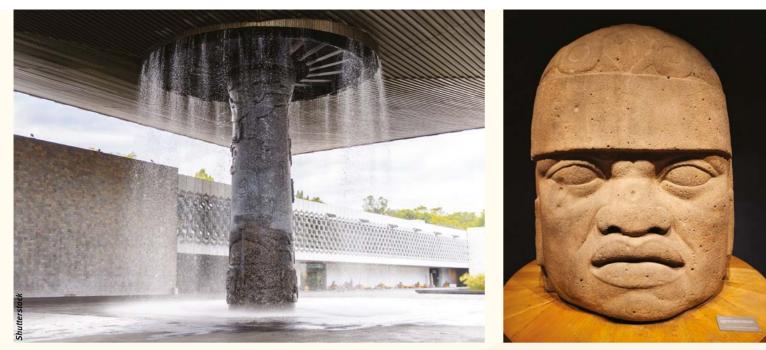
The museum's collections span the history of Mexico and its people, from the ancient Olmec and Maya civilizations to the Aztecs and the modern day. It is a veritable who's who over more than 3,000 years.

It is the Olmecs that our guide leads us to first. The Olmec civilization is believed to have prospered from around BCE 1200 to BCE 400 in today's Mexican states of Veracruz and Tabasco. It is viewed as a major cultural and artistic awakening, with Olmec art today best known for its colossal sculptures and intricate works in jade. The giant sculptures, or Olmec colossal heads, are evident as soon as you enter the exhibition. The stone representations of human heads are sculpted from large basalt boulders and are said to range in height from around 1.2 to 3.4 metres.

A performance of the Danza de los Voladores (Dance of the Flyers).

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Mexico Visit



El Paraguas (the Umbrella) seen at the National Museum of Anthropology.

An Olmec colossal head.

These giant, round stone heads are icons of Mesoamerican archaeology, and each with distinct facial features. Many have head coverings that depict talons or jaguar paws, and our guide indicates that they were once probably painted in bright colors, which is why many scholars think they were portraits of rulers. What is also impressive is that the figures can weigh up to eight tonnes, which around 3,000 years ago would have needed to be dragged many miles from volcanoes to plateaus by human power alone.

We then move through to the rooms on the Maya, and we soon come upon a full-scale replica of the tomb of King Pakal from Palenque and the restored funeral mask, diadem, necklace, earspools and wristlets of the Red Queen (see article on page 18). The guide talks us through some of the history of the Maya, who rose



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The Aztec Sunstone.

to prominence in around AD 250 in present-day southern Mexico, Guatemala, northern Belize and western Honduras.

It is clear from the exhibits that the Maya are known for their elaborate and highly decorated ceremonial architecture, and developed astronomy, calendrical systems and hieroglyphic writing, a sophisticated combination of pictographs directly representing objects and ideograms (glyphs).

The writing is stunning to look at, but looks impregnable to decipher. However, our guide tells us that around 75 per cent of surviving Mayan texts can now be understood.

#### **Aztecs**

The final rooms on our guided tour focus on the Aztecs. Mexico City is a fitting place for the Aztecs, given that the city sits on the site of Tenochtitlan, which became the capital of the Aztec empire. Tenochtitlan was originally built on an island in the middle of a vast lake in around 1325, and over the following 200 years became a large, thriving city.

There is a reconstructed model of Tenochtitlan at the museum, which underlines just how impressive the Aztecs were, with their meticulous urban planning, canals and causeways for irrigation and dams to protect the city from flooding, and of course, its pyramid-shaped temples.

The exhibits and relics are artistically captivating and often monumental in nature, none more so than *Piedra del Sol*, or the Aztec Sunstone. Its size is difficult to comprehend in pictures, but we are told it weighs around 23 tonnes. That is over three times more than the largest of all land animals, the African elephant.



Coatlicue statue.

Death mask of Pakal the Great.

We are told the stone was discovered in 1790 during the construction of Mexico City's Metropolitan Cathedral. The museum says that it is a "large gladiatorial sacrificial altar, known as a temalacatl." This certainly comes across in the design of the huge disk, with its representations of warfare. The face at the centre of the stone, with its tongue sticking out as part of a ritual, is particularly striking.

#### **Mexico and Vienna**

Before we leave, we are also told of an elaborate Aztec headdress that now resides in Austria's Museum of Ethnology. The feather headdress is believed by Mexican scholars to have been worn by the Aztec Emperor Montezuma II in 1519 – the year the Spanish first made contact with the native people of the region.

The headdress contains gold, gilt bronze, leather, paper, cotton and other fibres, as well as feathers from the quetzal, cotingas, roseate spoonbill, squirrel cuckoo and kingfisher.

How the headdress arrived in Europe remains a matter of debate, although the headdress was mentioned in an inventory of the estate of Archduke Ferdinand II of Tyrol in 1596.

The National Museum of Anthropology is a myriad of exhibits about Mexico's ancient past, including stories of the Olmecs, Mayas, Aztecs and many more, in addition to many unanswered questions, of which the headdress is just one.

A replica of the feather headdress of Montezuma II, seen in the National Museum of Anthropology in Mexico.

Thomas

#### Visiting Mexico's National Museum of Anthropology

#### Address:

Av. Paseo de la Reforma y Calzada Gandhi s/n Col. Chapultepec, Polanco. Del. Miguel Hidalgo, C.P. 11560, Mexico City

#### On public transportation:

Metro Auditorio (Line 7) and Metro Chapultepec (Line 1). The Museum is about 1.3 km from these metro stations.

#### **Opening hours:**

Tuesday to Sunday from 9.00 to 17.00

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Mexico Visit



Aerial view of the Azteca stadium (Estadio Azteca), located in Mexico City.

## Twice a World Cup final host

Flying over, and into Mexico City, offers up astounding views of the vast sprawl of the mega-metropolis, and many of the city's famous landmarks. One of those is the famous Azteca stadium (Estadio Azteca), a legendary football venue and the first ever stadium to host two FIFA World Cup finals.

hen it comes to iconic football stadiums, it is impossible not to mention the Azteca in Mexico City. Steeped in history and legends, the stadium hosted the FIFA World Cup finals of 1970 and 1986. today has a capacity of 87,523. However, attendance was well over 100,000 for both the 1970 and 1986 World Cup finals.

#### **1970**

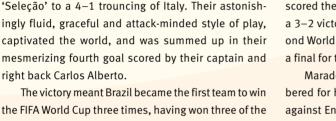
The stadium's construction first broke ground in 1962 and was finished in 1966 in preparation for the 1968 Olympics that were held in Mexico City. The stadium sits at an altitude of 2,200 m above sea level and

In 1970, the stadium played host to what some believe was the greatest national team in the history of football, Brazil, with the talismanic Pele, who led the



Pele celebrating winning the 1970 World Cup.





the FIFA World Cup three times, having won three of the past four, and Mario Zagallo became the first man to win the trophy as a player and then as a coach.

The stadium was also witness to what some called the 'Game of the Century' when Italy met West Germany in the semifinal a few days earlier. Italy led 1–0 for most of the game. In a set-back for Germany, star defender Franz Beckenbauer dislocated his shoulder, but he continued to play due to there being no more substitutions available, and West Germany were able to equalize in the 90<sup>th</sup> minute.

What followed was an extra time beyond compare, with five goals scored in 17 hectic minutes and Italy eventually running out winners 4–3. It remains the most number of goals scored in extra time in a World Cup match.

#### 1986

The 1986 final at the Azteca saw Diego Maradona's Argentina take on West Germany. It produced another five-goal classic, with Argentina taking a two-goal lead before Germany replied with goals in the 74<sup>th</sup> and 80<sup>th</sup> minutes.

Three minutes after Germany's second goal, Maradona provided a pass to Jorge Burruchaga, who scored the match's final goal, securing a 3–2 victory. Argentina won their second World Cup, and West Germany lost a final for the third time.

Maradona is perhaps more remembered for his quarterfinal performance against England, also at the Azteca, in which he scored two of the most famous goals in the history of the sport.

The first was when he used his hand to rise above England goalkeeper Peter Shilton and poke the ball into the net. Unseen by the referee, and with no VAR in 1986, Maradona wheeled away in celebration. In the years after the game, Maradona said that it was scored "a little with the head of Maradona and a little with the hand of God."

His second goal, however, had no such controversy. A magical weaving run from the half way line, past four or five England defenders and then around

Shilton, to score what some have described as the 'Goal of the Century'. Argentina won the game 2–1.



Diego Maradona scoring his goal with the 'hand of God' at the 1986 FIFA World Cup at the Estadio Azteca.

#### 2026

Mexico is also set to co-host the 2026 FIFA World Cup, alongside the US and Canada. The Azteca will once again host games, although not the final.

Its iconic role in FIFA World Cup history is already well-established, but there is still more to come.

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## The 6<sup>th</sup> Nigerian International Energy Summit (NIES):

## Global Perspectives for a Sustainable Future

The 6<sup>th</sup> iteration of the Nigerian International Energy Summit (NIES) took place between April 16 and 20. As has been the case in previous years, the event provided topical discussions on the key issues the industry faces. The Summit has rightly earned its reputations as one of the premier events on the African continent. The OPEC Bulletin files this report.



## RSPECTIV





NIES attracted a high caliber of speakers and panelists. The President of the Federal Republic of Nigeria was represented by the Secretary to the Government of the Federation, Boss Mustapha, at the opening ceremony.

The Vice President of Nigeria, Yemi Osinbajo, formally opened the exhibition component of the Summit. He delivered remarks that highlighted the pathway forward for Africa in the transition to a sustainable energy future. He added that Nigeria's Energy Transition Plan was "a bold and innovative move that calls for the ramping up of solar deployment to about 5.3 gigawatts per year until 2060." The Plan also involves the production

Yemi Osinbajo, Vice President of the Federal Republic of Nigeria, delivers remarks at NIES 2023.







Dignitaries gather for a photograph.



Haitham Al Ghais, OPEC Secretary General, delivered a pre-recorded goodwill message, in which he thanked Nigeria for its leadership role in OPEC's affairs and the global oil market.

**NIES 2023** 

of over 6 billion litres of biofuels annually as part of "the transition of at least 2 million Nigerian households to cleaner cooking fuels like LPG and electricity every year."

OPEC Secretary General, Haitham Al Ghais, pre-recorded a message that was played during the opening ceremony. Other guest speakers during the opening ceremony included Dr Omar Farouk Ibrahim, Secretary General, African Petroleum Producers' Organization (APPO) and Ambassador Gabriel Tanimu, Permanent Secretary, Ministry of Petroleum Resources, Nigeria.

> In his remarks, Al Ghais praised the contributions of Muhammadu Buhari, President of the Federal Republic of Nigeria, to OPEC's ongoing market stabilization efforts. He said, "We are extremely grateful that President Buhari has been a strong supporter of OPEC for many decades, including our recent market stabilization efforts and the ongoing cooperation with ten non-OPEC countries under the 'Declaration of Cooperation."

Muhammadu Buhari, President of the Federal Republic of Nigeria.

#### **Remembering Barkindo**

Al Ghais paid tribute to his late predecessor, Mohammad Sanusi Barkindo, who had always been an enthusiastic and vocal supporter of the NIES. He said, "As I am speaking at one of Nigeria's premier events, I would also like to pay tribute to my late predecessor as Secretary General, Mohammad Sanusi Barkindo. Mr Barkindo was a proud Nigerian and worked with many of you throughout his career. We still deeply feel his loss at OPEC, for had he lived, he would have celebrated his 64<sup>th</sup> birthday on Thursday, April 20."

#### Need for multiple perspectives on the energy transition

In his remarks, Al Ghais stated, "The theme of this year's NIES, namely "Global perspectives for a sustainable energy future," is timely and apt because climate negotiations need to be inclusive and reflect global perspectives. The perspective of developing countries must be heard. The perspective of Africa must be heard. The perspective of the fuel poor must be heard."

The Secretary General emphasized the importance of recognizing common but differentiated responsibilities when it comes to the climate challenge, saying, "As an Intergovernmental Organization composed exclusively of developing countries, seven of which are African, OPEC wants all voices included in discussions on energy transitions. I stress it as a plural, as I firmly believe each nation and people have their own energy transition pathway."

Al Ghais provided an overview of OPEC's views on the energy transition. While OPEC is supportive of efforts to reduce greenhouse gas emissions, he emphasized that policies should be carefully designed to avoid unintended consequences, such as exacerbating energy poverty.

Al Ghais stated, "The oil and gas industry can foster its resources and expertise and help unlock our



View of the exhibition area at NIES 2023.



Irene Nkem Etiobhio, OPEC's Senior Petroleum Industry Analyst. OPEC's exhibition booth.

emissions-free future, through its role as a powerful innovator in developing cleaner and more efficient technological solutions. A diverse range of mitigation measures are necessary."

The SG also highlighted the risks that the recent years of chronic underinvestment in the oil and gas industry could lead to.

The global oil industry needs cumulative investment of \$12.1 trillion through to 2045. Al Ghais stated, "In recent years, we have heard calls from some to limit or stop funding for new oil and gas projects." He added that this trend must be reversed if the global industry is to meet rising future energy demand from the world's rapidly growing population.

OPEC also participated in a panel discussion as part of the Summit, with Ms Irene Nkem Etiobhio, OPEC's Senior Petroleum Industry Analyst in the Energy Studies Department presenting on the main findings of the *World Oil Outlook*. OPEC also hosted a booth, promoting the Organization, its activities and its many publications.

#### **Proud of Nigeria's Membership in OPEC**

The SG concluded his remarks by stressing how much OPEC values Nigeria's membership in the Organization.

Nigeria joined OPEC in July 1971, and the country's 52 years of membership have been an abiding success for the Organization.

Building on this rich history, Nigeria will certainly continue to play an important role in the Organization's future.



Crude oil tanker pumping ballast water in Lagos, Nigeria,.

## 48<sup>th</sup> JMMC: Voluntary adjustments will contribute to continued market stability

ight Declaration of Cooperation (DoC) participating countries announced a combined total of nearly 1.16 million barrels per day (mn b/d) in additional output adjustments starting in May to help support oil market stability.

The voluntary decisions, announced on April 2, are in addition to the 2 mn b/d adjustments decided by DoC Ministers last year. They also come on top of the Russian Federation's announcement that it would extend its 500,000 b/d in additional adjustments, first announced in February, to the end of 2023.

The adjustments amount to a combined 3.66 mn b/d starting from May and are due to run until the end of 2023.

Six OPEC Member Countries were joined by two non-OPEC participants in the DoC, Kazakhstan and Oman, in announcing the voluntary adjustments. Saudi Arabia said it would adjust output by 500,000 b/d, followed by Iraq, 211,000 b/d; the United Arab Emirates (UAE), 144,000 b/d; Kuwait, 128,000 b/d; Kazakhstan, 78,000 b/d; Algeria, 48,000 b/d; Oman, 40,000 b/d; and Gabon, 8,000 b/d.

The decisions came a day before the DoC's regularly scheduled 48<sup>th</sup> Joint Ministerial Monitoring Committee (JMMC) Meeting. During its meeting, the JMMC said the additional adjustments were "a precautionary measure aimed at supporting the stability of the oil market." In addition, JMMC members reaffirmed their commitment to the extension of the DoC until the end of this year as decided at the 33<sup>rd</sup> OPEC and non-OPEC Ministerial Meeting (ONOMM) on October 5, 2022. The JMMC also reviewed the crude oil production data for January and February 2023 and noted the overall conformity of the DoC participants.

The 48<sup>th</sup> JMMC meeting took

place nearly three years after the 13 OPEC Members Countries and ten non-OPEC producers in the DoC undertook the largest stabilization effort in the oil market's history as COVID-19 lockdowns crushed oil demand. The voluntary production adjustments decided on April 12, 2020 – totalling 9.7 mn b/d for two months, followed by gradual reductions in the adjustment levels over two years – were unparalleled in scope and duration.

Saudi Arabia, the UAE, Kuwait and Oman offered additional voluntary adjustments totalling around 1.2 mn b/d as part of their contribution to the 2020 stabilization measures. The combined efforts helped restore oil market stability and laid the foundation for a healthy recovery.

The JMMC also announced that its 49<sup>th</sup> meeting would take place on June 4.



#### **Conference Notes**



Officials at the 48<sup>th</sup> Joint Ministerial Monitoring Committee.



Haitham Al Ghais, OPEC Secretary General (c); Dr Ayed S. Al-Qahtani, Director, Research Division (l); and Behrooz Baikalizadeh, Head, Petroleum Studies Department (r).

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## **OPEC Secretary General's diary**

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



March 16: Al Ghais (I) receives Faouzia Mebarki, Ambassador of Algeria to Austria and Permanent Representative to the International Organizations in Vienna.



March 16: Al Ghais (I) receives Teodolinda Rosa Rodrigues Coelho, Ambassador and Permanent Representative of Angola to the International Organizations in Vienna.



March 16: Al Ghais (I) receives Jean-Claude Gakosso, Congo's Minister of Foreign Affairs, at the OPEC Secretariat in Vienna, Austria.



March 30: Al Ghais (below) held an online bilateral meeting with Andrés Rebolledo Smitmans, Executive Secretary of the Latin American Energy Organization.



March 31: Al Ghais (top r) met with Pedro Tellechea (top l), Venezuela's newly appointed People's Minister of Petroleum, via videoconference.



April 4: Al Ghais (r) met with Li Song, Permanent Representative and Ambassador of the Permanent Mission of the People's Republic of China to the United Nations and other International Organizations in Vienna.



April 4: Al Ghais (l) met with Ibrahim Assaf, Ambassador of Lebanon to Austria, at the OPEC Secretariat in Vienna.



April 4: Al Ghais (c) welcomed the family of the late Dr Elrich Sanger, former OPEC Secretary General. Dr Sanger of Indonesia served the Organization with great distinction as the 6<sup>th</sup> Secretary General in 1969.



April 6: Al Ghais (I) received Aldrik Gierveld, Ambassador of the Kingdom of the Netherlands to Austria and Permanent Representative to the United Nations in Vienna, at the OPEC Secretariat.



*April 6: Al Ghais (l) met with Dr Nikolaos Antonakakis, Associate Professor for Economics, Webster University Vienna, at the OPEC Secretariat.* 



April 12: Al Ghais (r) met with Mikhail Ulyanov, Ambassador of the Russian Federation to Austria and the Permanent Representative to International Organizations in Vienna.



April 18: Al Ghais (r) welcomed Nelson Antonio Tabajara de Oliveira, Ambassador of Brazil to Austria and the Permanent Representative to International Organizations in Vienna, to the OPEC Secretariat.



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## Former OPEC SG Abdalla Salem El-Badri visits the Secretariat



Abdalla Salem El-Badri.

n mid-March, the OPEC Secretariat welcomed back through its doors an icon of OPEC and the global oil industry, Abdalla Salem El-Badri, the longest-ever serving Secretary General of the Organization.

El-Badri began his oil industry career with Esso Standard back in 1965, and in the intervening years, he was Chairman of the Libyan National Oil Company, Libya's Minister of Petroleum, its Minister of Energy, Oil and Electricity and its Deputy Prime Minister, President of OPEC in 1994, 1996 and 1997, and of course, Secretary General. He served in this position from 1 January 2007 to 31 July 2016, as well as for a brief period in 1994.

In front of OPEC staff in the Organization's main Conference room, current OPEC Secretary General, Haitham Al Ghais, said that it was "truly a great pleasure to welcome an OPEC legend."

He added: "Mr El-Badri is widely recognized and respected in the global oil industry for his tremendous personal and professional achievements spanning more than 50 years.

"He was admired by peers as a tireless worker, a consummate diplomat and a man who 'gets things done', both during his time in Libya and as OPEC Secretary General. This can be viewed in his achievements."

In this regard, Al Ghais recalled him helping guide the Organization through one of the greatest challenges of this generation: the Great Financial Crisis of 2008 and its aftermath, including helping broker the 'Oran Production Agreement' at the 151<sup>st</sup> Meeting of the OPEC Conference in December 2008 that provided a platform for market rebalancing in 2009.

He also noted El-Badri as a great advocate of expanding dialogue with other industry stakeholders, including instigating a new dialogue with India during his tenure and heralding in an expansion of dialogues with Russia, China, the European Union, the International Energy Agency (IEA) and the International Energy Forum (IEF).

With the IEF and the IEA, El-Badri also helped usher in the 'Cancun Joint Ministerial Declaration' in March 2020, which created a platform for OPEC, the IEA and the IEF to develop a variety of joint symposia, workshops and events.

At the Secretariat, said Al Ghais, "El-Badri recognized the importance of transparency and of sharing more of OPEC's research, analysis and data. This can be viewed in the first public release of OPEC's *World Oil Outlook* in 2007, less than a year after he assumed office."

Al Ghais also noted that El-Badri had been a great supporter of the Secretariat and its staff, and with many employees from El-Badri's time still working there, it was an opportune time to honour him.

### **Memories**

In his remarks, El-Badri said he was very happy to see so many friendly faces from his time as OPEC Secretary General and also made specific references to the importance and value of the staff at the Secretariat.

He said the staff here "were the engine that drove the Organization forward." They were the ones that kept





OPEC moving, generating the reports, analysis, and much more for Member Countries. He thanked all those who had served alongside him.

Recalling the almost ten years he was Secretary General, he said it was a "decade that I will always remember; one of many challenges, but also great accomplishments too."

He remembered moving the Secretariat to its new headquarters on Helferstorferstrasse, working alongside the city of Vienna and the Austrian government; expanding the Organization's outreach and dialogue; and navigating the Great Recession of 2008 and 2009. Turning to Al Ghais, he said, from the words he had heard from him and the actions he had seen, "I have no doubt that you are taking the Organization forward with a great understanding of the challenges it faces." Looking at the current situation, he said that over the past year or so, the world has seen a unique global energy crisis, particularly here in Europe. He wished Al Ghais continued success, and said he firmly believed the Organization will go from strength-to-strength in the years ahead.

El-Badri then spent time talking to OPEC staff and reminiscing over some of the events that he and others had experienced at the Secretariat.

Abdalla Salem El-Badri (l), former OPEC Secretary General, received a warm welcome from incumbent OPEC Secretary General, Haitham Al Ghais.



The United Arab Emirates (UAE) reaches for the stars with its successful astronaut programme and precedent-setting research operations in outer space.

Off

"Engines full power - and lift off!"

Lighting up the night sky over Florida's Kennedy Space Centre, SpaceX Mission 6 rocketed into orbit on March 2 carrying the first UAE astronaut to fly on a commercial space capsule – and the second to board the International Space Station (ISS).

Wearing a sleek, white and grey space suit and a shoulder patch with the UAE flag, Sultan Saif AlNeyadi joined three other astronauts aboard a Space Exploration Technologies Corp (SpaceX) capsule. He set foot in the spacecraft precisely 2 hours, 41 minutes and 59 seconds before the 12:34 a.m. lift off from NASA launch pad 39A.

The launch of the 'Endeavour' marked the beginning of AlNeyadi's six-month scientific research mission aboard the ISS. His crewmates were NASA astronauts Stephen Bowen and Warren Hoburg, and Russian cosmonaut Andrey Fedyaev.

A SpaceX Falcon 9 rocket carrying the company's Dragon spacecraft is launched on NASA's SpaceX Crew-6 mission to the International Space Station on March 2, 2023, at NASA's Kennedy Space Centre in Florida.

NASA

"It was a beautiful launch, it was a gorgeous launch, and it was made all the sweeter because we had AlNeyadi on board," Salem Humaid AlMarri, Director General of the UAE's Mohammed Bin Rashid Space Centre (MBRSC), told a post-launch press conference.

Noting that the UAE sent its first astronaut to the ISS for a brief mission in 2019, AlMarri added: "This second and long-duration flight is making history for us ... and I think that sends a message that we are active players, and we are here to stay. We can only do that with partnerships. We look forward to a successful docking and a very successful mission, and to future missions."

### **OPEC Member Countries in orbit**

AlNeyadi is the third astronaut from an OPEC Member Country to fly in space. Prince Sultan bin Salman of Saudi Arabia took off aboard the shuttle Discovery on June 17, 1985. Nearly 35 years later, on September 25, 2019, Emirati astronaut Hazzaa Ali AlMansoori flew to the ISS aboard a Russian Soyuz capsule for an eightday research visit.

SpaceX Mission 6 marked another significant milestone for the UAE. It is only one of 20 countries to have planted a flag in the ISS and one of eight with more than one visitor to the orbital station.

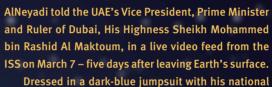
The 'Endeavour' crew had to wait two extra days to begin their 25-hour journey from NASA's launch pad to the ISS 'Harmony' module. Technical problems with an ignition fluid used to start the Falcon 9 rocket's power-

ful first-stage engines caused the mission to be postponed on February 27. SpaceX is one of NASA's commercial partners involved in shuttling astronauts to and from the space station.

Once they reached the ISS, AlNeyadi and his crewmates were welcomed by seven members of the ISS' 68<sup>th</sup> 'Expedition'. Four returned to Earth a few days later.

"We are in good health, and I am very happy and pleased to be here,"

Wearing their SpaceX suits and preparing to board the SpaceX Dragon spacecraft for the Crew-6 mission launch at NASA's Kennedy Space Center in Florida (l-r): Roscosmos cosmonaut Andrey Fedyaev; NASA astronaut Warren "Woody" Hoburg; NASA astronaut Stephen Bowen; and UAE astronaut Sultan AlNeyadi.

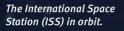


flag and the MBRSC banner hanging behind him, the smiling UAE astronaut said he looked forward to a busy work schedule. At one point, he floated around one of the station's modules to demonstrate the low-gravity environment in which the ISS team works.

AlNeyadi and SpaceX Crew 6 "will help prepare for human exploration beyond low-Earth orbit and benefit life on Earth," NASA said in a statement. "Experiments SpaceX Crew-6 Mission specialist Sultan Saif AlNeyadi from the Mohammed bin Rashid Space Centre is pictured training inside a Dragon mockup crew vehicle at the company's headquarters in Hawthorne, California.







Hazzaa Ali AlMansoori spent eight days on the International Space Station in 2019, becoming the first UAE astronaut in orbit. will include studies of how particular materials burn in microgravity, tissue chip research on heart, brain, and cartilage functions, and an investigation that will collect microbial samples from the outside of the space station. These are just some of the hundreds of science experiments and technology demonstrations that will take place during their mission."

### Breaking new ground in space

AlNeyadi holds a doctorate in information technology from Griffith University in Australia and a bachelor's degree in electronics and communication engineering from the University of Brighton in the UK. He completed training for the mission at NASA's Johnson Space Center in Houston, Texas, in 2021.



In addition to AlNeyadi and AlMansoori, the MBRSC has two other astronauts who have undergone training through NASA's international partnership programme: Nora AlMatrooshi and Mohammed Al Mulla.

AlMatrooshi has made headlines as the first Emirati woman to train for a space mission. A mechanical engineer, she previously worked at the Abu Dhabi National Oil Company (ADNOC) and the National Petroleum Construction Company.

The cooperation between the US space agency and MBRSC began in 2020 with the signing of an agreement to train UAE astronauts for ISS missions at NASA. AlNeyadi and AlMansoori were the first Emiratis accepted into the programme in 2021. AlMatrooshi and Al Mulla followed a year later.

"The US and UAE enjoy a strong relationship here on Earth, and we are excited to extend that relationship into the final frontier, NASA Deputy Administrator, James Morhard, said of the agreement. Morhard added that the arrangement to train UAE astronauts "will pave the way for even closer relations between our two nations, creating new opportunities for the UAE to become involved in the International Space Station, Artemis and other NASA activities."

### Investing in future generations

With an Emirati astronaut orbiting Earth at a speed of 8 km per second, the UAE's space programme has come a long way in a short time. The MBRSC was established in 2006, and the astronaut programme was launched in 2017.



Since then, the UAE has gained admiration for its efforts to promote cooperation and research beyond Earth's surface. Despite challenges posed in the first year of the COVID-19 pandemic, the UAE Space Agency successfully launched its Hope Mars probe to undertake a two-year exploration of the red planet.

The mission broke new ground for the UAE, which joined an exclusive club of countries that have successfully sent research vessels into Mars orbit. The project involved close collaboration with US partners to develop the orbiting research spacecraft, which was launched from Japan's Tanegashima Space Centre on July 19, 2020.

Sheikh Mohammed, speaking just after the 2020 launch, said the UAE's Mars mission represented hope for millions of young people in his country and beyond. "There is no future, no achievement, no life without hope," Sheikh Mohammed said, adding that the mission would make a contribution to human knowledge "and a real investment for future generations."

In a further sign of their growing cooperation, the UAE and US space agencies agreed in 2022 to share data from Hope and NASA's MAVEN spacecraft, which entered Mars' orbit in 2014. The arrangement marks a significant step in enhancing knowledge of the planet's atmosphere as NASA lays the groundwork for a planned human mission to Mars in the next decade.

Looking to the future, the UAE's space programme continues to aim for the

stars. "We have along-term strategy to be a player in human space flight because we see the importance of human space flight," AlMarri, the MBRSC Director General, told the post-launch press conference on March 2.

Seated with colleagues from NASA and SpaceX, he also stressed the importance of cooperation.

"We've got a very strong partnership – we have four astronauts training at NASA and this type of long-duration flight is something that we value very much," AlMarri added.

Asked how often the UAE plans to send astronauts into space, the MBRSC Director General replied: "As a relatively small country and new entrant in human space flight, we hope for a flight every three to five years."

So far, astronauts AlNeyadi and AlMansoori have blazed a trail for the UAE – and the world.

UAE astronaut aandidates Nora AlMatrooshi (l) and Mohammad Al Mulla. NASA announced its 2021 astronaut candidate class on December 6, 2021.

> 3D illustration of "Al Amal" (Hope in Arabic) arriving at Mars, February 2021.

# i Vamos Venezuela!

Venot

From March 7 to 21, the World Baseball Classic was held at venues around the globe, and OPEC Member Venezuela was there to battle it out against baseball's powerhouse teams in a quest to become world champions. The OPEC Bulletin's **Scott Laury** reports.

he World Baseball Classic (WBC) is an international baseball tournament that was first organized by the International Baseball Federation (IBAF) from 2006 to 2013, and thereafter by the World Baseball Softball Confederation (WBSC) in conjunction with Major League Baseball (MLB).

This tournament is not to be confused with MLB's World Series tournament, which takes place annually in the United States and features many of the same players who also are competing in the WBC with their national teams. <image>

Venezuelan players and coaching staff pose for a team photograph at the 2023 World Baseball Classic.

Baseball's best talents have also competed internationally for their nations at the Olympic Games (until 2008) and at the Baseball World Cup (until 2011), before the international baseball calendar was restructured in 2013, culminating in the establishment of the WBC.

The WBC was established partially as a reaction to the International Olympic Committee's decision to cut baseball from its Olympic Sports Programme in 2005.

The tournament is the first of its kind to have the national teams of the WBSC's member federations compete against one another from the major leagues around the world, including MLB.

WBSC is the international governing body for baseball and softball with 193 (185 full Members, 8 provisional Members) national federations and 14 associate members in 137 countries and territories across Asia, Africa, the Americas, Europe and Oceania.

These federations together comprise a global baseball/softball sports movement consisting of an estimated 65 million athletes and 150 million fans who cheer on their teams at baseball parks around the world. The WBC is the governing body's premier event, providing a unique avenue for promoting the game of baseball around the world.

The tournament is held every four years, however the fifth edition, which was scheduled to be held in 2021, was postponed until 2023 due to the COVID-19 pandemic.

This year's edition was hosted at stadiums in the US (Miami and Phoenix) and Asia (Taichung and Tokyo).

### **Top contender Venezuela**

With a WBSC world ranking of sixth, OPEC Member Venezuela was one of the top teams competing at this year's edition of the WBC, and one of several powerhouse squads from the Americas region, which include Cuba, the Dominican Republic, Panama, Puerto Rico and Mexico.

The team's roster was packed with talent, including many stars from the MLB, including José Altuve of the Houston Astros, Ronald Acuña Jr. of the Atlanta Braves, David Peralta of the Los Angeles Dodgers, Pablo Lopez of the Minnesota Twins, and, of course, team captain Miguel Cabrera of the Detroit Tigers. The Venezuelan team has put in strong performances in past editions of the WBC, rising to reach the semifinals in 2009.

That year's team featured Magglio Ordonez, Bobby Abreu, Francisco Rodriguez, Endy Chavez, Felix Hernandez and this year's captain Miguel Cabrera.

### Veteran manager

The man Venezuela chose to coach this talent-studded roster is Omar López.

López is veteran in the world of baseball, having spent a good part of his career in the Houston Astros franchise, where he has managed and coached for 25 seasons.

Among his more recent assignments were managing the Double-A Corpus Christi team in 2018–19 and the Caribes de Anzoátegui team in the Venezuelan Winter League championship in 2014–15.

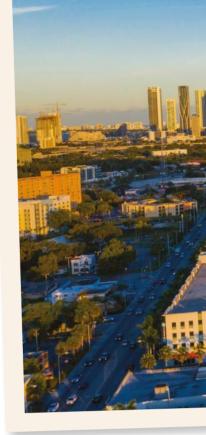
Earlier in his career, he was a scout and hitting/infield instructor in Venezuela from 1999–2007, during which time he played a key role in attracting star player José Altuve to the Astro's squad when the player was a 16-year-old free agent.

Since the 2020 season, López has been the first-base coach for the major league Astros and served in that capacity last year during the team's 2022 World Series victory, their first since 2017.

There wasn't much time to celebrate that momentous triumph before he was given the honour and challenge of his lifetime – to coach his native Venezuelan team at the 2023 WBC.

He began assembling what would become a virtual all-star roster of talent, filled with players from the top teams in the MLB, as cited previously. His first game as Venezuelan manager was against his other team – the Houston Astros. It was an exhibition warm-up game that was organized in the lead-up to the WBC to get Venezuela ready for the tournament. Held on March 8, Venezuela pulled out a one-run win, 9–8.

"I think the expectation from now on is making sure the players understand they're not 100 per cent ready [for the regular season] and they have to give 100 percent of whatever they have [now]," López said of prepping the team for the WBC tournament. "It's an extension of Spring Training ... we need to keep working in order not to regress on the steps forward they already made. And have fun and enjoy it."

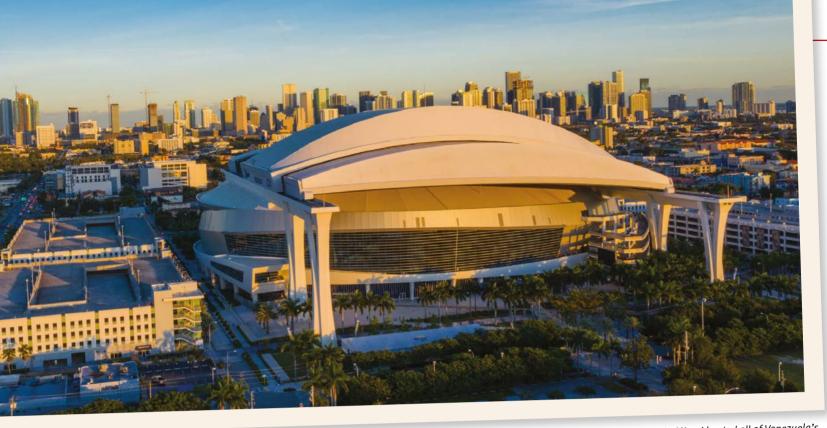


Joe Espada, the Astros' bench coach and a colleague of López is a big supporter of Venezuela and his colleague, except when they are playing his native Puerto Rico, for whom he coached third base in 2013 and 2017.

> "He's worked really hard," Espada said. "Not only putting the team together, but also the logistics of it, all the way from uniforms to travel. He's been more than just a manager. He's been trying to keep the team united, a traveling secretary the last couple of months. He helps me with camp, too. I just hope his team performs well, and I wish him good luck because he's paid his dues."

"Obviously, it's not going to be the first time I played for him," José Altuve said of his coach. "He was [one of] my first managers as a professional, so we know each other pretty good. I know how hard he works and how hard he wants to win, and how hard he wants to keep going. He's a professional and knows a lot about baseball, and also brings a lot of good things like chemistry and relationship between players."

Venezuelan Manager Omar López gets his team ready for the exhibition game against the Houston Astros in the lead-up to the 2023 WBC.



The loanDepot Park stadium in Miami hosted all of Venezuela's games during the 2023 World Baseball Classic.

Before moving into coaching, López played professionally as a third baseman for the Chicago White Sox's minor league team in 1996 and 1997, and then for the Arizona Diamondbacks in 1998.

Born on January 3, 1977, he is originally from Valencia, Carabobo, Venezuela.

### A solid performance

During group play, Venezuela competed in Pool D, which included round-robin games against Puerto Rico, the Dominican Republic, Nicaragua and Israel.

The loanDepot Park stadium in Miami was the venue hosting all of Venezuela's games. This was the first time in the tournament's history that one venue hosted games in all three rounds, including the semifinals and championship game.

Miami has long been known as a melting pot and crossroads of the Caribbean, so the organizers purposefully and appropriately picked this city to host the Latin American teams who battled it out to the delight of their passionate fans.

It was time for the tournament to get underway, so, as the umps customarily shout before a game gets underway, "Play Ball"!

### Venezuela vs. Dominican Republic (March 11, 2023)

Venezuela made its WBC debut with a highly anticipated and much-hyped game against its Caribbean archrival and baseball powerhouse the Dominican Republic. Paige Leckie, a reporter for MLB, had this to say about the electric atmosphere in the stands.

"At least a few eardrums probably burst. The decibel levels were out of this world. And yet, it was one of the most jubilantly raucous nights that loanDepot Park has seen. It was better than an All-Star Game."

Both teams started on a predominantly equal footing with each trading runs and strikeouts with the game tied 1–1 at the end of the third inning.

Then, the momentum shifted in the fourth inning in favour of Venezuela when outfielder David Peralta, with bases loaded, got a clutch hit into right field, scoring two runs.

The Venezuelan bats lit up again in the bottom of the sixth when Peralta struck again, this time hitting an RBI double, scoring Eugenio Suárez and giving Venezuela a 4–1 lead.

After making a key catch in the outfield at the bottom of the eighth inning to hold back the Dominican offense, Venezuelan outfielder Anthony Santander hit a triple, helping score Venezuela's fifth and final run to secure the victory.

On the pitching front, Martín Pérez put in a stellar performance, holding the Dominican team to one run over three and one-third innings, and then Luis Garcia, entered in the fifth inning, striking out seven batters while allowing two walks.

At the end of the game, Peralta was jubilant but modest, not forgetting the many tough games the team had played against the Dominican Republic in the past, and also knowing what competition laid ahead in the remainder of the tournament.



Outfielder Ronald Acuña Jr. goes airborne as he slides into home plate, scoring a run against Puerto Rico.

"This is my first Classic," Peralta said, "and I have always said that the past is in the past. Today we won. That's what really matters. We celebrated today, but we have to continue playing. We have to be prepared for tomorrow. I had never played in this kind of atmosphere, exciting with energy, representing my country. It was not easy for me to calm down when I was at bat, but we are professionals. I had to calm down to control my emotions."

Manager Omar López was very satisfied with his team's debut performance, and glad he had made the decision to include Peralta and Santander in the batting line-up.

"I was trying to use my instincts to get all those good swings to the plate," López said. "It was a matchup based on the roster. But [Santander] played very well, with the catch in center field, plus other plays. These were key plays in the game."

Final score: Venezuela 5, Dominican Republic 1

### Venezuela vs. Puerto Rico (March 12, 2023)

Fresh off its historic win against the Dominican Republic, Venezuela had virtually no time to celebrate as the next day it had to face another Caribbean heavyweight, Puerto Rico, which was determined to win its first Classic after finishing twice as the runner-up in both 2013 and 2017.

As the game got underway, Venezuela did not waste any time offensively as Salvador Perez hit an RBI single in the first inning and then Anthony Santander smashed a three-run home run, giving Venezuela an early 4–0 lead.

Then, in the second inning, Salvador Perez added on with a second home run, bringing in three and stretching the lead to 7–0. Puerto Rico, however, responded when Eddie Rosario hit a home run to put his team on the board. Then, in the sixth inning, Puerto Rico rallied to score four more runs and one more in the eighth, but thanks to Venezuela's strong pitching staff, it wasn't enough to beat Venezuela, who secured a 9–6 victory.

Key to this triumph was the superb pitching arm of Pablo López, who allowed only one run over four and two-third innings. He exited the game with a rousing ovation from the sold-out crowd in Miami.

"Physically I felt really good, and I was anxious for the start of the game, but in a good way," López said after the victory. "I knew what wearing this uniform represents, so being here in this opportunity made me really proud."

"We feel really good, we're calm and we're staying humble. That was the message to the guys in the clubhouse," Coach Omar Lopez said. "Tomorrow we have an off-day and we'll prepare for Nicaragua. But the guys are very committed and want to be successful."

Final score: Venezuela 9, Puerto Rico 6

#### Venezuela vs. Nicaragua (March 14, 2023)

Venezuela's winning streak continued to 3–0 as it pulled off its next group-stage game against Nicaragua, beating them 4–1. This was Nicaragua's first time competing in the WBC.

Eugenio Suárez and Anthony Santander were the stars for Venezuela as each recorded two hits apiece.

Down 1–0, the momentum shifted for Venezuela when Andrés Giménez hit a run-scoring single to tie the game, and then Suárez hit a line drive to right field, scoring Santander and Giménez. Then in the fifth inning, Santander hit a double, bringing in Venezuela's fourth and final run to win the game.

"We were looking for good pitches so we can do some damage," Giménez said after the game. "Just try and stay calm regardless of the situation, I think that's key, especially for me. I just tried to stay within my plan, trying to help the team, and just get a good pitch to hit."

Venezuela continued to get excellent results from its pitching rotation, which featured José Ruiz, Carlos Hernández, José Quijada, Silvino Bracho and José Alvarado. They helped shut down Nicaragua's offense, limiting them to one run scored and four hits over the last five innings.

Later that day, the Dominican Republic defeated Israel, enabling Venezuela to clinch its Group D pool and advance to the quarterfinals.

Final score Venezuela 4, Nicaragua 1

#### Venezuela vs. Israel (March 15, 2023)

Jesús Luzardo pitched four scoreless innings, and Venezuela's offense continued to be in top form coming through with key hits, helping Venezuela beat Israel 5–1 and move on to the quarter-finals undefeated.

"It was very special, very important, especially to pitch in front of my family," Luzardo said. "My grandfather always told me, 'You're going to make it and represent Venezuela.' To me, it was something very special. He's with me, I know that. And when I wear Venezuela on my chest, it's very important to me."

With two outs in the first inning, outfielder Ronald Acuña Jr. hit an RBI single to put Venezuela on the board. Then, after a walk and a wild pitch, Eugenio Suárez hit a single to bring in two more runs.

"I told him, use your strengths," Venezuela manager Omar López said of Acuña's role in the win over Israel. "Of course I want him to double, to triple, to steal bases, etc. But, I told him, 'Try to get the positive things out of the negatives.' He drove in a run, he stole a base, made a great play in center and that's what I wanted to see."

Putting the icing on the cake, in the fourth inning, Eduardo Escobar and Suárez hit solo

Eduardo Rodriguez pitches in Venezuela's game against Nicaragua.

49



Venezuelan fans take photos outside loanDepot Park stadium in Miami before the game against Puerto Rico.

Despite a solid display of defense by Venezuela, the US kept the pressure on as Kyle Tucker hit a booming home run over the right field wall for a 5–2 lead.

In the bottom of the fifth, however, Venezuela came alive again and rallied to take the lead, scoring four runs. This positive shift in the game was tainted somewhat by the injury of star

infielder José Altuve, who was forced to leave the game after a wild pitch fractured his thumb.

The Venezuelans, however, were able to build on their lead in the seventh inning when Luis Arráez struck again, hitting a fastball over the fence, his second homer of the game, making it 7–5.

At the top of the eighth inning, with bases loaded, short stop Trea Turner came to the rescue for the US, hitting a clutch grand slam to give the US a 9-7 lead.

Pitcher Ryan Pressly then came in to shut down Venezuela's last three batters to secure the victory for the US, who advanced to the semifinal game against Cuba.

### Semifinals

In the first semifinal, the US beat Cuba 14–2 in a lopsided victory that saw the US team execute the perfect balance between strong batting and highly effective pitching.

"They're swinging the bats

good, they're having fun being around each other, they're passing the baton, they're not having selfish ABs, constant pressure," said US manager Mark DeRosa. "I'm blown away by the way these guys control the strike zone. Trea Turner's in the zone right now, hitting everything he sees. [I was] able to get everybody in there, have some fun, relax, and let the pitchers do their thing."

In the other semifinal that pitted Japan against Mexico, Japan came from behind in a



home runs in the fourth and sixth innings, while Venezuela's solid pitching limited Israel to only one run in the seventh.

"This is a dream," said Venezuela third baseman Eduardo Escobar after the game. "The most important thing, the key secret here is that the egos were removed. No matter the position you play, the most important thing is that we are representing our country, and we have one name on our chest, and that's Venezuela."

"We all prepared ourselves the best possible way to come and compete in this World Baseball Classic differently from the previous tournaments," Suárez said. "This has been more special. We are doing our best, and we agreed on that – not only for ourselves, but our families and our country."

Final score: Venezuela 5, Israel 1

### Quarterfinal, Venezuela vs. USA (March 18, 2023)

Venezuela entered the quarterfinals undefeated, having emerged victorious over some of the world's strongest teams, including the Dominican Republic and Puerto Rico.

The US squad knew they would have their hands full with the powerful Venezuelan team, and indeed they did.

In fact, Venezuela controlled a good part of the match-up, but the US was able to come from behind for the win.

The US took an early 1–0 lead as team captain Mike Trout hit an RBI double, and took an extra base due to a misthrow.

Infielder Paul Goldschmidt then hit an RBI single into right field, bringing Trout home for a 2–0 lead.

Outfielder Kyle Tucker then got a hit right up the middle, helping bring in a third run.

Venezuela responded with force when Luis Arráez slammed a two-run homer, and the stadium erupted.

The momentum turned once again as Mookie Betts made a clutch hit to center field, bringing in Kyle Schwarber and helping extend the US lead to 4–2.

Players line up along the first and third base lines as the national anthems are played before the game between Venezuela and Puerto Rico.

OPEC bulletin 3-4/23

wild back-and-forth game for a thrilling walk-off win at the bottom of the ninth. Final score was 6–5.

"Obviously, it's a big accomplishment to get to the championship series, but there's a huge difference between getting first and second," said Japan's star pitcher Shohei Ohtani, who sparked Japan's game-winning rally in the ninth inning. "I'm going to do all I can to get first place."

#### Championship game

The quest to walk away with the coveted title of baseball world champion came down to the US and Japan, who competed in front of a sold-out loanDepot Park stadium in Miami.

Both Japan and the US have had strong performances in previous WBCs with Japan winning consecutive championships in 2006 and 2009, while the US was the 2017 champion.

With Shota Imanaga on the plate for Japan, the US got on the scoreboard first when red-hot Trea Turner blasted a homer over the left field fence in the second inning. This was Turner's third homerun in the last three games and a record-tying fifth homer in a single WBC tournament.

Munetaka Murakami answered at the bottom of the second with a homer to right-center field against US pitcher Merrill Kelly. Then Lars Nootbar helped Japan take the lead 2–1 by driving in Kazuma Okamoto with a groundout against US reliever Aaron Loup.

In the fourth inning, Japan upped its lead when Kazuma Okamoto hit a solo home run against pitcher Kyle Freeland.

The US came back in the eighth inning with slugger Kyle Schwarber crushing a Yu Darvish splitter over the right-center wall to pull the US within one run. Japan then brought in their secret weapon – superstar pitcher Shohei Ohtani – at the top of the ninth inning, hoping to defend their lead and secure the win.

The tension thickened as Ohtani walked Jeff McNeil to first base.

Next up for the US was veteran Mookie Betts, who hit a ground ball to second base, which Japan converted into a double play.

With two outs and no one on, it all came down to a battle between the two team captains, who also happen to be teammates with the Los Angeles Angels – Ohtani against Mike Trout. It was do or die for the US, and their last chance to rally and potentially have a walk-off win.

The drama heightened as it went to full-count – three balls and two strikes. Then Ohtani sealed the win with a third strike as Trout swung and missed.

Ohtani pumped his fist in jubilation, threw his glove and hat in the air, and the Japanese squad rushed the field to celebrate their momentous third WBC championship win.

This capped off an undefeated tournament for Japan, which had achieved victories over China, Korea, Czech Republic and Australia in group play, and then victories in the knock-out rounds over Italy in quarterfinal and Mexico in the semifinal.

### **MVP** awarded to Ohtani

The 28-year-old Ohtani received the tournament's MVP award, but kept the focus on the team's victory when speaking to the media after the championship game.

"I happened to be able to get the MVP," Ohtani said. "But this really proves that Japanese baseball can beat any team in the world."

> "I've seen Japan winning, and I just wanted to be part of it," he continued. "I really appreciate that I was able to have the great experience. As I say, the next generation,

> the kids who are playing baseball, I was hoping that those people would like to play baseball. That would make me happy."

"It feels like I'm living in a dream right now," said Lars Nootbar. "It's pretty unbelievable. To be able to win the third one for Japan makes it even sweeter."

"Winning today is obviously the most important," Nootbaar went on. "But the fact that we were able to go undefeated through the whole time, beat a great Mexico team yesterday, come back today and then play against, obviously, maybe the greatest lineup that's ever been assembled in baseball history makes it sweet that we did it undefeated, for sure."

US star Mike Trout, although disappointed at the defeat, poked fun at his fellow teammate Ohtani after the game.



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"That's obviously fun, obviously didn't come out the way I wanted to. You know, I think as a baseball [fan] everybody wanted to see it. He won round one," he said with a laugh.

### WBC history at a glance

The inaugural edition of the WBC was held from March 3–20, 2006 at stadiums in Tokyo, Japan; San Juan, Puerto Rico; Lake Buena Vista, Florida; Phoenix, Arizona; Scottsdale, Arizona; Anaheim, California; and San Diego, California.

Sixteen teams competed in round-robin group play, which culminated in single-elimination semifinals and the championship game. Japan battled Cuba in the final, winning 10 to 6 to become the first champion of the WBC.

In the 2009 edition, the tournament format was changed, with the same 16 teams competing in a double elimination format for the first two rounds, which was followed by a single-elimination semifinal and final.

The same eight teams from 2006 advanced to the second round, however the Netherlands were the "Cinderella" team, who were able to pull off two victories over Caribbean powerhouse the Dominican Republic. In the end, Japan was able to pull off a second straight victory, winning over Asian rival South Korea 5–3 in 10 innings of play.

In 2013, the tournament introduced a qualifying round for the first time. This led to some new teams entering the competition for the first time, including Brazil and Spain, who replaced Panama and South Africa. Italy made headlines, making it to the second round with victories over both Canada and Mexico. The tournament culminated in an all-Caribbean final with the undefeated Dominican Republic winning over Puerto Rico 3–0.

In the 2017 edition of the WBC, the tournament re-adopted the 2006 format with two series of round-robin competition, but added tiebreakers as necessary. Colombia and Israel made their debuts at the tournament, and the United States ended up with its first championship after victories over Japan and Puerto Rico in the semifinal and final, respectively.

Photos courtesy of Major League Baseball, unless otherwise credited. Sources: MLB.com and WBSC.org.

### A Venezuelan hero

Miguel Cabrera, selected to be Venezuela's captain for this year's World Baseball Classic (WBC), is a household name in Venezuela and one of the country's most famous baseball players.

> This edition of the WBC marks his fifth and last appearance representing his beloved homeland as he will soon hang up his cleats, having announced his intention to retire after a stellar career.

> > In addition to being a hero back home, Cabrera's career in Major League Baseball (MLB) is nearly unmatched. He is one of seven players in MLB history to record a stunning 3,000 hits and 500 home runs. He has been

awarded two Most Valuable Player Awards, a Triple Crown and was selected to be an MLB All-Star on 12 occasions. Cabrera is well-positioned to become only the second Venezuelan player after legend Luis Aparicio to be inducted into the prestigious Baseball Hall of Fame.

Since his debut in the MLB in 2003, he has played predominantly at first and third base but also has been a left and right fielder. He played for the Florida Marlins from 2003 until 2007 and for the Detroit Tigers from 2008 until this year.

Cabrera's is known for his team spirit, national pride and selfless attitude, which have set him apart and have helped him garner a high level of respect from his teammates and coaches. These attributes came through loud and clear in an interview he had with the *NY Times* before Venezuela's WBC game against archrival the Dominican Republic, which they won with a decisive 5–1 score.

"I'm proud every time I can represent my country," he said. "This is what I love, to play baseball, and every time I get the chance to take the field, I do it with a lot of love."

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stadium.

### El béisbol en Venezuela- una pasión nacional

Venezuela has a true passion for the sport of baseball, which was on full display at the WBC this year. The game has been cultivated over the years throughout the country and has resulted in the nation becoming a top contender in international competition.

The sport first took hold at the beginning of the 1920s, in part due to the influence of US oil companies being active in the country and its employees steadily introducing the sport to local populations.

In 1941, the sport really took off when the Baseball World Cup was hosted in Havana, and the Venezuelan national team beat host nation Cuba in the finals.

This winning squad was exalted across the country and elevated to become national heroes. Fans and members of the media were ecstatic, calling the victors "Los Héroes del '41", the heroes of '41.

Four years later, in 1945, the Venezuelan Professional Baseball League (VPBL) was created to become the nation's main baseball league.

Starting as a winter league in 1945, a summer league was later established in 1997, composed of teams affiliated with MLB clubs. More recently, in 2021, the Venezuelan Major League was established as a summer league.

As the sport steadily rose to prominence across the country, the Venezuelan national team also began to have great success on the global stage.

It has been victorious several times at the Caribbean Series, as well as at the Baseball World Cup, and at the Pan American Games in 1959. Additionally, the team finished seventh in the inaugural WBC, third at the 2009 event, tenth in 2013 and eighth in 2017.

Since 1939, more than 350 Venezuelans have played for MLB teams in the US, and an estimated 59 Venezuelans have played this elite league since 2014, making Venezuela the country with the highest representation after the Dominican Republic.

In 2004, the Luis Aparicio Award was created to honour annually the Venezuelan player with the best individual performance in the MLB as voted on by sport journalists in Venezuela.

The award's namesake, Luis Aparicio, is the only Venezuelan baseball player to be inducted into the prestigious National Baseball Hall of Fame in Cooperstown, New York.

As a testament to the rich pool of talent that can be found in Venezuela, many MLB teams have established and continue to operate training academies there.

Across the country, players compete in stadiums that attract from 12,000 to 40,000 spectators.

The capital of Caracas has two stadiums - La Rinconada, which has an estimated capacity of 40,000 and Estadio Universitario, which seats more than 20,000 people. Other stadiums are located in Ciudad Guayana, Maracaibo, Barquisimeto, Porlamar, Puerto La Cruz, Valencia and Maracay. 같



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Arts & Life

## Where East met West during the Cold War

This is the second in a series of articles looking at key moments in the history of Vienna's Hofburg. The palace will serve as the main venue for the 8<sup>th</sup> OPEC International Seminar on July 5 and 6.

Dr Adolf Schärf, Austria's President in 1961.



ienna's Hofburg Palace, known as a staging ground for diplomatic gatherings for more than 200 years, served as a backdrop for one of the most closely watched meetings of the Cold War – the summit between Soviet leader Nikita Khrushchev and US President John F. Kennedy in 1961.

The world's attention zeroed in on Vienna when the two leaders held a series of meetings on June 3 and 4

to discuss pressing geopolitical issues. With Europe divided by US and Soviet spheres of influence, a central issue was the stability of a continent still scarred by the Second World War.

While the main summit meetings took place at the US and Soviet Embassies in Vienna, the Hofburg and another imperial palace, Schönbrunn, offered elegant and spacious venues for side meetings or gala events

Nikita Khrushchev and John F. Kennedy shake hands during their meeting in Vienna, on June 3–4, 1961.





Soviet first lady Nina Khrushcheva and John F. Kennedy.



Nikita Khrushchev and US first lady Jacqueline Kennedy.

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for the two leaders and their delegations of diplomats and aides – as well as journalists, photographers and camera crews.

As the summitry began in June 1961, motorcades carrying the leaders of both the Soviet Union and the US arrived at the Hofburg for meetings with their Austrian host, President Adolf Schärf, whose official office is located within the palace complex. Its central location and huge assembly halls also made the palace an ideal setting as a media centre and press conference facility for the summit.

### Sombre mood

Despite the public smiles, handshakes and joint appearances with the US and Soviet first ladies – Jacqueline Kennedy and Nina Petrovna Khrushcheva – the mood behind the scenes was more sombre.

The initial conversations between the world's most powerful leaders were tense, and even small talk appeared to be a point of contention. White House minutes of the summit, which were declassified in 1993 and are archived at the John F. Kennedy Presidential Library and Museum, offer a glimpse of what was said behind closed doors at their first meeting.

Khrushchev noted that the two men had crossed paths during the Soviet leader's groundbreaking visit to the US in September of 1959. During his two-week US tour, the Soviet leader met the US Senate's Foreign Relations Committee of which Kennedy was a member. In the opening exchanges of the 1961 summit, Khrushchev recalled saying to the then-Massachusetts Senator that he "had heard of him as a young and promising man in politics."

Kennedy, who at 44 became the second youngest president in US history, added that he remembered the Soviet leader telling him that "he was very youthful in appearance". Referring to himself, Kennedy went on to say that he must have aged since then.

The 67-year-old Khrushchev appeared to differ with Kennedy's recollection, saying that he normally did not make remarks about age "because young people want to look older and older people like to look younger". Khrushchev added that he himself had looked younger than his age "and regarded it as offensive if someone made a mistake about his age."

The discussions as conveyed by the White House minutes then shifted to geopolitics, with the senior leader at times appearing to correct his more youthful counterpart.

Towards the end of the meeting, Kennedy expressed a desire to improve understanding between the two sides, a point that Khrushchev said he agreed with.

> According to the US records, Khrushchev said: "The purpose of this

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US President Jimmy Carter (seated I) and Soviet General Secretary Leonid Brezhnev sign the Strategic Arms Limitation Talks (SALT II) treaty, on June 18, 1979, in the Vienna Hofburg palace.

conversation was not to worsen but to improve the relations between the two countries and if President [Kennedy] and himself [Khrushchev] should succeed in doing so, the expenses incurred in connection with the meeting would be well justified. On the other hand, if they should fail, not only the expenses would not be justified, but more importantly the hopes of the people would be frustrated."

At that moment, the minutes show, the two delegations took a lunch break.

### A disappointment for Kennedy

The Vienna summit raised hopes for better relations between the two countries. However, it failed to diffuse tensions over flashpoints such as disarmament and the future of the former German capital, Berlin, which remained divided between the wartime victors. In the months following the Vienna summit, superpower relations deteriorated. The construction of the 155-km Berlin wall began in August 1961 and US-Soviet ties hit a dangerous low point during the Cuban Missile Crisis in October of 1962.

Historians have noted that Kennedy, who had been in office for less than five months when he set foot in Vienna, was unprepared for the meeting. The Soviet leader himself reportedly told an aide afterwards that the US president was inexperienced, drawing a contrast between the young Kennedy and his predecessor, Dwight D. Eisenhower, who like Khrushchev,

was a senior commander in the Second World War.

In an interview at the US Ambassador's residence in Vienna, Kennedy told New York Times journalist James Reston that the Soviet leader "savaged me". This exchange is chronicled in a collection of the journalist's papers housed at the University of Illinois at Urbana-Champaign.

Frederick Kempe, President and CEO of the Atlantic Council think-tank and author of the best-selling book *Berlin 1961: Kennedy, Khrushchev, and the Most Dangerous Place on Earth,* wrote on the 50<sup>th</sup> anniversary of the Vienna summit: "President John F. Kennedy was brutally honest about what would prove to be one of the worst performances of an American leader with his leading global counterpart of his time – his two-day summit with Soviet leader Nikita Khrushchev."

The Atlantic Council under Kempe's leadership is well known at OPEC. It organizes the annual Global

Energy Forum, which last took place on January 14–15 in Abu Dhabi. Speakers included Suhail Mohamed Al Mazrouei, the United Arab Emirates' Minister of Energy and Infrastructure and the UAE's Head of Delegation to OPEC.

### Austria's growing soft power

Despite the inconclusive summit outcomes and mounting tensions, the superpower leaders maintained regular correspondence and even exchanged gifts after their meeting in Vienna – including a puppy the Soviet leader sent to the Kennedy family.

Dr Bruno Kreisky, Austria's then-Foreign Minister (seated I) and Ashraf Lutfi, then-OPEC Secretary General, sign a Host Agreement for the OPEC Headquarters in Vienna on September 1, 1965.



For post-war Austria, the summit was a significant achievement. The country's geographic location in the heart of Europe and its post-war commitment to neutrality elevated its status as a go-to place for dialogue, diplomacy and international cooperation.

"Austria has gained a high level of trust in both capitals of the world powers," the Austrian Foreign Minister, Bruno Kreisky, told journalists at the time. "The summit thus signifies an upgrading of the concept of Austrian neutrality."

While the summit put the country on the map as a centre for multilateralism, the Hofburg itself became a stage for many high-profile Cold War-era meetings and visits. Eighteen years after the Kennedy-Khrushchev summit, their successors Jimmy Carter and Leonid Brezhnev met at the palace to the sign the second Strategic Arms Limitation Treaty (SALT II).

During the period of superpower détente in the 1970s, the Conference on Security and Co-operation in Europe (CSCE) was established to foster dialogue between East and West. As the Cold War divisions faded in the 1990s, the group became the Organization for Security and Cooperation in Europe (OSCE), and its decision-making body, the Permanent Council, moved to the Hofburg where it remains today.

### **OPEC in Vienna**

Bruno Kreisky was instrumental in building Austria's reputation for multilateralism and laying the groundwork for Vienna's role as the home to more than 40 United Nations and other international institutions.

### **About the Hofburg Palace**

The Hofburg Palace on Vienna's Ringstraße has provided a backdrop for many high-profile diplomatic gatherings over more than two centuries, starting with the Congress of Vienna in 1814–15. The Congress marked a pivotal moment in the history of diplomacy and inter-state cooperation.

Dating to the 13<sup>th</sup> century, the former imperial palace has many different functions today. Palace annexes contain the National Library; the main assembly hall, the Redoutensaal, the main venue for the OPEC International Seminar and other meetings; numerous exhibits; and the palace's 18<sup>th</sup>-century State Hall houses more than 200,000 books. The adjoining squares and gardens make the Hofburg one of the Austrian capital's most popular sites for visitors.



OPEC was among the first. In September 1965, Ashraf Lutfi, then-OPEC Secretary General, joined Kreisky in signing an agreement making Vienna the Organization's host city. Founded five years earlier in Baghdad and at the time based in Geneva, OPEC has called Vienna home ever since. Events like the 8<sup>th</sup> OPEC International Seminar, which has taken place at the Hofburg since 2006, demonstrate how the relationship has grown and strengthened over the years. International flags on display at the at the Hofburg in Vienna.

Lithograph depicting Austria's Emperor Franz I. welcoming Emperor Alexander I. of Russia and King Friedrich Wilhelm III. of Prussia, who traveled from afar to partake in the first Vienna Congress in 1814.



The Redoutensaal was converted into a legislative chamber while the nearby Austrian Parliament underwent renovations from 2017 until early 2023. The assembly hall accommodates thousands of dancers at Vienna's iconic balls, including those dedicated to confectioners, coffee makers and physicians.

Heavily damaged at the end of the Second World War, the palace was restored to its earlier glory. Decades later, the vast Redoutensaal, or redoubt hall, and adjoining rooms suffered a devastating fire in 1992 that led to a major reconstruction and renovation in the 1990s [*see OPEC Bulletin 2023/01*].



## The cultural

Since 2016. Oman has been an extremely valuable partner in the landmark OPECnon-OPEC Declaration and Charter of Cooperation, providing its full support to the group's dedicated efforts to provide a lasting stability in the global oil market. In addition to its significant role as an energy producer, the Ra's al Hadd Sultanate is known for its rich history and cultural heritage. The Al Ashkharah OPEC Bulletin's Scott Laury takes this opportunity to share with our readers some of the cultural highlights found in the country, as well as a look at its rich history, traditions and customs.

> man is located in the Middle East, neighbored by OPEC Members Saudi Arabia to the west and the United Arab Emirates to the northwest, while Yemen lies to the southwest.

> The country has an arid desert climate and a diverse geographical footprint, ranging from sprawling sand dunes in the interior to the more lush northern coastal areas, which are located dramatically between the sea and mountains.

> The coastal regions are more verdant and fertile, allowing for the production of a wide variety of



View of Oman's captial city, Muscat, located between mountains and the sea.

## splendors of Oman

agricultural products. The capital, Muscat, is located on the northern coast and is a mix between traditional and modernist architecture. The centre city is scenically located on the pristine Gulf of Oman.

The coastal areas are also known for their pristine beaches that offer a variety of water sports and snorkeling.

The country has a population of just over 5.4 million people, 1.6 million of whom live in the capital city, which serves as the country's principal port and commercial centre.

The current head of state and government is monarch Sultan Haitham bin Tariq Al Said who oversees the affairs of the Sultanate through two advisory bodies and a Council of Ministers.

In terms of the economy, Oman is predominantly a rural, agricultural country, with the majority of the trade and fishing activities taking place along the coastal centres.

### The advent of oil and gas

Oil was discovered in the country during 1964 and was first exported three years later, evolving to become a key pillar of its economy. Today, oil revenues make up approximately two-fifths of the country's gross domestic product and roughly three-fourths of the government's revenue.

Since 1996, the Omani government has also sought to develop the country's natural gas resources to help fuel its national industries, while also ramping up liquefied natural gas exports abroad. Oman also continues to prioritize efforts to both privatize and diversify its economy while enhancing opportunities for the local workforce. These efforts have been supported by the country's fellow member states in the Gulf Cooperation Council and have included selling some government-owned companies, facilitating foreign investment opportunities and expanding the stock market.

Mutrah Corniche in Muscat, Oman



A shop in the Muttrah souk of Muscat.

The kuma and massar, two forms of headdress, are both important elements of Omani men's national dress.

### A long and rich history

Dating back roughly 100,000 years, Oman is one of the oldest independent states in the region. By the 18<sup>th</sup> century, the Omani Empire was at its apex, stretching from present day Oman down to the east coast of Africa.

> Its geographic location has made Oman a strategic place to be for centuries, and the country was thus occupied in various eras by the Assyrians, Babylonians, Persians, and more recently by the Portuguese and the Ottomans.

In 1798, Oman signed a "Treaty of Friendship" with Great Britain, which ensured the Sultan's rule. However, in 1856, a succession occurred which divided the Empire of Oman into the Sultanate of Oman and Muscat, and the Sultanate of Zanzibar.

In 1891, Oman and Muscat became a British Protectorate. A Treaty of Friendship, Commerce and Navigation was signed in 1951, stipulating Oman's independence from Britain.

In July of 1970, Sultan Qaboos ascended to the throne and since then, Oman, through the

exploitation of its precious resources and intensified efforts to increase trade activities, has modernized to become a prosperous nation. This, in turn, has resulted in a noticeable improvement in the citizens' quality of life.

In 1970, the Sultan officially changed the name of the country from the Sultanate of Muscat and Oman to simply Oman.

In 1996, Sultan Qaboos signed into force Oman's first written constitution, called the 'Basic Statutes of the States', which is designed to protect citizens' rights under Qur'anic and customary law.

### **Tradition lives on**

While Oman has been a clear success story in terms of the nation's development and modernization, it has gone to great lengths to preserve its cultural traditions and customs to this day.

Both men and women still wear traditional attire, which often features brightly coloured fabrics, elaborately patterned designs and spectacular jewelry.

Meals continue to play a key role in the life and unity of Omani families, and social gatherings are of great importance in the wider society. The culinary tradition in Oman is influenced by many different parts

Sultan of Oman, Haitham bin Tariq Al Said.



Slow cooked Omani lamb shuwa coated in spices and wrapped in banana leaves.

of the world due to the Sultanate's history as a major trading hub.

A typical meal would feature rice, fresh fish, chicken or lamb, dates and tea or coffee. Traditional cooking also features a rich mixture of spices, herbs and marinades.

One of the principal dishes of Oman is called Shuwa, which is considered by some to be the national dish of the Sultanate. It is often served for special occasions such as weddings or for the Eid holidays.

The dish involves an elaborate preparation in which meats, including beef, lamb, goat or even camel are marinated in oil and spices (e.g. coriander, cardamom, hot chilies, cloves, black pepper and cumin), then wrapped in banana leaves, placed in a bag made of woven palm branches, and then cooked in an underground pit over hot embers for at least 24 hours.

As most people do not have their own Shuwa pit, the dish is often prepared as part of a wider community event. When the dish is ready, the cooked meat is raised from the pit and customarily served on a huge platter of rice to be shared among all those attending the celebration.

As far as desserts are concerned, many consider halwa to be the national dessert of Oman. Variations of this dessert can also be found in other parts of the Middle East and the Mediterranean. Translated from Arabic as "sweet", the main ingredients include sesame seed and/or other nuts, eggs, cardamom, rose water and in some recipes saffron.

Another custom of note in Oman is that often after the conclusion of a meal, incense is burned, most probably frankincense, which originated in Oman.

### **Arts and crafts**

Arts and handcrafts are an important element in Omani society. The country is known for its expertise in jewelry production (silver and gold), weaving, woodcarving as well as production of ornate swords and daggers.

These handmade artisan goods and relics are bought and sold in Oman's many markets, or souks, which are a magnet attracting bustling throngs of locals and tourists alike.

These markets, of course, also offer a wide array of local produce, spices, meat, fish and other food items, as well as locally made clothing, cookware and home products. Omani variation of the dessert halwa, served in a rectangular dish.

Arts & Life



Facade of the Royal Opera House in Muscat.

### **Cultural institutions**

In terms of culture, Oman has much to offer, including a wide variety of museums.

These include: the Royal Opera House; the Oman Museum, which chronicles the nation's history; the Armed Forces Museum; the National Museum; the Natural History Museum; the Children's Museum; and the Bait Nadir, which is a converted 18<sup>th</sup> century residence that now houses Omani art and traditional items, including jewelry, silverware, pottery and woodcarvings.

Towards the end of the 1980s, the Royal Oman Symphony Orchestra was founded. It is considered one of the few national orchestras in the Middle East. It has had the opportunity to perform with the BBC Philharmonic Orchestra.

### **Sports and recreation**

Three of the traditional sports in Oman are dhow (traditional boats) and camel racing, as well as falconry. Some of the more modern sporting activities that are popular include soccer, rugby, golfing, sand surfing and waterskiing.

Oman made its debut on the world stage, competing in its first Olympics during the 1984 Summer Games in Los Angeles. Oman has also sent athletes to participate in the quadrennial Asian Games.

There are also many recreational pursuits available to outdoorsmen and women, including caving, rock climbing, camping, biking, paragliding and camel riding, just to name a few.

### **World Heritage Sites**

In terms of cultural heritage, Oman has a very rich offering. In fact, the United Nations Educational, Scientific and Cultural Organization (UNESCO) has recognized five sites in Oman, which have been designated as World Heritage Sites. This is exceptional for a country its size.

#### **Bahla Fort**

The country's first World Heritage Site to be designated by UNESCO was the Bahla Fort, which was inscribed in 1987.

Located within an oasis replete with palm trees, the immense fort complex comprises walls and towers made of a traditional mud brick construction built upon a stone foundation. An adjacent mosque with an ornate prayer niche (*mihrab*) is integrated into the fort's structure.

The Bahla Fort was Oman's first UNESCO World Heritage Site, inscribed in 1987.





The fort was established by the influential Banu Nebhan tribe, which was dominant in the area from the 12<sup>th</sup> century to the end of the 15<sup>th</sup> century and made Bahla their hub.

At the top of the fort's walls were sentry walkways and watchtowers that allowed for watchmen to ensure that potential, encroaching enemy tribes would not go un-noticed. Between the settlement's mud brick dwellings, there were several arched gateways.

The surrounding oasis was irrigated by the falaj system of wells and underground pipes that transported water from distant springs through the seasonal flow of water. This feat of ancient irrigation techniques was a clear sign of the ingenuity and advanced engineering skills of the settlement's early inhabitants.

The fort complex also contains the remains of what was a souk, an audience hall (*sabla*), a bathhouse and the remnants of decoratively carved wooden doors, window screens and shelves, which were an indication of the high quality of local artistry and craftsmanship.

### Archaeological Sites of Bat, Al-Khutm and Al-Ayn

In 1988, the three archaeological sites of Bat, Al-Khutum and Al-Ayn were designated World Heritage Sites.

The ancient archaeological site of Bat is considered to be protohistoric, which denotes a cultural period that is immediately before its recorded history starts.

This site is located in the interior of Oman and, combined with the neighbouring sites of Al-Khutum and Al-Ayn, it represents, according to UNESCO, the world's most complete collection of settlements and necropolises dating all the way back to the 3<sup>rd</sup> millennium BC.

The main site is located within the modern town of Bat, which lies approximately 24 kilometres east of the city of Ibri, in the northwestern Al-Dhahira Governorate.

Just two kilometres to the west of Bat are seven monumental stone towers, one of which is located in Al-Khutum. These towers contain a circular outer wall measuring about 20–25m in diameter, and have two rows of parallel compartments on either side of a central well.

The oldest tower at the site is the mud-brick structure dating back to the Hafit period, while the latest known structure is most likely the Kasr al-Rojoom tower, which dates back to the Umm an-Nar period.

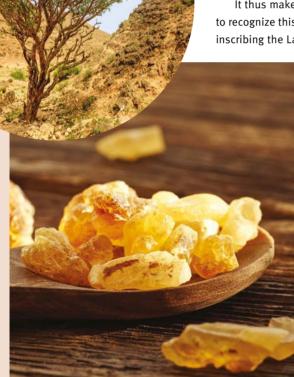
The towers are made of blocks of local limestone cemented in place with traditional, simple mud mortar. While it is still unknown exactly what their function was, it appears that they may have been used as platforms on which superstructures were built, perhaps houses, temples or some other type of structure.

Bat is also known for its vast necropolis, which includes a variety of monumental tombs that can be classified in two different categories. The first is from the Hafit-period consisting of so-called "beehive" tombs, which are found at the top of rocky slopes surrounding the

5000-year-old stone 'beehive' tombs at the UNESCO World Heritage Site of Bat in Oman.

Gardens and small cultivated fields are suspended over the cliff in the village of Al Ayn on the Jebel Akhdar mountains. Arts & Life

Frankincense tree growing in a desert near Salalah, Oman.



Frankincense resin on a wooden spoon.

town. The second group is located beside a river and comprises more than a hundred dry-stone cairn tombs.

Another grouping of "beehive" tombs is located at Al-Ayn, which is approximately 22 kilometres southeast of Bat. These dry masonry tombs date back to the beginning of the 3<sup>rd</sup> millennium BCE and are single-chambered, small and round in shape.

Bat, Al-Ayn and Al-Khutum are highly unique displays of typical Bronze Age stone-masonry workshops, Bronze Age necropolises, Iron Age forts, Iron Age tombs and neolithic flint mines. Together, they serve as a testament to the high level of craftsmanship and engineering skill of the ancient tribes who inhabited the region.

### Land of Frankincense

Frankincense and Oman are nearly synonymous. This is because the Sultanate is home to the fragrant frankincense tree, known as *boswellia sacra* in latin.

It thus makes perfect sense that UNESCO decided to recognize this aspect of Oman's cultural heritage by inscribing the Land of Frankincense site into its list of

World Heritage Sites in the year 2000.

The site is located in the southern Governate of Dhofar and includes a large plantation of frankincense trees at Wadi Dawkah, as well as the strategic trading ports at Khor Rori and Al-Baleed and the remnants of the caravan oasis of Shisr/Wubar.

These three key pillars of the site weave together Oman's rich history in frankincense cultivation and trade, which flourished in the region and globally for centuries and represented one of Oman's most precious natural treasures.

Frankincense has been traded in Oman going back as far as an estimated 5,000 years and was also traded from countries located

on the Horn of Africa during the times of the Silk Road trading.

Frankincense was first introduced into Europe by Frankish Crusaders and other European groups as they travelled to the eastern regions of the Roman Empire, where it was routinely used as part of religious rituals.

### Aflaj Irrigation System of Oman

This highly regarded and innovative irrigation system dating back to antiquity received World Heritage Site status in 2006.

The property comprises five *aflaj* irrigation systems and is representative of approximately 3,000 similar systems that are still operating in Oman.

These five sites are found at Falaj Al Jeela, Falaj Muyasser, Falaj Daris, Falaj Malki and Falaj Khatmein, all of which are located in the northern part of Oman.

Four of the sites are clustered around the Al Jabal-Al Akhdar mountain range, and the fifth is located in the Sharqi range.

This ancient system of irrigation dates back to roughly AD 500, but archaeological evidence suggests that irrigation systems may have existed in this highly arid part of the world as early as 2500 BC.

Using the forces of gravity, water is transported from underground springs to help irrigate the land for agriculture and domestic use.

Numerous watchtowers were built to defend these precious water systems, which is a clear indication as to how vital water was to the effective functioning and even survival of these communities.

Oman has made significant economic and technological progress on irrigation over the last decades, but it continues to rely on its trustworthy *aflaj* irrigation systems, which still provide roughly 30–50% of all water used by Omanis today.



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This World Heritage Site is an historical example of how a country like Oman, which is located in the desert, can successfully ensure that water is amply supplied for irrigation purposes and to ensure its population has sufficient drinking water.

### **Ancient City of Qalhat**

The most recent of Oman's World Heritage Sites, designated by UNESCO in 2018, is the Ancient City of Qalhat, which is located on the eastern coast of the Sultanate.

In ancient times, between the 11<sup>th</sup> and 16<sup>th</sup> centuries CE, this city played a prominent role in the region as a major port and trading centre.

Qalhat's strategic location made it a hub for the trade of goods between Oman and East Africa, India, China and Southeast Asia. Oman's principal exports at that time included horses, dates, incense, spices and pearls.

The UNESCO site encompasses the entire ancient city, which is surrounded by a walled perimeter spanning more than 35 hectares, as well as areas outside the walls where ruins of ancient necropolises can be found.

The traditional architecture, monuments and remaining archaeological sites provide a unique snapshot of a typical port city during the ancient rein of the Kingdom of Hormuz.

During the 16<sup>th</sup> century, the Portuguese attacked the city, which was subsequently abandoned until eventually being preserved as an archaeological site.





Mausoleum of Bibi Miriam, located in Qalhat.

These are but a selected few of the impressive array of cultural treasures that can be found throughout the Sultanate. For more information, visit the country's official tourism website at www.experienceoman.om

### **Oman today**

Oman today is an inviting mix of new and old, of modern and traditional. The Sultanate's stunning natural beauty offers a unique mix of desert, gulf and mountain scenery, which together provide a dramatic backdrop to its rich tradition of welcoming hospitality.

Omanis have perfected the art of embracing the future while revering the past. And this makes for an extremely interesting place to visit.

The Sultanate's tourism website sums it up well:

"Oman's culture is deeply rooted in the Sultanate's proud heritage and history of seafaring, trading and exploration. Today, long-standing traditions blend seamlessly with modern day living, with the latest fashion and electronics brands sold alongside traditional hand-made crafts, jewelry and even goats and cattle at souks around the country."

And indeed, the world continues to increasingly take notice of this hidden jewel, which is seeing rising numbers of tourists discover its many cultural, historical, geographical and recreational offerings.

All pictures are courtesy of Shutterstock.

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## Nigeria elects new president

Nigeria's electoral commission declared Bola Tinubu, the ruling party candidate, the winner of presidential elections held on February 25, 2023.

The 70 year-old veteran politician received 37 per cent of the vote, according to the official results

> while his main rival, Atiku Abubakar was reported to have received 29 per cent and Peter Obi of the Labour Party polled at 25 per cent.

Both of the main opposition candidates, however, have expressed their intent to challenge the results.

Tinubu is a former governor of Lagos State and is known for his efforts in

rebuilding the country's biggest city of Lagos during his tenure as governor from 2000 to 2007.

He campaigned under the slogan "Emi lo kan," which in his native Yoruban means "It's my turn".

According to official results, voter turnout was 27 per cent, one of the lowest since the end of military rule in 1999.

Tinubu has previous experience in the oil sector, having worked in finance for Mobil Producing Nigeria during the 1990s. His nephew Wale Tinubu runs Oando, which has been transformed from a minor oil trading company into an integrated producer of oil and gas. The company has gone on to purchase government oil and gas assets in Unipetrol, Agip Nigeria and Gaslink Nigeria.

The president-elect is known to be pro-business and supportive of privatization.

President Muhammadu Buhari has stepped down 뽍 after two terms in office.



Bola Tinubu, Nigeria's new president, during the Presidential campaign in Lagos, Nigeria.



## **UAE President names son Crown Prince of Abu Dhabi**

On March 29, Sheikh Mohammed bin Zayed on Wednesday named his son Sheikh Khaled bin Mohammed as Crown Prince of Abu Dhabi, while

appointing three of his brothers to key government positions.

Sheikh Mohammed became Abu Dhabi's leaders last May after serving 18 years as Crown Prince.

"Sheikh Mohammed bin Zayed had been preparing his son Khaled for greater responsibilities for some time already," said Cinzia Bianco, research fellow on Europe and the Gulf at the European Council on Foreign Relations, in an article published by Energy Intelligence.

In the other appointments, one full brother, Sheikh Mansour bin Zayed al-Nahyan, was appointed as Vice President of the UAE and two other full brothers – Sheikh Tahnoon and Sheikh Hazza – were named as deputy rulers of Abu Dhabi.

"It is interesting that Sheikh Mohammed also made it a point to simultaneously increase the responsibilities and power of his full brothers, who have supported him in the management of power for years," Bianco said. "It is clear that Sheikh Mohammed wants to keep and strengthen the unity around the Al-Nahyan clan."

It is customary in the Gulf region that the line of royal succession be passed from the founding leader to the eldest son and then from brother to brother. To date, this protocol has been honoured in Abu Dhabi, moving through the sons of Sheikh Zayed, who founded the UAE 쁥 in 1971 and passed away in 2004.



## ADNOC sells five per cent stake in gas business amid huge interest



The Abu Dhabi National Oil Company (ADNOC) raised \$2.5 billion through the sale of a five per cent stake in its gas business amid "unprecedented demand" for shares, the company announced on March 3.

ADNOC had boosted its initial offer from four to five per cent of the company's total issued share capital – equivalent to about 3.84 billion ordinary shares – to address robust interest in the initial public offering (IPO). The final offer price was set at 2.37 dirham (65¢) per share, or an initial market capitalization of 182 billion dirham (\$50 billion), while the order book topped \$124 billion.

"This truly historic listing is the fifth company ADNOC has successfully brought to market in as many years," said Khaled Al Zaabi, Group Chief Financial Officer of ADNOC. He added that the firm was "delighted with the unprecedented demand for ADNOC Gas shares from the UAE retail investors as well as the local and global institutional investor community." Trading of ADNOC Gas shares began two weeks later on the Abu Dhabi Securities Exchange (ADX). ADNOC will continue to own a 90 per cent stake in the company. Cornerstone investors are the Abu Dhabi Pension Fund, Alpha Wave Ventures II LP, IHC Capital Holding LLC, OneIM Fund I LP and entities of the ADQ holding company and the Emirates Investment Authority.

ADNOC's previous IPOs involved ADNOC Distribution and ADNOC Drilling, along with two joint venture companies, Fertiglobe and Borouge. The ADNOC Gas IPO marked the largest listing to date on the ADX.

ADNOC Gas was created through the consolidation ADNOC Gas Processing, ADNOC LNG and ADNOC Industrial Gas. Operational since the beginning of 2023, the consolidated company oversees operations, maintenance and marketing of the downstream gas processing, liquefied natural gas and industrial gases operations.



## Saudi Arabian companies to invest \$51 billion under government-backed plan

Saudi state news agency SPA reported on March 2, 2023 that a government-backed initiative will spearhead the investment of 192 billion riyals (\$51.2 billion) geared to helping diversity the Kingdom's economy.

The projects are part of a 5-trillion-riyal investment initiative called Shareek, which was announced by Saudi Crown Prince Mohammed bin Salman in 2021 as part of the Kingdom's effort to bolster the private sector and diversify its economy.

The first series of projects approved under the plan include five investments by Aramco in petrochemicals, cloud computing and ship engines, SPA reported, citing a statement from Abdulaziz Al-Arifi, the chief executive of Shareek.

ACWA Power will receive funding to construct the world's largest green hydrogen plant, while Ma'aden will receive support to boost production of phosphate fertilizers and SABIC will establish the kingdom's first catalyst manufacturing hub, according to SPA. The Shareek initiative will also enable investments in the telecommunications and logistics sectors.

Shareek is part of the previously announced 12 trillion riyal investment package, which the Kingdom is planning to carry out by 2030, which also includes three trillion riyals from the Public Investment Fund (PIF) and 2 trillion in foreign investment.

To support these efforts, the Saudi Government continues to encourage international companies to invest in Saudi Arabia and even move their regional headquarters to Riyadh.



## Aramco announces major investments in Chinese refinery, petchem sector

Saudi Aramco and its Chinese partners plan to break ground later this year on a new integrated refinery and petrochemical complex to help address China's growing fuel and chemicals demand.

The joint-venture project is expected to produce 300,000 barrels per day (b/d) of refined fuels, while its petrochemical operations would have an annual capacity of 1.65 million metric tonnes (mmt) of ethylene and 2 mmt of paraxylene.

The project marked "a major milestone in our ongoing downstream expansion strategy in China and the wider region, which is an increasingly significant driver of global petrochemical demand," Mohammed Y. Al Qahtani, Aramco's Executive Vice President of Downstream, said in announcing the plans on March 26.

The project will be developed by Huajin Aramco Petrochemical Company (HAPCO), a joint venture



involving Saudi Aramco and two Chinese partners, the NORINCO Group and Panjin Xincheng Industrial Group. HAPCO holds a 30 per cent stake in the venture, while NORINCO and Panjin Xincheng will have a 51 per cent and 19 per cent share, respectively.

The refinery-petrochemical complex in the northeast Chinese city of Panjin will cost an estimated at 83.7 billion yuan (\$12.2 billion), according to Panjin Xincheng. It is expected to be completed in 2026.

As part of the deal, Aramco will also supply 210,000 b/d of crude feedstock.

Zou Wenchao, NORINCO Group Deputy General Manager, said the Panjin complex would help China's oil and petrochemical sector "to become stronger, better and larger. It will play an important role in deepening economic and trade cooperation between China and Saudi Arabia, and achieving common development and prosperity," he added.

Panjin Xincheng's Chairman of the Board, Jia Fei, said the project was important for Paniin "as it seeks to accelerate the development of an important national petrochemical and fine chemical industry base."

In a related development, Aramco announced on March 27 that its subsidiary, Aramco Overseas Co., would acquire a ten per cent stake in China's Rongsheng Petrochemical Co. Ltd. The deal includes a long-term supply arrangement whereby Aramco will provide 480,000 b/d to a Rongsheng affiliate, Zhejiang Petroleum and Chemical (ZPC) Co. Ltd.

ZPC operates the largest integrated refining and chemicals complex in China, according to Aramco. It can process 800,000 b/d of crude oil and produce 4.2 mmt of ethylene annually.

"This announcement demonstrates Aramco's longterm commitment to China and belief in the fundamentals of the Chinese petrochemicals sector," Al Qahtani said of the Rongsheng investment, which was valued at 24.6 billion yuan (\$3.6 billion). "It is an important acquisition for Aramco in a key market, supporting our growth ambitions and advancing our liquids to chemi-ഃ cals strategy."

### Iraq appoints new head of Somo





On 9 March 2023, Iraq appointed Ammar Abdal Hassan Al-Anbagi as the new head of Somo, the country's state oil marketing company. Al-Anbagi will replace Alaa K. Alyasri, who has run the company since 2018. The appointment comes after the formation of Iraq's new government in October of 2022, at which time HE Hayan Abdulghani Abdulzahra Alsawad was appointed as Deputy Prime Minister for Energy Affairs, Minister of Oil and Head of Iraq's Delegation to OPEC.

Al-Anbagi has worked at Somo for over 20 years and previous to that oversaw its products shipping department.

Al-Anbagi replaces Alyasri as Iraq's OPEC Governor, which has been the custom for previous holders of the Somo leadership post.

### Air travel remains on a steady recovery course

Global passenger air travel has continued to stage a comeback from the unprecedented plunge in 2020, climbing by an overall 67 per cent in January 2023, compared to a year earlier, the latest industry data shows.

For the first month of the year, international travel surged by 104.0 per cent year-on-year (y-o-y) and domestic traffic was up 32.7 per cent. In December 2022, overall demand jumped by 64.4 per cent y-o-y, also on the back of robust global travel.

Willie Walsh, Director General of the International Air Transport Association (IATA), said the results signalled that demand "is off to a very healthy start in 2023."

"The rapid removal of COVID-19 restrictions for Chinese domestic and international travel bodes well for the continued strong industry recovery from the pandemic throughout the year," Walsh said in a statement on March 7.

IATA measures demand based on revenue passenger kilometres (RPKs).Three regions in particular – the Asia Pacific, Africa and Middle East – experienced a surge in demand three years after the onset of COVID-19. January y-o-y RPKs in these regions grew



respectively by 114.9 per cent, 113.8 per cent and 91.1 per cent.

January's IATA figures show that air travel reached 84.2 per cent of the January 2019 levels. Domestic demand was taxiing towards a full recovery, reaching 97.4 per cent of the same month in 2019, while international RPKs were at 77 per cent.

In contrast to the passenger segment, IATA said demand for air cargo fell by 14.9 per cent y-o-y in the first month of 2023, with declines seen in all regions other than Latin America. The sector soared during the pandemic as companies scrambled to keep global supply chains moving.

Airlines carried a record 4.5 billion passengers in 2019, according to data from the International Civil Aviation Organization (ICAO), a specialized United Nations agency. But COVID-19 lockdowns precipitated an historic decline, with ICAO data showing the number of air passengers falling by 60 per cent globally in 2020 and 49 per cent decline in 2021, both compared to 2019 results. For 2022, passenger traffic rose by an estimated 47 per cent from a year earlier – reaching around 74 per cent of pre-pandemic levels.

The aviation industry rebound since 2020 has benefited the oil market's own recovery. According to the March edition of the OPEC *Monthly Oil Market Report*, y-o-y demand for jet/kerosene jumped by 38.6 per cent in China, 17.3 per cent in India and by 11.3 per cent in Europe's four biggest markets in December 2022.

Over the long term, demand for jet/kerosene is seen rising steadily, from around 6.2 million barrels per day (mb/d) in 2021 to 10.1 mb/d by 2045, data from OPEC's 2022 *World Oil Outlook* shows.

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## Visits to the Secretariat



March 13

Students from the CIROS Student Association, Den Haag, Netherlands.



Officers from the German Air Force Academy, Faßberg, Germany.

OPEC |

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



April 18

Students from Polytechnische Schule Groß-Enzersdorf, Lower Austria.



### In the Field

The Sustainable Development Goals have long guided the OPEC Fund as it works to meet essential needs – such as food, energy, infrastructure, clean water and sanitation, healthcare, employment and education – in low- and middle-income countries.

By providing affordable development finance to countries and regions that often find it challenging to secure funding, we are helping to solve development issues in a market-supportive manner, while promoting cooperation with and among the more vulnerable parts of our world. Here, we showcase the **OPEC Fund's** recent investments in the Dominican Republic.







## How the OPEC Fund is helping farmers in Latin America to boost sustainable agriculture



The region has the potential to make a sizeable contribution to alleviate the current food supply crisis. By **Axel Reiserer**, OPEC Fund

The world is urgently looking for ways to defuse the current food supply disruptions. Latin America and the Caribbean could hold at least one of the keys: According to the UN Food and Agriculture Organization (FAO), the region produces enough food to feed 1.3 billion people – twice the size of its population. Growing attention is paid to sustainable agriculture and the OPEC Fund is at the forefront of supporting these efforts.

One example is an eco-friendly palm oil plantation in the Dominican Republic. Located in Bayaguana, a municipality in the Monte Plata province, the site is owned by De Plata, a local company founded by migrants in 2014. The development benefitted from a US\$25 million loan the OPEC Fund provided to the Latin American Agribusiness Development Corporation (LAAD) in 2019 for on-lending to local enterprises.

On a recent mission, OPEC Fund Private Sector Acting Senior Investment Manager Luiscela Moreno was able to see the project in operation. "Despite the fact that agriculture is the fourth largest economic sector in the Dominican Republic it is underserved and lacking access to financial resources and technology," she reports. "The mobilization of private sector funds is key to sustainable production and agricultural exports. LAAD has contributed to create opportunities for rural people through a dedicated financing window. It is rewarding to see the outcome and benefits of the OPEC Fund's activities." The farm in Bayaguana has over 700 hectares, 80 per cent of which are in active production. The plantation is located in an impoverished rural area inhabited by many migrants, especially from neighboring Haiti. De Palma has created 40 permanent positions and about 80 non-skilled jobs on a regular basis for fruit collection. The plantation adds significant value as its products reduce the country's reliance on imported palm oil, 80 per cent of which stems from abroad.

An edible vegetable oil that comes from the fruit of oil palm trees, palm oil is extremely versatile and has numerous properties and functions that make it so widely used. Palm oil is used as a cooking oil in many Asian and African countries and could serve as an alternative to sunflower oil, the global supply of which has been severely disrupted by the invasion of Ukraine.

Despite its many attractive features largescale production of palm oil has come under serious criticism as a major driver of deforestation and the destruction of habitat of already endangered species. De Palma is addressing these issues head-on. Javier Urdaneta, the owner and general manager, has implemented environmentally friendly practices such as a ban on pesticides, the reuse of waste and the use of organic fertilizers. Deforestation is kept to a minimum and restricted to limited areas.

De Palma is using the OPEC Fund financing to expand sustainable practices in the plantation's business activities. Everything can be "The mobilization of private sector funds is key to sustainable production and agricultural exports."

– Luiscela Moreno, OPEC Fund, Acting Senior Investment Manager, Private Sector and Trade Finance Operations

utilized from fruit to palm oil, as well as the residuals of processing, which are used for animal feed. This circular economy approach creates new revenue streams. For recognition of its commitment and achievements the company has applied for certification from the "Roundtable on Sustainable Palm Oil", a global, not-for-profit organization bringing together stakeholders.

Building on the successful development of De Palma, LAAD recently provided a new loan to the company for the construction of an oil extraction plant, which is expected to become operational in the second quarter of 2023. The plant is designed to power the entire operation with any surplus injected into the national grid.

Latin America and the Caribbean has traditionally been a priority region for the OPEC Fund and commitments exceed US\$3.5 billion to date, with around ten per cent of loans and 25 per cent of grants supporting sustainable agriculture. According to FAO, the agri-food sector generates between nine and 35 per cent of GDP in the countries of the region and represents 25 per cent of exports.

#### **Forthcoming events**

**9<sup>th</sup> Mozambique mining, energy conference and exhibition, April 26–27, 2023,** Maputo, Mozambique. Details: AME Trade Ltd – Africa and Middle East Trade Ltd, Unit 408, United House, 39–41 North Rd, London N7 9DP, UK. Tel: +44 207 70 04 949; fax: +44 207 68 13 120; e-mail: trade@ametrade.org; website: https://ametrade.org/events/#latest-event\_mmec-2023.

**Oil and gas conference 2023, April 27–28, 2023,** Vienna, Austria. Details: Balkan and Black Sea Petroleum Association, 2 Hristo Belchev str., Sofia 1000, Bulgaria. Tel: +35 988 766 5119; e-mail: bbspetroleum@bbspetroleum.com; website: www.bbspetroleum.com/oil-and-gas-conference-2022.

**Offshore technology conference, May 1–4, 2023,** Houston, TX, US. Details: Offshore Technology Conference, 10777 Westheimer Road, Suite 1075, Houston, TX 77042, USA. Tel: +1 972 95 29 494; fax: +1 713 77 94 216; e-mail: meetingsotc@otcnet.org; website: https://2023.otcnet.org/welcome.

**Petroleum safety conference, May 2–4, 2023,** Banff, Canada. Details: Energy Safety Canada, Tel: +1 403 51 68 000; fax: +1 403 51 68 166; e-mail: customerService@EnergySafety-Canada.com; website: www.energysafetycanada.com/News-Events/Petroleum-Conference.

10<sup>th</sup> East African petroleum conference and exhibition, May 9–11, 2023, Kampala, Uganda. Details: website: www. eapce23.eac.int.

Asia-Pacific energy summit, May 9–11, 2023, Jakarta, Indonesia. Details: dmg :: events, 6<sup>th</sup> floor, Northcliffe House, 2 Derry Street, London W8 5TT, UK. Tel: +44 204 566 87 10; e-mail: info@worldlngasia.com; website:www.worldlngasia.com.

**Canada gas and LNG exhibition and conference, May 9–11, 2023,** Vancouver, Canada. Details: dmg :: events, 6<sup>th</sup> floor, Northcliffe House, 2 Derry Street, London W8 5TT, UK. Tel: +44 20 36 15 28 73: fax: +44 20 36 15 06 79; e-mail: conferencemarketing@dmgevents.com; website: www.canadagaslng.com.

International scientific and expert meeting of gas professionals, May 10–12, 2023, Opatija, Croatia. Details: Croatian Gas Association, Croatian Gas Centre ltd., Ulica Vjekoslava Heinzela 9/2, 10000 Zagreb, Croatia. Tel: +385 1 61 89-590; e-mail: hsup@ hsup.hr; website: https://susret.hsup.hr/en. **9**<sup>th</sup> **International conference on renewable energy gas technology, May 15–16, 2023,** Online. Details: Renewable Energy Technology International AB, Skarpskyttevägen 10 DSE-226 42 Lund, Sweden. Tel: +46 72 318 25 82; e-mail: info @ renewtec.se; website: https://regatec.org.

Africa energies summit, May 16–18, 2023, London, UK. Details: Frontier Communications Limited; Tel: +44 208 19 47 051; e-mail: info@frontierenergy.network; website: www.africaenergiessummit.com.

Middle East technology forum for refining and petrochemicals, May 16–18, 2023, Dubai, UAE. Details: Euro Petroleum Consultants Ltd, 44 Oxford Drive, Bermondsey Street, London SE1 2FB, UK. Tel. +44 207 35 78 394; fax. +44 207 35 78 395; e-mail: enquiries@europetro.com; website: https://europetro.com/metech.

27<sup>th</sup> Iran international oil, gas, refining and petrochemical exhibition, May 17–20, 2023, Tehran, IR Iran. Details: National Iranian Oil Company (NIOC), No 214, Khorramshahr Ave., Tehran, IR Iran. Tel: +98 21 88 51 81 71-88 51 11 00; fax: +98 87 88 51 81 71; e-mail: info@iran-oilshow.ir; website: http://iranoilshow.ir/en.

10<sup>th</sup> Oil and gas international trade exhibition, May 18–20, 2023, Nairobi, Kenya. Details: Expogroup, 1910, 19<sup>th</sup> Floor, Monarch Office Tower, PO Box 333840, Sheikh Zayed Road, Dubai, UAE. Tel: +971 43 05 07 55; website: www.expogr.com/ kenyaoil.

20<sup>th</sup> International conference on offshore upstream development in Russia and CIS, May 19, 2023, Moscow, The Russian Federation. Details: RPI Conferences. Tel:+7 495 50 25 433; e-mail: konstantinova.elena@rpi-inc.ru; website: www.rpi-conferences.com/en/upstream-development.

**30**<sup>th</sup> **annual Middle East petroleum & gas conference, May 22–23, 2023,** Dubai, UAE. Details: S&P Platts, 20 Canada Square, Canary Wharf, London E14 5LH, UK. Tel: +44 207 17 66 142; fax: +44 207 17 68 512; e-mail: support@platts.com; website: https://plattsinfo.spglobal.com/MPGC.htmlhttps:// plattsinfo.spglobal.com/MPGC.html.

Petrochemical and refining congress, May 22–23, 2023, Voesendorf, Austria. Details: BGS Group, Tel: + 312 08 08 73 21; e-mail: info@bgs.group; website: https://prceurope.com.



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# **Market Review**

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OPEC Monthly

## Assessment of the global economy

#### **March 2023**

The world economic growth forecast for 2023 is expected at 2.6 per cent year-on-year, following growth of 3.2 per cent in 2022. Despite this slight deceleration, the growth of 2.6 per cent in 2023 remains a sound growth level when considering the many challenges that the global economy is facing. These challenges range from elevated worldwide inflation levels and subsequent monetary tightening measures, to the consequences of the geopolitical developments in Eastern Europe.

Despite these challenges, it is anticipated that the OECD economies will continue to be supported by healthy consumption and investment. In the emerging economies, China's reopening, following the lifting of the strict zero-COVID-19 policy, will add considerable momentum to global economic growth. Moreover, India is expected to perform well in 2023, on the back of the government's spending plans that include a rise in infrastructure spending and income tax cuts, as well as other measures. Brazil and Russia are forecast to face challenging environments in 2023 for different reasons, yet their economies are underpinned by robust commodity markets, structural reforms and fiscal support measures. Indeed, a stable global oil market, sustained by the successful efforts of the countries participating in the Declaration of Cooperation (DoC), will provide consumer nations with ample oil supply to fuel global economic growth.

While such growth forecast is perceived as balanced, there exist some upside potential and downside risks. Upside potential may come from the US Federal Reserve managing inflation towards 2H23 with sufficiently healthy underlying demand. Moreover, the Euro-zone's better-thanexpected performance in 2H22 may continue into 2023. A stronger-than-anticipated rebound in China, with consumption accelerating significantly, following years of stringent lockdown measures, is another factor to be considered. Finally, a resolution of tensions in Eastern Europe would likely provide further upside potential. On the other hand, downside

risks remain. Any negative impact from current monetary policies, or measures potentially ahead, could impact global debt markets, hence slowing global economic growth. The rapid rises in interest rates and global debt levels could cause significant negative spill-over effects, and may negatively impact the global growth dynamic. Finally, protracted geopolitical tensions in Eastern Europe could further add to the downside.

Overall, oil demand continues to be driven by the ongoing recovery in the travel and transportation sectors. Following estimated growth of 2.5million barrels per day y-o-y in 2022, oil demand is forecast to grow by a healthy 2.3m b/d y-o-y in 2023 to average at 101.9m b/d. While the OECD is projected to fall slightly short of pre-COVID-19 levels in 2023, oil demand in the non-OECD region is estimated to have surpassed 2019 levels already in 2022.

Given the ongoing high level of uncertainty with regard to the timing and extent of a full global economic recovery to pre-pandemic levels in all sectors, the OPEC and non-OPEC countries participating in the DoC continue to carefully monitor market developments and address challenges in order to ensure sustainable market stability for the benefit of the global economy.

#### MOMR ... oil market highlights

Crude oil price movements – The OPEC Reference Basket (ORB) value rose by 26¢, or 0.3 per cent, month-on-month in February to average \$81.88/b. The ICE Brent front-month contract declined by 37¢, or 0.4 per cent, m-o-m to \$83.54/b and the NYMEX WTI front-month contract fell by \$1.30, or 1.7 per cent. m-o-m to average \$76.86/b. In contrast, the DME Oman front-month contract increased by \$1.08, or 1.3 per cent, m-o-m reaching \$81.97/b. The front-month ICE Brent/NYMEX WTI spread widened again in February by 93¢ m-o-m to average \$6.68/b. The market structure of ICE Brent and DME Oman strengthened in February and the first-to-third month spread moved into wider backwardation. However, the NYMEX WTI price structure remained in contango. Hedge funds and other money managers raised ICE Brent bullish positions m-o-m in February, but cut WTI-related futures and options net-long positions in the first three weeks of the month.

World economy – The world economic growth forecast for 2022 is revised up slightly to 3.2 per cent, given the better-than-anticipated economic performance in 2H22 in various key economies. The 2023 global economic growth forecast remains unchanged at 2.6 per cent. For the US, the economic growth forecast is unchanged, standing at 2.1 per cent for 2022 and 1.2 per cent for 2023. Similarly, the Euro-zone's economic growth forecast remains at 3.5 per cent for 2022 and 0.8 per cent for 2023. Japan's economic growth forecast for 2022 is revised down to one per cent, following the release of the government's estimate, while the growth forecast for 2023 remains at 1.2 per cent for 2023. China's economic growth forecast remains at three per cent for 2022 and 5.2 per cent for 2023. India's 2022 economic growth estimate is revised down slightly to 6.7 per cent, considering official 2022 data, while the forecast for 2023 remains at 5.6 per cent. Brazil's economic growth is adjusted based on the officially reported growth level of 2.9 per cent for 2022 and remains at one per cent for 2023. Russia's statistical office reported a contraction of 2.1 per cent in 2022. This is expected to be followed by a smaller contraction of 0.5 per cent in 2023. Although growth momentum is expected to carry over into 2023, the global economy will continue navigating through challenges amid high global inflation, likelihood of further rate hikes particularly in the Euro-zone and the US, high debt levels in many regions, and geopolitical uncertainties.

World oil demand – World oil demand growth in 2022 remains at 2.5m b/d, broadly unchanged from last month's assessment. Oil demand for OECD Americas and OECD Europe is adjusted lower, reflecting weaker-than-expected demand, but oil demand in Asia-Pacific and non-OECD countries is revised higher, reflecting betterthan-expected improvements in these regions. For 2023, the world oil demand growth forecast remains unchanged at 2.3m b/d, with the OECD Americas and OECD Europe revised slightly lower, while China is revised higher, with jet/kerosene and gasoline leading demand growth. OECD demand is expected to grow by 200,000 b/d, while non-OECD is forecast to grow by 2.1m b/d. tanker availability relatively tight.

World oil supply – Non-OPEC liquids supply is estimated to have grown by 1.9m b/d in 2022, broadly unchanged from the previous assessment. Minor downward revisions to OECD Europe and OECD Americas were largely offset by upward revisions to liquids production in the non-OECD. The main drivers of liquids supply growth for 2022 are seen to be the US, Russia, Canada, Guyana, China and Brazil, while the largest declines are expected from Norway and Thailand. For 2023, non-OPEC liquids production growth remains unchanged from last month and is forecast to grow by 1.4m b/d. The main drivers of liquids supply growth are expected to be the US, Brazil, Norway, Canada, Kazakhstan and Guyana, while the decline is expected primarily in Russia. Nevertheless, large uncertainties remain over the impact of ongoing geopolitical developments, as well as the output potential for US shale in 2023. OPEC NGLs and non-conventional liquids are forecast to grow by 100,000 b/d in 2022 to average 5.39m b/d and by 50,000 b/d to average 5.44m b/d in 2023. OPEC-13 crude oil production in February increased by 117,000 b/d m-o-m to average 28.92m b/d, according to available secondary sources.

Product markets and refining operations – Refinery margins in February underwent a counter seasonal downturn to show solid losses in all main trading hubs despite rising global offline capacities as maintenance work intensified. Most of the weakness stemmed from the middle section of the barrel, as a result of increased arrivals of middle distillates in Europe, mainly from the East. The high product availability in Europe, amid weaker US product exports and strong refinery product output levels in Asia, led to stock builds and caused jet fuel and gasoil margins to experience massive losses across all regions. Global refinery processing rates continued to decline in February, losing nearly 646,000 b/d, according to preliminary estimates.

Tanker market — Dirty freight rates improved in February, with m-o-m gains in VLCCs and Suezmaxes outpacing declines in Aframaxes. VLCCs picked up from a relatively lower base, as renewed demand for long-haul vessels strengthened rates. Rates on the Middle East-to-East route rose 22 per cent m-o-m. Gains in Suezmax spot freight rates earned back some of the previous month's losses with rates on the US Gulf Coast-to-Europe route up 18 per cent compared with the previous month. By contrast, Aframax rates fell from high levels. Spot freight rates on the intra-Med route declined 18 per cent m-o-m. Clean rates edged up, as West of Suez rose 14 per cent and East of Suez rates slipped four per cent. Rates in the Atlantic basin claimed back some of the previous month's losses.

Crude and refined products trade – Preliminary data shows US crude exports set a record high of 4.3m b/d in February. US crude imports declined from a three-year high the month before to an average 6.4m b/d in February. Preliminary aggregate customs data showed China's crude imports declined in January and February 2023 from the high levels seen in the previous three months to an average 10.4m b/d. China's product exports were lower in the first two months of the year, averaging 1.6m b/d, falling from an almost three-year high the month before, with losses seen across all major products. India's crude imports rose two per cent in January to average 4.7m b/d, as refiners returned from maintenance and boosted inflows of discounted Russian grades. India's product exports erased much of the gains seen the month before, averaging 1.1m b/d, with declines across the barrel. Japan's crude imports fell from a fourmonth high in January to an average 2.7m b/d. Japan's product imports, including LPG, were little changed in January after reaching an 11-month high the month before, and product exports recovered further. Preliminary estimates for February show OECD Europe bringing in alternate crudes from a variety of regions, with Russian imports limited to Turkey and southern Druzhba flows.

Commercial stock movements - Preliminary January 2023 data sees total OECD commercial oil stocks up by 34.9m b m-o-m. At 2,802m b, they were 147m b higher than the same time one year ago, but 75m b lower than the latest five-year average and 124m b below the 2015–19 average. Within the components, crude and product stocks rose m-o-m by 10.5m b and 24.5m b, respectively. At 1,372m b, OECD crude stocks were 120m b higher than the same time a year ago, but 4m b lower than the latest five-year average and 59m b lower than the 2015–19 average. OECD product stocks stood at 1,430m b, representing a surplus of 26m b from the same time a year ago, but they were 71m b lower than the latest five-year average and 65m b below the 2015-19 average. In terms of days of forward cover, OECD commercial stocks rose m-o-m by 0.8 days in January 2023 to stand at 60.8 days. This is 2.9 days above the January 2022 level, but 3.1 days less than the latest five-year average and 1.2 days lower than the 2015-19 average.

Balance of supply and demand — Demand for OPEC crude in 2022 is revised down by 200,000 b/d from last month's assessment to stand at 28.4m b/d. This is around 500,000 b/d higher than in 2021. Demand for OPEC crude in 2023 is revised down by 200,000 b/d from the previous assessment to stand at 29.3m b/d. This is around 800,000 b/d higher than in 2022.

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

## Summer oil market outlook

#### **April 2023**

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OPEC

Monthly

In 1Q23, world oil demand is estimated to have grown by a healthy 2.1 million barrels/day (m b/d) y-o-y, on the back of a strong rebound in China's oil demand, as well as solid oil demand data in other non-OECD regions, particularly the Middle East and Asia. Looking ahead, world oil demand is expected to grow by around 2.4m b/d y-o-y in 2Q23, 2.5m b/d y-o-y in 3Q23 and 2.3m b/d y-o-y in 4Q23.

In terms of products, global demand for gasoline and diesel is forecast to increase by 600,000 b/d and 500,000 b/d, y-o-y, respectively, in 2Q23. In 3Q23, demand for these two products is forecast to improve further, with global gasoline demand growth forecast at 700,000 b/d and diesel at 600,000 b/d, y-o-y.

In the OECD, heightened mobility in the upcoming driving season in the US is expected to provide the usual additional demand for transportation fuels. However, any weakening in the economy on the back of ongoing monetary tightening measures by the US Fed may offset some of this seasonal dynamic. Overall, OECD Americas is forecast to lead demand growth in the region at an average of around 160,0000 b/d y-o-y in 2Q23 and 3Q23. The demand in OECD Europe is likely to continue to be challenged, amid slowing economic activity, leading to a slight projected y-o-y decline in 2Q23 and 3Q23 on average. OECD Asia Pacific is expected to show y-o-y growth of around 50,000 b/d on average over 2Q23 and 3Q23.

In the non-OECD countries, China is projected to drive oil demand, supported by a pickup in mobility and industrial activity, growing by almost 1.0m b/d y-o-y in 2Q23 and 800,000 b/d y-o-y in 3Q23. Similarly, India oil demand is forecast to grow by 300,00 b/d y-o-y, on average over 2Q23 and 3Q23. Other Asia and the Middle East are also expected to see healthy growth of between 300,000 b/d–400,00 b/d on average over 2Q23–3Q23, with requirements for air-conditioning in the summer months adding additional support. It should be noted that potential challenges to global economic development include high inflation, monetary tightening, stability of financial markets and high sovereign, corporate and private debt levels.

On the refining side, intakes have been on a declining trend since the post pandemic high level seen in November 2022 at 80.8m b/d. In addition, the start of heavy refinery maintenance around February further weighed on intakes in recent months with some 2.1m b/d of capacity offline in February and 400,000 b/d in March. Although US refiners have recently started returning online, ongoing strikes in France, and impending peak refinery maintenance in Asia are likely to keep intakes suppressed in the weeks ahead. Moreover, the impact of the recent reopening of China has still not been sufficient to reverse the declining trend in global refinery intakes.

On inventories, OECD commercial inventories have been building in recent months, and product balances are less tight than seen at the same time a year ago.

Given these uncertainties surrounding current oil market dynamics, several countries in the DoC have announced additional voluntary adjustments as of May 2023 and until the end of the year, and this was in support of the ongoing relentless and determined DoC effort to support the stability of the oil market.

#### MOMR ... oil market highlights

#### **Crude oil price movements** – The OPEC Reference Basket (ORB) declined in March by \$3.43, or 4.2 per cent, m-o-m to average \$78.45/b. The ICE Brent first-month contract fell by \$4.33, or 5.2 per cent, m-o-m to \$79.21/b, while the NYMEX WTI first-month contract fell by \$3.49, or 4.5 per cent, m-o-m to average \$73.37/b. The DME Oman first-month contract fell by \$3.63, or 4.4 per cent, m-o-m to settle at \$78.34/b. The front-month ICE Brent/NYMEX WTI spread narrowed in March by &6/t mo-m

WTI spread narrowed in March by 84¢ m-o-m to average \$5.84/b. The futures forward curves of ICE Brent and DME Oman flattened slightly in March, but remained in backwardation. However, the NYMEX WTI price structure remained in contango, although the nearest time spread contracted m-o-m. Hedge funds and other money managers heavily cut bullish positions in ICE Brent and NYMEX WTI last month.

**World economy** – The world economic growth forecast for 2022 is revised up slightly to 3.3 per cent, given better-than-anticipated economic performance in 2H22 in various key economies. The 2023 global economic growth forecast remains unchanged at 2.6 per cent. For the US, the economic growth forecast is unchanged at 2.1 per cent for 2022 and 1.2 per cent for 2023. Similarly, the Euro-zone's economic growth forecast remains at 3.5 per cent for 2022 and 0.8 per cent for 2023. Japan's economic growth forecast for 2022 remains at one per cent, while growth for 2023 is revised down to one per cent from 1.2 per cent. China's economic growth forecast remains at three per cent for 2022 and 5.2 per cent for 2023. India's 2022 economic growth estimate remains at 6.7 per cent, with the forecast for 2023 at 5.6 per cent. Brazil's economic growth estimate remains at 2.9 per cent for 2022 and is also unchanged at one per cent for 2023. Russia's contraction estimate is unchanged at 2.1 per cent in 2022 and is expected to be followed by a smaller contraction of 0.5 per cent in 2023, unchanged from last month. Although some growth momentum from 2H22 is expected to carry over into 1H23, the global economy will continue to navigate through challenges including high inflation, higher interest rates particularly in the Euro-zone and the US, and high debt levels in many regions.

**World oil demand** — The world oil demand growth estimate for 2022 remains at 2.5 mb/d, broadly unchanged from last month's assessment. For 2023, it is also unchanged from the last month's assessment at 2.3 mb/d. There are minor downward adjustments reflecting the latest developments in the OECD region, primarily in OECD Americas and OECD Europe. However, the stronger-than-expected demand seen in non-OECD in January and February necessitated some upward revisions. Oil demand in the OECD is forecast to increase by 100,0000 b/d in 2023, while the non-OECD is forecast to grow by 2.2 mb/d.

World oil supply — The non-OPEC liquids supply growth estimate for 2022 remains at 1.9 mb/d, broadly unchanged from the previous month's assessment. The main drivers of liquids supply growth for 2022 were US, Russia, Canada, Guyana, China and Brazil, while the largest declines were from Norway and Thailand. For 2023, non-OPEC liquids supply growth remains broadly unchanged from last month and is forecast to grow by 1.4m b/d. The main drivers of liquids supply growth are expected to be the US, Brazil, Norway, Canada, Kazakhstan and Guyana, while the decline is expected primarily in Russia. Large uncertainties remain over the impact of the output prospective for US shale in 2023. OPEC NGLs and non-conventional liquids are forecast to grow by 100.000 b/d in 2022 to average 5.4m b/d and by 50,000 b/d to average 5.4m b/d in 2023. OPEC-13 crude oil production in March dropped by 86,000 b/d m-om to average 28.80m b/d, according to available secondary sources.

**Product markets and refining operations** – In March, refinery margins regained limited ground, following sharp losses seen the previous month. A contraction in product balances in the Atlantic Basin, due to the onset of heavy refinery maintenance along with product output declines in France due to a nationwide energy workers strike action, led to pressure on product inventories over the month and provided support for product crack spreads. In addition, a decline in feedstock prices further contributed to stronger refinery margins across all main regions. Global refinery processing rates fell further in March, losing nearly 259,000 b/d, according to preliminary estimates. In the coming month, refinery intakes are expected to remain under pressure on strong offline capacity, which is projected to peak in the coming month.

Tanker market - Dirty spot freight rates continued to improve in March, with m-o-m gains across most monitored routes. VLCCs saw the sharpest increase, rising by 45 per cent on the Middle East-to-East route, as renewed buying from China strengthened rates. Suezmax spot freight rates remained at high levels, up 20 per cent m-o-m on the US Gulf-to-Europe route. Aframax rates rebounded from the previous month's decline, with spot freight rates on the intra-Med route up 23 per cent m-o-m. In the clean tanker market. West of Suez spot freight rates were at 29 per cent, supported by strong performance in the Mediterranean. East of Suez rates fell ten per cent on average m-o-m, amid a winding down of winter product demand in the Far East.

Crude and refined products trade – Preliminary data shows US crude exports set a fresh record

high of 4.8m b/d in March, while US product exports rebounded to average 6.3m b/d. China's crude imports in February partially recovered from the decline at the start of the year to average around 10.7m b/d. China's product exports also picked up, averaging a robust 1.7m b/d. India's crude imports were at their strongest in over ten months, averaging just shy of 5.0m b/d in February. India's product exports also returned to relatively robust levels, averaging 1.4 m b/d. Japan's crude imports were broadly unchanged m-o-m at 2.7m b/d in February. Japan's product exports, including LPG, hit a five-month high in February. Preliminary estimates for March show crude and refined product imports into OECD Europe declining as a workers' strike in France disrupted port activities and refinery operations, curtailing trade flows.

**Commercial stock movements** – Preliminary February 2023 data shows total OECD commercial oil stocks increase by 14.1m b m-o-m. At 2,865m b, they were 237m b higher than the same time one year ago and 18m b higher than the latest five-year average, but 54m b below the 2015–2019 average. Within components, crude stocks increased m-o-m by 20.9m b, while product stocks fell by 6.8m b m-o-m. At 1,434m b, OECD crude stocks were 172m b higher than the same time a year ago, and 49m b higher than the latest five-year average, but 14m b lower than the 2015-2019 average. OECD product stocks stood at 1,432m b, representing a surplus of 65m b from the same time a year ago, though they were 30m b lower than the latest five-year average and 40m b below the 2015-2019 average. In terms of days of forward cover, OECD commercial stocks rose m-o-m by one day in February to stand at 62.9 days. This is 4.9 days above the February 2022 level, but 1.8 days less than the latest five-year average and 0.3 days higher than the 2015-2019 average.

**Balance of supply and demand** – Demand for OPEC crude in 2022 remained unchanged from last month's assessment to stand at 28.4m b/d. This is around 500,000 b/d higher than in 2021. Demand for OPEC crude in 2023 also remained unchanged from the previous assessment to stand at 29.3m b/d. This is around 800,000 b/d higher than in 2022.

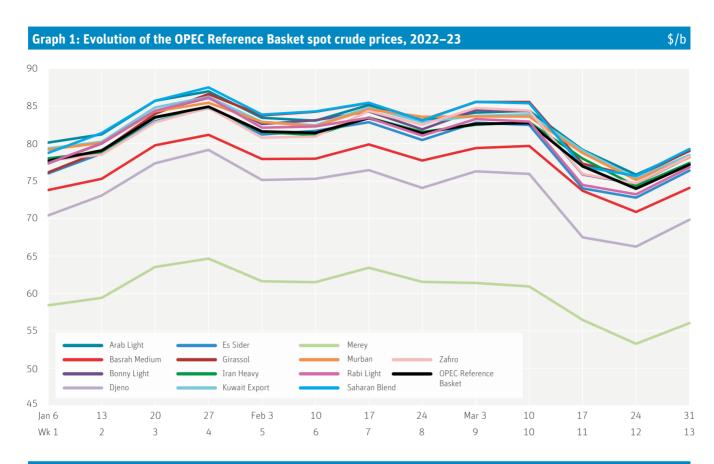
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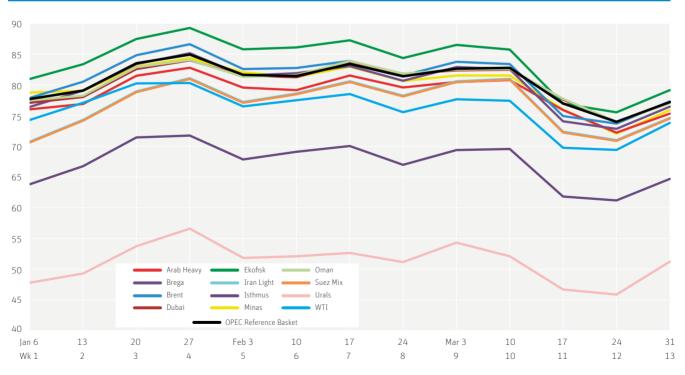
#### **April 2023**

Table 1: OPEC Refere	ence B	asket	spot	crude	price	5												\$/b
	2022										2023			Week	s 9–13/	2023 (w	reek end	ling)
Crude/Member Country	Mar	Apr	Мау	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Mar 03	Mar 10	Mar 17	Mar 24	Mar 31
Arab Light — Saudi Arabia	112.99	107.24	116.44	117.27	108.98	104.89	99.33	96.20	91.58	82.44	83.80	83.56	80.26	84.15	84.38	79.16	75.85	79.02
Basrah Medium — Iraq	112.21	104.63	111.91	115.56	105.36	97.66	91.16	89.45	85.66	76.07	77.82	78.33	75.33	79.41	79.69	73.71	70.88	74.10
Bonny Light — Nigeria	120.68	106.39	115.07	125.22	117.58	106.08	95.73	95.02	92.84	80.69	82.36	82.88	79.24	84.49	84.35	75.88	74.64	78.25
Djeno — Congo	111.30	96.92	105.68	116.11	105.18	92.17	82.37	85.66	83.65	72.93	75.41	75.05	70.84	76.31	75.95	67.48	66.24	69.85
Es Sider — Libya	117.90	104.42	113.18	124.96	114.03	101.17	90.47	93.91	91.25	77.53	81.01	81.45	77.39	82.80	82.50	74.03	72.79	76.40
Girassol — Angola	121.58	105.28	113.95	127.03	119.15	105.99	92.26	95.61	92.76	78.69	82.05	84.06	80.31	85.56	85.56	77.33	75.59	79.04
Iran Heavy — IR Iran	112.40	106.28	115.48	115.85	107.63	102.24	97.18	93.21	88.73	79.11	81.56	81.88	78.80	82.53	82.87	78.01	74.33	77.42
Kuwait Export — Kuwait	113.28	107.46	116.82	117.26	109.19	103.82	98.69	94.72	90.13	80.46	82.94	83.19	79.86	83.69	83.93	79.07	75.39	78.48
Merey — Venezuela	88.12	83.40	88.07	92.25	84.72	80.03	73.70	71.56	66.94	58.17	61.74	61.95	57.25	61.40	60.92	56.46	53.27	56.04
Murban — UAE	112.48	104.48	109.97	117.53	105.97	98.04	92.45	93.54	90.90	80.17	82.53	83.36	79.55	83.63	83.61	78.74	75.16	78.15
Rabi Light — Gabon	118.29	103.91	112.67	123.10	112.17	99.16	89.36	92.65	90.64	79.92	82.40	82.04	77.83	83.30	82.94	74.47	73.23	76.84
Saharan Blend — Algeria	121.80	109.37	115.28	128.31	115.83	104.22	92.72	95.66	93.60	83.03	83.76	84.05	80.29	85.58	85.40	76.93	75.69	79.30
Zafiro — Equatorial Guinea	120.50	105.71	115.25	127.10	116.60	103.50	90.72	93.61	92.12	80.28	81.29	82.24	79.29	84.76	84.40	75.93	74.69	78.30
OPEC Reference Basket	113.48	105.64	113.87	117.72	108.55	101.90	95.32	93.62	89.73	79.68	81.62	81.88	78.45	82.64	82.77	76.98	73.99	77.20

Table 2: Selected spot crude prices\$/b											\$/b							
	2022										2023			Week	s 9–13/	2023 (w	veek en	ding)
Crude/country	Mar	Apr	Мау	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Mar 03	Mar 10	Mar 17	Mar 24	Mar 31
Arab Heavy — Saudi Arabia	112.13	106.21	115.53	115.91	107.84	101.95	96.89	93.12	88.58	78.51	79.56	79.89	76.71	80.48	80.78	75.92	72.24	75.33
Brega — Libya	118.15	105.27	114.03	125.96	114.53	101.52	90.52	93.81	91.50	77.93	81.41	81.65	77.44	82.91	82.55	74.08	72.84	76.45
Brent Dtd — North Sea	118.75	104.37	113.13	123.56	112.63	99.62	89.82	93.11	91.10	80.38	82.86	82.50	78.29	83.76	83.40	74.93	73.69	77.30
Dubai — UAE	110.49	102.91	107.83	112.89	102.87	96.33	90.98	91.04	86.12	77.09	80.75	82.05	78.42	82.37	82.48	77.61	73.96	77.15
Ekofisk — North Sea	123.27	107.22	117.46	130.39	120.37	105.29	93.02	96.02	94.32	83.22	85.67	85.67	80.40	86.51	85.75	76.93	75.54	79.15
Iran Light — IR Iran	117.33	102.40	107.82	118.61	106.76	92.07	82.45	86.95	85.71	73.42	76.79	78.68	75.64	80.59	80.98	72.38	71.02	74.63
Isthmus — Mexico	107.42	100.40	108.32	113.85	100.47	89.09	81.44	83.57	79.26	67.48	68.82	68.27	65.13	69.40	69.56	61.82	61.19	64.68
Oman — Oman	110.96	102.40	107.32	112.93	103.22	96.97	90.80	90.80	86.15	77.43	80.87	82.23	78.49	82.49	82.58	77.74	74.01	77.01
Suez Mix — Egypt	117.20	102.27	107.69	118.48	106.63	91.94	82.32	86.82	85.58	73.29	76.66	78.55	75.51	80.46	80.85	72.25	70.89	74.50
Minas — Indonesia	111.23	103.44	109.79	115.06	103.01	95.39	88.91	91.06	89.21	79.14	81.57	81.53	77.10	81.52	81.52	76.00	72.06	75.88
<mark>Urals</mark> — Russia	92.59	72.55	81.18	91.61	85.32	77.34	68.63	70.54	67.98	52.23	52.21	51.91	49.74	54.33	52.10	46.68	45.86	51.22
WTI — North America	108.52	101.77	109.86	114.36	100.25	91.57	84.00	87.26	84.15	76.50	78.19	76.81	73.37	77.65	77.42	69.77	69.42	73.80

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





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

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

	naphtha	regular gasoline unleaded	diesel ultra light	jet kero	fuel oil 1 per cent S	fuel oil 3.5 per cent S
2022 March	111.98	134.95	152.33	156.48	109.70	95.07
April	100.31	133.44	156.07	151.46	97.60	89.20
May	98.23	166.14	160.81	152.37	100.66	95.41
June	88.76	188.54	178.57	179.29	100.23	89.69
July	84.65	158.02	147.64	153.29	89.26	70.77
August	72.98	137.45	143.04	143.00	90.31	75.00
September	69.03	124.73	135.02	139.42	82.58	62.10
October	74.30	137.02	139.35	162.90	82.06	59.29
November	73.87	127.89	132.26	134.93	74.32	60.78
December	65.57	110.33	121.12	120.72	64.77	55.92
January	76.21	123.20	129.05	124.90	68.38	59.39
February	79.41	122.15	112.55	110.03	72.28	59.68
2023 March	74.61	120.69	103.94	107.12	65.94	59.66



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

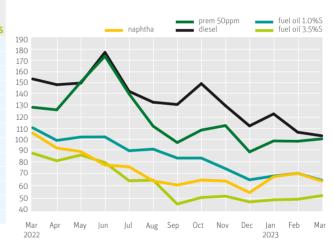
		naphtha	premium gasoline 50ppm	diesel ultra light	fuel oil 1 per cent S	fuel oil 3.5 per cent S
2022	March	110.29	130.57	155.32	114.69	93.45
	April	97.78	128.46	150.56	104.14	87.17
	May	94.86	151.69	151.88	106.96	91.99
	June	83.67	173.11	177.45	107.04	85.70
	July	82.14	141.78	145.03	95.58	70.58
	August	70.39	114.86	135.92	96.88	71.03
	September	67.00	101.21	134.05	89.44	51.18
	October	71.14	111.60	151.41	89.45	56.62
	November	70.34	115.35	133.06	80.64	57.73
	December	60.68	93.46	116.22	71.36	52.97
	January	73.95	102.57	126.21	74.50	54.67
	February	76.70	102.34	110.96	76.71	55.16
2023	March	70.23	104.28	107.97	70.91	58.18

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

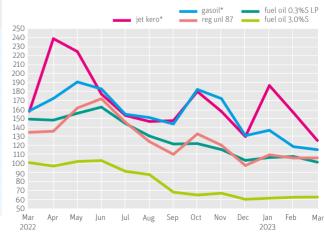
		regular gasoline unleaded 87	gasoil*	jet kero*	fuel oil 0.3 per cent S	fuel oil 3.0 per cent S
2022	March	134.68	158.55	158.01	149.32	100.95
	April	135.92	172.32	238.78	148.24	97.19
	May	161.70	190.63	224.38	155.83	102.26
	June	172.02	182.90	177.23	162.70	103.26
	July	145.90	154.69	153.38	144.45	91.34
	August	124.36	151.06	146.74	130.55	87.69
	September	110.22	143.93	147.65	121.67	68.18
	October	132.91	182.33	179.98	122.15	65.00
	November	120.38	172.17	157.91	115.52	67.01
	December	97.78	130.99	129.90	103.45	60.24
	January	109.67	136.95	186.70	106.68	61.47
	February	106.11	118.74	156.57	107.83	62.51
2023	March	106.26	115.37	125.55	101.52	62.71

\* FOB barge spot prices.

Source: Argus. Prices are average of available days.



#### \$/b, duties and fees included



\$/b

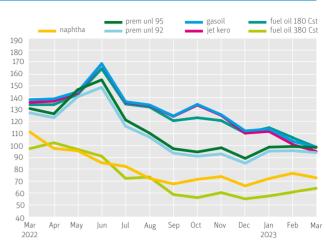
#### Table and Graph 6: Singapore market — spot cargoes, fob

	naphtha	premium gasoline unl 95	premium gasoline unl 92	gasoil	jet kero	fuel oil 180 Cst	fuel oil 380 Cst
2022 March	111.42	131.07	127.47	138.51	136.25	134.32	97.61
April	97.75	126.73	123.45	139.18	137.21	134.35	102.47
May	95.76	146.88	140.99	145.08	143.96	142.90	96.91
June	85.72	155.10	148.86	168.61	168.56	164.40	91.26
July	82.70	121.56	116.35	136.82	136.22	134.90	72.69
August	72.64	110.57	107.25	134.09	133.62	132.39	73.78
September	68.09	97.45	93.79	124.87	124.55	120.92	59.20
October	71.86	94.78	91.16	134.61	133.96	123.40	56.57
November	74.22	98.27	93.11	125.91	125.41	121.01	60.78
December	66.41	89.40	85.36	112.41	110.54	110.54	55.56
January	72.52	98.83	95.49	113.98	111.94	115.07	57.98
February	76.98	99.36	95.86	103.71	101.05	106.77	61.18
2023 March	73.19	98.59	94.25	98.85	95.33	98.86	64.39

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

	naphtha	gasoil	jet kero	fuel oil 180 Cst
2022 March	106.28	136.88	130.70	96.67
April	94.92	143.61	130.70	100.96
May	91.59	145.46	137.27	94.91
June	82.56	164.03	158.55	89.14
July	79.01	130.25	129.49	70.09
August	69.59	128.58	127.26	70.31
September	64.83	120.62	115.16	55.41
October	70.20	128.57	119.73	53.12
November	70.93	117.34	116.48	56.07
December	60.88	103.25	103.86	49.80
January	68.47	108.38	110.11	52.57
February	73.67	101.25	102.71	57.12
2023 March	68.19	96.07	94.37	59.94

Source: Argus. Prices are average of available days.



fuel oil 180 Cst naphtha jet kero gasoil 190 180 170 160 150 140 130 120 110 100 90 80 70 60 50 40 Mar 2022 Apr May Jun Jul Aug Sep Oct Nov Dec Jan 2023 Feb Mar

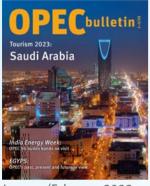
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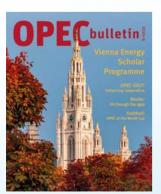
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