OPEC bulletin

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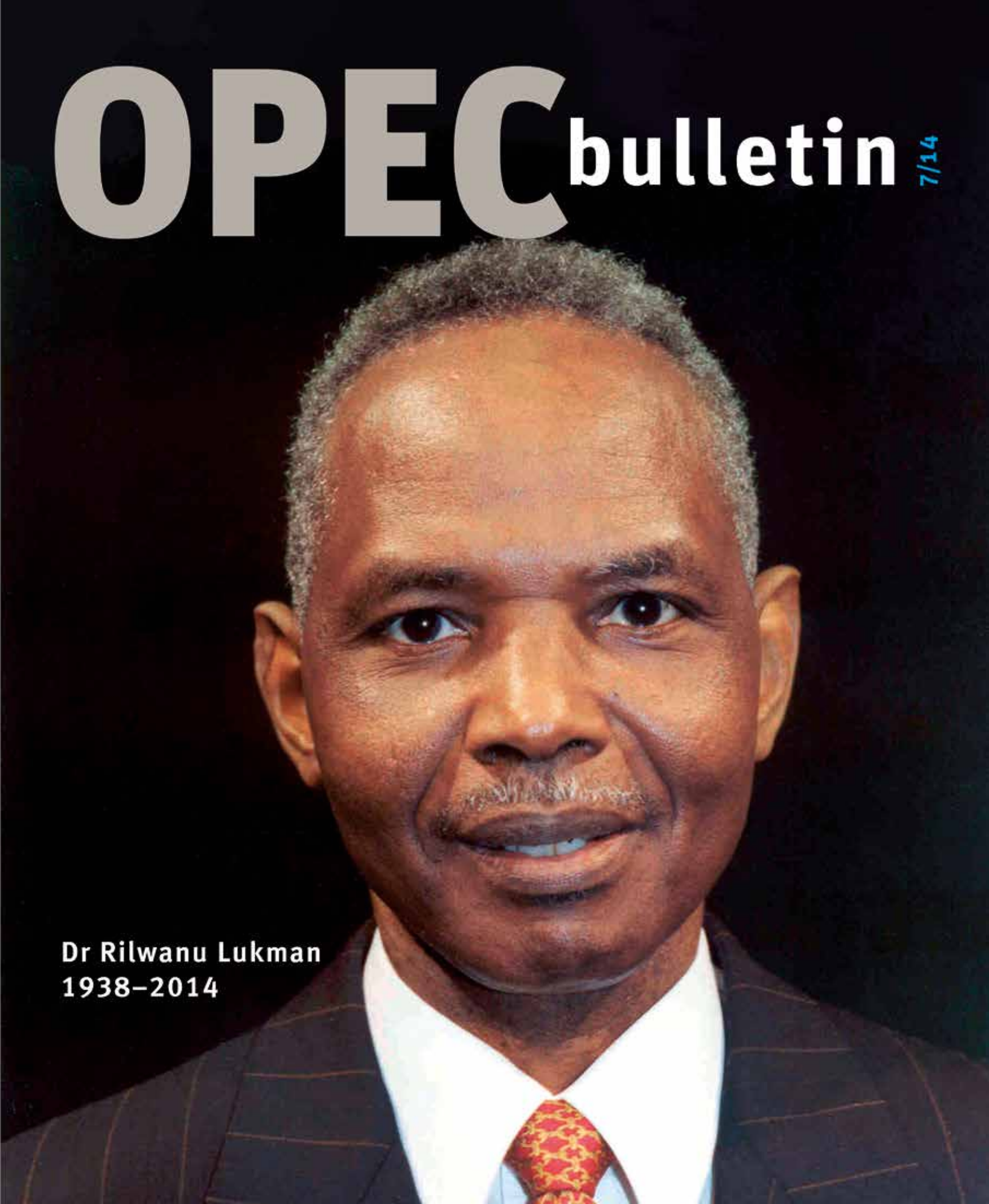


Dr Rilwanu Lukman
1938–2014

OPEC 6th International Seminar

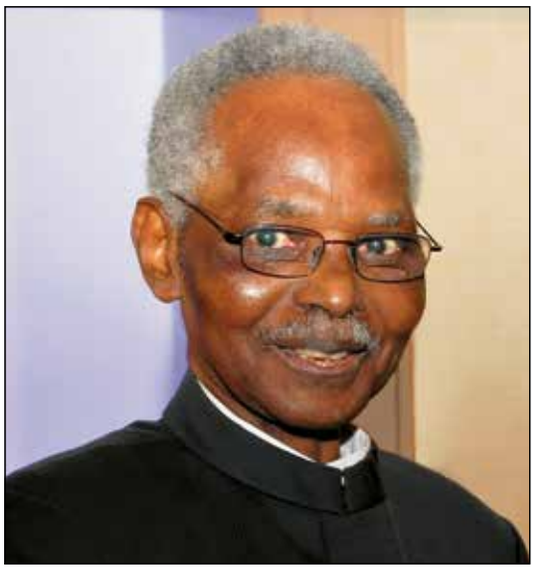
Petroleum: An Engine for Global Development

3–4 June 2015

Hofburg Palace
Vienna, Austria

www.opec.org

Dr Rilwanu Lukman: *Oil supremo*



It was with the deepest regret that the *OPEC Bulletin* learned of the untimely death of Dr Rilwanu Lukman, one of the oil industry's most influential and respected ambassadors and personalities.

The OPEC elder statesman died in the early hours of July 21 at his residence in Vienna, Austria, where he had lived for some years. At the age of 75, his long and distinguished career as one of the longest-serving heads of both the Nigerian oil industry and OPEC spanned five decades.

Within international oil circles, Lukman was known for his peerless prowess and extensive petroleum sector experience. Nigerian President, Goodluck Jonathan, described him as "a brilliant engineer, technocrat and administrator who spent almost all his working life serving his country and the global community in various capacities."

As OPEC's website recorded his passing: "Lukman was a servant to the Nigerian government and its petroleum industry and played a major role in the history of OPEC. He was widely recognized and highly regarded in the global petroleum industry; a loyal and dedicated man, who had the best interests of Nigeria and OPEC at heart.

"He garnered great respect among other Ministers and the staff at the OPEC Secretariat that worked with him over the years. His commitment and service to OPEC is something to be praised and admired."

During his various high-level tenures as Petroleum Resources Minister and Presidential Adviser on Petroleum and Energy, as well as OPEC Secretary General and OPEC Conference President *(see story and biography on page 36),* Lukman was constantly gracing the pages of the *OPEC Bulletin.* Whether it was coverage of his speech to an oil forum, him answering questions at an OPEC press conference, or simply his comments on the state of the international oil market, the publication and its readership benefited immensely from his views, which covered a wealth of interesting and topical subjects.

Since his death, the tributes, led by President Jonathan, have been pouring in. There are too many to mention here, but all point to a brilliant and well-liked man who will be sorely missed.

Diezani Alison-Madueke, Nigeria's Minister of Petroleum Resources, referred to Lukman as a "great Nigerian", stressing that her country and the global petroleum industry had lost "an astute diplomat, a seasoned technocrat, and a trailblazer, who achieved many firsts in his lifetime."

In the same vein, Andrew Yakubu, former Group Managing Director of the Nigerian National Petroleum Corporation (NNPC), described Lukman's death as "a monumental loss to the global oil and gas industry and to Nigeria as a country."

Another former NNPC Group Managing Director, and former assistant to former Nigerian President Olusegun Obasanjo on Petroleum, Funsho Kupolokun, said Lukman was "a great man and anybody who worked with him would come to the same conclusion."

Speaker of the Nigerian House of Representatives, Aminu Tambuwal, saw Lukman as a "thorough-bred technocrat", who would be remembered for his performance as OPEC Conference President and Secretary General.

And Governor Alero of Kaduna State, where Lukman was born, said his passing was a great loss, not only to Kaduna State and Nigeria, but to the entire world, saying the world would miss his wealth of experience in the energy sector.

Meanwhile, Mohammed Sanusi Barkindo, a former Acting for the Secretary General of OPEC and a close confidant of his, said Lukman firmly believed in Nigeria's greatness.

"He always talked about how we should join hands to build the nation. Even in his sick bed, no day went by without him calling me to discuss everything Nigeria. He never failed to bring up the challenges of the country and how he thought they should be addressed. He was what Nigerians call 'something else'!"

Clearly, the oil industry, OPEC and Nigeria has lost a great man.

The *OPEC Bulletin* wishes to express its sincere condolences to Dr Lukman's family — his wife, three children and four grandchildren.

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Anthony Ieuza, NNPC

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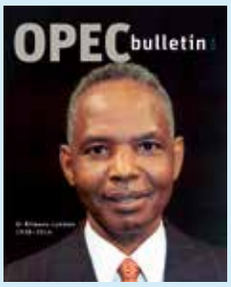

Cover
This month's cover shows Dr Rilwanu Lukman, former Nigerian Petroleum Resources Minister and Secretary General of OPEC, who passed away in July (see tribute on page 36).

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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 12 Members: Qatar joined in 1961; Libya (1962); United Arab Emirates (Abu Dhabi, 1967); Algeria (1969); Nigeria (1971); Angola (2007). Ecuador joined OPEC in 1973, suspended its Membership in 1992, and rejoined in 2007. Gabon joined in 1975 and left in 1995. Indonesia joined in 1962 and suspended its Membership on December 31, 2008.


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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, research reports and project descriptions with supporting illustrations and photographs.

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OPEC, EU hold 11th Ministerial Meeting in Brussels

Dialogue critical for dealing with energy market challenges

EU, OPEC delegates met at the European Commission's Berlaymont building.

The Energy Dialogue between the European Union and OPEC is now into its second decade of existence — and it continues to go from strength to strength. More and more issues are being brought to the table for discussion, which can only spell good news for the future welfare of both producers and consumers of petroleum and the international oil industry in general. In June, it was the turn of Brussels to host the Dialogue's annual Ministerial talks — the 11th such edition — at which delegates confirmed their full commitment to ensuring the future success of the initiative. The* OPEC Bulletin *was in attendance.

The European Union (EU) and OPEC ended their 11th Ministerial talks in Brussels in June with a pledge to continue to strengthen their high-level Energy Dialogue, deemed essential for helping to deal with the challenges that lie ahead.

A joint press release issued after the one-day meeting stressed that the Dialogue, which was launched ten years ago, was today well-placed to address the common challenges facing producing and consuming countries, such as those in the EU and OPEC.

Specific mention was made of "a number of unexpected and challenging energy market developments" that had had taken place since the last EU-OPEC Ministerial talks in Vienna in November 2013.

This referred to the tensions and problems observed in some countries of the Middle East and Europe which "confirmed once again the value of further strengthening cooperation between the EU and OPEC on energy and oil matters."

In this regard, the EU pointed to the key role OPEC played in cushioning against oil supply disruptions.

"There was a broad agreement on the need for stability, both in the energy sector and in economies, in the interests of steady, sustained economic growth across the world," the press release stressed on the outcome of the Meeting.

Participants expressed satisfaction with the latest talks, now held annually and alternatively in Brussels and Vienna, as another important step in the Dialogue, to which both parties expressed their continuing commitment "in the spirit of mutual trust and cooperation."

European Energy Commissioner, Guenther Oettinger, speaking at a press conference after the Meeting, pointed out that the EU-OPEC Energy Dialogue was ongoing and possessed "a constructive outlook".

In describing OPEC as a "reliable" Organization, he stated: "We are sure that both parties are interested in continuing to have a high level of secure supplies. This Dialogue is in the interest of both the EU and OPEC."

OPEC Secretary General, Abdalla Salem El-Badri, standing alongside Oettinger, told newsmen that the Organization was "extremely happy" with its dialogue with the EU.

"We have discussed many important issues from investment to prices and technology. We should continue with this dialogue so that we can discuss the oil market situation," he affirmed.

High-level OPEC team

Along with Oettinger, the EU side was represented by Andreas Papastavrou, EU Minister Plenipotentiary, Deputy Permanent Representative; and Bruno Pasquino, of the Ministry of Economic Development, Italy, which assumes the EU Presidency in the second half of 2014.

The OPEC team was led by OPEC Conference President, Omar Ali ElShakmak, Acting Minister of Oil and Gas, Libya, and also comprised the Alternate President of the Conference, Diezani Alison-Madueke, Minister of Petroleum Resources, Nigeria, and El-Badri.

Guenther Oettinger (r), European Energy Commissioner, with Abdalla Salem El-Badri (l), OPEC Secretary General.

During the deliberations, the EU team presented a report on its '2030 framework for energy and climate policies', which aims at providing market players with a clear and predictable legislative framework that is needed in the energy field where investments have long lead times.

"The framework must ensure progress towards the EU's energy and climate objectives, but at the same time take due account of security of supply and competitiveness issues," the press release stressed.

The EU also presented a communication on its 'European Energy Security Strategy', which includes a number of key initiatives to improve EU energy security, both in the short term, as well as in the medium to long term.

The latest economic and financial developments in the EU and in the Eurozone were also presented, while the positive signals emerging from regional economies were also underlined.

For its part, OPEC presented an assessment of the short-term oil market prospects. The improving global economic situation was highlighted, although it was stated that uncertainties and challenges remained.

It was emphasized that the international oil market was well supplied, despite some supply disruptions and geopolitical concerns. In this regard, it was felt that there was sufficient oil production from OPEC Member Countries and steady growth in non-OPEC supply, particularly from North America.

"When it comes to security of oil supply, I wish to praise the key role of OPEC in cushioning against oil supply disruptions in the past few months."

— Oettinger

In addition, it was observed that OECD stocks were at healthy levels, while non-OECD inventories continued to build.

OPEC officials also provided an overview of the long-term oil market outlook, highlighting that oil demand was set to reach 108.5 million barrels/day by 2035, with developing Asia expected to account for 88 per cent of the increase.

On the supply side, it was pointed out that tight oil had been one of the main drivers of recent supply increases. But it was noted that North American tight oil production was forecast to plateau around 2017–19, before declining thereafter. Non-OPEC liquids' supply was slated to rise to just under 62m b/d by 2035.

It was stressed that OPEC maintains a readiness to invest in new upstream capacity and infrastructure to ensure future demand was met.

And from the perspective of addressing climate change, it was underscored that the on-going multilateral negotiations under the United Nations Framework Convention on Climate Change (UNFCCC) were deemed key in the pre- and post-2020 periods.

Both the EU and OPEC underlined the importance of energy technologies, in order to further improve competitiveness and promote diversification of economies.

The future and ongoing activities of the Energy Dialogue were also briefly deliberated. OPEC reported on the status of the 2014 joint study on the *'Petrochemical Outlook: Challenges and Opportunities'* and a planned roundtable to present a summary of the study, scheduled to take place in Vienna in the fourth quarter of 2014.

It was also proposed to execute, in 2015, a study on 'non-crude liquid prospects: medium- to long-term analysis'. It was revealed that a report on these activities would be submitted to the 12th Meeting of the Energy Dialogue in 2015.

Dialogue key EU priority

EU Energy Commissioner, Guenther Oettinger, opened the meeting in an address that underlined how, in the past decade, the EU-OPEC Energy Dialogue had been one of the key priorities of EU international energy relations.

"It has allowed both parties to share expertise and knowledge, produce joint studies, take part in site visits, as well as cooperate in difficult times when confronted, for example, with oil supply disruptions," he told delegates assembled at the European Commission's Berlaymont building.

He pointed out that it had only been seven months since the previous Ministerial talks, but a number of unexpected developments and challenges had occurred in this time. These comprised the tensions between Ukraine and Russia, the continuing political instability in Libya, which had continued to affect its energy market, and the most recent events in Iraq.

"All of these developments and challenges testify again to the global nature of energy and of the energy market, as well as the need to tackle them in cooperation with each other. This is why our cooperation and our energy dialogues are so important," he maintained.

Oettinger noted that the EC had adopted two key strategic documents which set out the EU's broad energy strategy, comprising the 2030 energy and climate framework, adopted in January 2014, and the European Energy Security Strategy, adopted in May.

Concerning security of supply, he disclosed that the EU imported 53 per cent of the energy it consumed. Energy dependency related mainly to crude oil (already almost 90 per cent), natural gas (66 per cent) and, to a lesser extent, solid fuels (42 per cent).

Oettinger said that against this background and the latest geopolitical developments, it was not surprising that the EU Heads of State and Government had taken a close interest in Europe's energy security.

L–r: Omar Ali ElShakmak, OPEC Conference President and Acting Minister of Oil and Gas, Libya; Diezani Alison-Madueke, Alternate President of the Conference and Minister of Petroleum Resources, Nigeria; Guenther Oettinger, European Energy Commissioner; and Abdalla Salem El-Badri, OPEC Secretary General.

With regard to short-term measures, he said, the EU needed to act now in view of securing supplies for the coming winter. Existing European emergency and solidarity mechanisms needed to be reinforced and the EC, together with EU Member States, was set to launch a series of energy security stress tests.

Oettinger noted that all scenarios indicated that in the short-medium term, the EU's oil import dependence would increase considerably, up to more than 90 per cent, due to the progressive depletion of EU oil reserves.

"When it comes to security of oil supply, I wish to praise the key role of OPEC in cushioning against oil supply disruptions in the past few months.

"Recently, as I have already outlined, some producing countries have been confronted with political instability which led to reduced oil production. Despite such unrest, OPEC has managed to maintain its production level at around 30m b/d, providing stability to the oil market," he affirmed.

With regard to oil security in the mid and long term, the Energy Commissioner emphasized the importance of adequate spare capacity from producing countries as the best "safety net" against any possible oil supply disruption.

"Consuming countries also have to do their homework; this is why we have implemented in the EU, and also in the International Energy Agency (IEA), a mechanism of emergency oil stocks which can be released in case of supply disruption."

Oettinger revealed that the emergency stocks maintained by the 28 EU Member States amounted to 130 million tons — nearly one billion barrels. For comparison, the stocks held by the United States Strategic Petroleum Reserve amounted to 696m b.

"We are interested in promoting further international cooperation and transparency concerning oil stocks and oil markets, involving notably major new consumers, such as China and India.

"As far as the European oil market is concerned, the interdependence in relation to oil between the EU, the US, Russia and OPEC as main producing countries, the availability of oil stocks, and the ability to trade and transport

L–r: Omar Ali ElShakmak, OPEC Conference President and Acting Minister of Oil and Gas, Libya; Abdalla Salem El-Badri, OPEC Secretary General; and Guenther Oettinger, European Energy Commissioner.

oil globally, means that there is no immediate threat for the EU in relation to its oil supplies," he stated.

Turning to the subject of oil prices, Oettinger said that in the past three years oil price volatility had actually decreased.

"This positive fact should be acknowledged as it has provided stability in the oil market. However, the latest trends in oil price are not so positive. Oil prices have recently climbed above the $110/b band for quite some days.

"Producers and consumers might have different views on what should be a desirable oil price. However, I think there is a broad agreement that an affordable oil price is a prerequisite for economic growth of all economies, both for the producer and the consumer side. In other words, excessive oil prices will be damaging to our economies."

Oettinger said there was mutual interest of both the EU and OPEC, through the Energy Dialogue, as well as through initiatives in other forums, such as the International Energy Forum (IEF) and the IEA, to enhance cooperation and mutual understanding of the oil price mechanism.

"Today, we need to assess how we can deal with the challenges that I have briefly described for the benefit of all parties. I am looking forward to a frank exchange of views on what can be done, and I am confident that our cooperation will continue to develop in the spirit of mutual trust and collaboration."

Oettinger concluded: "We are confronted with radical changes, challenges and political instability in some parts of the world. However, despite all those challenges, our economies show signs of growth steadily gaining momentum.

"This is leading to a more optimistic economic outlook for the European economy as a whole. All our efforts should lead to create the best conditions for the uptake of the EU economies, in the interest of the citizens of our countries," he added.

In response, OPEC Conference President, Omar Ali ElShakmak, said the Energy Dialogue had grown to become an integral part of global producer-consumer relations.

The Dialogue, he continued, had come a long way over the past decade, not only through the Ministerial meetings, but also in the various workshops, roundtables and joint studies.

They had conducted such joint studies as the potential manpower bottlenecks in the petroleum industry, the most recent oil outlooks and energy scenarios, energy efficiency and its potential impact on energy demand, as well as the petrochemical outlook.

"There is much to be applauded. We have opened up new channels of communication, developed new relationships and shared our concerns, challenges and priorities. There have been some tangible achievements, but I am sure we can all appreciate the importance of furthering our cooperation," he said.

ElShakmak said this would be apparent in the meeting as they discussed a variety of energy-related issues "as we aspire to the stability of the energy market, keeping in mind that the viewpoints of producers and consumers, national oil companies and international oil companies, as well as other stakeholders, are vital to help us achieve this goal."

He said this common understanding was particularly important for a country like his own — Libya.

Difficult time

"Given our proximity to the Mediterranean we have had a long association with the countries of Europe. We value the relationships we have with the region."

At present, he said, Libya was undergoing considerable change. "It is a difficult time for us and our people, but we need to remain optimistic about our future, in which we will need to rebuild our economy, revitalize our markets, and invest and expand our industrial base.

"Thus, the relationships we have with those that help us develop our natural resources — as well as those who consume them — will be an essential element in the revitalization and development of my country's energy industry and its economy."

ElShakmak said Libya had numerous partnerships and joint ventures with international energy companies, many from the EU.

"These were important to our past, continue to be vital to our present, and will no doubt play a significant role in our future. And, of course, the energy supplies that flow from Libya to the EU have been, and remain, vital to both parties."

The OPEC Conference President said that in today's increasingly complex energy landscape, dialogue and cooperation between all parties "is essential as we face many similar challenges and concerns. And even on issues where we may not find common ground, it is essential that we have a better understanding of each other's opinions and perspectives.

"I am sure the EU-OPEC Energy Dialogue will continue to go from strength-to-strength. We have seen it evolve into a strong platform for cooperation between us, OPEC and the EU, as year-on-year we see it further contributing to help us achieve the one goal that I know we all support, that is energy market stability," he added.

In his comments to the meeting, Andreas Papastavrou, EU Minister Plenipotentiary, Deputy Permanent Representative, stressed that relations with OPEC were a key priority of the EU's external energy relations.

"We believe that the EU-OPEC Energy Dialogue has contributed significantly to the excellent relations between us. In this respect, our joint studies, sharing of expertise and knowledge and regular meetings are all invaluable and I wish to stress, on behalf of the EU Presidency, the EU's desire for further developing ties on a wide range of issues."

He pointed out that the EU especially considered that closer cooperation between producers and consumers, aimed at more transparent and predictable oil markets, was necessary.

"After all, affordable and stable oil prices are a prerequisite for economic growth for producer and consumer countries alike. We are all aware of the perils of volatile prices," he affirmed.

For the EU, said Papastavrou, this was fundamental since it was the largest importer of oil and refined oil products globally and almost all transport use relied on oil.

"Our challenge therefore is to keep secure and affordable oil supply against a background of rising demand from other parts of the world, maintaining, at the same time, the highest environmental standards."

He said investments in global oil and gas exploration and production continued to be a matter of the highest importance for Europe.

"All our scenarios, including the most ambitious ones, indicate that by 2035 oil will still represent a key component of our energy mix. In this respect, we consider

"... even on issues where we may not find common ground, it is essential that we have a better understanding of each other's opinions and perspectives."

— ElShakmak

that the meeting held at the end of last year between our experts to discuss the EU's and OPEC's respective energy scenarios was constructive and we would suggest organizing further meetings, in order to exchange views on a regular basis.

"Moreover we need to work together to promote transparent and good quality data regarding reserves, production, spare capacity and investments in oil, but also for gas."

Papastavrou said the fact that Eurostat, as well as OPEC, participated in the Joint Oil Organizations Initiative (JODI) provided an excellent opportunity which should be maximized.

He said the recent events in Ukraine and Iraq had underlined the importance of strong and effective international energy relations.

"The EU is striving to enhance its energy security by establishing a fully integrated market and strengthening our external energy strategy. Today we have the opportunity to discuss the various issues regarding which greater cooperation would be mutually beneficial," he concluded.

Papastavrou's remarks were followed by an address by Diezani Alison-Madueke, Alternate OPEC Conference President, who paid tribute to both the EU and OPEC for their efforts in developing a permanent framework "for this vital dialogue", which had become so important to Member Countries and had considerable influence on the rest of the world.

"I am confident that this process will continue to evolve and grow. We have come a long way indeed since the inaugural meeting over ten years ago."

Mrs Alison-Madueke, Nigeria's Petroleum Resources Minister, stressed that the relationship between OPEC and the EU countries extended far beyond the Energy Dialogue, as the EU was one of OPEC's main trading partners.

Eurostat data showed that since 2000, two-way trade between the EU and OPEC had amounted to $2.4 trillion. This trade continued to gather pace as Members of both the EU and OPEC derived enormous benefit from the stable exchange of goods and services.

"OPEC figures show that, since the turn of the century, our Member Countries have supplied the EU with an average of approximately 3m b/d of crude oil, representing 31 per cent of the EU's annual consumption.

"And although total oil demand from the EU has fallen off in recent years due, amongst other things, to energy efficiency improvements, as well as the financial crisis, the region will always be an important market for this Organization's petroleum," she said.

However, added Mrs Alison-Madueke, energy trade between both blocs was not limited to oil as it extended to gas and renewable sources of energy. Stable gas supply was critical for EU economies. At the same time, the EU was one of the key providers of renewable energy technology and project development capabilities in OPEC Member Countries.

L–r: Diezani Alison-Madueke, Alternate President of the Conference and Minister of Petroleum Resources, Nigeria; Omar Ali ElShakmak, OPEC Conference President and Acting Minister of Oil and Gas, Libya; and Abdalla Salem El-Badri, OPEC Secretary General.

"Clearly, EU technology will be critical in helping us diversify our primary energy sources. In addition to this, OPEC Member Countries also receive a wide range of commodities and services from the EU. In fact, 8.2 per cent of all EU exports go to OPEC Member Countries and, very interestingly, 8.1 per cent of EU imports come from OPEC Member Countries."

Importance of two-way trade

Mrs Alison-Madueke said the difference being that while EU exports to OPEC were mainly machinery, manufactured goods and chemicals, imports from OPEC Members were generally oil-related products.

In addition, she said, EU companies actively participated in the development and production of OPEC Member Countries' hydrocarbon resources. They provided valuable leadership, technological innovations, investment capabilities, and other robust benefits, whilst at the same time participating in the value generated.

"The world today is different from even a year ago when the EU-OPEC Energy Dialogue was last held. In the EU, economies are stronger today with an expected growth of two per cent between 2013 and 2018. But they are also experiencing increasing geopolitical uncertainty, exemplified by the recent tensions in Ukraine."

Mrs Alison-Madueke said that being able to provide stability in this uncertain environment was particularly valuable to the EU.

"Indeed, one of OPEC's core objectives is to ensure stability, transparency and predictability in the international oil market, to ensure that it functions in an effective and orderly manner."

She stressed that OPEC was committed to continuing to provide the world and the EU with the required energy needs.

"What is clear in this increasingly interconnected world is that we need to have a better understanding of each other. Globalization has indeed brought opportunities, as reflected in the emergence of new economic blocs, which are breaking down trade barriers. But this openness has also brought challenges; and these challenges must be faced together, making a dialogue such as ours, imperative," she maintained.

Mrs Alison-Madueke said that in pursuit of its goal to become one of the world's top 20 economies by 2020, Nigeria was working towards diversifying and creating an enabling environment for growth, including an increased participation of local content in the energy sector.

"We are investing heavily in infrastructure, in power generation-capacity, in agriculture, and the industrial sectors. We are also taking steps to boost our human capital, by improving health and education services."

She noted that fellow Member Countries of OPEC were following a similar path, diversifying in anticipation and preparation for the day when they can no longer rely solely on their oil and gas resources.

"Going forward, this can only mean robust trade relations with other economic blocs, including the EU, and an ever-expanding role for our continued dialogue," stated Mrs Alison-Madueke.

The penultimate opening address was conducted by Bruno Pasquino of the Ministry of Economic Development, Italy, who highlighted the interest Italy attached to the EU-OPEC Dialogue in view of the upcoming Italian EU Presidency in the second half of 2014.

He drew attention to how quickly the world was changing, creating unprecedented levels of uncertainty and challenges, which emphasized the importance of collaboration among oil-producing and non-producing countries.

Energy security, he said, was not just an issue of high relevance, but also a "global goal", linked to the international oil markets in a globally interconnected world.

"Relations between the EU and OPEC are moving in this perspective," he observed, adding that collaboration in bilateral and multilateral frameworks should be strengthened.

Pasquino stated that Italy had often stressed the importance of interdependence — rather than simple dependence — in order to make bilateral relations more "sustainable" in the long term.

This was achieved by balancing the supply of energy resources with the export of other products and technology transfers and investments that were necessary to exporting partners, especially in order to improve their upstream capacity, he said.

Promoting the exploitation of endogenous resources, both conventional and unconventional, should, he said, represent a way to ensure reliability of energy security and sources, under proper regulatory control, in order to guarantee the sustainability of operations along the whole value chain — from exploration to production, taking into

"... one of OPEC's core objectives is to ensure stability, transparency and predictability in the international oil market, to ensure that it functions in an effective and orderly manner."

— Alison-Madueke

The OPEC Secretariat team comprised (above l–r): Abdalla Salem El-Badri, Secretary General; Dr Omar S Abdul-Hamid, Director, Research Division; Jorge Oswaldo Tapia, Head, Energy Studies Department; Dr Hojatollah Ghanimi Fard, Head, Petroleum Studies Department; Abdulla Al-Shameri, Office of the Secretary General; Dr Jorge Leon, Energy Demand Analyst; and below (l–r): Nadir Guerer and Garry Brennand, Senior Research Analysts; and James Griffin and Jerry Haylins, Editors.

account the environmental and social impact of the operations and considering national energy policies.

Speaking on Italy's EU Presidency, Pasquino said major issues in the field of energy would dominate the European agenda in the second half of the year.

OPEC Secretary General, Abdalla Salem El-Badri made the final opening comments, stating that the Organization sincerely valued the relationship that had developed with the EU "through this important energy dialogue".

He stressed: "The constructive and positive nature of our dialogue, the expansion of our activities, the success of our joint studies, workshops and meetings, the evolving relationships, and the turning of ideas into concrete actions benefits us all."

El-Badri said the initiative's most recent joint activities, including a meeting of experts to discuss the most recent oil outlooks and energy scenarios of both organizations, as well as a joint study focused on the challenges and opportunities for the petrochemical industry in both the medium and long term, served to add to the list of important issues that had been discussed, debated and studied by the Energy Dialogue over the past decade.

"These include the effects of energy policies on investments, the future of biofuels, carbon capture and storage, the impact of the financial sector on oil prices, manpower bottlenecks and safety in the offshore oil and gas industry.

"At OPEC, we welcome the evolution of this cooperation. We appreciate the frank exchanges and the sharing of viewpoints."

El-Badri professed that it was clear that the importance of dialogue between the world's energy stakeholders — especially in terms of bringing together producers and consumers to discuss the various global and interdependent issues both faced — had never been greater.

"It is important to try and establish common ground for

Members of the EU team, including Andreas Papastavrou (l), EU Minister Plenipotentiary, Deputy Permanent Representative; and Bruno Pasquino (c), of the Ministry of Economic Development, Italy.

action on the energy challenges facing us all. This can help bring about the stability we all desire," he maintained.

El-Badri said the issue of ensuring stability was apparent when the OPEC Ministerial Conference met to review the present oil market situation in Vienna in June.

"Given the relatively balanced nature of supply and demand, with both stocks and spare capacity at comfortable levels, and in recognition of the importance of ensuring market stability which is so important to world economic activity, the Conference decided to maintain the current production level of 30m b/d," he noted.

Ongoing challenges

Looking at current market indicators, El-Badri said OPEC expected this to be the case for the rest of 2014.

"However, there was also recognition (at the Conference) that ongoing challenges remain and Ministers reaffirmed their readiness to respond swiftly to developments that could impact the current market stability."

El-Badri said a major concern remained the ongoing global economic recovery. "Each week and month brings a mixed picture, some growth here, some headwinds there. Here in the Eurozone it has been encouraging to see the region return to positive growth in 2014," he affirmed.

El-Badri said the market also continued to analyze and digest the possible impact of geopolitical events.

"Of course, since the OPEC Conference we have seen the market turn its attention to events in Iraq. The ongoing developments there are a cause for concern, but I should stress that Iraq's production and exports have been unaffected. We will continue to monitor the situation."

But El-Badri pointed out that "our future is far more than just the short-term; we also need to better understand some of the medium- and longer-term issues. For example, there are the ongoing UN climate change negotiations with their possible impact on the energy sector still unclear.

"There is the linkage between prices, the cost of the marginal barrel and investments.

"There are advances in technology and their impacts on exploration and production.

"There are rising industry costs.

"And there is energy poverty, with around 1.4 billion people still having no access to electricity and some 2.7bn continuing to rely on biomass for their basic needs."

El-Badri concluded by saying he hoped that through the EU-OPEC Energy Dialogue "we have come to appreciate that our objectives are more aligned than we thought when we began this dialogue back in 2005. I firmly believe that we have managed to achieve a better understanding of each other.

"It is this balance and understanding that I believe helps us look for shared solutions, where and when appropriate, and further evolve an environment that is conducive to reaching constructive results.

"I hope our dialogue will continue in this spirit in the years ahead," he stated.

All images in this article courtesy Anthony Iguza, NNPC.

"It is important to try and establish common ground for action on the energy challenges facing us all. This can help bring about the stability we all desire."

— El-Badri

Qatar's LNG push as marine fuel seen as potential "game-changer"

Clean ambitions

Despite being the smallest member of OPEC, Qatar's gas resources have made it the largest exporter of liquefied natural gas (LNG) in the world. Now, the Gulf state is eager to sell LNG as a marine fuel and help reduce shipping's carbon emissions.
The OPEC Bulletin *reports on Qatar's new aspirations.*

Once upon a time the lines were clear in how liquefied natural gas (LNG) was used: it fuelled power generation, residential industry, vehicles, and commercial institutions' needs, due to being highly efficient with its environmental benefits producing virtually no sulphur content and low nitrogen oxide compared with fuel oil and marine diesel oil.

But nowadays, another sector is showing interest in deploying LNG as a fuel to meet the ambitious target of reducing carbon emissions by 20 per cent by 2020 — the shipping industry.

As the lifeblood of the global supply chain, carrying around 90 per cent of the world's trade, shipping is rarely appreciated by the wider public. About half of the world's oil production is delivered by vessels.

"Without shipping, the import/export of affordable food and goods would not be possible — half the world would starve and the other half would freeze!" said trade group, International Chamber of Shipping.

The maritime sector accounts for eight per cent of global emissions of sulphur dioxide (SO_2) as it uses heavy fuel oil (HFO), the dredge from refineries, which produces

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oily residue and black smoke and for communities near ports problems in terms of air quality.

Customer diversification

In 2013, Qatar produced 1.6 million barrels/day of liquid fuels. As the world's largest LNG exporter, with 77 million tonnes per year of capacity, the country could become a major player in the marine fuel supply chain having recently embarked on a number of initiatives to lay that foundation.

LNG is not only cleaner-burning, noted Abdul Aziz Al Muftah, Director of Industrial Cities, Qatar Petroleum (QP) and Chairman of the Steering Committee on LNG as Fuel.

"The forthcoming international environmental regulations will create a demand for more LNG-fuelled ships. Concrete initiatives will be taken by QP to build the first LNG-fuelled harbour tug for Ras Laffan port and the first two LNG-fuelled offshore service vessels (OSVs) for QP offshore fields," he affirmed.

Currently, the world's LNG-fuelled fleet stands at 48 and there are 53 LNG fuel new-builds to be delivered up until 2018, according to shipping classification society, DNV GL. And there is room for significant growth with its projections suggesting there could be 1,000 LNG-driven ships by 2020.

"While 90 per cent of all LNG-fuelled ships worldwide are still only sailing in Norwegian waters, the confirmed order book tells a different story," said Senior DNV GL Consultant, Martin Christian Wold. "There is an equal share of ships intended for operation in Norway, Northern Europe and North America."

Qatar will supply LNG to QENERGY Europe (QE), a company based in south-east Europe, which has proposed the POSEIDON-MED LNG bunkering project in the Mediterranean and Adriatic Sea.

Described as the first cross-European border project, the plan is to develop "the LNG transportation, distribution, supply network and infrastructure, defining the

Qatar could become a major player in the marine fuel supply chain having recently embarked on a number of initiatives to lay that foundation.

DNV is advising shipowners to become LNG ready.

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So far, usage of LNG to power vessels has been limited to short-sea voyages and inland waterways.

framework for a well-functioning and sustainable relative market (vessels) for its demand," said QENERGY.

But POSEIDON-MED requires funding to take off and QENERGY has applied to the European Union for it. The company has also sought support from many European governments, EU/Mediterranean port authorities, the Mediterranean and Adriatic shipping industry, and EU and Greek banks.

QENERGY is determined to revive dying shipping in the East Mediterranean and "increase fleet competitiveness, efficiency, and sustainability," the company explained.

Nevertheless, in July, the Qatar-based Nakilat-Keppel Offshore and Marine Shipyard signed an agreement with HeLenGi Engineering to retrofit Greek ferries as part of the POSEIDON-MED initiative.

In February, Nakilat also agreed to work with Qatargas, RasGas, the country's LNG producers, and Danish engine manufacturer, MAN Diesel and Turbo, to convert a Q-Max vessel to use LNG as an alternative to heavy fuel oil in the main engines.

This pilot project at Erhama Bin Jaber Al Jalahma Shipyard facilities in Qatar's Port of Ras Laffan demonstrates the nation's commitment to cutting its exhaust gas and greenhouse gas emissions.

"The Q-Max will be the world's first low-speed marine diesel engine to be converted to use LNG as a fuel. The modification will meet current known and future stated global emissions regulations," said the parties.

DNV GL is leading talks between maritime stakeholders on expanding LNG bunkering infrastructure, which has been one of the main reasons why LNG as a marine fuel has not really taken off.

It has published a Recommended Practice (RP) on LNG bunkering in the Middle East and South Asia in connection with Qatar's decision to supply LNG bunkers in the region.

The RP provides guidelines for safe operation of bunkering facilities considering LNG's cryogenic and combustion qualities and the training of staff on this major transition from HFO. Despite these reservations, LNG has been safely used as fuel for non-LNG carriers for more than 13 years and there have not been any reported incidents with significant LNG release in more than 50,000 bunkering operations.

"Qatar's entry as a provider of LNG for the marine


Shell


Shell

industry will be a game-changer given that it is the largest single exporter of LNG globally," said Shahrin Osman, DNV GL Regional Manager of Maritime Advisory for the Middle East and India.

"Another important reason for launching the RP is to minimise the barriers to entry in this market by establishing common equipment and procedural requirements worldwide. This will allow more players to enter the market so that individual ships are not limited to bunkering in just a few locations," he observed.

The classification society is carrying out a study to determine what impact Qatar could have in the LNG fuel supply market which is the million dollar question.


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Lloyd's Register suggests that LNG could account for 11 per cent of the marine fuel market by 2030 from a non-existent share in 2010.

Drivers

So far, usage of LNG to power vessels has been limited to short-sea voyages and inland waterways as there are LNG bunkering facilities between fixed points. Long-haul trade of LNG fuelled ships is yet to pick up pace.

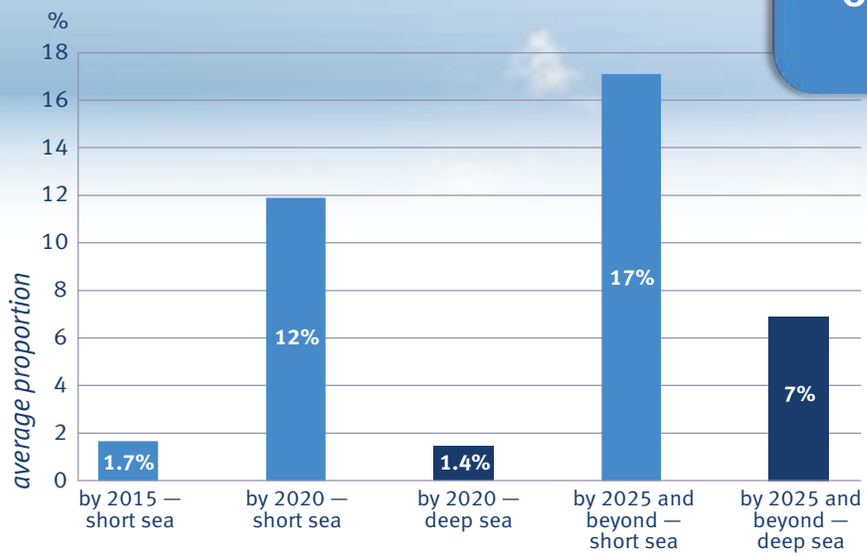
Research from another shipping classification society — Lloyd's Register — suggests that LNG could account for 11 per cent of the marine fuel market by 2030 from a non-existent share in 2010. So what is driving the growing interest in LNG as a marine fuel?

The answer is simple: tougher environmental regulation giving ship-owners less leeway to emit pollutants from fuel oil. In a bid to reduce its environmental footprint, the International Maritime Organization (IMO), the regulator, has set the limit of 0.1 per cent of sulphur — effective from January 2015 in Emission Control Areas.

These are specially designated shipping zones in

Potential availability of LNG for deep sea shipping

What proportion of the total bunkering volume at your port do you expect to be LNG within the following periods?



Source: Lloyd's Register LNG Bunkering Infrastructure Survey 2014.

2014 study — LNG will reach up to 11 per cent of the Deep Sea fuel mix by 2030

Global Marine Fuel Trends 2030

Europe and North America with tighter emission limits than other areas of the sea, due to their oceanographic and ecological condition and sea traffic.

"The shipping industry is investing billions of dollars in order to ensure compliance. The huge costs involved could have a profound impact on the future structure of the entire shipping industry and the movement of international trade," said ICS Chairman, Masamichi Morooka.

"It is therefore incumbent on governments to get the details of implementation right as we enter this brave new world in which fuel costs for many ships will increase overnight by 50 per cent or more," he stated.

Fuel represents roughly 60–70 per cent of a ship's operating costs. High oil prices are also another factor pushing ship-owners to consider LNG fuelled vessels.

During the last ten years fuel costs have soared by about 300 per cent, according to the ICS. In a depressed market where ship-owners are making less money due to reduced trading on the back of the global recession, any initiative to save money is worth assessing.

"The relative low price of natural gas and LNG compared with current high residual bunker and distillate fuel prices in the US and Europe has added to the attractiveness of LNG as an alternative marine fuel," said LNG and natural gas analyst, Amokeye Adede.

Barriers

For LNG to become a fuel of choice on long-haul trade, increasing bunkering capability is going to be a vital driver, maintained Latifat Ajala, Lloyd's Register's Senior Market Analyst.

"Global ports are gearing up for a gas-fuelled future for shipping. Now we can clearly see that. Traditional bunkering ports will need to be able to offer gas just as they offer the traditional choice of fuel oil or

Qatar hopes to build up maritime customers for its LNG production.

distillates today. But gas can only really take off if supply is more like orthodox bunkering arrangements," he explained.

Other barriers to the widespread implementation of using LNG in the shipping sector are the substantial sums ship-owners need to spend on vessel propulsion and fuel handling systems, space constraints onboard for the LNG storage tanks that would mean less space for cargo and therefore less revenue, plus LNG availability. There will also be a greater need for harmonization to ensure safety and efficiency in the bunkering process worldwide, primarily to safeguard those who are involved and uphold the LNG industry's excellent safety track record. Although LNG as a marine fuel is increasingly attractive for ship-owners, the global outlook is still hazy considering fuel price differentials and regulations. Flexibility in fuel choices for all parties is key.

However, for the Qataris its nimbleness in responding

to emerging market needs has positioned the nation, with just a population of 1.8 million, as a powerful force connecting the East and the West.

Now, adding maritime customers is a win-win situation for its abundant gas resources from the giant North Field and its environmental mission on educating the wider world about the benefits of using natural gas.

Former OPEC Econometrician gives lecture on natural gas

Oswaldo Tapia (l), Head of OPEC's Energy Studies Department; and Professor Franz Wirl (r).

A former OPEC economics expert and now a university professor in Vienna made a return to the Organization's Secretariat in the Austrian capital in July when he was invited to take part in the OPEC lecture series.

Professor Franz Wirl, who was an Econometrician with OPEC between 1977 and 1983, spoke to Secretariat professionals on *'Natural gas markets: fundamentals and regional prospects'*.

The OPEC lecture series, launched earlier this year, is aimed at bringing international experts to the Secretariat to share information and provide their perspectives on energy-related themes.

Wirl, an Austrian, since 2000 has been Chair for Industry, Energy and the Environment of the Department of Business Administration at the University of Vienna, where he studied Mathematics between 1971 and 1976.

He attained his PhD in 1982, one year before he left OPEC to take up a position as Assistant Professor in the Institute of Energy Economics at the Technical University of Vienna, where he remained for 12 years. Fittingly, his doctorate was in 'optimal resource depletion: application to the world oil market'.

In 1995, Wirl, who has made numerous study visits, including to Harvard University, the University of Southern California, the University of Stanford, and the East-West Centre in Honolulu, became Chair for Public Economics at the University of Magdeburg in Germany. He remained in this position for five years before returning to Vienna.

Throughout his career, Wirl has published more than 200 articles in the leading journals of energy and environmental economics and other economic publications.

His roots with the OPEC Secretariat have always remained strong and since his leaving have seen him carry out consultancy work for the Organization, as well as discussing topical issues with staff members on a more informal basis.

He has also contributed papers to both the OPEC Review (now the OPEC Energy Review) and the OPEC Bulletin.

Fundamentals and puzzles

In his introductory remarks, Oswaldo Tapia, Head of OPEC's Energy Studies Department, welcomed Wirl back to the Secretariat, and listed some of his many academic achievements.

In the presentation, which he referred to as *"fundamentals and puzzles"*, Wirl looked at some of the specifics of the natural gas markets, making it clear that such markets were different from those dealing with crude oil.

He maintained that as an energy product, natural gas was "a very homogenous commodity", transportation aside.

Detailing such issues as sunk costs, hold-up problems, contracts and competition, Wirl pointed to the relationship between economics and politics in the gas industry, the most recent example being the Russia-Ukraine stand-off.

He also drew the audience's attention to what he termed the puzzle over the recent large differences in regional prices of natural gas, in particular the low gas prices in the United States compared with Europe or Japan. The substantial price differences suggested arbitrage was at work.

The major claim that the "usual suspects" of technical, contractual and market restrictions, capacity limits in shipping, liquefaction and regasification, transportation costs and high investment cost, could not explain the marked price differential, he observed.

The one-hour lecture concluded with a question and answer session.

Wirl's presentation was the second in the OPEC research lecture series launched in February this year when Professor Ken Koyama, Managing Director and Chief Economist of the Institute of Energy Economics (IEEJ) in Japan, visited the Secretariat to speak on 'A Japanese view on the world energy future'.

Professor Franz Wirl

Career

- Study of Mathematics at the Vienna University of Technology (1971–76).
- Econometrician with the OPEC Secretariat (1977–83).
- PhD (1981), Institute of Energy Economics (1983–95), Habilitation (1989), Chair for Public Economics (1995–2000) at the University of Magdeburg, Germany.
- Since March 2000, Chair for Industry, Energy and Environment at the Department of Business Administration, University of Vienna, Austria.
- Study visit at Harvard University, University of Southern California, the University of Stanford, University of Technology Sydney, East-West Centre, Honolulu, University of California at Santa Barbara and Pontificia Universidad Católica de Chile.

Research

- Energy markets (mostly international, co-editor of the Energy Journal).
- Environment (member of the Scientific Society of German-speaking Environmental and Resources Economists).
- Resources, public enterprises (Commission Public Economics and Administration), intertemporal decisions, dynamic games, real options, managerial economics, agency problems, bifurcations, etc.

Publications

- Has extensively published in the leading journals of energy and environmental economics and other economic journals. Three books, one on regulations, two on energy conservation and many presentations complement the more than 200 published journal articles. This scientific output is confirmed by the No 1 ranking of professors in management science in German speaking countries.

UAE programme "quenches the thirst of millions"

Water Aid scheme exceeds target — can now help seven million sufferers

The response to the Water Aid campaign launched by the United Arab Emirates (UAE) towards the end of June has been so successful that seven million people in developing countries will now benefit from the scheme, two million more than initially targeted.

The project initially aimed at providing clean drinking water to five million people in 60 countries. It was launched by Sheikh Mohammad Bin Rashid Al Maktoum, UAE Vice-President, Prime Minister of the UAE and Ruler of Dubai, on June 28, to coincide with the start of the Holy Month of Ramadan.

According to the Dubai government, an estimated 3.4 million people die across the globe each year, due to a lack of clean water.

The UAE campaign, named Suqia, in raising 180 million dirhams ($49m) in just 18 days, far exceeded its goal, the *Emarat Alyoum* daily reported. It noted that contributions from just UAE Vice-President Sheikh Mohammad alone would benefit one million people.

Other major donors included large companies, such as Dubai Holding, which was reported to have donated 5m dirhams ($1.3m), while the Zayed bin Sultan Al Nahyan Charitable and Humanitarian Foundation donated 2.25m dirhams ($612,000).

Local media reported that there had also been numerous smaller contributions from ordinary citizens.

The funds are expected to help finance drilling, pumping and water purification methods in countries of need.

UAE Red Crescent, which is implementing the programme, has already started work on drilling wells in areas such as Iraq, India, Tanzania, Afghanistan, Pakistan, within Syrian refugee camps in Erbil, as well as in Somalia, Sudan, Indonesia, Niger, Togo and Ghana.

The UAE initiative comes at a time when United Nations statistics show that more than 880 million people around the world are without access to healthy and clean water, while 3.6 million people, 90 per cent of them under the age of five, die every year because of thirst and diseases caused by lack of clean water.

Suqia is the latest in a continuing series of humanitarian initiatives launched by OPEC Member Country, the UAE, to improve the living conditions of a large number of people around the world.

These included the 'Campaign to clothe one million children around the world' initiative, launched last year and which exceeded its set target after only ten days in being.

Sheikh Mohammad, in praising all those who had supported the water aid campaign, stressed that Suqia represented "an aid of goodness" and "quenches the thirst of millions".

And during a reception of the campaign's key supporters at Za'beel Palace, in Dubai, he announced the launch of an international prize of $1m for finding sustainable solutions to water shortage all over the world through the use of solar energy to desalinate and purify water.

Water Aid Foundation

He also announced the establishment of the UAE Water Aid Foundation, which had the mandate of conducting research and studies to support the production of clean water using solar energy.

"Water is the spirit of life and providing it for the needy is reviving millions of people," — UAE Vice-President

The aim, he said, was to provide new, cheap and innovative solutions for millions around the world who suffered from scarcity of water and polluted drinking water.

He stated: "In the next phase, we will work on searching for durable and radical solutions to the problem of water scarcity using solar energy, which God blessed our planet with, in the process of purification and desalination of water in needy areas around the world.

"Therefore, we invite all research institutions around the world to participate in a competition of $1m to be awarded to people who can find sustainable, cheap and innovative solutions.

"Furthermore, in this context, the UAE Water Aid Foundation will allocate its resources to helping to provide clean water to hundreds of millions of needy people around the world, using solar energy as well."

Sheikh Mohammad also announced a donation to provide water for a million people around the world on behalf of all the citizens of the UAE.

"Water is the spirit of life and providing it for the needy is reviving millions of people," he was quoted as saying.

Sheikh Mohammad Bin Rashid Al Maktoum, UAE Vice-President, Prime Minister of the UAE and Ruler of Dubai.

Sheikh Mohammed stressed that the UAE Water Foundation would not differentiate between one person and another "as with all of our humanitarian works."

He added: "Such is the UAE humanitarian mission that lies in helping the afflicted, the needy and disadvantaged people all over the world without any distinction."

Six new fields set to boost Algeria's gas production

Algeria has reported promising hydrocarbon production results for the first quarter of this year.

Algeria is looking to boost its domestic gas output capability with the start of production from six new fields.

According to the national energy company, Sonatrach, the six fields had a total production capacity potential of 74 million cubic metres/day over the next three years.

The new fields will be a welcome boost to the OPEC Member Country which has suffered a recent decline in its gas production and exports.

According to the *OPEC Annual Statistical Bulletin (ASB),* Algeria's gas exports in 2013 amounted to 46.71 billion standard cubic metres, down from 54.60 bcm the previous year.

Its gross production of natural gas over the same period also declined — from 182.60 bcm in 2012 to 179.49 bcm last year. However, Algeria is still the second-largest gas exporter in OPEC after Qatar, the world's biggest exporter of liquefied natural gas (LNG).

Along with its crude oil exports, which amounted to around 744,000 b/d on production of 1.2m b/d in 2013, Algeria relies heavily on its energy sales abroad to support its state spending to finance development and social programmes.

New gas fields

Of the new gas fields, Sonatrach said in a report that the Tinhert field was expected to have an initial output of 14 mcm/d, climbing to 24 mcm/d in 2017.

Two other fields — Hassi Bahamou and Hassi Mena — were scheduled to begin output in 2017 with their capacity totalling 21 mcm/d.

Sonatrach disclosed that the Reggane field, to be developed with Spain's Repsol, Germany's RWE-DEA and Italy's Edison, was slated to also begin output in 2017 with 12 mcm/d.

Another 12 mcm/d of production would come from the Touat field, which would be developed by Sonatrach in partnership with France's GDF.

Finally, Sonatrach said it was developing the Timimoun field jointly with Total of France. Production of five mcm/d was scheduled in 2018.

Algeria has reported promising hydrocarbon production results for the first quarter of this year.

Official figures showed that, as new projects went onstream, domestic hydrocarbons output increased by 13.5 per cent in the first three months of 2014, compared with a ten per cent decline in the same period last year.

According to the National Statistics Office, oil and gas production in the period improved by 5.1 per cent, while output of LNG surged by 19.9 per cent, backed by the government's announcement of the start-up of a new LNG export plant at Skikda.

The data also showed that domestic output of refined oil products in the first quarter rose strongly by 61.1 per cent.

The domestic refining sector has also received a boost with the news that the country's largest oil refinery had increased throughput following extensive maintenance work.

Court ruling set to remove NITC from EU sanctions' list

The National Iranian Tanker Company (NITC) has won a decisive court ruling that will remove it from the list of companies that are the subject of sanctions drawn up by the European Union (EU).

Ali Akbar Safa'ei, NITC Managing Director, has confirmed the European Union General Court's ruling that rejected sanctions against the company as unjustified.

Quoted by Iran's Tasnim news service, he stated that the company could now be permanently removed from the EU sanctions' list very soon.

He explained that if the European Commission did not appeal against the verdict, usually within two months of the ruling, then the NITC would be completely removed from the list of EU sanctions.

Safa'ie was reported by Iranian media as saying he hoped the firm would be able to return to European markets soon.

Insufficient evidence

The court ruled that the EU had provided insufficient evidence to justify sanctions imposed on the NITC.

The Luxembourg-based General Court, the second-highest court in the EU, said in the ruling delivered on July 3 that there was not "the slightest evidence capable of supporting" claims by the Council of the European Union that the company was controlled by the government of Iran or that it provided financial support to the state via its shareholders.

The court upheld the NITC's plea that the EU had made a "manifest error of assessment".

The ruling stated: "It follows that there is no justification for the listing of the applicant."

However, the court stipulated that its ruling would be suspended pending the expiry of the period for any appeal to be lodged.

The judges hearing the case ordered the EU to pay for the court proceedings and recompense the NITC for the damages it had suffered as a result of the sanctions.

The NITC is the Iranian state entity that transports the vast majority of the OPEC Member Country's seaborne crude oil exports.

It operates a fleet of 37 supertankers and 14 smaller vessels. The company possesses an overall carrying capacity of around 86 million barrels of oil.

In both 2010 and 2012, the EU imposed embargos against the NITC, asserting that the company was involved in illegal activities.

Iran is currently involved in negotiations with the so-called Group 5+1 (Russia, the United States, the United Kingdom, China, France and Germany) to draw up a comprehensive nuclear deal that will effectively lead to the lifting of sanctions on the country.

The NITC operates a fleet of 37 supertankers and 14 smaller vessels.

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Kuwait's oil capacity expansion plans on track

Kuwait's Oil Minister, Dr Ali Saleh Al-Omair.

Kuwait has reiterated that plans to boost its domestic crude oil production capacity to four million barrels/day by 2020 are still on track.

In refuting claims by the Paris-based International Energy Agency (IEA) that its output capacity will actually drop, the OPEC Member Country made it clear that it intended to invest some $40 billion over the next five years in its plans to increase the country's crude oil production capability by 800,000 b/d.

It pointed out that the IEA's recent report, stating that Kuwait's capacity would decline by more than 400,000 b/d to 2.47m b/d by the end of the decade, was "far from reality".

The state-owned Kuwait Oil Company (KOC) was quoted by the *International Oil Daily* as saying that its own production capacity would reach 3.65m b/d by 2020, as part of the 4m b/d target.

The firm noted that the other 350,000 b/d of capacity would come from the Neutral Zone that Kuwait shared with Saudi Arabia and was operated by a different company.

It stressed that it was currently executing an "intensive capital investment programme" to achieve the production targets.

In its response to the IEA report, KOC revealed that in order to fulfill its commitment, it was implementing an investment programme of over 12bn Kuwaiti dinars ($40bn) that would allow the company to achieve its production capacity targets.

"To our surprise, an extremely negative report was developed by the IEA," KOC was quoted as saying, while the Kuwait Petroleum Corporation (KPC) said: "We are working with the IEA to correct the misunderstanding in their report."

According to data communicated directly to the OPEC Secretariat, Kuwait produced 2.8m b/d of crude oil in June. KOC has announced that the country's output capacity currently stands at around 3.2m b/d.

Boost capacity

Kuwait's Oil Minister, Dr Ali Saleh Al-Omair, has said that the intention as part of the programme was to boost capacity by 150,000 b/d next year to reach 3.35m b/d.

KOC has said that it expects to spend a large part of the investment — some $15bn — in northern Kuwait, where the company was looking to expand capacity from the current 700,000 b/d to 1m b/d. This, it said, would be achieved under three major development schemes.

The state company has already started the process of awarding major construction contracts required in this regard and hopes to reach a production capacity target of 3.5m b/d by 2017.

The companies involved are Petrofac of the United Kingdom, Larsen and Toubro of India and the Dodsal Group, which is based in fellow OPEC Member Country, the United Arab Emirates (UAE). They will provide three separate gathering centres, each with a capacity to handle 100,000 b/d, which KOC plans to construct in the northern region.

PDVSA to increase crude output, boost refining maintenance

Venezuela is looking to boost its production of light and medium-grade crudes from its mature fields in the west of the country. It is also planning to enhance its refining maintenance.

According to an official with the state energy concern, Petroleos de Venezuela SA, output would be increased by some 280,000 barrels/day. The scheme, requiring investment estimated at $5.3 billion, would be implemented between 2014 and 2019.

Jose Luis Parada, Head of Exploration and Production at PDVSA, was quoted as saying that activities aimed at achieving the production increase would be centred on the Sur del Lago and Trujillo divisions in the La Franquera, Tomopro and La Ceiba fields

He said that in these three fields, which had the best prospects of growth in the region, just 44 per cent of their remaining reserves were currently in production, leaving a lot of scope for improvement.

Parada, who was speaking at the Fourth Hydrocarbons Congress, held in Maracaibo, Venezuela, in early July, disclosed that five divisions in western Venezuela — Sur del Lago, Trujillo, Costa Occidental, Costa Oriental and Lago, a region that had a long history of oil exploration — held an estimated 19.4bn barrels of crude oil reserves.

"We face the challenge of increasing production in fields that have lost pressure and which show advanced obsolescence in infrastructure," he was quoted as saying.

Parada revealed that PDVSA's development plan aimed at enhancing the recovery factor of the fields to 22.6 per cent from the current 15.6 per cent, in addition to replacing infrastructure, including gas compressors, pipelines and vapor generation plants.

According to data submitted directly to the OPEC Secretariat, Venezuela produced a total of 2.81m b/d of crude oil in June.

The development work in the east of the country will supplement PDVSA's oil production activities in eastern Venezuela, especially the Orinoco Oil Belt, where the country's massive heavy oil resources are located.

Under the company's 2013–19 business plan, crude oil production capacity is set to increase to 6m b/d.

Under PDVSA's 2013–19 business plan, crude oil production capacity is set to increase to 6m b/d.

Meanwhile, PDVSA is set to spend $3bn on maintenance of its refining system over the next year.

Maintenance programme

Jesus Luongo, Director of PDVDA's Refining Operations, said at the Maracaibo conference that, currently, the company's refineries in the country were processing 1.2m b/d of crude. He disclosed that the maintenance programme of the plants was already underway.

In August 2012, the nation's 645,000 b/d Amuay refinery suffered an explosion and fire that destroyed nine storage tanks and killed 42 people. Since that time, the plant's throughput had not bettered 70 per cent of normal capacity.

"We have recovered much of our production since the accident at Amuay in August 2012 that significantly affected operations in that year and partially in 2013," said Luongo.

6th OPEC International Seminar

OPEC calls for nominations for its **Research and Journalism Awards**

OPEC has issued a call for nominations to be submitted for its two periodic industry Awards, the one for Research and the other for Journalism. The competitions honour distinguished individuals who have made outstanding contributions to the petroleum industry and oil-related issues, particularly in enhancing cooperation between oil producers and consumers.

The **OPEC Award for Research** is given to researchers who have shown dedication to research and analysis of important oil related issues, contributed to improving the understanding of the key determinants that support oil market stability, and have exhibited a consistently critical, yet impartial, view on oil-related issues in public debates and discourse.

The successful candidate will also have demonstrated a high level of objectivity, integrity and innovative thinking throughout his/her career and furthered knowledge in the oil industry by encouraging and promoting young researchers within OPEC Member Countries and the developing world.

The winner of the OPEC Award for Research will receive a commemorative plaque and €27,000 in prize money.

The **OPEC Award for Journalism**, which is open to both print and broadcast journalists, is given to an experienced journalist or media organization that has delivered objective and balanced reporting/analysis of the oil market and related issues for more than ten years.

The OPEC Award for Journalism also consists of a plaque and a certificate. In addition, OPEC will make a donation of €6,000 on behalf of the winner to an institution or charity of his/her choice.

Both Awards will be presented by the President of the OPEC Conference on the occasion of the 6th OPEC International Seminar, scheduled to take place at the Hofburg Palace in Vienna, Austria, on June 3–4, 2015.

The selection process for the Awards is entrusted to two panels of experts, whose knowledge and experience enable them to make an insightful judgment on the achievements of potential winners in both fields.

OPEC established the two Awards to acknowledge and celebrate the past efforts of researchers and journalists working in the oil industry, and to encourage future research endeavours and objective reporting.

Previous awards

The OPEC Award for Research was first made in 2004 at the 2nd OPEC International Seminar, which was held in Vienna, in the September of that year.

It went to Professor Robert Mabro, Emeritus Fellow of St Anthony's College, Oxford University, and a Fellow of St Catherine's College, Oxford.

Mabro, a former Director of the Oxford Institute for Energy Studies, became Honorary President of the Institute in 2006.

In 2007, together with John Mitchell and Dr Daniel Yergin, he received the King Abdallah Award for distinguished research on energy. The awards were presented during the Third OPEC Summit of Heads of State and Government, held in the Saudi Arabian capital, Riyadh, in November of that year.

The second OPEC Award for Research, made at the 3rd OPEC International Seminar in Vienna, in September

2006, was given to economist, Professor Peter Odell, then Professor Emeritus of International Energy Studies at Erasmus University, Rotterdam.

Odell, who was described at the presentation ceremony as a "gift to academia" and a legend in the global energy sector, has devoted his whole life to research in petroleum economics. In 1991, he was honoured by the International Association of Energy Economics for his "outstanding contributions to the subject and its literature."

The third winner of the OPEC Award for Research and honoured at the 4th OPEC International Seminar, in Vienna, in March 2009, was Professor Paul Stevens, Emeritus Professor at the Centre for Energy, Petroleum and Mineral Law and Policy of the University of Dundee.

Stevens has also enjoyed a long and illustrious career in the oil industry.

And Professor Oystein Noreng, of the BI Norwegian Business School, was the recipient of the last OPEC Award for Research. It was presented to him at the 5th OPEC Seminar, held in the Austrian capital in June 2012, in recognition of his life-long academic work in the field of energy economics and petroleum.

Meanwhile, the inaugural OPEC Award for Journalism was made at the 4th OPEC Seminar in 2009. It went to respected journalist, eminent scholar and academic, Dr Walid Khadduri, a former Executive Editor and Editor-in-Chief of the Middle East Economic Survey (MEES), who, at the time, was Economics Editor of the London-based Dar Al-Hayat news service.

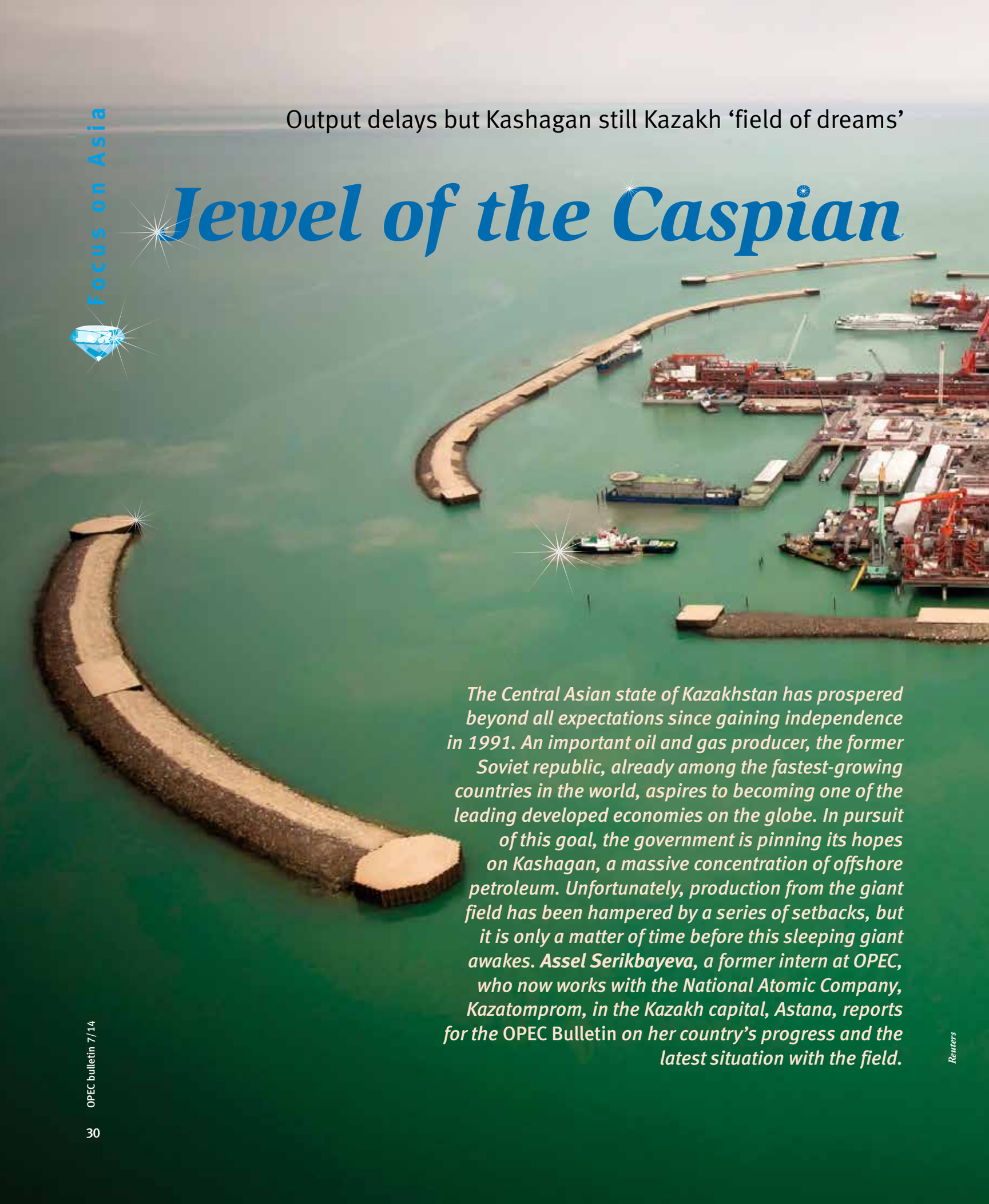
And at the 5th OPEC Seminar in 2012, the OPEC Award for Journalism was handed to Bloomberg's OPEC news team.

The deadline for nominations for both the 2015 OPEC Award for Research and the OPEC Award for Journalism is ***August 25, 2014.*** Additional information about both the OPEC Award for Research and the Award for Journalism, as well as application forms and the procedure for submitting nominations, is available on the OPEC website at: www.opec.org.

Both Awards will be presented to the winners at the 6th OPEC International Seminar, to be held in Vienna in June 2015, again at the historic Hofburg Palace.

Output delays but Kashagan still Kazakh 'field of dreams'

Jewel of the Caspian



The Central Asian state of Kazakhstan has prospered beyond all expectations since gaining independence in 1991. An important oil and gas producer, the former Soviet republic, already among the fastest-growing countries in the world, aspires to becoming one of the leading developed economies on the globe. In pursuit of this goal, the government is pinning its hopes on Kashagan, a massive concentration of offshore petroleum. Unfortunately, production from the giant field has been hampered by a series of setbacks, but it is only a matter of time before this sleeping giant awakes. ***Assel Serikbayeva****, a former intern at OPEC, who now works with the National Atomic Company, Kazatomprom, in the Kazakh capital, Astana, reports for the* OPEC Bulletin *on her country's progress and the latest situation with the field.*

Reuters

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A central place of downtown Astana, the national capital of Kazakhstan.

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Khazakhstan's President Nursultan Äbishuly Nazarbayev.

Located in the heart of Eurasia, in a number of ways, Kazakhstan has outperformed all other Central Asian states. Benefitting from rich natural resources, the country has recovered admirably from the collapse of the Soviet Union and for most of the last decade has posted impressive trade statistics and economic results. Kazakhstan is an upper-medium-income country with per capita GDP of about $13,000 in 2013.

According to the World Bank, strong domestic demand, coupled with increased oil output and a resurgence of crop production, has boosted the country's economic growth from five per cent in 2012 to six per cent in 2013.

Currently, Kazakhstan is the largest economy in Central Asia. It possesses enormous reserves of oil, as well as solid minerals and metals. The country also has considerable agricultural potential with its vast steppe lands accommodating both livestock and grain production. The country is one of the world's major exporters of wheat, which is renowned for its high quality.

The prospects of considerable additional oil output from Kashagan when it comes onstream should help further boost economic activity in the coming years.

The fact is that increased hydrocarbon revenues have already helped to improve domestic infrastructure and social services over the past 20 years. Kazakhstan has invested heavily in its integration into the global economy, adapting international standards in key productive, financial and administrative sectors.

The Foreign Investors' Council, chaired by the President of the Republic, is an advisory body established in 1998 to promote direct dialogue between the government and foreign investors. It also strives to efficiently address key issues related to investment activities in the country.

Over the years, Kazakhstan has made significant progress in terms of human development and economic growth, with GDP per capita significantly increasing in the past decade. It has also achieved a significant reduction in domestic poverty levels and has seen improvements in social development indicators over the last 15 years. In 2010, the United Nations Development Programme ranked the country 69th out of 187 countries in its Human Development Index.

In 2002, Kazakhstan became the first former Soviet state to receive an investment-grade credit rating. The World Bank's 'Doing Business Index' is also positive about the nation, particularly in relation to the other countries

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The country is one of the world's major exporters of wheat, which is renowned for its high quality. Shown here is a wheat field in the Kazakh steppe.

Night long exposure image of the big fountain in the National Park of the first President of Kazakhstan, Almaty.

of the former Soviet Union. Owing to its relative stability, the country was ranked 49th out of 185 countries on the index in 2013 — a position that marked an improvement of ten places from 2011.

Astana is making a serious effort to diversify the Kazakh economy by moving away from a concentration on the energy and mining sectors towards the growth of other industries.

New political course

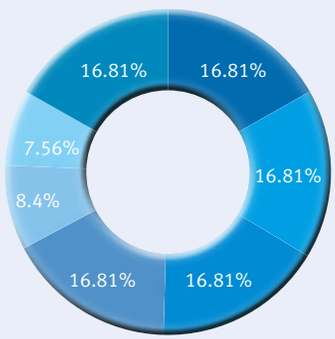
In his official address to the nation in January this year, President Nursultan Äbishuly Nazarbayev highlighted the new political course for Kazakhstan until 2050, the main goal of which, he said, is to join the group of 30 most developed countries in the world.

In order to achieve this goal, the growing energy provider to a large extent relies on the export of oil and solid minerals. That is why the Kashagan mega project is so important for the country's development going forward.

Named after a 19th century Kazakh poet from Mangistau, Kashagan is one of the world's largest oil discoveries of the last 40 years. The field extends over a surface area of approximately 75 kilometres by 45 km.

Ever since its discovery in July 2000, Kashagan, located in the Kazakh sector of the Caspian Sea, close to Atyrau, has been described as the largest oil field outside the Middle East.

In order to develop the field, a new operating company — Agip Kazakhstan North Caspian Operating Company NV (Agip KCO) — was formed in 2001. However, to efficiently manage a project of this scale, a new operating consortium, the North Caspian Operating Company B V (NCOC), officially took over the responsibilities formerly held by Agip KCO in 2009.



North Caspian Operating Company NV

Shareholders

- AgipCaspian Sea BV (16.81%)
- KazMunayGas Kashagan BV (16.81%)
- ConocoPhillips North Caspian Ltd (8.40%)
- ExxonMobil Kazakhstan Inc (16.81%)
- Inpex NorthCaspian Sea Ltd (7.56%)
- Shell Kazakhstan Development BV (16.81%)
- Total EP Kazakhstan (16.81%)

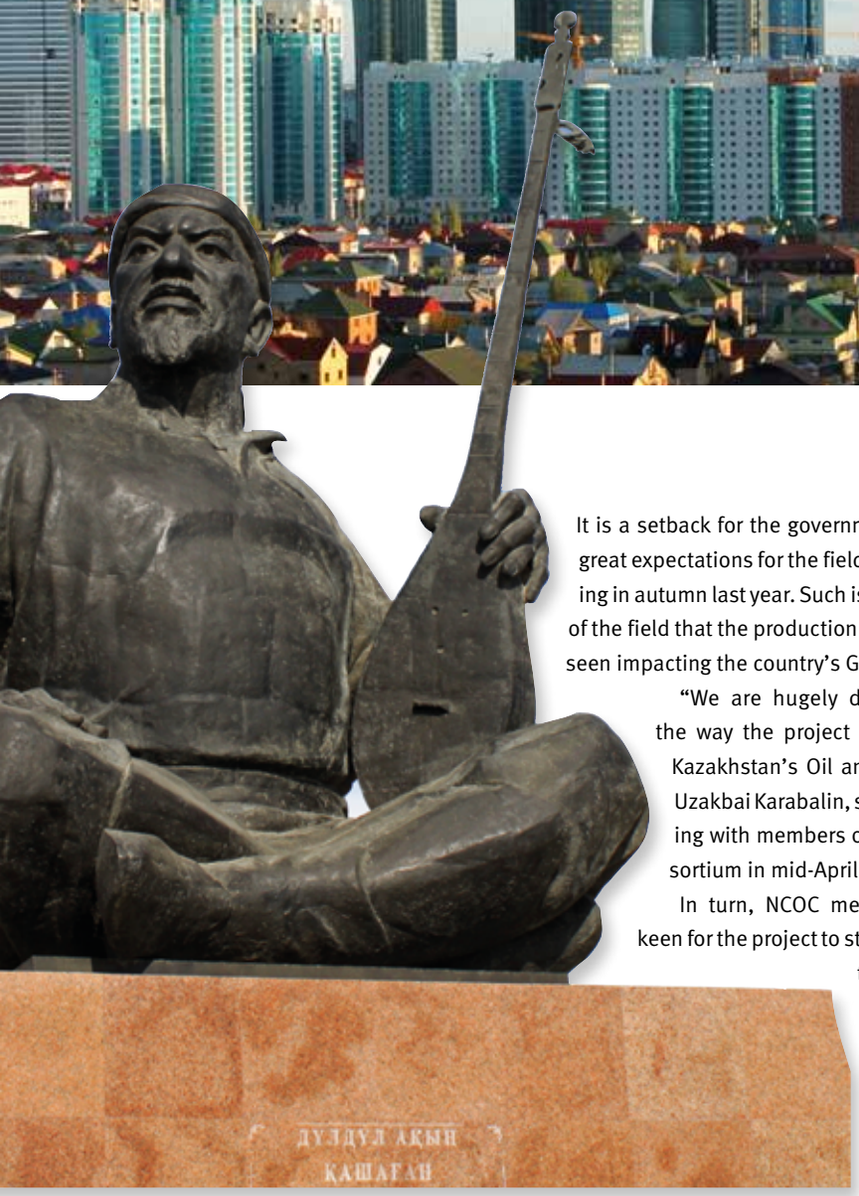
ConocoPhillips sold its share to Kazakhstan's KMG.

The shareholders of this concern are AgipCaspian Sea B V (16.81 per cent share), KazMunayGas Kashagan BV (16.81 per cent), ConocoPhillips North Caspian Ltd (8.4 per cent), ExxonMobil Kazakhstan Inc (16.81 per cent), Inpex NorthCaspian Sea Ltd (7.56 per cent), Shell Kazakhstan Development BV (16.81 per cent) and Total EP Kazakhstan (16.81 per cent). ConocoPhillips has withdrawn from the Kashagan project, selling its share to Kazakhstan's KMG.

Oil production at Kashagan actually started on September 11, 2013. However, it was suspended two weeks later — on September 24 — due to a gas leakage. The production process was resumed shortly after, but then another leak was detected in October.

After investigation, it was decided to replace pipelines that had failed to withstand corrosion exacerbated by the presence of toxic hydrogen sulphide. Oil production at Kashagan is now suspended until the operating company repairs all the affected pipelines.

View of the skyline of Astana city, which has been chosen to host the Expo 2017.



Monument to Kazakh akynu Kashagan. The Kashagan field has been named after the 19th century Kazakh poet from Mangistau, Kashagan.

It is a setback for the government, which had great expectations for the field to start producing in autumn last year. Such is the importance of the field that the production delay is actually seen impacting the country's GDP growth.

"We are hugely disappointed by the way the project is progressing," Kazakhstan's Oil and Gas Minister, Uzakbai Karabalin, said after a meeting with members of the NCOC consortium in mid-April.

In turn, NCOC members are also keen for the project to start producing so that it can generate the desired rate of return on their multi-billion-dollar investments.

Italian oil and gas group, Eni, expects the problems at Kashagan to be resolved next year. "I am confident that in 2015 the problem will be solved," Eni Chief Executive Officer, Paolo Scaroni, was quoted as saying by *Reuters* in early May. He explained that there were two options open to them for resolving the gas-leak problem: either to rebuild the pipeline, which would not require massive spending, but would lengthen delays, or insert new pipe into the existing lines.

Development of Kashagan, in the harsh offshore environment of the northern part of the Caspian Sea, represents a combination of technical and supply chain complexity. The combined safety, engineering, logistical and environmental challenges make it one of the largest and most complex industrial projects currently being developed anywhere in the world.

Kashagan reservoir

The Kashagan reservoir is located 4,200 meters below the seabed and is highly pressured. As a result, due to the shallow water and cold winter climate, the use of conventional drilling and production technologies, such as concrete structures or jacket platforms that rest on the seabed, is not possible. The northern part of the Caspian Sea freezes over every winter which makes it very challenging for conventional offshore platforms to operate. To ensure their protection from the harsh winter conditions and pack ice movement, offshore facilities are being installed on artificial islands. There are two types of island — small 'drilling islands' and the larger 'hub islands'.

Hydrocarbons travel from the drilling islands to hub islands by pipeline. The hub islands contain processing facilities to separate recovered liquid (mix of oil and water) from the raw gas, as well as gas injection and power generation systems.

The northern part of the Caspian Sea is also a difficult location to supply essential project equipment.

Logistical challenges are amplified by limited waterways access. Caspian waterways are not navigable for about six months of the year due to thick winter ice.

Environmental issues add further costs to the project. The northern Caspian is a very sensitive environmental area. It requires great effort to minimize any impact on its abundant and diverse flora and fauna, including a number of endemic species, such as the Caspian gull and tern, as well as the local bream and salmon.

The harsh weather conditions, logistical challenges and environmental concerns have caused significant delays in project implementation and have led to a cost overrun of more than $30 billion.

Given its size and technical complexity, it was decided that the Kashagan field will be developed in phases. Phase I is also known as the experimental programme. Phase II is in the initial design phase, while further phases are still under concept selection. Collectively, all phases are referred to as full field development.

During Phase I, around half of the gas produced will be re-injected back into the reservoir. Separated liquid and raw gas will be taken by pipeline to the Bolashak onshore processing plant at Atyrau (a city in western Kazakhstan), where export-quality oil will be produced. Some of the processed gas will be sent back offshore for use in power generation, while some will be used to generate power at the process plant itself.

Kashagan, the first offshore oil and gas project in the country, has estimated reserves of 35bn b of oil, of which 13bn b are considered as recoverable. This represents most of Kazakhstan's offshore proved oil reserves and is roughly equivalent to Brazil's entire proved oil deposits.

In its 2010 World Energy Outlook, the International Energy Agency (IEA) identified the important role the Caspian region can play in ensuring global energy security. Indeed, unlocking the mega Kazakh project will help to diversify world energy supply and security.

Oil exports from Kashagan will support Kazakhstan's current account balance. President Nazarbayev expects the field to make a serious contribution to the pace of growth of the Kazakh economy and retain Kazakhstan's GDP expansion rate at six per cent.

Even though foreign direct investment may decline as the first round of capital investment into the project slows, the economic and technological impact is expected to be remarkable.

"We ask and sometimes demand that oil companies create Kazakh content," Nazarbayev told *Bloomberg* in February. It means that he wants foreign operators to purchase local equipment and services, as well as hire more local personnel. In fact, over 80 per cent of those employed on Kashagan are Kazakh citizens.

Vast oil deposits

After the completion of the second phase of the project, the field is expected to produce oil at a peak rate of around 1.5 million b/d. This number is equivalent to the average rate of oil production of all of ExxonMobil's subsidiaries in 2013, making Kashagan one of the largest oil projects of its generation. Besides the vast oil deposits, natural gas reserves in the field are estimated at over 1 trillion cubic meters.

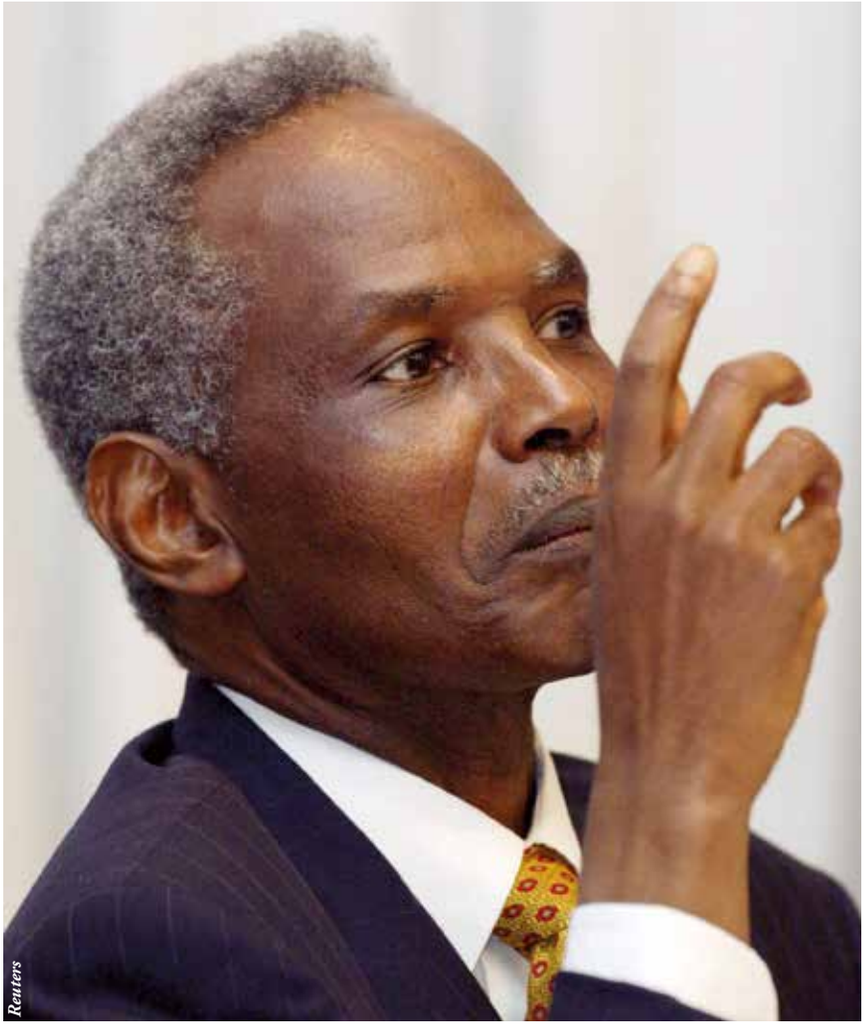
Undoubtedly, the Kashagan field will play an important role in supporting the growth ambitions of Kazakhstan in the years ahead, contributing to Astana's plan to dramatically increase oil production by 2020 and achieve its goal of becoming one of the 30 most developed countries in the world.

A general view shows the Bolashak oil plant on the Kashagan offshore oil field near Atyrau in Kazakhstan.

Reuters

Dr Rilwanu Lukman: 1938–2014

The life and times of an oil technocrat



Dr Rilwanu Lukman (1938–2014).

How does one begin to write about a man who, though small in stature, bestrode the world like a colossus? Indeed, what can one say about a man who walked the corridors of power, yet was so humble, so caring, so unassuming and so considerate that one looked around for the 'big man', only to find he was standing right in front of you? ***Angela Agoawike****, former Head of the Public Relations and Information Department (PRID) at the OPEC Secretariat in Vienna, Austria, pays tribute to her countryman, former Petroleum Resources Minister of Nigeria and OPEC Secretary General,* ***Dr Rilwanu Lukman****, who sadly passed away in July this year.*

In a situation like this, there seems to be no better place to begin than my most recent encounter at his hospital bed at the Rudolfinahaus in Vienna's 19th district. Though bed-ridden, looking frail and weak, he was still able to chat with well-wishers who had come to visit. He always had words of encouragement and never forgot to show his appreciation for little gestures. "Thank you for coming," he would say, as you took your leave. Sometimes, just when you were about to open the door to step out, he would call your name again and say "thank you" for coming to spend some time with him. The deliberate way he uttered those words sadly gave the impression he knew he may not have the opportunity to say his thanks to you again, a conclusion that only hits one with the benefit of hindsight.

He was always ready to listen to your plans, dreams and aspirations, asking pertinent questions to draw you out all the more. Gradually, what may have started off as an idea became a concrete plan. Where you thought you had all your 'I's' dotted and T's crossed, you may discover some salient areas you never thought of, and through such discussions, a well-thought-out plan would emerge.

And he never forgot to follow up with a call later – it did not matter where on earth you were – just to say: "I hope you will take care of yourself." Seriously? And one would have thought you should have been saying that to him. After all, he was the one in a hospital bed!

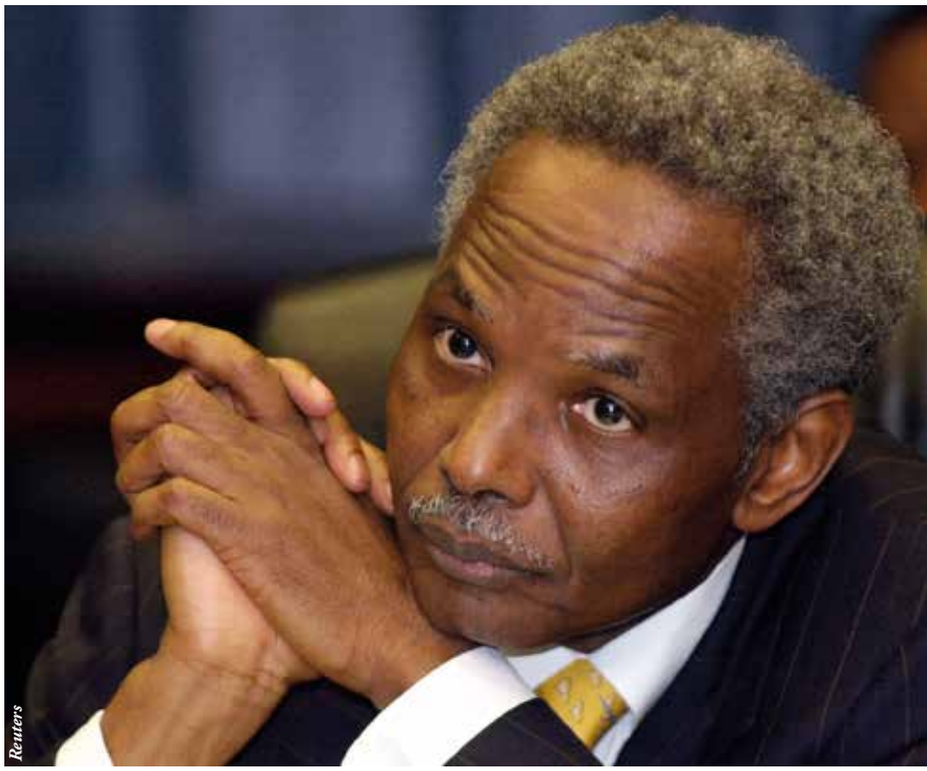
Such was the essence of the man everyone knew as Dr Rilwanu Lukman, husband to Hajia Amina and father to Ramatu, his daughter, and Ahmed and Salihu, his two sons, who called him dad. Those he inspired or mentored referred to him as either Baba or simply Lukman; a man whose simplicity was inspiring and his passion and love for his country deep, especially to those who knew and were close to him.

"He always talked about how we should join hands to build the nation," recalled Mohammed Sanusi Barkindo, a former Acting for the Secretary General of OPEC and a close confidant of Lukman. "He believed in Nigeria's greatness and believed that all the challenges the country was going through now were temporary.

"On his sick bed, no day went by without him calling me to discuss everything Nigeria. He never failed to bring up the challenges of the country and how he thought they should be addressed. He was what Nigerians call 'something else'!"

Lukman was a champion of oil and gas sector reform in Nigeria. When the Oil and Gas Sector Reform Implementation Committee (OGIC) was formed in 2000 by the then President, Olusegun Obasanjo, to holistically review the industry and offer better ways of managing the industry, Lukman was appointed Chairman of the Committee.

One of the major outcomes of the OGIC is the Petroleum Industry Bill (PIB) (although modified in many respects) that is currently before the country's National Assembly. If approved and signed


Reuters

into law, the PIB is expected to usher in a conducive business environment for domestic petroleum operations, enhance exploitation and exploration of petroleum resources in Nigeria for the benefit of Nigerians and other stakeholders, and unbundle the national oil company — the Nigerian National Petroleum Corporation (NNPC) — to make it a fully-fledged commercial company, among others.

This great man, with such superior vision succumbed to death in the early hours of Monday, July 21, 2014, after a protracted illness. He would have been 76 years old on August 26.

Respected and revered internationally, especially within the oil and mining sectors, where he held sway for more than half a century, Lukman was sought out by many who desired to benefit from his wealth of knowledge.

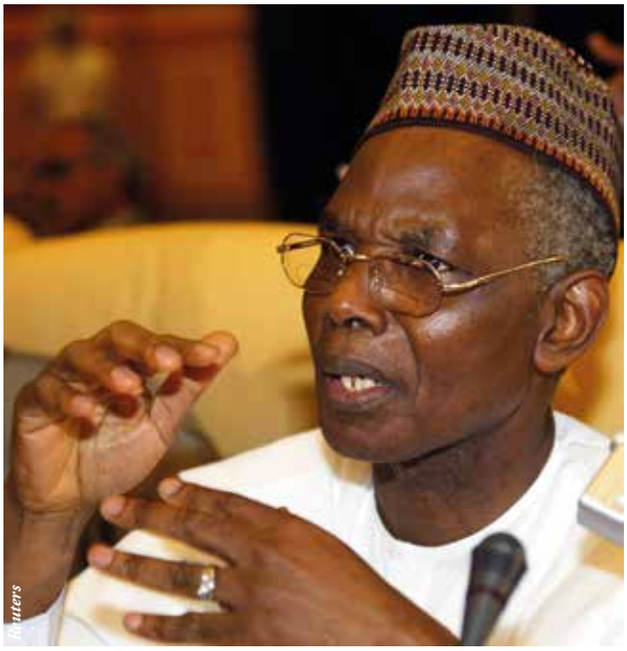
Paying tribute to him, Nigeria's President, Goodluck Jonathan, described Lukman as a "brilliant engineer, technocrat and administrator who spent almost all his working life serving his country and the global community in various capacities."

Tributes

Despite his prolonged illness, the news of Lukman's death was received with shock around the world, with tributes pouring in for the man many referred to as 'Mr OPEC' in Nigeria and international oil industry circles.

"As Alhaji Lukman's soul returns to its Maker, we join all who knew him in giving thanks to God Almighty for bestowing him on the nation and for the great intelligence, integrity, competence and

Lukman being interviewed during the 153rd Meeting of the OPEC Conference in Vienna, Austria, May 2009.



Lukman speaks during the 125th (Extraordinary) Meeting of the OPEC Conference in Doha, Qatar, June 2003.

humility with which he distinguished himself in all his national and international assignments," said President Jonathan.

Nigeria, he continued, "owes a huge debt of gratitude to the late Petroleum Resources Minister for his very significant contributions to the development of the country's oil and gas industry, and for serving with acclaimed distinction as the nation's representative at the helm of OPEC affairs over many years."

Reacting to the death of Lukman, Diezani Alison-Madueke, Nigeria's present Minister of Petroleum Resources, said: "Our dear country and the global petroleum industry have lost an astute diplomat, a seasoned technocrat, and a trailblazer, who achieved many firsts in his lifetime."

"Monumental loss"

Alison-Madueke, who is also Alternate President of the OPEC Conference, said she joined "millions of Nigerians and members of the international oil community in mourning the passage of this great Nigerian."

In the same instance, Andrew Yakubu, immediate past Group Managing Director of the NNPC, described Lukman's death as "a monumental loss to the global oil and gas industry and to Nigeria as a country."

Lukman's contribution to the growth of the oil and gas industry in Nigeria was indeed great.

In recognition of this, Nigeria's Federal Executive Council held a valedictory session in his honor at its first Council Meeting after his death on July 23. In so doing, Lukman joined other distinguished Nigerians, including the late President Umaru Musa Yar Adua, to be so honoured by the nation's highest executive body.

The valedictory session for Lukman witnessed an outpouring of encomiums on the late former minister by members of the country's Federal Executive Council (FEC), led by President Jonathan.

Describing his interaction with Lukman, Jonathan said it began when he was a Deputy Governor in Nigeria's Bayelsa State.

"I had a robust relationship with him. Though he was a highly placed person, he operated at a very low level and related with all Nigerians. He was a gentle man with an amiable character," he stated.

"These are the kind of persons we need in Nigeria. I also worked with him when I was the Vice President to the late President Yar'Adua. Initially, when we started the government, the late President was the Minister of Energy.

"Under the Minister of Energy, we had the Minister of State of Petroleum and the Minister of State of Power, but that didn't work quite well. So Lukman was brought in as the Minister of Petroleum Resources and Odein Ajumogobia was his Minister of State.

"Even then, Lukman showed exemplary character. He was very calm, focused and showed that he was someone who knew his onions. He was a father figure to cabinet members."

Continuing, Jonathan said that while Lukman "was much older than most of us ... the country still needed his services. Even at a relatively advanced age, there are some people you will not want to lose. Lukman is one such person," he stressed.

Lukman might be well known in his native Nigeria, but he was even more revered internationally. The international media was awash with stories on his death, as well as tributes from the elite of the oil and gas industry.

In South Africa, Robert Friedland, Executive Chairman and Founder of Ivanhoe Mines, one of the many companies worldwide on whose Board the late Lukman served, described him as "one of Africa's most accomplished and internationally recognized and honored business leaders." He also acknowledged Lukman's contributions to the mining company which, he noted, helped guide Ivanhoe's growth.

Long list of firsts

Nowhere was his service to the global oil community as pronounced as the years he spent at the OPEC Secretariat in Vienna, running the affairs of the influential body as its Secretary General.

In a press release upon receiving news of the death of the former Secretary General, former Conference President and Nigeria's elder statesman, the Secretariat described Lukman as a man with a long list of firsts during his years of service to the Organization.

"He was Secretary General for six years between 1995 and 2000 and served as President of the OPEC Conference on a record number of occasions between 1986 and 1989 and in 2002," the release on OPEC's website noted.

It said he garnered great respect among other Ministers, including from non-OPEC countries. Lukman was also widely recognized and acknowledged as a consensus-builder who helped guide OPEC through the Asian financial crisis in 1997 and 1998.

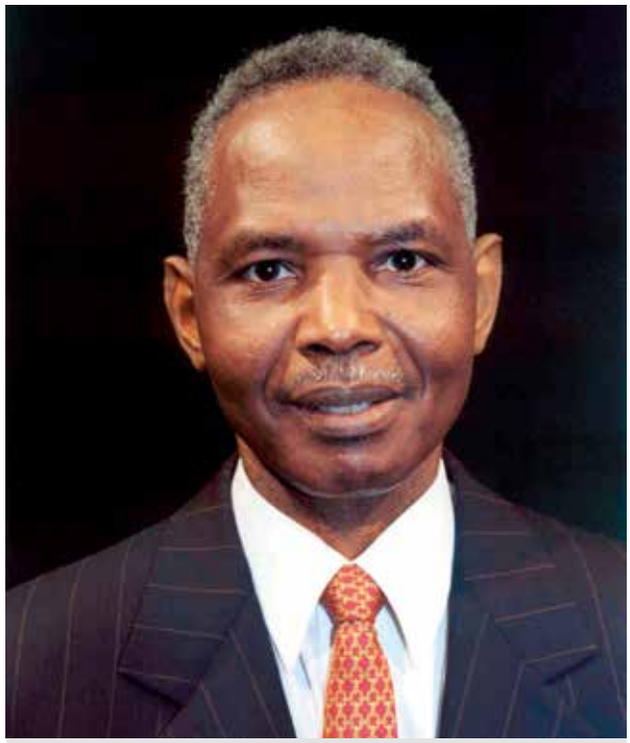
He also managed the Organization's participation with Member Countries in the very early United Nations COP environmental meetings and oversaw the Second OPEC Summit of Heads of State and Government in Venezuela in 2000 after a very long gap of 25 years.

The statement said Lukman also played a pivotal role in the evolution of the producer-consumer energy dialogue, a hallmark of the Organization's collaborative approach towards a stable oil market, with non-OPEC producers and consumers.

To the Staff at the OPEC Secretariat, Lukman was the perfect gentleman — quiet, kind and fair in his dealings with them. He was committed to his staff, the Organization and his country, which no doubt explains why the Secretariat's press release described his commitment and service to OPEC as "something to be praised and admired."

Such reverence and respect were always made manifest anytime Lukman visited the OPEC Secretariat in Vienna. From the front office staff to the Secretary General's Office, the high esteem in which he was held was very obvious and he always responded in kind.

The OPEC statement continued that in his long and distinguished career, spanning over five decades, Lukman was a servant to the Nigerian Government and its petroleum industry. He was widely recognized and highly regarded in the global petroleum industry; a loyal and dedicated man, who had the best interests of his country and OPEC at heart.



Birth and education

Unlike the popular song: "I was born this way", Lukman was not born this way. Whatever honour and respect he had, he earned. He came like any regular child to his parents on August 26, 1938, in the Northern Nigerian City of Zaria, Kaduna State.

His academic pursuit started at Tudun Wada in 1944 and, in 1948, he entered the Middle School, Zaria. From there, his education took him to different colleges and universities across the globe. He also received accolades from governments and institutions around the world *(see full biography on page 41)*.

A recipient of several international awards, his last award before he responded to the ultimate call was on April 8, 2014, when he was conferred with the *Al-Attiyah Lifetime Achievement Honorary Award for the Advancement of International Energy Policy.*

Already incapacitated by illness, he was unable to personally travel to Doha, Qatar, to receive the award, but was well represented by Nigeria's Ambassador to the OPEC Member Country, as well as his longtime colleague at OPEC and in the oil business, Abdullah Bin Hamad Al Attiyah, the Deputy Prime Minister of the State of Qatar and its longtime Head of delegation to OPEC from 1992 to 2011.

Lukman will be fondly remembered — through his commitment and enthusiasm for Nigeria, OPEC and the petroleum industry, and his warm smile, amiable manner and positive outlook. As well as his wife and three children, he also leaves behind four grand children.

Lukman, (then) OPEC Secretary General, jokes with the late Venezuelan President, Hugo Chavez (l), in Caracas in July 2000. Lukman was visiting Venezuela in preparation for the OPEC Heads of State and Government Summit, held in September of that year.

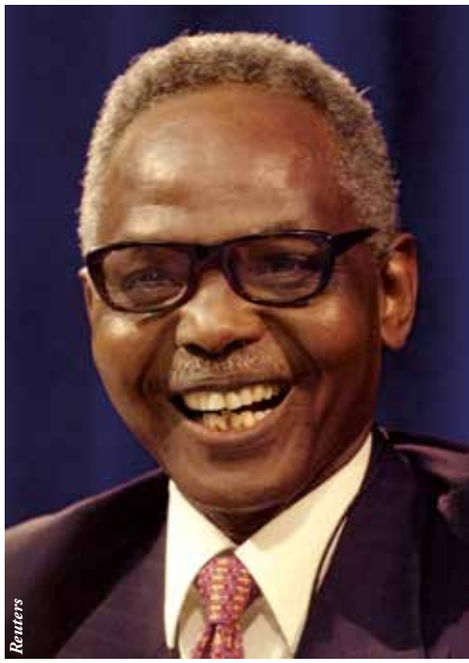
Left: Dr Benita Ferrero-Waldner, (then) Austrian Minister of Foreign Affairs, in January 2001, presented Lukman, the (then) outgoing OPEC Secretary General, with the silver medal of honour from the late Austrian President, Thomas Klestil.

Right: Abdalla Salem El-Badri (r), OPEC Secretary General, presenting Lukman with the Lifetime Achievement Award by the Foreign Investment Network (FIN), a UK-based investment consulting and publishing company.

Angela Merkel (l), (then) Member of the German Parliament, and now German Chancellor, visited Lukman, (then) OPEC Secretary General, in November 2000.

Dr Rilwanu Lukman:

A life of service to country and international community


Reuters

Dr Rilwanu Lukman had a distinguished tenure as OPEC Secretary General between 1995 and 2000. He also served as OPEC Conference President at various times between 1986 and 1989 and in 2002.

During this period, he earned the respect of his fellow Ministers within and outside the Organization and through his moderate approach to issues, was able to always build a consensus that guided OPEC through a most difficult period in the industry, globally — the Asian financial crisis in 1997 and 1998.

He also played a pivotal role in the introduction of the OPEC/non-OPEC producers and consumers ministerial dialogue.

Lukman, who was also a former Nigerian Minister of Petroleum Resources, was born in Tudun Wada, Zaria, Kaduna State. He attended the Tudun Wada elementary School and the College of Arts, Science, and Technology, Zaria (now Ahmadu Bello University) and trained as a mining engineer at the Royal School of Mines of the Imperial College London.

He held a Certificate in Mining and Mineral Exploration from the University of Mining and Metallurgy in Leoben, Austria (1967–68) and obtained a Certificate in Mineral Economics from McGill University, Montreal, in 1978.

He also held an honorary doctorate degree in Chemical Engineering from the University of Bologna in Italy. Also, the Universities of Maiduguri (Nigeria), Ahmadu Bello Zaria (Nigeria) and Moore House College Atlanta, (United States) at various times conferred on him Honorary Doctor of Science.

Lukman served his country in various capacities, such as Inspector of Mines and later Senior Inspector, Mines Division in the Federal Ministry of Mines and Power from 1964 to 1967, Acting Assistant Chief Inspector, Mines Division, Federal Ministry of Mines and Power from 1967 to 1970, General Manager, Cement Company of Northern Nigeria from 1970 to 1974 and as General Manager and Chief Executive of the Nigerian Mining Corporation from 1974 to 1984.

He began his service at executive level as Minister of Mines, Power and Steel from 1984 to 1985, and became Federal Minister of Petroleum Resources in 1986–89. In that capacity, he was also Chairman of the Board of the Nigerian National Petroleum Corporation (NNPC).

Lukman was briefly Minister of Foreign Affairs from 1989 to 1990, and Chairman of the Board of Directors of the National Electric Power Authority, NEPA (now Power Holding Company of Nigeria), from 1993 to 1994.

From 1986 to 1989, Dr Lukman served as OPEC Conference President and was elected to the position of OPEC Secretary General on January 1, 1995, succeeding Dr Subroto of Indonesia. He was re-elected to a second term in 1997, holding office until the end of 2000.

Lukman founded the oil firm, Afren, in 2004 and it quickly became Nigeria's premier indigenous oil and gas exploration and production company. He then served for four years as Special Adviser on Petroleum and Energy Matters to Nigeria's President Olusegun Obasanjo and was Minister of Petroleum from 2008 to 2010 under the late President Umar Musa Yar'Adua.

Achievements

He was a recipient of numerous awards, including most recently the Lifetime Achievement Award by the Foreign Investment Network (2013) and the Al Attiyah Lifetime Achievement Honorary Award for the Advancement of International Energy Policy (April 2014).

Lukman was made a Knight of the British Empire (KBE) in 1989 and Officer of the Legion d'Honneur of France in 1990, as well as being conferred with the First Class rank of the Order of the Liberator from the Republic of Venezuela. He was a member of several professional bodies, such as the Council of Registered Engineers of Nigeria (COREN), the Nigerian Metallurgical Society, and the Nigerian Mining and Geoscience Society. He was the first African ever to be honored with the Fellowship of the Imperial College, University of London.

Dr Rilwanu Lukman:

The epitome of humility and integrity

Mohammed Sanusi Barkindo *served as Group Managing Director of the Nigerian National Petroleum Corporation (NNPC) from 2009 to 2010. He was also the Acting for the Secretary General of OPEC in 2006 and before then had served as Nigeria's National Representative to the OPEC Economic Commission Board (ECB). Barkindo was a very close confidant and protégé of the late* ***Dr Rilwanu Lukman****. He spoke with the* OPEC Bulletin *on the unique 'father/son' relationship he had with Lukman and some of his memorable impressions of him.*

Mohammed Sanusi Barkindo (l) with Lukman during the 117th Meeting of the OPEC Conference in Vienna, Austria, in September 2001.

On how Lukman would like to be remembered?

He would prefer to be remembered as a Nigerian who came at a particular time, paid his dues, and participated in the development of his country and the international community to the best of his ability. Yet, he did not see himself as someone who had achieved anything. In fact, if anything, he thought that his generation failed Nigeria. He always admonished me that my generation should not fail also. He was a very strong and passionate believer in the Nigerian project. He never failed to bring up the challenges of the country and give his opinion as to how he thought they should be addressed. He always talked about how we should join hands to build the nation. He believed in the greatness of Nigeria and that all the challenges the country was facing were temporary. The thing is that sometimes we fail to appreciate what has gone into making the country we have today.

Impact of Lukman on Nigeria's oil sector

He served for a record length of time in the country's solid mineral and oil sectors, so it would be fair to say that no one impacted the industry more than he did. He was called to serve as a minister for the first time under the military and he ended up serving in four different governments.

Could he have done more for Nigeria's oil sector?

The industry is young and still evolving. He had been part of its evolution and he played his part and was acknowledged by all and sundry. Whether he could have done more is open to discussion. He was already retired when President Olusegun Obasanjo called him back to service.

Thereafter, he was also recalled by the late President Umar Musa Yar'Adua. On all these occasions, he did not hesitate to give his best. The industry is still growing and there are areas that still require more work and I have no doubt that those coming behind will continue from where he finished.

On being more respected abroad than in Nigeria?

He was very highly respected in the country though he became an international icon and a legend. Because the industry is international, he must have been most recognised abroad. Those who had the opportunity of being mentored by him know that he was one of the most highly respected men in the country.

On what kind of man he was.

It is very difficult to describe him in a few words. He was what Nigerians call "something else". Each time you thought you knew him, you discovered something else. He was committed and he was gentle. He was a good listener too. He could have had everything materially, but he chose a Spartan life. The same size of suit that he wore at Imperial College, he never changed. At any point in time, he had one suitcase. He never believed in having more than was necessary. At the most, he thought one should not have more than seven articles of clothing, one for each day of the week, for the sake of hygiene.

He preferred to share knowledge instead of discussing how much one had. He was also deep into philosophy ... always discussing different religions. He always discussed the inter-relatedness of the three religions — Islam, Christianity and Judaism.

Any memorable instances in your relationship with him?

I first met Lukman in 1981–82 as a member of the National Youth Service Corps Scheme (NYSC) serving at the Nigeria Mining Corporation (NMC) in Jos, Plateau State. He was the Chief Executive Officer and had met me on the corridors and started asking me questions. One unique aspect of him then was that he always walked to people's offices, rather than summon them to come to him. To crown it all, he was always bare foot.

I met him again about two months later and he remembered me and my name. He was entering his car, he saw me and called me and I ran to him. There he gave me some words of advice. Coming from someone I did not really know — that was very inspiring. He later became a mentor to me when I took up formal appointment at the NMC. I also remember that I had wanted to be a diplomat with the Foreign Ministry. In fact, that was my life's ambition. I interviewed for the job and was successful, but he did not allow me to go.

When he became Minister of Solid Minerals under President Babangida, he took me to the NNPC and from there, I became his personal assistant. Later he became a father to me and, as the relationship grew, I became a confidant. We worked together, dined together and together witnessed the ups and downs in policy decisions. He was the most decent person I ever met in my life. He was the epitome of humility and integrity.

Whatever I am today, I owe everything to him. He adopted me, mentored and helped me reach the pinnacle of my career. Even on his sick bed, there was no day that passed that he did not call me to discuss various matters.

In the course of his official duties, OPEC Secretary General, Abdalla Salem El-Badri, visits, receives and holds talks with numerous dignitaries.

This section is dedicated to capturing those visits in pictures.

June 23, 2014

Rajiva Misra (l), India's Ambassador to Austria, visited Abdalla Salem El-Badri, OPEC Secretary General.

July 1, 2014

Abdelhadi Abdelwahid Alkhajah (l), Ambassador of the United Arab Emirates to Austria, visited Abdalla Salem El-Badri, OPEC Secretary General.

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). In some cases, PRID visits schools to give them presentations on the Organization and the oil industry. Here we feature some snapshots of such visits.

Visits

Students from the MSOI Organization/University of Gorizia, visited the OPEC Secretariat on April 30, 2014.

Students from the Society of Petroleum Engineers, Vienna Basin, visited the OPEC Secretariat on May 8, 2014.

Students from the Highschool Osnabrueck, Germany, visited the OPEC Secretariat on May 9, 2014.

Students from the HochschülerInnenschaft at the Vienna University of Economics and BA, visited the OPEC Secretariat on May 15, 2014.

Students from the Lipscomb University of Nashville, Tennessee, visited the OPEC Secretariat on May 15, 2014.

A group of lawyers from Volterra Fietta, visited the OPEC Secretariat on May 19, 2014.

Students from the University of South Carolina, visited the OPEC Secretariat on May 19, 2014.

Students from the Texas Tech University, visited the OPEC Secretariat on May 30, 2014.

Students from the University of Toronto, visited the OPEC Secretariat on May 30, 2014.

Law students from the Juridicum Vienna, Austria, visited the OPEC Secretariat on June 16, 2014.

Students from the University of Oregon, visited the OPEC Secretariat on June 20, 2014.

Ecuador returns to OFID in pursuit of South-South solidarity

Following an absence of over two decades, the Republic of Ecuador is once more a fully-fledged Member Country of the OPEC Fund for International Development (OFID). The South American country suspended its membership of both OPEC and OFID in December 1992, then rejoined OPEC in October 2007. It has taken another seven years for the country to reactivate its OFID membership. **Arya Gunawan Usis**, OFID Information Officer, recently conducted an interview with Ecuador's Minister of Finance, **Fausto Herrera**, for OFID's *Quarterly* publication. The Minister explains how the decision to rejoin OFID was driven by the hope that its presence could contribute to the goals that inspired the institution's creation back in 1976.

Q: Ecuador suspended its membership of both OPEC and OFID in December 1992. It rejoined OPEC in October 2007, but then waited another seven years before reactivating its membership of OFID. What are the reasons behind this decision?

A: This is an important question. Let me begin by recalling what Ecuadorian President, Rafael Correa, said in November 2007, during the Third OPEC Summit of Heads of State and Government in Riyadh, Saudi Arabia, on the occasion of Ecuador's return to OPEC.

He clearly stated that our country's reincorporation into that Organization had a dual perspective: to strengthen Latin American presence in OPEC and regroup solidarity among producers. A coordination of policies, he said, would help achieve a delicate balance between a proper supply of the market, a fair price for producers and the preservation of the environment.

It is in that spirit of renewed and bolstered Latin American participation in international mechanisms that Ecuador once again returns to the table, in this case the prestigious OFID, with the hope that our presence here can contribute to the noble goals which inspired its creation.

This decision is in keeping with President Correa's vision of a strong and united Latin America working collectively for the economic and social betterment of our people, of our region and developing countries around the world.

In this regard, Ecuador considers that the mechanisms afforded by OFID are an invaluable tool in the pursuit of the objectives of this vision.

Fausto Herrera, Ecuador's Minister of Finance.

Our return to OFID can also be seen as part of my country's new foreign policy, which is actively strengthening ties — diplomatic, commercial, scientific and cultural — with our Middle Eastern, African and Asian brothers.

OFID represents for us an ideal vehicle to reach out to countries in these regions, support them through the Fund and at the same time share our experiences in an effort to expedite and complement their own development processes.

Ecuador's delay in returning to the OFID family was due partly to internal concerns regarding financial constraints that have since abated.

That said, after putting our arrears and current contributions in order, we conducted a thorough analysis on what we expect to achieve in OFID and how best we can contribute as a small, sovereign and active Latin American partner in international financial and development affairs.

The fruitful outcome of this reflection process paved the road back to the Fund and finds Ecuador even better prepared than before its departure and filled with renewed determination to be a purposeful and constructive member of OFID.

How do you view OFID's overall progress and transformation during the 20 years or so since Ecuador left the institution?

It is evident that the world has changed considerably during these last two decades, both politically and economically. Naturally, neither countries nor institutions can remain untouched by these transformations.

As President Correa said recently, the capacity to adapt to change is indispensable to survival. In this regard, it is refreshing to see that OFID is today a more finely tuned organization and ready to meet the challenges of international development faced by those nations and entities it supports. The quality of its leadership, its staff and its programmes attests to how far it has come and augurs well for its future.

It is refreshing to see that OFID is actively addressing the challenges to development which many countries in Latin America, Africa and Asia face today.

Several of the issues on OFID's current agenda were absent or less prevalent 20 years ago. Today, projects relating to infrastructure, poverty alleviation, environment, sustainable energy, etc, are at the core of what OFID does — and does well. These are fields in which Ecuador has made considerable progress and is prepared to share its experiences.

It should also be said that Ecuador today is quite a different country to the one of two decades ago and that will be reflected in our participation in the work of OFID.

In 2014, we are a technologically and financially more-evolved nation. We moved away from the "handout" approach to international development to one based on dignity, sovereignty, solidarity and integration.

We are also intimately attached to the concept of South-South cooperation and expect to promote OFID's pivotal role in the implementation of technical cooperation projects based on the abundant, but too often neglected, experience and technology from developing countries.

Are there any specific initiatives that Ecuador plans to propose as an OFID Member Country again?

Ecuador's desire to once again be part of OFID is based on the political commitment of the national government to work together with OPEC Member States in financing development projects in developing countries in the framework of South-South cooperation, which is one of the cornerstones of Ecuador's new foreign policy.

However, the interest to be a part of OFID is not just limited to the financial aspect of South-South cooperation. Ecuador's return also opens up possibilities to exchange existing successful experiences with developing countries in different fields.

These include through the OFID knowledge bank, experiences in energy efficiency, replacement of non-renewable resources by renewable energy, access of the population to commercial energy, etc.

In particular, Ecuador wishes to share with other countries its acclaimed expertise in reducing gas flaring, as well as its experience in the replacement of gas-based cooking appliances by electric induction cookers, since these are successful examples of energy efficiency, replacement of energy sources and the supply of commercial renewable energy to economically disadvantaged populations.

OFID's flagship programme is its Energy for the Poor Initiative (EPI). How important do you consider this programme to be?

As a developing country, Ecuador understands all too well how the lack of energy hinders the struggle for economic growth and delays the efforts of people striving to escape from poverty.

For this reason we salute the OFID programme known as the Energy for the Poor Initiative and hope to contribute in a positive way to its advancement.

The issue of energy poverty is not new to Ecuador as it has strongly supported the work being done to address this global challenge by the United Nations Sustainable Energy for All (SE4ALL) Initiative. We aspire to work even further in that direction as a full-fledged and active member of OFID.

I would like to underscore that OFID Director-General Al-Herbish has rightly pointed out that while others are "finding solutions" to the problem, OFID is "funding solutions." I commend this practical approach which is being executed efficiently through the EPI.

In Ecuador, we have already begun to seek solutions to our own energy poverty problems by transforming our energy matrix. This is perhaps our government's major undertaking to date. Once in place, our citizens will have

more affordable, cleaner, efficient, safer and sustainable energy for generations to come.

It seems then that my country and OFID are on the same page as concerns the critical relationship between energy and poverty alleviation.

Your country has huge potential in the agriculture sector, as indeed do some of its neighbours. What would you like to see OFID doing to further strengthen this particular sector across the region?

You have rightly pointed out Ecuador's considerable agricultural potential. Although small in territory, our nation has been endowed with abundant natural resources, fertile soil, fish-filled seas, a fair climate, varied topography and, above all, an industrious and hard-working people.

This has allowed us to bring to market high quality products, many of which are sold in OFID Member Countries and around the world: bananas, shrimp, tuna, passion fruit, roses, just to name a few.

Having said that, Ecuador sees agriculture as a means and not an end to development. It is not a substitute for other forms of economic growth, such as knowledge-based initiatives, technology and innovation.

Ecuador looks forward to sharing its experiences with other agriculturally-oriented countries, but seeks to go even further by promoting the application of cutting-edge technology to agricultural practices in the developing world.

Farmers, fishermen and scientists must work hand-in-hand. Ecuador will also work with a view that along with OFID cooperation, local producers are adequately compensated for their investment, hard work and quality products.

OFID Members should continue to ensure that a social dimension is not absent in the context of its support to developing countries.

Your country's economy has experienced strong, sustained growth over the past seven years, above the average for the region. The extreme poverty rate has also declined significantly. To what do you attribute this remarkable progress and what do you see as the key challenges that need to be overcome in order to keep this performance on track?

The economic and social indicators that Ecuador has achieved since 2007, when Rafael Correa assumed the presidency, turned it into one of the most successful countries in Latin America, which is mainly due to the emergence in our national history of a government truly committed to the development of its people.

By championing the concept we refer to as "good living" — buen vivir in Spanish and Sumak Kawsay in the indigenous language Quechua — and social justice as axes of change, the government has transformed the traditional political landscape and used resources, especially oil, as its main source of wealth to invest in health, education and infrastructure.

Oil revenue now serves to benefit the development of people. This is the cornerstone of our national policy on which special emphasis is devoted to the development of capacity-building.

The challenges facing the government of President Correa revolve around two enormous tasks: changing the energy and the production matrices. In the first case, the goal is to replace thermal with hydraulic electricity generation, which is expected to be achieved in 2017, when the use of thermal power plants will be reduced from 60 to seven per cent, making Ecuador the most advanced country in Latin America in the use of renewable energy.

The second challenge will take a longer period of time: to transform Ecuador from an agro-exporting to an industrialized country.

This will be done through the establishment of development zones by building up basic and intermediate industries, generating value chains based on their natural resources (oil, copper, aluminum, iron etc): refining, petrochemicals, steel, etc; poles that require a high-level infrastructure of human talent to generate technology transfer.

These ambitious projects will require considerable financial resources, estimated at $70 billion in the medium run. Funding will be one of the most important challenges that Ecuador will have to address.

Visit our website

www.opec.org

Forthcoming events

Offshore modular construction, August 25–27, 2014, Houston, USA. Details: IQPC Ltd, Anchor House, 15–19 Britten Street, London SW3 3QL, UK. Tel: +44 207 368 9300; fax: +44 207 368 9301; e-mail: enquire@iqpc.co.uk; website: www.offshoremodularconstruction.com.

Offshore support vessels for oil and gas, August 25–27, 2014, New Orleans, USA. Details: IQPC Ltd, Anchor House, 15–19 Britten Street, London SW3 3QL, UK. Tel: +44 207 368 9300; fax: +44 207 368 9301; e-mail: enquire@iqpc.co.uk; website: www.offshoresupportvessels.com.

Unconventional resources technology conference, August 25–27, 2014, Denver, USA. Details: Society of Petroleum Engineers, Dubai Knowledge Village, Block 17, Offices S07-S09, PO Box 502217, Dubai, UAE. Tel: +971 4 390 3540; fax: +971 4 366 4648; e-mail: spedub@spe.org; website: www.urtec.org.

Offshore patrol vessels Africa 2014, August 26–28, 2014, Abuja, Nigeria. Details: IQPC Ltd, Anchor House, 15–19 Britten Street, London SW3 3QL, UK. Tel: +44 207 368 9300; fax: +44 207 368 9301; e-mail: enquire@iqpc.co.uk; website: www.offshorepatrolvesselsafrica.com.

Shale gas world Argentina, August 27–28, 2014, Buenos Aires, Argentina. Details: Terrapinn Holdings Ltd, First Floor, Modular Place, Turnberry Office Park, 48 Grosvenor Road, Bryanston 2021, South Africa. Tel: +27 11 516 4000; fax: +27 11 463 6000; e-mail: enquiry.za@terrapinn.com; website: www.terrapinn.com/conference/shale-gas-argentina/index.stm.

20th Latin oil week — Latin upstream, September 1–3, 2014, Rio de Janeiro, Brazil. Details: Global Pacific Partners, Suite 7, 4 Montpelier Street, Knightsbridge, London SW7 1EE, UK. Tel: +44 207 589 7804; fax: +44 207 589 7814; e-mail: babette@glopac.com; website: www.petro21.com/events/?id=844.

South Russia oil and gas, September 2–4, 2014, Krasnodar, Russia. Details: ITE Group plc, Oil and Gas Division, 105 Salusbury Road, London NW6 6RG, UK. Tel: +44 207 596 5233; fax: +44 207 596 5106; e-mail: oilgas@ite-exhibitions.com; website: www.oilgas-events.com/Find-an-Event/South-Russia-Oil-Gas.

2nd Annual tanks management summit 2014, September 7–10, 2014, Abu Dhabi, UAE. Details: IQPC Ltd, Anchor House, 15–19 Britten Street, London SW3 3QL, UK. Tel: +44 207 368 9300; fax: +44 207 368 9301; e-mail: enquire@iqpc.co.uk; website: www.tanksmanagement.com.

3rd annual MENA STO summit, September 7–10, 2014, Abu Dhabi, UAE. Details: IQPC Ltd, Anchor House, 15–19 Britten Street, London SW3 3QL, UK. Tel: +44 207 368 9300; fax: +44 207 368 9301; e-mail: enquire@iqpc.co.uk; website: www.shutdownsandturnaroundsme.com/redForms.aspx?eventid=9249&id=389080&FormID=%2011&frmType=1&m=23924&FrmBypass=False&mLoc=F&SponsorOpt=False.

Power grid resilience, September 8–11, 2014, San Francisco, USA. Details: IQPC Ltd, Anchor House, 15–19 Britten Street, London SW3 3QL, UK. Tel: +44 207 368 9300; fax: +44 207 368 9301; e-mail: enquire@iqpc.co.uk; website: www.powergridresilience.com.

21st annual Indian oil and gas review summit and international exhibition, September 9–10, 2014, Mumbai, India. Details: ITE Group plc, Oil and Gas Division, 105 Salusbury Road, London NW6 6RG, UK. Tel: +44 207 596 5233; fax: +44 207 596 5106; e-mail: oilgas@ite-exhibitions.com; website: www.offshoreenergytoday.com/events/21st-annual-india-oil-gas-review-summit-and-international-exhibition.

East Mediterranean oil and gas conference, September 9–10, 2014, Paphos, Cyprus. Details: ITE Group plc, Oil and Gas Division, 105 Salusbury Road, London NW6 6RG, UK. Tel: +44 207 596 5233; fax: +44 207 596 5106; e-mail: oilgas@ite-exhibitions.com; website: www.eastmed-og.com/Home.aspx.

Deepwater drilling and completions conference, September 10–11, 2014, Galveston, USA. Details: Society of Petroleum Engineers, PO Box 833836, Richardson, TX 75083-3836, Texas, USA. Tel: +1 972 952 393; fax: +1 972 952 9435; e-mail: spedal@spe.org; website: www.spe.org/events/ddc/2014.

FPSO training course Rio, September 10–12, 2014, Rio de Janeiro, Brazil. Details: Informa UK Ltd, PO Box 406, West Byfleet KT14 6NN, UK. Tel: +44 207 017 5518; fax: +44 207 017 4745; e-mail: energycustserv@informa.com; website: www.ibcenergy.com/event/fpsocourses-rio.

Caspian offshore, September 10–12, 2014, Baku, Azerbaijan. Details: The Exchange Ltd, 5th Floor, 86 Hatton Garden, London EC1N 8QQ, UK. Tel: +44 207 067 1800; fax: +44 207 242 2673; e-mail: marketing@theenergyexchange.co.uk; website: www.theenergyexchange.co.uk/event/caspian-offshore.

POWER-GEN Asia, September 10–12, 2014, Kuala Lumpur, Malaysia. Details: PennWell, 1421 S Sheridan Road, Tulsa, Oklahoma 74112, USA. Tel: +1 918 835 3161; fax: +1 918 831 9497; e-mail: sneighbors@pennwell.com; website: www.powergenasia.com/index.html.

8th Annual corrosion management summit, September 14–17, 2014, Abu Dhabi, UAE. Details: IQPC Ltd, Anchor House, 15–19 Britten Street, London SW3 3QL, UK. Tel: +44 207 368 9300; fax: +44 207 368 9301; e-mail: enquire@iqpc.co.uk; website: www.corrosionmanagementme.com.

Drill tech summit, September 14–17, 2014, Abu Dhabi, UAE. Details: IQPC Ltd, Anchor House, 15–19 Britten Street, London SW3 3QL, UK. Tel: +44 207 368 9300; fax: +44 207 368 9301; e-mail: enquire@iqpc.co.uk; www.drilltechme.com.

Drilling waste — manage, minimise and recycle, September 14–17, 2014, Abu Dhabi, UAE. Details: IQPC Ltd, Anchor House, 15–19 Britten Street, London SW3 3QL, UK. Tel: +44 207 368 9300; fax: +44 207 368 9301; e-mail: enquire@iqpc.co.uk; website: www.drillingwasteme.com.

4th Annual global refining technology forum, September 15–17, 2014, Doha, Qatar. Details: Jacob Fleming Group, Rossellon 174–176 Ent. 1a 080 36, Barcelona, Spain. Tel: ++971 4609 1570; e-mail: ajay.nimbalkar@ flemingguf.com; website: http://energy.flemingguf.com/global-refining-technology-forum.

9th Asset integrity management, September 15–17, 2014, Aberdeen, Scotland. Details: IQPC Ltd, Anchor House, 15–19 Britten Street, London SW3 3QL, UK. Tel: +44 207 368 9300; fax: +44 207 368 9301; e-mail: enquire@iqpc.co.uk; website: www.aimaberdeen.com.

10th Middle East energy security forum 2014, September 15–17, 2014, Abu Dhabi, UAE. Details: Jacob Fleming Group, Rossellon 174–176 Ent 1a 080 36, Barcelona, Spain. Tel: +91 97427 50289; e-mail: mohammed.raiyan@flemingguf.com; website: http://security.flemingguf.com/10-meesec.

Large scale computing and big data challenges in reservoir simulation conference and exhibition, September 15–17, 2014, Istanbul, Turkey. Details: Society of Petroleum Engineers, PO Box 833836, Richardson, Texas 75083-3836, USA. Tel: +1 972 952 393; fax: +1 972 952 9435; e-mail: spedal@spe.org; website: www.spe.org/events/mmfd/2014.

Modular construction and prefabrication summit for oil and gas, September 15–17, 2014, Amsterdam, The Netherlands. Details: IQPC Ltd, Anchor House, 15–19 Britten Street, London SW3 3QL, UK. Tel: +44 207 368 9300; fax: +44 207 368 9301; e-mail: enquire@iqpc.co.uk; website: www.modconoilandgas.com.

Seabed mining summit, September 15–17, 2014, London, UK. Details: IQPC Ltd, Anchor House, 15–19 Britten Street, London SW3 3QL, UK. Tel: +44 207 368 9300; fax: +44 207 368 9301; e-mail: enquire@iqpc.co.uk; website: www.seabedminingsummit.com.

Other OPEC flagship publications

Among OPEC's various objectives, one of them is to continually strive to provide oil market data and analysis to energy stakeholders and to the general public. It does this by publishing different monthly and annual publications, which consider many aspects of the global oil industry – with an emphasis on OPEC Member Countries. Two of the Organization's flagship publications are the **World Oil Outlook** and the **Annual Statistical Bulletin**. The 2013 editions can be downloaded free-of-charge from our website at: www.opec.org.

OPEC oil supply will be sufficient to cover global demand in 2015

***July* 2014**

OPEC will have sufficient oil supply to provide to the international market, even if next year's world economic growth turns out to be better than expected and crude oil demand outperforms expectations.

That was the reassuring message made by the OPEC Secretariat in its *Monthly Oil Market Report (MOMR)* for July.

It said that current projections saw demand for OPEC crude amounting to 29.4 million barrels/day in 2015, a decline of 300,000 b/d from the current year.

A feature article in the report looking at the outlook for next year said that non-OPEC supply was expected to grow by 1.3m b/d in 2015 to average 57.0m b/d, lower than the 2014 estimated increase of 1.5m b/d.

OECD Americas was expected to see the highest growth, with contributions from the United States and Canada, followed by Latin America, due to the increase in Brazilian production.

"However, a high level of uncertainty is associated with the 2015 non-OPEC supply forecast coming from geopolitical developments; regulatory and environmental concerns; and technical challenges, such as sharper-than-expected decline rates, particularly in tight oil plays, and unplanned shutdowns," it observed.

The *MOMR* pointed out that these factors could impact supply projections in either direction.

Additionally, output of OPEC natural gas liquids (NGLs) and non-conventional oils was expected to increase at a faster pace in 2015, rising by 200,000 b/d to average 6.0m b/d, following growth of 150,000 b/d in 2014.

The report noted that despite some weakness in the first half of the year, the world economy continued to recover.

Global GDP growth in 2014 was now forecast at 3.1 per cent, slightly higher than the estimated 2.9 per cent recorded in 2013.

The US, it said, had experienced a surprisingly large contraction in economic activity in the first quarter, due to severe winter weather, leading to a downward revision in the nation's GDP growth to 1.6 per cent from 2.4 per cent previously.

"However, with the US economy expected to rebound and continued large monetary stimulus in the Euro-zone and Japan, the OECD is seen growing by 1.7 per cent in 2014 and 2.0 per cent in 2015."

The *MOMR* said China's GDP was forecast to grow by 7.2 per cent in 2015 from 7.4 per cent in the current year.

"India and other major emerging economies are forecast to recover. This, in combination with the expected improvement in OECD economies, leads to a global GDP growth forecast of 3.4 per cent in 2015," said the report

However, it warned that a number of uncertainties remained, ranging from the consequences of monetary policies in the developed economies to the threat of deflation in the Euro-zone, as well as the risk of geopolitical tensions and potential spillovers.

It said that world oil demand in 2015 was forecast to grow by 1.2m b/d to average 92.3m b/d, higher than the growth of 1.1m b/d estimated for 2014.

"For the first time since 2010, OECD oil demand is expected to grow, increasing by 40,000 b/d, with the Americas being the only OECD region exhibiting growth. Europe is expected to decline further, but at a slower pace, while Asia-Pacific oil demand will continue to contract," it stated.

The *MOMR* said that non-OECD oil demand growth was expected to be around 1.2m b/d, coming mainly from China, the Middle East, and Other Asia.

In terms of products, it said consumption growth would be primarily driven by increased use of diesel oil and gasoline in the transportation industry, as well as to a lesser extent LPG and naphtha for petrochemical feedstock.

"However, factors that could impact oil demand growth include the pace of economic activities in the major consuming nations; the strength of substitution toward natural gas and other fuels; efforts to reduce subsidies; and ongoing policies to enhance fuel efficiency, especially in the transportation sector," it added.

MOMR oil market highlights ...

June 2014

The **OPEC Reference Basket** increased by $2.45 in June to reach $107.89/b. Nymex WTI gained $3.35 to $105.15/b and ICE Brent added $2.73 to $111.97/b. Speculator net long positions on ICE Brent hit a record high on the turmoil in Iraq. The Brent/WTI spread closed the month below $7/b, after having widened to a near $10/b mid-month.

World economic growth for 2014 has been revised down to 3.1 per cent from 3.4 per cent, triggered by unexpected low growth in the US in the first quarter if the year. The 2015 growth forecast stands at 3.4 per cent, supported by the accelerating pace of OECD growth from 1.7 per cent this year to 2.0 per cent in 2015. China's GDP is forecast to grow by 7.2 per cent in 2015 from 7.4 per cent in the current year. India's economy is seen growing by 5.8 per cent next year, up from 5.5 per cent in 2014.

Global oil demand growth in 2014 is forecast at 1.13 million barrels/day, broadly unchanged from the previous report. World oil demand in 2015 is anticipated to increase at a faster pace of 1.21m b/d. OECD demand is expected to see positive growth for the first time since 2010, increasing by around 40,000 b/d, while non-OECD consumption is expected to provide the bulk of oil demand growth with 1.18m b/d.

Non-OPEC oil supply is expected to increase by 1.47m b/d in 2014, following a slight upward revision from the previous report. In 2015, non-OPEC supply is projected to grow at a slower pace of 1.31m b/d. Output of OPEC NGLs and non-conventional liquids is forecast to grow by 200,000 b/d in 2015 to average 6.0m b/d, after growth of 150,000 b/d this year. In June 2014, OPEC crude oil production, according to secondary sources, declined by 79,000 b/d to average 29.70m b/d.

Strong summer gasoline demand in the US has supported **product markets** in the Atlantic Basin. This has outweighed the considerable decline seen in the middle and bottom of the barrel, preventing refinery margins from falling in the US and Europe. In Asia, product markets have continued to lose ground, as weak demand amid the return of refineries from maintenance has caused refinery margins to fall sharply.

Tanker market spot freight rates saw mixed movement in June. VLCC and Suezmax rates increased on the back of higher activity in several regions, while the tonnage list appeared shorter. In contrast, Aframax spot freight rates declined slightly, as a result of limited activities, while tonnage availability remained in surplus.

OECD commercial stocks rose by 32m b in May, but remained 53m b below the five-year average. Crude stocks were 12m b above the five-year average, while product inventories were 65m b below. In terms of forward cover, OECD commercial stocks stood at a comfortable level of 57.7 days. Preliminary data for June shows that US total commercial oil stocks rose by 17.0m b to stand 9m b above the five-year average. Crude stocks were 19m b above the five-year average, while products were 9m b below.

Demand for OPEC crude in 2014 remains unchanged from the previous report at 29.7m b/d. Based on initial forecasts, demand for OPEC crude in 2015 is projected to average 29.4m b/d, representing a decline by 300,000 b/d.

The feature article and oil market highlights are taken from OPEC's Monthly Oil Market Report (MOMR) for June 2014. 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 OPEC Reference Basket and crude and oil product prices in general.

Table 1: OPEC Reference Basket crude oil prices

$/b

Crude/Member Country	2013 Jun	Jul	Aug	Sep	Oct	Nov	Dec	2014 Jan	Feb	Mar	Apr	May	Jun	Weeks 22-26/14 (week ending) May 30	Jun 6	Jun 13	Jun 20	Jun 27
Arab Light – Saudi Arabia	101.30	105.03	108.09	109.48	107.14	104.84	108.07	105.74	106.30	104.80	104.87	105.80	108.61	107.01	105.94	107.63	110.20	110.46
Basrah Light – Iraq	98.94	103.24	106.07	106.61	103.69	101.63	105.12	102.70	103.38	102.10	102.11	103.16	105.80	104.27	103.19	104.95	107.51	107.41
Bonny Light – Nigeria	106.12	110.21	113.62	114.30	112.44	111.47	113.11	110.26	110.77	109.50	110.19	112.22	114.36	112.45	111.54	113.52	116.96	115.53
Es Sider – Libya	103.07	107.91	111.07	111.60	108.74	107.57	110.41	107.86	108.47	107.15	107.39	109.42	111.31	109.65	108.49	110.47	113.91	112.48
Girassol – Angola	104.23	107.55	110.80	112.13	110.20	108.83	111.31	107.96	109.54	108.67	108.80	110.21	111.23	110.65	108.52	110.09	113.53	112.78
Iran Heavy – IR Iran	100.61	103.65	107.06	109.15	107.69	106.87	108.96	104.89	104.96	104.01	104.32	105.40	107.45	106.34	104.72	106.10	109.24	109.51
Kuwait Export – Kuwait	100.22	103.22	106.47	108.02	106.13	104.73	107.30	103.79	104.17	103.05	103.13	104.21	106.56	105.31	103.89	105.38	108.22	108.51
Marine – Qatar	100.20	103.34	106.67	108.15	106.61	105.83	107.76	103.95	104.91	104.07	104.53	105.44	107.85	106.33	105.09	106.48	109.63	109.94
Merey* – Venezuela	95.37	95.68	98.06	97.85	96.80	94.83	96.61	93.72	94.00	93.23	93.99	96.06	98.71	97.34	97.03	98.17	99.76	99.87
Murban – UAE	102.61	105.58	109.18	111.14	110.13	109.36	111.22	107.66	108.69	107.60	107.75	108.35	110.74	109.38	108.05	109.35	112.52	112.81
Oriente – Ecuador	96.01	99.54	98.24	100.43	95.16	89.72	96.56	93.44	97.44	94.96	94.73	95.47	98.75	97.63	96.27	98.40	100.37	99.92
Saharan Blend – Algeria	102.07	107.56	111.87	112.95	111.04	109.27	112.66	109.96	110.52	108.95	108.09	110.36	112.66	110.60	109.84	111.82	115.26	113.83
OPEC Reference Basket	**101.03**	**104.45**	**107.52**	**108.73**	**106.69**	**104.97**	**107.67**	**104.71**	**105.38**	**104.15**	**104.27**	**105.44**	**107.89**	**106.45**	**105.28**	**106.88**	**109.65**	**109.62**

Table 2: Selected OPEC and non-OPEC spot crude oil prices

$/b

Crude/Member Country	2013 Jun	Jul	Aug	Sep	Oct	Nov	Dec	2014 Jan	Feb	Mar	Apr	May	Jun	Weeks 22-26/14 (week ending) May 30	Jun 6	Jun 13	Jun 20	Jun 27
Minas – Indonesia[1]	103.19	103.38	105.55	114.38	106.98	104.28	106.38	110.60	108.46	113.60	111.12	107.22	112.13	107.13	110.94	113.22	113.44	111.46
Arab Heavy – Saudi Arabia	99.64	101.78	105.33	106.72	105.04	104.90	106.77	102.21	102.34	101.63	101.61	102.72	104.50	103.68	101.80	103.11	106.27	106.56
Brega – Libya	103.27	108.11	111.52	112.15	109.29	108.17	111.01	108.46	109.12	107.80	107.99	110.02	112.01	110.25	109.19	111.17	114.61	113.18
Brent – North Sea	102.92	107.96	111.27	111.90	109.04	107.97	110.81	108.26	108.87	107.55	107.69	109.67	111.66	109.90	108.84	110.82	114.26	112.83
Dubai – UAE	100.32	103.52	106.81	108.28	106.70	105.95	107.80	104.01	105.04	104.32	104.68	105.55	108.03	106.58	105.31	106.65	109.82	110.11
Ekofisk – North Sea	103.79	108.77	112.54	113.69	110.28	108.88	111.85	109.06	110.06	108.60	108.65	110.86	112.67	111.47	109.95	111.61	115.11	114.06
Iran Light – IR Iran	101.73	105.54	109.17	110.47	108.19	106.52	108.98	105.33	106.47	105.63	106.03	107.42	110.27	108.22	106.83	108.70	112.65	112.65
Isthmus – Mexico	104.08	109.18	109.09	106.80	99.84	93.83	98.39	96.35	100.47	98.87	101.29	102.59	106.47	104.38	103.79	106.88	107.92	107.45
Oman – Oman	100.35	103.53	106.94	108.56	106.78	105.95	107.83	104.01	105.04	104.34	104.93	105.71	108.06	106.58	105.40	106.67	109.82	110.11
Suez Mix – Egypt	100.13	105.41	108.08	108.36	105.72	105.15	107.56	103.02	104.77	103.92	104.12	105.14	106.81	105.07	103.64	105.56	109.49	108.48
Urals – Russia	102.74	108.06	110.75	110.92	108.28	107.73	110.44	106.40	107.43	106.66	106.91	107.84	109.44	108.01	106.25	108.15	112.17	111.13
WTI – North America	95.74	104.51	106.55	106.26	100.41	93.76	97.72	94.90	100.78	100.53	102.02	102.03	105.24	103.66	102.61	105.27	106.67	106.38

Note: As per the decision of the 109th ECB (held in February 2008), the OPEC Reference Basket (ORB) has been recalculated including the Ecuadorian crude Oriente retroactive as of October 19, 2007. As per the decision of the 108th ECB, the ORB has been recalculated including the Angolan crude Girassol, retroactive January 2007. As of January 2006, monthly averages are based on daily quotations (as approved by the 105th Meeting of the Economic Commission Board). As of June 16, 2005 (ie 3W June), the ORB has been calculated according to the new methodology as agreed by the 136th (Extraordinary) Meeting of the Conference. As of January 2009, the ORB excludes Minas (Indonesia).

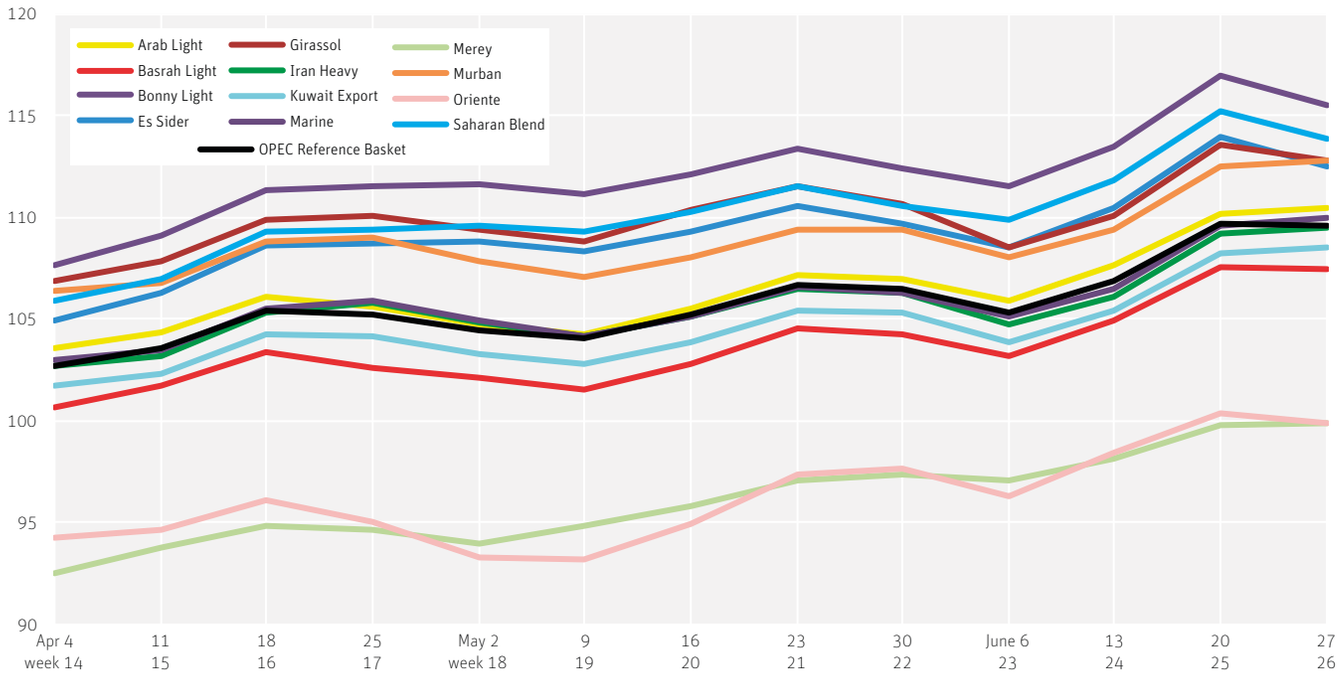
* *Upon the request of Venezuela, and as per the approval of the 111th ECB, BCF-17 has been replaced by Merey as of January 2009. The ORB has been revised as of this date.*

1. *Indonesia suspended its OPEC Membership on December 31, 2008.*

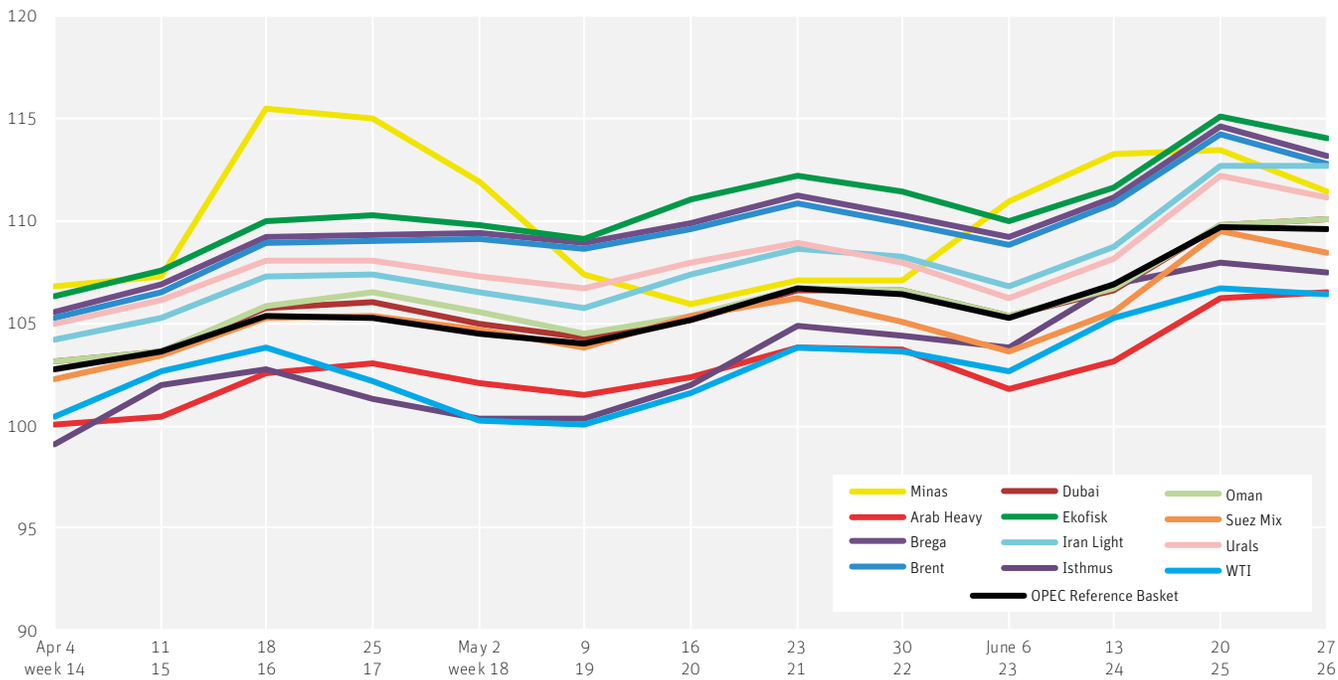
Brent for dated cargoes; Urals cif Mediterranean. All others fob loading port.

Sources: The netback values for TJL price calculations are taken from RVM; Platt's; Secretariat's assessments.

Graph 1: Evolution of the OPEC Reference Basket crudes, 2014 $/b



Graph 2: Evolution of spot prices for selected non-OPEC crudes, 2014 $/b

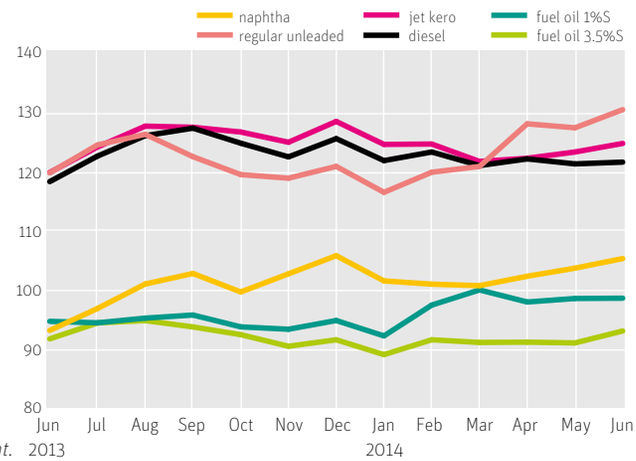


Note: As per the decision of the 109th ECB (held in February 2008), the OPEC Reference Basket (ORB) has been recalculated including the Ecuadorian crude Oriente retroactive as of October 19, 2007. As per the decision of the 108th ECB, the basket has been recalculated including the Angolan crude Girassol, retroactive January 2007. As of January 2006, monthly averages are based on daily quotations (as approved by the 105th Meeting of the Economic Commission Board). As of June 16, 2005 (ie 3W June), the ORB has been calculated according to the new methodology as agreed by the 136th (Extraordinary) Meeting of the Conference. As of January 2009, the ORB excludes Minas (Indonesia).
Upon the request of Venezuela, and as per the approval of the 111th ECB, BCF-17 has been replaced by Merey as of January 2009. The ORB has been revised as of this date.

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

$/b

		naphtha	regular gasoline unleaded	diesel ultra light	jet kero	fuel oil 1 per cent S	fuel oil 3.5 per cent S
2013	June	93.29	119.78	118.31	119.85	94.82	91.87
	July	96.98	124.48	122.60	124.14	94.57	94.55
	August	101.10	126.26	126.03	127.64	95.36	94.95
	September	102.87	122.50	127.30	127.45	95.88	93.88
	October	99.76	119.49	124.77	126.65	93.89	92.58
	November	102.81	118.89	122.47	124.93	93.49	90.63
	December	105.86	120.87	125.54	128.43	94.96	91.72
2014	January	101.62	116.51	121.84	124.57	92.37	89.22
	February	101.07	119.89	123.29	124.63	97.55	91.72
	March	100.82	120.86	121.01	121.71	100.10	91.27
	April	102.40	128.03	122.13	122.24	98.07	91.32
	May	103.76	127.36	121.29	123.29	98.66	91.19
	June	105.38	130.41	121.59	124.73	98.71	93.20



Note: Prices of premium gasoline and diesel from January 1, 2008, are with 10 ppm sulphur content.

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

$/b

		naphtha	premium gasoline 50ppm	diesel ultra light	fuel oil 1 per cent S	fuel oil 3.5 per cent S
2013	June	91.01	116.40	117.70	95.54	91.90
	July	94.51	121.89	122.76	94.27	93.85
	August	98.53	124.28	125.75	95.63	94.35
	September	100.74	119.30	126.39	96.39	94.09
	October	97.78	114.49	125.15	93.94	92.18
	November	100.56	112.43	123.29	93.94	91.29
	December	102.81	115.53	126.27	95.90	90.93
2014	January	98.76	113.28	123.07	92.94	90.16
	February	98.45	116.41	124.05	98.88	91.58
	March	97.86	115.23	121.46	100.69	90.48
	April	100.23	122.87	122.04	98.72	90.17
	May	101.83	121.92	122.22	99.73	91.55
	June	103.30	126.37	122.79	100.17	92.20

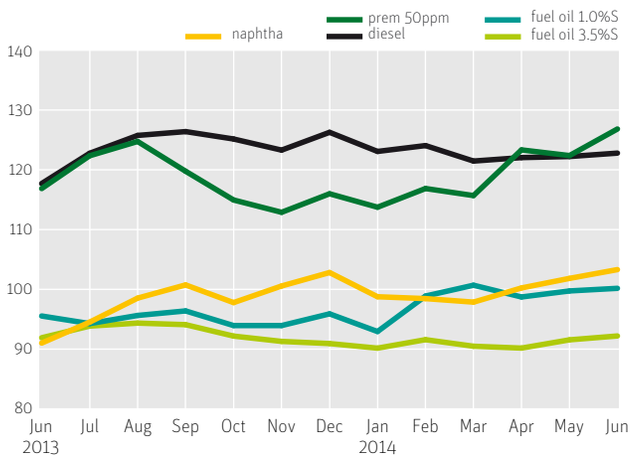
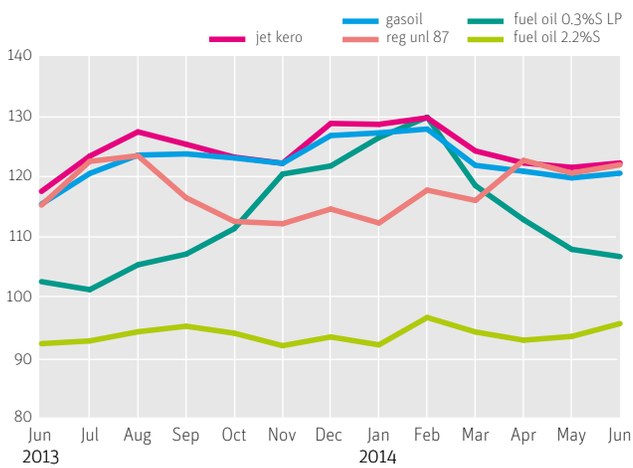


Table and Graph 5: US East Coast market — spot cargoes, New York

$/b, duties and fees included

		regular gasoline unleaded 87	gasoil	jet kero	fuel oil 0.3 per cent S	fuel oil 2.2 per cent S
2013	June	115.17	115.34	117.45	102.46	92.17
	July	122.43	120.42	123.30	101.13	92.62
	August	123.37	123.47	127.33	105.26	94.14
	September	116.39	123.67	125.27	107.03	95.06
	October	112.46	123.00	123.13	111.27	93.90
	November	112.08	122.11	122.12	120.32	91.83
	December	114.52	126.72	128.73	121.67	93.28
2014	January	112.20	127.16	128.58	126.38	91.97
	February	117.66	127.80	129.67	129.77	96.51
	March	115.94	121.77	124.16	118.41	94.11
	April	122.60	120.79	122.17	112.75	92.74
	May	120.49	119.69	121.43	107.82	93.37
	June	121.86	120.46	122.17	106.62	95.50



Source: Platts. Prices are average of available days.

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

$/b

		naphtha	gasoil	jet kero	fuel oil 2 per cent S	fuel oil 2.8 per cent S
2013	June	88.24	117.61	117.88	89.26	84.81
	July	105.97	121.79	123.23	90.10	85.10
	August	107.39	125.58	127.83	91.94	86.94
	September	106.06	124.68	124.38	94.10	89.10
	October	104.98	123.37	122.88	91.43	86.43
	November	103.69	120.25	119.92	89.69	84.69
	December	113.46	124.38	125.53	91.69	86.69
2014	January	110.69	121.90	123.68	89.50	84.50
	February	107.77	122.19	126.34	92.60	87.60
	March	108.79	121.01	122.93	91.83	86.83
	April	110.21	122.28	122.90	92.15	87.15
	May	110.66	121.27	122.01	91.09	86.09
	June	113.92	122.06	122.73	92.18	87.18

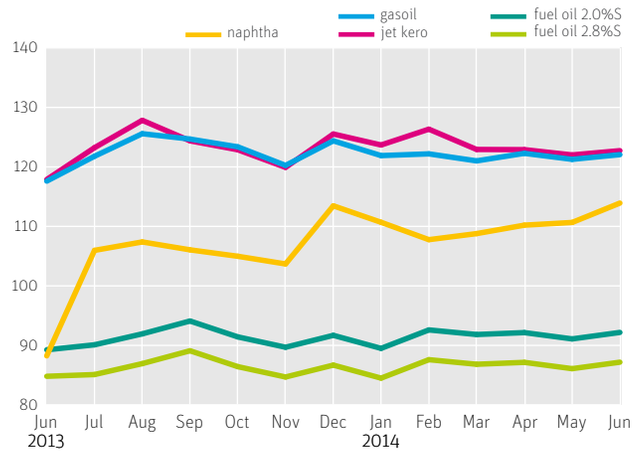


Table and Graph 7: Singapore market – spot cargoes, fob

$/b

		naphtha	premium gasoline unl 95	premium gasoline unl 92	gasoil	jet kero	fuel oil 180 Cst	fuel oil 380 Cst
2013	June	94.16	117.85	114.75	119.28	116.75	96.81	93.38
	July	97.70	121.73	118.79	123.14	121.18	95.23	93.15
	August	101.01	117.11	114.67	124.14	124.73	97.82	94.46
	September	102.76	117.31	114.28	123.57	123.87	96.30	94.48
	October	100.20	114.36	111.60	123.89	123.08	96.88	95.69
	November	103.69	114.89	111.94	123.34	122.63	96.32	93.88
	December	107.53	118.66	115.81	126.33	126.68	97.02	94.92
2014	January	104.47	117.98	114.66	121.56	121.63	96.46	94.56
	February	102.37	119.71	116.70	123.53	122.78	96.29	94.83
	March	102.08	119.37	116.53	121.68	119.99	95.00	93.13
	April	103.99	121.39	117.64	122.90	120.56	93.81	91.76
	May	105.31	121.43	117.96	122.35	119.88	95.08	92.86
	June	106.17	123.74	120.46	121.24	120.80	97.24	95.13

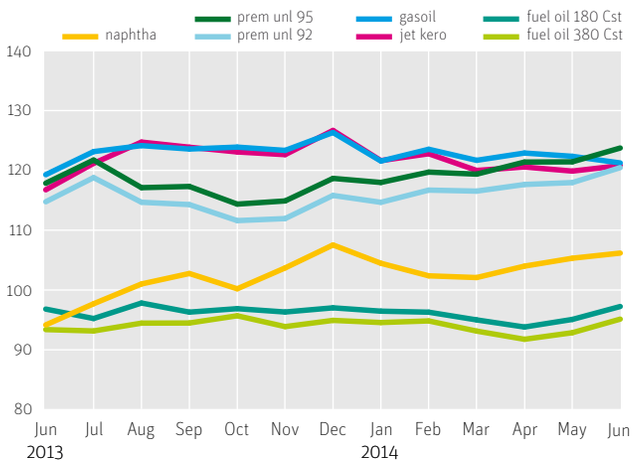
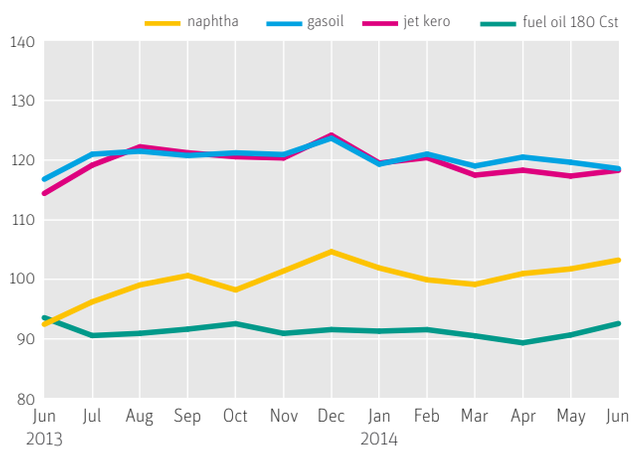


Table and Graph 8: Middle East Gulf market – spot cargoes, fob

$/b

		naphtha	gasoil	jet kero	fuel oil 180 Cst
2013	June	92.45	116.79	114.40	93.56
	July	96.21	120.98	119.14	90.56
	August	99.05	121.49	122.23	90.93
	September	100.62	120.76	121.22	91.64
	October	98.21	121.21	120.56	92.55
	November	101.39	120.92	120.35	90.92
	December	104.63	123.67	124.18	91.56
2014	January	101.90	119.31	119.51	91.30
	February	99.91	121.01	120.40	91.55
	March	99.14	119.00	117.47	90.51
	April	100.96	120.50	118.30	89.34
	May	101.74	119.63	117.32	90.66
	June	103.22	118.56	118.28	92.58

Source: Platts. Prices are average of available days.



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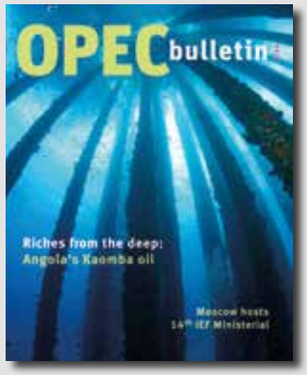

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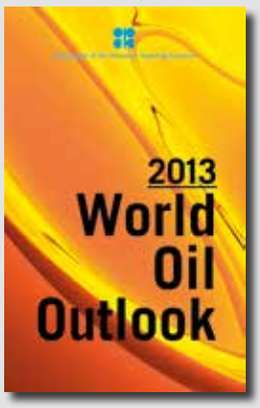

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