PetroQuest

OIL & GAS MAGAZINE



South Sudan

- South Sudan prepares for a vibrant oil sector in 2020
- Interview with Managing Director Nile **Petroleum Corporation**
- Pursuing Strategic Direction: NILEPET and National Flagship Projects
- Maximising Shareholders' value with
- SIPET Engineering & Consultancy: The dominant force in South Sudan's Oil and Gas Industry
- Smaller Steps but Bigger Impacts: PetroQuest Oil &Gas Magazine going global

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Oil Consignment Under The Early Oil Pilot Scheme (Eops)

Delayed Pipeline Project

nternational

- Inclusion & Diversity in Energy
- OPEC Oil and Gas Outlook 2019





Eng. Chan Marial Abur Editor in Chief

Dear readers,

ere comes another exciting edition Oil PetroQuest & Gas Magazine, loaded with to date industry interviews, news, and outlook of the issues and events

happening across the industry value chain. I welcome you most cordially to this edition as we end the year and look forward to 2020.

This edition comes at an exciting time when the oil & gas sector in South Sudan is set for a vibrant year in 2020. The oil production is expected to increase in 2020 as shown by the current ongoing efforts to resume production in oilfields which were not producing because of the crisis, the recent issuance of new exploration contracts, and the signing of many agreements. This positive progress in the oil & gas sector is as a result of the plans and initiatives put in place by the ministry of Petroleum.

In this edition, we bring you a comprehensive outlook of Nile Petroleum Corporation (NILEPET) projects and downstream activities. NILEPET as the national oil company has initiated strategic national projects to

Editor's

revitalize the oil sector and take a leading role.

Our Local Content and Corporate Responsibilities (CSR) stories cover and project the unique, strategic efforts and achievements made by PETRONAS as it leads the way in CSR in partnership with Local National Non-governmental Organizations in the country.

This edition is uniquely packaged to serve as a complete dose for your information needs about the oil sector. You will enjoy great stories captured by PetroQuest teams in different events like the Abu Dhabi International Petroleum Exhibition and Conference (ADIPEC) and South Sudan Oil & Power Conference this year. We remain resolute in our mission to keep you updated with factual and timely report of events as they unfold. PetroQuest team continues to attend national and international events to keep bringing you the latest in the industry in the country, region, and globe. We are proud of the milestones we have achieved and grateful to those supporting us to keep promoting the energy sector of the country.

Please, do use our various channels to send us your feedback. We look forward to hearing from you. Happy New Year.

Pillars of the Petroquest



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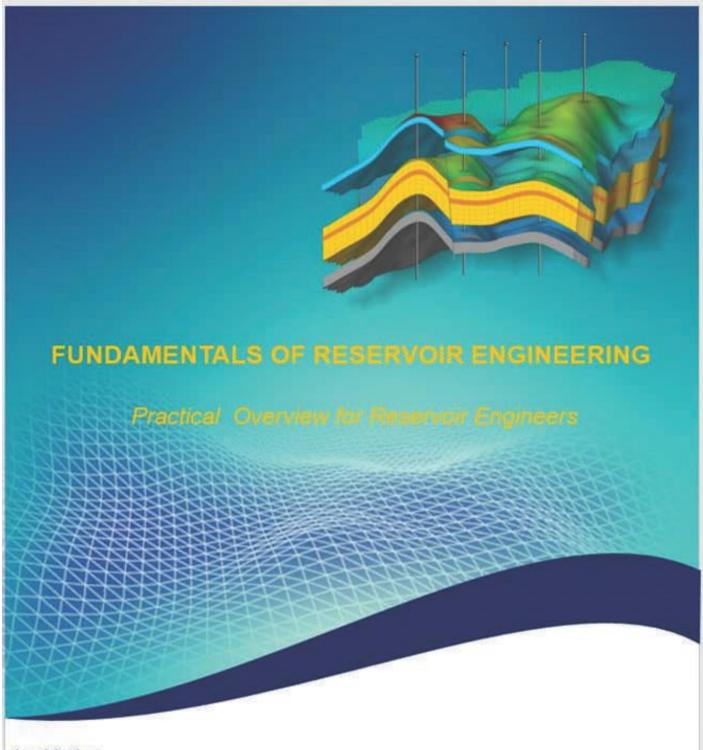
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South Sudan prepares for 20 a vibrant oil sector in

ith a new discovery made in the Adar Oilfield operated by Dar Petroleum Operating Company, South Sudan is prepared to restart production in various other oil fields, including Block 5A operated by Sudd Petroleum Operating Company (SPOC) by 2020.

participate in the bidding and licensing round," said Hon. Awow. This comes after the launching of a comprehensive environmental audit, which will be done through an international tender in line with the country's goal of promoting transparency.

The Ministry of Petroleum has been pushing SPOC to re-open the block since 2016 by consulting with the company and deploying extra security at the Tharjath oilfield. Block 5A located in the Muglad Basin on the same geological trend as the Greater Nile Oil Project in Sudan, has a production capacity of 80,000 bpd of highquality Nile blend. Production in Block 5A began in 2006 at 40,000 bpd and peaked at 54,000 bpd in 2009 before the 2013 crisis which reduced the production significantly to 4,500 bpd before eventually ceasing entirely.

Sudd Petroleum Oil Company (SPOC) has proactively started corporate social responsibility activities for local communities surrounding Block 5A in the Tharjath field, which it operates. The activities precede production resumption, which is expected to restart by the beginning of the year 2020. The potential resumption of Block 5A comes during a time of peace in the country, with the Ministry of Petroleum striving to create a conducive environment for investors.

To further attract investment into the country's oil sector, Ministry of Petroleum hosted the third edition of South Sudan Oil & Power Conference in October. During the conference, Minister of Petroleum Hon. Eng. Awow Daniel Chuang announced that the country will launch its first ever licensing agreement in the first quarter of 2020. The bidding for 14 onshore blocks will be opened for tender in a bid to jump-start economic recovery after more than five years of conflict. "As we work towards replenishing our oil reserves, we want to invite investors to

In the same conference, South Sudan and Egypt signed a Memorandum of Understanding (MoU) regarding cooperation in the field of downstream oil and gas. The MoU was between the Ministry of Petroleum South Sudan and Egypt's state oil company, Egyptian National Petroleum Corporation (EGPC). This came just weeks after Egyptian President Al-Sisi called on Egyptian exploration and production companies to increase participation in African countries, and urged service companies to invest in South Sudan. With this agreement, more Egyptian companies will be able to invest and participate in the oil and gas sector of South Sudan.

On the regional perspective, Ethiopia plans to start importing cheaper refined oil from South Sudan to mitigate the higher cost of importing from the Middle East as demand continues to grow. "The imports cost as much as \$3.4 billion a year, but could be cheaper if bought from our western neighbour South Sudan," said Ethiopia's State Minister of Mines and Petroleum Koang Tutlam.

The Horn of Africa nation of 108 million people needs 4 million tons of refined oil products annually and demand is increasing by 10% to 15% every year. "You can imagine bringing from the Middle East when you can tap from just 200 kilometers in Pagak or further from Adar," said Hon. Koang Tutlam. Ethiopia is awaiting construction of a planned South Sudan refinery near their shared border, thus expanding the South Sudan oil market.

South Sudan, Sudan to work together on oil export constraints

South Sudan and Sudan have agreed to jointly address issues limiting the export of South Sudan oil through the Sudanese ports. The two countries agreed to set up a coordination unit in Port Sudan to ease movement of oil production equipment coming to South Sudan through Sudanese territory. Landlocked South Sudan relies on Sudan's oil infrastructure to transport its crude oil for export.

The new arrangements are measures put forward by South Sudan to ease oil export and also help to further increase its current daily oil output of 170,000 barrels per day. "We are going to monitor all the petroleum production materials that are coming into the country because oil producing companies are currently facing some challenges," Said Eng. Awow Daniel, South Sudan Minister of Petroleum.

South Sudan and Sudan in 2012 signed a deal in which South Sudan would pay the amount of \$3 billion (2.7 billion euros) agreed as compensation for the oil-rich nation's 2011 secession as transportation fee through Sudan port. After South Sudan voted for independence, it took 70 percent of the oil fields from Sudan and has paid \$2.4 billion but is not able to meet the deadline of paying the remaining \$600 million. "As the contract expires we should be able to extend the deadline because we cannot run operations in a vacuum. This agreement is what governs the fees that we pay to Sudan," said Hon. Awow Daniel. The money is paid back by deducting \$15 from each barrel of oil from South Sudan

In respect to the pipeline, South Sudan Ministry of Petroleum will commence replacement of old oil pipelines and is aiming to start the renovation of the aging pipelines in a bid to mitigate future oil leakage.



INTERVIEW WITH MANAGING DIRECTOR

NILE PETROLEUM CORPORATION



Qn. Dr. Chol, you are the managing director of Nile Petroleum Corporation (NILEPET), and there is big improvement in the provision of fuel in the country, what measures have you put in place to avoid the issue of shortage of fuel in country?

Ans. Following re-alignment of South Sudanese Pound (SSP) in December 2015, a new policy of fuel subsidy was introduced. Unfortunately, this policy coincided with low international oil prices making it extremely difficult to meet fuel demand at almost 88% subsidy.

> This situation prompted Nile Petroleum Corporation (NILEPET) and Ministry of Petroleum (MoP) to lift fuel subsidy and allow market forces to dictate the price while maintaining subsidy for vital service actors (i.e. public transport, water tankers, etc.). Furthermore, NILEPET has prioritized

internal refining and construction of strategic fuel depots to avoid future fuel shortages.

Qn. In previous years or under the previous administrations, there was an issue of lack of fuel and too many people line up in petrol stations, but today we don't see that, what have you done to mitigate such challenges?

Ans. After lifting of fuel subsidy, other fuel retailers were allowed to import fuel from East Africa and sell it at competitive market prices. This policy has sparked competition among the retailers while regulating prices. On the other hand, it has enabled National Revenue Authority (NRA) to collect more revenues at the border. It is important to note that fuel prices in South Sudan are the lowest in East Africa. (Get statistics of regional fuel prices compare to South Sudan)

- On. Do you have clear visions and strategies for NILEPET as the National Oil and Gas Company in the nearest future?
- Ans. Yes, NILEPET has formulated its strategic 5-year (2017-2022) master plan which covers its three segments of the business (Upstream, Mid-stream and Downstream). This plan encompasses construction of refineries, pipelines, strategic depots and becoming an operator by the end of this period. Furthermore, NILEPET has prioritized training of staff and acquisition of assets by starting construction of a G-plus 10 storey building, 2 service rigs and renovation of Bentiu Refinery. The first batch of 10 fresh graduates (engineers and geoscientists) has just concluded a 1.5 years training program with Schlumberger.
- Qn. Do you think upon the completion of NILEPET headquarters building that it will reduce the high cost of renting offices in different locations in Juba?
- Ans. Yes, the new headquarters is a state-of-the-art green building that is designed with a parking space in the basement of up to 120 vehicles. Furthermore, it will accommodate NILEPET and its 10 subsidiaries (up to 1,100 staff members).
- Dr. Chol, is there any future interest for NILEPET to involve in oil exploration just like DPOC, SPOC and GPOC?
- Ans. Yes, NILEPET is planning to operate a block by 2022. This would entail that the vast majority of activities currently undertaken by service companies will be executed by NILEPET.
- How is the nature of the relationship between NILEPET with Ministry of Petroleum as well as Joint Operating Companies (GPOC, SPOC and DPOC)?
- Ans. NILEPET is the commercial arm of the Government of South Sudan in the oil sector holding shares in Dar Petroleum Operating Company (DPOC), Greater Pioneer Operating Company (GPOC) and Sudd Petroleum Operating Company (SPOC). These companies are managed jointly by NILEPET and foreign investors. Nevertheless, MoP is the regulator which oversees these companies.



- Qn. Can you briefly tell us your achievements since you took over the position of the Managing Director?
- Ans. I have accomplished and made progress in many programs since I took the position of Managing Director. Among these achievements include:
- The ongoing construction of G-plus 10 monumental headquarters (HQs) building
- Full payment of NILEPET's shares in Bentiu Refinery and renovation of the facility.
- Purchase of two service rigs (for the first time) to nationalize workover activities.
- Recruitment and long-term (1.5 years) training of geoscientists and engineers.
- Performance appraisal of mid-career engineers and geoscientists in exploration and production directorate to identify knowledge gaps and suggest and execute short-term (0.25 - 3 months) training needs.
- Establishment of two new subsidiaries (NIYAT Oilfields and Nile Data Systems).
- Extension of corporate social responsibility (CSR) component to provide vital services (drinking water, marram roads, etc.) in remote areas.
- Active participation in reinstatement of GPOC (block 1, 2&4) oilfield.

Interview Conducted by: Peter Robert Mayuk Deng.



NILE PETROLEUM

The National Oil and Gas Cor

Pursuing Strategic Direction: NILEPET and National Flagship Projects

NILEPET through its planning projects department has rolled out very strategic national projects. One of the reigning flagship projects is the headquarters' building situated at the eastern side of Dr. John Garang's Mausoleum and behind KCB Buluk. Sitting over 5,336 m² land space, the 12 floors modern building is being constructed by Zhonghao Overseas Engineering Co. Ltd from Peoples' Republic of China. The commissioning time is December 2020. Once it is completed, the regional landmark oil and gas infrastructure will accommodate 1,100 staff with world class data center, amazing ICT hub, library and international conference center.

Besides, NILEPET has purchased two service rigs that are currently stationed at Paloch, block 3 & 7. These service rigs are managed by NILEPET subsidiary, Nile Drilling Co-Ltd. The intention of the service rigs is to help NILEPET get revenues for its operations as well providing NILEPET rig services come 2022.



Figure 1: Pictorial Perspective of HQs Building



CORPORATION

r poration of South Sudan



By **Dr. Jacob Dut,** Director for Planning and Projects

Further still, NILEPET through its subsidiary, SNP Group is renovating 10,000 bbl/d modular mini-refinery in Bentiu. The diesel refinery is near completion with two blocks, UPN 150 and UPN 200. It will be commissioned by the end of this year.

Furthermore, NILEPET through its downstream division has put up strategic fuel storage terminals of the capacity 6,000,000 AGO liters in Juba, Wau and is now constructing 1,000,000 AGO fuel terminal in Kuajok. There is a plan



Figure 3: Bentiu Modular Refinery Pictorial Perspective

NILEPET Moreover, invested heavily on murram roads maintenance as part of its Corporate Social Responsibility (CSR). A 700 km of murram road is being maintained from Yirol-Rumbek-Wau-Gogrial-Twic-Southern Liech (Mayom) and Northern Liech (Bentiu)-Panrieng. The objective of these roads is to help evacuate the refined crude from Bentiu Mini Refinery to Greater Bahr el Ghazal, Greater Upper Nile and Juba as well as to the East African region when the refinery is commissioned.

to put up another 1,000,000 liters in Malakal. The aim of having these strategic fuel terminals is to avail on time fuel to the people of South Sudan. Moreover, the terminals will help to store fuel products from the mini-refinery of Bentiu once it is commissioned.





Figure 5: 3 Million Liters Terminal in Wau and 1 Million Liters Terminal Ongoing Construction in Kuajok, Gogrial State

Finally, NILEPET through its Exploration and Production Division has put together robust training project of engineers, geophycists geologists, petrophycists as one of the pillars of the 2022 operatorship vision. The intention is to train over 60 world class petroleum engineers, geologists, geophycists and petrophycists by 2022 so that NILEPET could implement operatorship vision comes 2022. Given the technicalities of these trainings, Schlumberger, international oil and gas company is administering these trainings through its NEXT training programme. Success stories have been recorded so far from the batches of Abu Dhabi-UAE and Cape Town-SA.





NilePetroleumCorporation(NILEPET) Downstream Outlook

by Mr. James Loteka Yugusuk Director General for Downstream

he Downstream, in the oil and gas sector describes the supply chain starting right from the transportation of refined products from refineries to storage facilities to either outlets or distribution networks where the products are The Downstream consumed. Directorate in Nile Petroleum Corporation (NILEPET) is one of the main business sectors of the company. Established in 2011, Downstream Directorate currently has 10 departments with close to 300 staff members. The Departments are outlined below.

Refineries

There are 5 proposed refineries in South Sudan, according to the Downstream 5 year master plan. These refineries are proposed in the areas of Fangak, Akon, Palouch, Thiangrial and Tharjath. However, the only refinery currently under construction is the Tharjath refinery in Unity Oil Fields.

Sales and Distribution

The Sales and Distribution Department is responsible for the entire fuel supply chain. It oversees the product sourcing (currently from East Africa) to its distribution to customers, whether bulk or retail. It is worth mentioning

that NILEPET is mandated by the Government to sell its subsidized fuel to Government Institutions, water tankers and public transport buses.

Depots

NILEPET has 3 major Depots currently in South Sudan. Two are in Juba with facilities of Gabat, and Jebel with a capacity of 2.7 million litres. The one in Wau has close to 1million litres of AGO and 1.75 million litres of Jet A1. NILEPET in its 5 year master plan, intends to build storage facilities along the River Nile and major cities across the country. There is also a plan to construct a 60 million litres Depot around Juba. This is to

Out of these, one retail outlet is reserved for providing fuel to water tankers and another to public transport and Government vehicles. In the Downstream master plan, there is a proposal to establish retail outlets in each of the current capital cities of all major States in the Country.

LPG

The liquefied petroleum supplies Department cooking gas to customers in Juba. With a filling plant of 40MT. NILEPET has its own LPG brand called NIPGAS. Currently, are 12.5Kg cylinders that are in the market. In the 5 year master plan, NILEPET



Gabat Depot meet the strategic needs and reserves of the Country.

Retail

There are 9 retail outlets in the capital, Juba; with a total capacity of 2,079,000 litres. intends to open filling plants in the major towns of Wau and Malakal. In the quest to fight deforestation, and provide clean energy; NILEPET is also looking at expanding its operating capacity to reach as



many customers as possible.

Lubricants

This is a new venture that NILEPET has entered into. In this Department, NILEPET has entered into a co-branding agreement with one of the major lubricant giants in the Middle East. It will soon launch these products in to the South Sudan market. This is to discourage consumers from using the low grade or recycled lubricant products that are currently dominating the South Sudan market.

Aviation

The Aviation fuel industry is one of the most lucrative. NILEPET is intending to enter this market in order to diversify and increase its revenue collection stream. NILEPET already has million litres storage facility for aviation fuel (Jet A1) in Wau.

Quality Assurance and **Quality Control**

Going hand in hand with product importation and distribution, The Quality Assurance and Quality Control Department ensures that the products imported are up to standard and that our customers are not affected in any way. NILEPET is in the process of establishing a bigger and more efficient laboratory in its Depot at Gabat, in Juba.

Marketing and Customer Care

The Marketing Department is responsible for reaching out to all our customers and making sure that their needs

are met. They also strive to get more customers and market the NILEPET brand and its products to the South Sudan market.

Maintenance

The Maintenance Department ensures that all the equipment at the Depots and Retail outlets are working efficiently. With a team of experienced engineers and technicians, the maintenance Department is responsible for minimizing equipment downtime.

Conclusion

NILEPET has articulated in its vision and master plan to invest in refineries, storage facilities (terminals) Aviation fuel infrastructure. and LPG Refilling Plants in almost all the parts of the country. In this ambitious plan, NILEPET is open to discussions with potential investors who are keen in seizing these vast investment opportunities in the Oil and Gas sector in South Sudan.



Custom Retails Station

Insights of South Sudan Insurance



ith huge opportunity in South Sudan and rapidly growing middle class and a comparatively low Insurance density relative to other national economies, South Sudan constitutes an attractive market of the future for many re/insurance companies. The South Sudan Oil and Gas Reinsurance has been handled by Speed Insurance which is a composite Insurer as a local content since Independence with Oil Operating Companies (OOCS) owing to the National Transitional Constitution and the Petroleum Act 2012.

Thereafter four more insurance companies have accessed the oil and Gas practice; New Sudan, CIC, Britam and UAP. The OOCs however after completion of the 1st, 2nd, & 3rd Stages of Oil & Gas underwriting started giving an in-principle nod to South Sudanese Insurance Underwriters whilst preferring International brokers.

SOUTH SUDAN RE/INSURANCE SCENERIO:

These measures highlight the importance attached to the existence of adequate and efficient re/insurance arrangements for an insurance company. It should be

noted that the solvency position of an insurance company is assessed on a "net of re-insurance" and "after Claim" basis.

The Principle also require that every insurer should maintain the maximum possible retention commensurate with its financial strength and volume of business. The guiding principles in drawing up the reinsurance program should be stated as; Maximize retention within the country, Develop adequate capacity, Secure the best possible protection for the reinsurance costs incurred and Simplify the administration of business.

SOUTH SUDAN INSURANCE MARKET POISED TO GROW;

The insurance industry in the country is set in the growth trajectory and is expected to grow significantly in the coming years due to rising financial literacy. The South Sudan insurance sector is set to mark a significant growth in the coming years. The lower level of penetration, favorable initiatives demography, 'Local Content Consortium' for financial inclusion, rising financial literacy along with increase in domestic savings

consequent to rise in per capita income are expected to support the growth of insurance sector going forward. The favorable environment in the country is also expected to help in fueling growth.

THE GOVERNMENTS DO PLAY A GREATER ROLE IN INSURANCE INDUSTRY;

More and more governments are leveraging private insurance skills and the growing capacity of the sector to cover catastrophe losses as well as a wide range of other risks.

Government involvement in insurance differs widely between countries. It includes setting the regulatory framework within which insurance companies operate, explicitly underwriting some types of products, making some types of insurance mandatory and responding after an event as insurer of last resort.

In Conclusion: The Government should enforce the relevant laws and enable the energy Insurance Proceed to be utilized locally and continually enable new laws enacted that protects the Insurance Industry from Captives. This is possible & even faster through Public Private Involvements.



Shareholders' Shareholders' value with integrity

In modern business, companies strive to build reputation through corporate social responsibilities and do not necessarily depend only on profitability.

social responsibility The a company is regarded as its contribution towards the objectives development. sustainable The contemporary concept of corporate responsibility is where by companies integrate corporate social concerns, environmental, and governance with its strategy, its management and relations with its stakeholders to build corporate reputation. The concept of CSR is growing widely over the time. Approximately, most of companies more than before are engaged in CSR initiatives in all aspects of their business.

As part of its continuous commitment to behave ethically and contribute to economic development while improving the quality of life of the local community and society at large, PETRONAS has made great strides on many social responsibility fronts in South Sudan since the start of its operations. PETRONAS has initiated many programmes such as Education Sponsorship Water for Life Programme, Project and Blood Donation Drive amongst many other programmes. These initiatives were purposely designed to achieve sustainable improvements that will accelerate shareholder value and brand affinity in its social responsibility journey. Moreover, these initiatives are geared towards empowering the communities and enriching people's lives and create great impact on the local community to enable PETRONAS achieve short term and long term goals with integrity within South Sudan.

PETRONAS Education Sponsorship Program (PESP)

This is one of the Corporate Social Responsibilities PETRONAS has been doing since the time when Sudan was one, and has benefited over 80 beneficiaries. This was later on extended to South Sudan after gaining independence from Sudan. This program has not only developed professionals in the oil and gas industry, but it has produced great leaders that have contributed to the improvement in economic and social aspects of the country. Some of these leaders include; Paul Adong who was the former Managing Director of Nile Petroleum Corporation and former Vice President of Dar Petroleum Operating Company, and currently the Executive Director of the Petroleum Company; Adong Olivier Denis, the former Country

Manager of Schlumberger and Currently the Technical Advisor in the Ministry of Petroleum; James Makuach who is now a Senior Reservoir Engineer at Greater Pioneer Operating Company and the Lead Author of the recently published Reservoir engineering book 'Fundamentals of Reservoir Engineering'; Caesar Sokate Bernard and Bior Atem who are Senior Production Engineer and Petro physicist respectively PETRONAS Headquarters Malaysia, and many other upcoming leaders and entrepreneurs who are striving to make differences across the country.

Water for Life Project

Water for Life Project is an initiative by PETRONAS Partnership with Nile Hope as an implementing agent to enrich people's lives through provision of affordable clean and safe drinking water to the people living within Juba. The Water for Life Project was launched in 2018 through 2019 and its phase one has been successfully accomplished in 6 locations of Gudele, Joppa, Lologo, Kor Wolieng, Hai Referendum and Mangateen. The impact of this project is quite great and a good number of households benefiting from this projects has tripled. More than 40,000 individuals are





currently getting access to clean and safe drinking water.

Water for Life Project has not only improved the living standard of the local community, but it has also brought in the aspect of linking the profit making entities with non-profit making organisations in provision of lifesaving services to the local community. Water for Life project has provided a way forward on how the profit making companies can work together with national non-profit making organisations like Nile Hope to empower and enrich the lives of the local communities and the society at large. Nile Hope, the implementing agent in this project is a National Nongovernmental Organisation which was established in 2004. Since its establishment, Nile Hope has been operating in 7 states of former 10 states across South Sudan (Warrap, Jongeli, Central Equatoria, Unity State, Upper Nile, Western Bahr El Ghazal and Northern Bahr El Ghazal). While PETRONAS which is the Donor is a Malaysian Oil and Gas company that has shares in most blocks across South Sudan. Having entrusted Nile Hope to implement the project, PETRONAS has not only empowered the local community, but has also contributed towards the aspect of local content

development. This proves that empowering communities is an integral part of PETRONAS culture and the way to do business to champion sustainable, focused and impactful business practices that aim at maximising shareholders values with integrity.

PETRONAS Blood **Donation Drive**

PETRONAS through its subsidiary, PETRONAS Carigali Nile Limited (PCNL), organized its first blood donation drive, themed "Donate Blood, Save Lives" at the PETRONAS Complex in Juba this year. The Blood Donation Drive was purposely initiated by PETRONAS in response to critical shortage of safe blood in South Sudan.

The event was a collaboration between PCNL, National Blood Transfusion Services under Ministry of Health, with support from World Health Organization, South Sudan Red Cross, Amref Health Africa and Medical Response for the Diplomatic Corps International. The event was officiated by the Acting Director General of Ministry of Health in the Republic of South Sudan, Mr Michael Lasuba, accompanied by PETRONAS South Sudan Country Head, Mr. Anuar Ismail.

As a responsible corporate company, PCNL continuously looks forward to co-develop sustainable community based programs for the people of South Sudan with the Ministry of Petroleum, Ministry of Health, other relevant ministries and partners.





Engineering & Consultancy:

The dominant force in South Sudan's Oil and Gas Industry

SIPET ENGINEERING and Consultancy Limited Company (SPECS), often referred to as SIPET, is a service provider of Project Management Consultancy and Operation & Maintenance (O&M) in oilfield facilities in South Sudan mainly in oilfield production, surface and power plant facilities.

Through Project Management consultancy services, SIPET is responsible for supervision of clients' projects that are implemented by the contractors, by ensuring provision of quality engineering services and timely implementation of the projects within the scope of work as spell out in contracts. In doing so, SIPET employs competent engineers; process, mechanical, electrical, piping, instrumentation and civil, to oversee the implementation of projects in the oil and gas industry in strict compliance with international and state engineering standards and as a result, quality engineering services is achieved. On top of PMC services, SIPET also provides daily operations

and routine maintenance of oilfield facilities by assuring safe production. The company has ongoing Project Management Consultancy services with Dar Petroleum Operating Company (DPOC) in general engineering services and as well as operation and maintenance of Paloch Power Plant in the contracted area of Blocks 3 & 7.

The war of 2013 led to the shutdown of oilfields in Block 1, 2 & 4 which are under Greater Pioneer Operating Company



SIPET PMC team posing for a group photo with contractors on 09/07/2019 at FPF

(GPOC) and oilfield in Block 5A which is under SUDD Petroleum Operating Company (SPOC). The recent signed peace agreement has catapulted the government to plan on oil production resumption in those oilfields that were shut down during the war. As a result, SIPET recently landed a one year GPOC's lucrative contract, in March 2019, for reinstatement of Munga Oilfield involved reinstatement of field production facility (FPF) as well as reinstatement of field surface facilities (FSFs) which included 55 wells. Munga Oilfield is one of the five oilfields under GPOC, and amongst them are Unity Oilfield, El Naar Oilfield, El Toor Oilfield and Toma South Oilfield, which is under reinstatement plan as per the requirement of the government of the Republic of South Sudan to resume oil production in the oilfields which were affected by the 2013 conflict. The responsibility of SIPET was to oversee the full reinstatement of the oilfield facilities through Engineering, Procurement, Construction and Commissioning (EPCC) phases which required the company to contract various companies to participate in the reinstatement project by applying their unique skills. The assessment of the oilfield was conducted and completed in April, 2019 after which a report was written on how the project would be implemented. The EPCC of the project kicked off towards mid of May, 2019 and on 30/06/2019, the first target of the project, which was to produce crude oil on 30/06/2019, was achieved. Currently, the implementation of the reinstatement project is ongoing.

Munga Oilfield Reinstatement project undertaken through SIPET



Free Water Knock Out Drums and plate heat exchangers at FPF

is a story of success to the company and to the Republic of South Sudan because it is a realization of the country vision to run the oil and gas industry through her citizens. Nearly 100% of the engineers involved in the implementation of the project either in SIPET, which is entirely running the project, or in contracting companies are South Sudanese and this tells that South Sudan is on the verge of running the oil and gas industry without any help.

This success on the implementation of the Munga Reinstatement Project has led SIPET to signing of two more contracts with GPOC namely

- 1. Operation and maintenance of Unity Power Plant-which is the major source of electrical power for Munga Oilfield, El Naar Oilfield, Toma South Oilfield, and El Toor Oilfield
- The Reinstatement project of SUDD Operating Company (SPOC)'s Tharjath which Oilfield involves the reinstatement of Field Production Facility (FPF) and Field Surface Facilities (FSFs).

The above mentioned projects are due to start in the beginning of 2020 and these developments will enable SIPET to recruit more local engineers.





South Sudan's only Oil & Gas Magazine (PetroQuest) team attended one of the biggest conferences of the oil and gas industry, the Abu Dhabi International Petroleum Exhibition and Conference (ADIPEC) from 11 – 14 November 2019. ADIPEC brings together researchers, industry professionals and experts, global leaders, investors with real



buying power and businesses worth billions of dollars at the event each year. The oil and gas industry convene in the event to not only decide on the future of the industry but to discuss the major topics, meet with existing partners, and discover new business opportunities. The conference also hosts one of the world's biggest and most important technical conferences with more than 120 technical sessions, attracting 10,000+ delegates.

PetroQuest Oil and gas magazine team this year was at the centre of this great conference. The team proudly represented South Sudan and the East Africa region. PetroQuest Stand was the only booth representing South Sudan with stories covering the oil and

gas sector of the country and we were privileged to have the delegates from the Ministry of Petroleum headed by Hon. Undersecretary Mayen Wol visit the PetroQuest booth. Being one of the major events where the biggest conversations regarding the oil and gas industry happens, PetroQuest team captured it all from the ministerial sessions, the live sessions, the SPE technical sessions,

ADIPEC technical sessions, the global business leaders' sessions, the young ADIPEC Talks and the Exhibitions, to exhibiting South Sudan potential. Many things take place at the same time during the four days of the conference and as media partner of ADIPEC, PetroQuest team had access to all the discussions, sessions and exhibition. PetroQuest team had the opportunity to interact and network with top managers and CEOs of the major Oil companies as it was a platform for networking. received magazine outstanding recognition as well as appreciation during the conference.



Also this year, South Sudan hosts the 3rd African Oil and Power Conference. PetroQuest team was at the centre of the event covering it and bringing first-hand information all as the local media partners of AOP. The conference with a theme "FOCUS ON FINANCE" witnessed participation of over 600 delegates from different countries. PetroQuest witnessed tremendous appreciation from both the public and organizers for the great work the team is doing of disseminating information to the public both within South Sudan and the neighbouring regions. The team interacted with highly experienced industrial experts who applauded

the idea of a magazine within South Sudan. Many of the delegates looked forward to supporting the team in all ways possible to achieve the objective and obtain a great understanding in working together for the betterment of the oil and gas industry of South Sudan and East Africa. PetroQuest Oil & Gas Magazine is proud of these milestones and will keep striving to promote the oil and gas sector of South Sudan. We will keep our word of "proudly promoting energy made in South Sudan" as we bring close insights of the industry including events in the region and internationally.



11-13 February 2020

Egypt International Exhibition Center

At PetroQuest we promote competitive and fair business dealings. The award ceremony takes place in the first week of December of every year. PetroQuest first energy award event is expected this year. The award categories are listed below.

Petro Quest

Fair Business and Local Content Award

PETROQUEST Operating Company Award

PETROQUEST International Services Company Award

PETROQUEST National Services Company Award

PETROQUEST Expatriate Contributing Writer Award

PETROQUEST National Contributing Writer Award.

PETROQUEST International Bank Award

PETROQUEST National Bank Award



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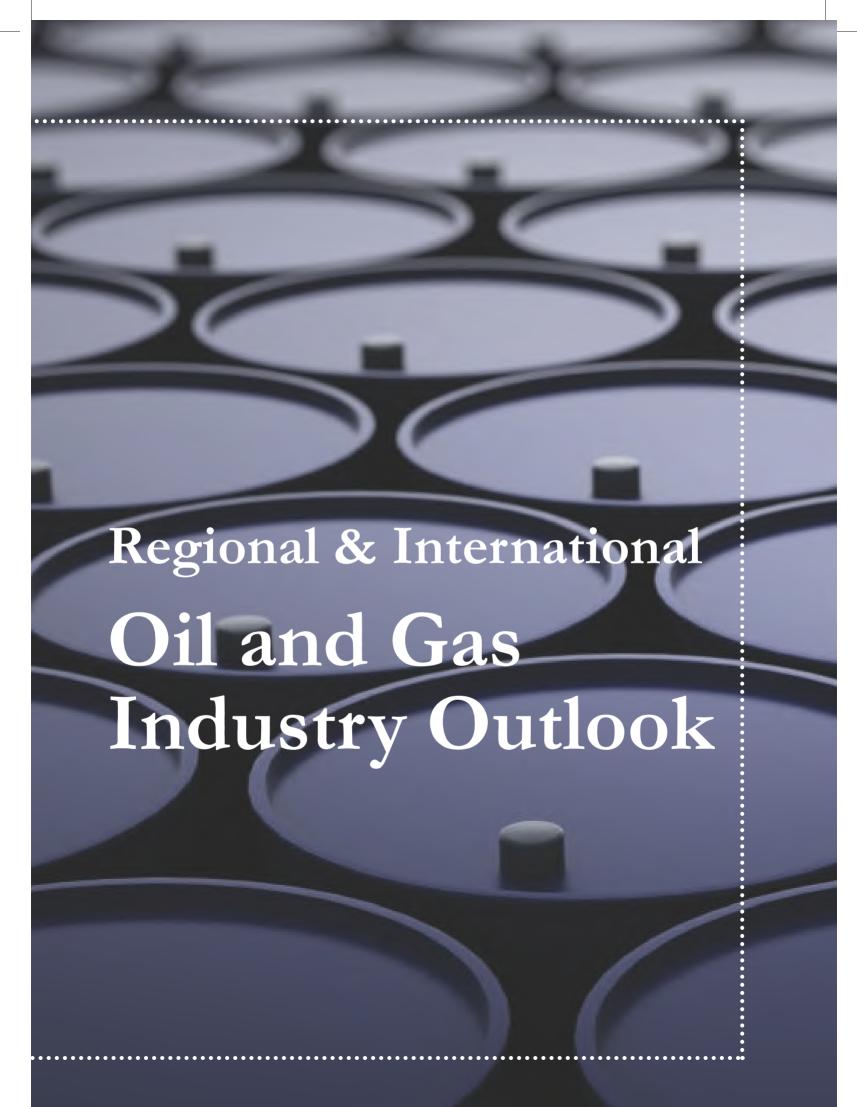
Availability





Airport Lounge

Embassies



UGANDA DELAYED PIPELINE PROIECT

ganda discovered crude oil reserves about 13 years ago but commercial production has been delayed partly because of lack of infrastructure, such as an export pipeline. The country's estimated reserves in the Albertine region is about 6 billion barrels of oil and associated natural gas reserves of 500 million cubic feet. The Ugandan oil fields are jointly owned by the China National Offshore Oil Corporation (CNOOC), France's Total and Tullow of Britain.

Total E&P's decision to suspend all oil activities in Uganda after failing to sell a stake of its interests will delay Uganda's plans of producing first oil, hurting the country's position of meeting some of its debt obligations. Uganda has racked up a pile of debts - such as the construction of roads and power plants - in the hope that oil money would flow quickly so that

the country can service these loans.

The collapse of a \$900 million deal in late August, where Tullow Oil wished to sell 21.5 per cent of its stake to France's Total E&P and China's CNOOC means Uganda will not beat its 2022 target for oil production to start. The deal failed after the companies disputed the tax measures imposed on them and the treatment of the costs that Total E&P and CNOOC would inherit from Tullow Oil.

"The collapse of the agreement might have an impact on first oil because we had estimated that it would come three years after the Final Investment Decision [FID] has been signed," Robert Kasande, the permanent secretary in the ministry of Energy and Mineral Development, said recently at the sectorial review of the energy sector. Kasande reassured the country that the collapse of the sale and purchase agreement

between the oil companies doesn't mean the end of the oil industry in Uganda.

The government is optimistic that a tax dispute with its three major private players will be resolved to progress towards a final investment decision by the end of the first quarter of next year.

According to a 2016 Cabinet directive to the Uganda National Roads Authority (UNRA), the 12 critical oil roads, about 700km in total, were supposed to be completed by 2020 to facilitate the production of oil in 2023. For easy management of the project, the roads were divided into six phases. The government has secured about \$534 million in funding from China's Exim bank for phase one, two, three, and recently five for the construction of the roads by four Chinese contractors which is steadily on going. However, funding for phases six and four





still hangs in balance. Whereas phase four is in contract awarding stage, the government has still failed to find a funder for the final section which is phase six of the road construction. Initially the government was eyeing UKAid to finance the final package, but the loan request has already been rejected twice by the European donors over the high cost of the roads.

Chinese oil firm China National Offshore Oil Corporation (CNOOC) aims to take a stake in the oil pipeline being developed to export Ugandan crude. The 1,445 km (900 mile) East African Crude Oil Pipeline (EACOP), costing \$3.5 billion, will pass through neighbouring Tanzania to the Indian Ocean port of Tanga. About two thirds of the pipeline's cost will be financed by debt and a Ugandan unit of South Africa's Standard Bank Group and Japan's Sumitomo Mitsui Banking Corp are jointly helping to raise the credit

Even with a secured loan, the money isn't readily available due to the process of acquiring the funding. The government requires contractors who bid to offer 30 per cent pre-financing of the roads for 12 months as it negotiates the loans. To advance the work, the government is now lowering its requirement to 15 per cent of funding as it expects Exim Bank

to provide 85 per cent of the total funding.

Executives from Total E & P, China National Offshore Oil Company and Tullow met with President Yoweri Museveni in October at State House in Entebbe to discuss key issues still hindering a final investment decision (FID). Should the oil firms agree, the government expects them to issue statements about a readiness to progress to the next phase. If progress is made, we can expect the FID to be announced around April next year. The FID is expected to unlock \$10 billion from the Kingfisher and Tilenga wells and advance the East African Crude Oil Pipeline.



Kenya Exports



Charles Thiongo

First Crude Oil Consignment Under
The Early Oil Pilot Scheme (Eops)
As New Legal Regime Takes Effect

officially enya joined league of global oil exporters on 26th August 2019 with export of the first consignment of 240,000 barrels of crude oil valued at Ksh. 1.2B (approximately \$12M). This consignment from the South Lokichar Basin in Turkana County in Northern Kenya is under exploration and development by Tullow Oil and its joint venture partners, Africa Oil and Total. The consignment was exported under a program christened the Early Oil Pilot Scheme (EOPS) which aims to test and introduce Kenya's crude oil in the international market. The consignment was exported by Chemchina, a Chinese company who won a competitive international tender with the crude oil destined for Malaysia. President Uhuru Kenyatta flagged off MV Celcius Riga from the Kipevu Oil Jetty in Mombasa County, marking the country's entry into the revered group of global oil producers. The country is set to export a second batch of 500,000 barrels from the same basin at the end of February 2020.

The Early Oil Pilot Scheme seeks to test the reception of Kenya's

into the international market while pending the Full Field Development (FFD) and commercial production is projected to commence in 2022. The scheme entailed the movement of the crude oil from the Turkana oil fields in northern Kenya through trucks with the crude oil and then stored in holding tanks. The Kenyan government envisaged the building of an integrated oil pipeline with Uganda for the movement of the crude oil from the oil fields to the port of Lamu for export. However, this project suffered a major setback when Uganda pulled out in favour of an alternative route through Tanzania's Dar Es Salaam port. The Kenya government however insists that it will proceed with the 824KM project which will see the Turkana oil fields in the Lokichar basin connected to the Lamu Port off the Kenyan coast through the pipeline. This pipeline project is part of the wider Lamu Port in South Sudan-Ethiopia Corridor (LAPSSET) which seeks to ultimately connect Ethiopia and South Sudan to the Lamu port for ease of product imports and exports through the port.

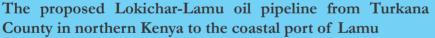
There is however need to manage the high expectations that will inevitably arise from the first crude oil shipment. The export of the first batch of crude oil has been made on the background of protracted disputes particularly on the sharing of accruing revenues in the country. The dispute has mainly revolved on the share of revenues due to the County government of Turkana where these oil deposits are located and the Turkana local community who live in this area. Kenya has historically had a weak legal and regulatory regime governing oil and gas exploration and development. For a long time, oil and gas exploration and production in Kenya was governed by the Petroleum (Exploration and Production) Act CAP 308, Laws of Kenya Act which was formulated in 1984 and hence did not capture contemporary issues on oil and gas exploration and development. This weak system has been blamed for the disputes that have arisen, it did not provide a clear framework on the sharing of the revenues of oil and gas resources in the country. The disputes over sharing of oil revenues also stem from the country's legal infrastructure and particularly the provisions

on ownership and exploitation of the oil and gas resources in Kenya. This is particularly so since the Constitution promulgated in 2010 provided for a two tier level of government; the national government and 47 devolved county units. The Constitution designates oil and gas resources as part of national resources that are managed by the national government on behalf of the people of Kenya. This provision portends potential conflict between the national government on one hand, county government and local communities on the other, in the management of these resources and the sharing of the revenues accruing from them. This potential conflict makes it necessary to develop a clear framework on revenue sharing from these resources to avert conflicts. In a bid to address these concerns, the country enacted Petroleum Act, No. 2 of 2019 and the attendant Model Production Sharing Contract. This Act came into force in April 2019 upon being assented by the President and was the culmination of protracted negotiations on its provisions Act, particularly those touching on revenue sharing. The new Act provides for a more robust regulatory framework on the granting of exploration permits and concessions, the sharing of revenues between the contractors and the government, the recovery of costs incurred by the contractors and the apportionment of the government's share of revenue among the various interests in the country. The Act seeks to address the potential disputes that may arise from the sharing of the revenues between the national government, county government and local communities. It provides for the sharing of oil revenues in the ratio of 75% to the national government, 20% to the county government and 5% to the local community.

It is however instructive to note that petroleum agreements between the government and contractors are subject to ratification by Parliament pursuant to provisions of Article 71 of the Kenya Constitution and the Natural Resources (Classes

Transactions Subject Ratification) Act 2016.

The new Petroleum Act also makes favorable provisions geared to attracting investors to engage in oil and gas exploration in the country. The proposed Model Production Sharing Contract gives general guidelines for negotiation of production sharing agreements but is flexible enough to allow for negotiations between prospective contractors and the government. The structure of the Model Production Sharing Contract also allows the investor to make a fair return on the investments made by providing for recovery of investor's costs through the "Cost Oil" before the contractor can share revenues with the government. This is in addition to a favorable and flexible taxation regime and fiscal policy geared to attract enhanced investment in this sector. The Kenya oil industry being in its nascent stage is also ripe for investment with several exploration companies holding rights over various onshore and offshore blocks in the country.







Inclusion Diversity

iversity and inclusion will continue to dominate the discussion in the boardrooms and HR divisions across the globe as makeup of the workforce changes significantly. In order for business and HR leaders to maintain talent continuity and broaden their appeal in various market segments, they must develop a clearer understanding of diversity and inclusion and how those concepts fit together. The benefits of building a workforce of diverse people who are empowered to positively contribute to a company's success are numerousfrom better financial performance and more innovative problemsolving to easier employee retention and greater appeal.

In the past 20 years, diversity and inclusion has grown as a corporate impact. According to The society for Human Resources Management (SHRM) Statistics, 55% companies are big promoters of diversity while 42% of diversity programs are advocated by the CEO, top leadership, and HR While approaches various parts of globe differ diversity and inclusion programs in North America tend to be more centralized while programs in Asia and Europe are more relaxed. One commonality around the world has been a heavy focus on hiring and promoting women.

The energy sector remains one of the least gender-diverse sectors in the economy, despite recent efforts to encourage and promote participation. women's While diversity remain a problem in oil and gas, ADNOC and other leading companies are actively seeking to change this. Among the current positive developments, Al Ramahi, , Chief Strategy Officer for the Special Olympics World Games Abu Dhabi noted that 22 major international and national oil companies had this year issued a call to action to close the gender gap in the industry.

The focus on women understandable as they constitute 50% of the global population and are easier by comparison to integrate into an organization due to fewer overall cultural difference with men who are heavily represented at the highest levels in the corporate workplace. As a result, a majority of business leaders are concerned about large gaps in mirroring the general population, particularly with regard to three systematically under-presented groups: workers over the age of 50, individuals with disabilities, and religious and ethnic minorities. In the coming years it will be important for companies to overcome the hurdles that prevent these groups from being incorporated into the highest levels of an organization.

It is now time to understand why we fall short within various indicators of diversity and find remedies to correct them. "Diversity is a must but inclusion is a choice" says the Human Resource Manager at Oil and Gas Year. In the oil and gas industry, women make up only 15 percent, a number that drops further among the higher-paid technical roles. While countries like the UAE are leading the way to create a more diverse oil and gas industry, much remains to be done.



"Diversity is a must but inclusion is a choice"

Diversity matters, and inclusion pays off when an organisation commits to being as diverse as they can be for everyone. Regardless of ability or disability, gender, or educational background, race or ethnicity, or cultural background. And again, this is not just about improving a company's reputation. Study after study on this topic has repeated that this commitment to inclusion provides organisations with serious competitive advantage. Everyone can play a role with management taking the lead and human resource managers creating a comfortable work environment which gives freedom to employees to think differently. This is what diversity does, it creates an innovative, diverse workplace, where women work alongside men in the field and in leadership roles to enrich each other and make an impact.



Recently ADIPEC-2019, at Condoleezza Rice, former US Secretary of States (2005-2009) sharing her thoughts on inclusion and diversity, believes that no leader will give you a position, you must want it and then find out how to go there. Having taken up many roles in male dominated sectors, Condoleezza says that the idea that women didn't work was never in her experience, for as long as you don't let people get in your head, you are doing just fine. "If you say you are a victim, you have given a

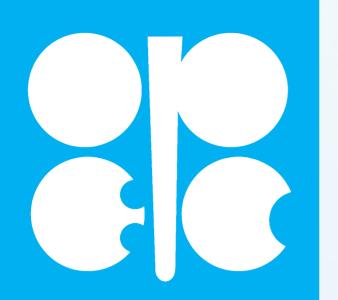
chance to someone to take control of your life, find a good woman to be your role model and your mentor, one who will advocate for you and when you grow, become a mentor to the young ones," She added. It is always a personal choice at how much you want to rise and you have to be twice as good, work twice as hard and become twice as successful. With a diverse thinking, comes inclusion, and diversity is much more than women and men. We need to create that ecosystem and workforce that is very inclusive.

"You have to be twice as good, work twice as hard and become twice as successful

The society for Human Resources Management (SHRM) defines diversity as "the collective mixture of differences and similarities that

include, for example, individual and organizational characteristics, values, beliefs, experience, backgrounds, preferences, and behaviours." Inclusion, while closely related, is a separate concept from diversity. SHRM defines inclusion as "the achievement of a work environment in which all individuals are treated fairly and respectfully, have equal access to opportunities and resources and can contribute fully to the organization's success

It is important to establish a clear understanding of how the concepts of diversity and inclusion differ, as many well intentioned companies have made the former a priority while neglecting the latter, leading to disappointing outcomes that often undermine the totality of diversity and inclusion efforts.



OPEC

Predicts Oil and Gas Will Still Supply Most Global Energy Demand in 2040

he Organization of the Petroleum Exporting Countries (OPEC) forecast Oil and Gas to still supply most of the energy demand in the next 20 years. The organization of 14 major oil-exporting countries in its recently published World Oil Outlook, analyses key aspects of the industry from energy demands; oil demands; liquid supply; oil movements; energy and technology; energy policy and climate change; to energy and sustainable development.

Oil and gas will continue to play a central role in achieving

sustainable economic development reducing energy poverty. Presenting data from the 2019 World **OPEC** Oil Outlook at the Abu Dhabi International Petroleum Exhibition and Conference 2019 (ADIPEC), OPEC Secretary General Mr. Barkindo organisation's analysis predicted a 25 percent increase in total primary energy demand worldwide 2018 between and

2040, with oil and gas expected to meet most of this demand. He said growth would be driven by rising demand in developing countries, where almost one billion people still lack access to electricity and three billion have no access to clean fuels for cooking.

All forms of energy will be required to meet this expanded demand in a sustainable way. Renewables are contributing the largest growth in percentage terms, including significant expansion in investment in OPEC member countries. Natural gas has the largest growth in terms of replacing coal (for

electricity generation), and oil retains its role with the largest share in the energy mix. In fact, oil and gas combined are still expected to make up more than 50 percent of the energy mix at 2040.

The proportion of demand coming from China, India and other emerging markets will continue to grow, particularly from Asia-Pacific markets. The Organization for Economic Cooperation and Development (OECD) is expected to reduce by 9.6 mb/d while Non-OECD demand will increase by 21.4 mb/d (million barrels per day) by 2040, compared with



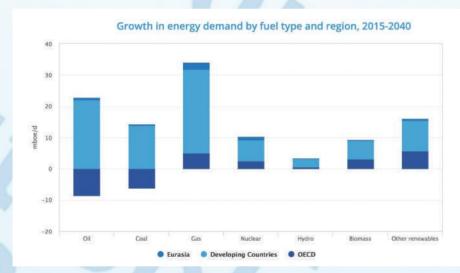
"The science tells us that we need to reduce emissions, it does not tell us that we need to choose one energy over another,"

2018 figures. Total oil demand is expected to reach 110.6 million barrels, with an estimated USD 10.6 trillion of investment needed across the upstream, midstream and downstream sectors.

However, it is important that growth be achieved within the context of reducing carbon emissions and new technologies must be developed to ensure the industry could contribute to economic growth, while also

demand, in a sustainable and ever more efficient manner, and where no-one is left behind.

On population growth, the population is expected to increase by almost 1.6 billion people, from around 7.6 billion in 2018 to a level of 9.2 billion in 2040. It is very clear that the world will need a great deal more energy in the decades to come. The global economy in 2040 is expected to double compare to the current world economy size.



helping limit climate change.

The oil industry must be part of the solution to the climate change challenge.

"The science tells us that we need to reduce emissions, it does not tell us that we need to choose one energy over another," says Mr. Barkindo. Thus, we need to continually evolve and adopt cleaner energy technologies across the board, ones that enable us to meet expected future energy

Energy poverty remains a scourge, with almost one billion people still lacking access to electricity and three billion with no access to clean fuels for cooking. This is a big number of people still in demand of clean fuels and energy generally.

From the perspective of oil demand, given the recent signs of stress in the global economy, the outlook for oil demand is slightly lowered to 110.6mb/d by 2020,

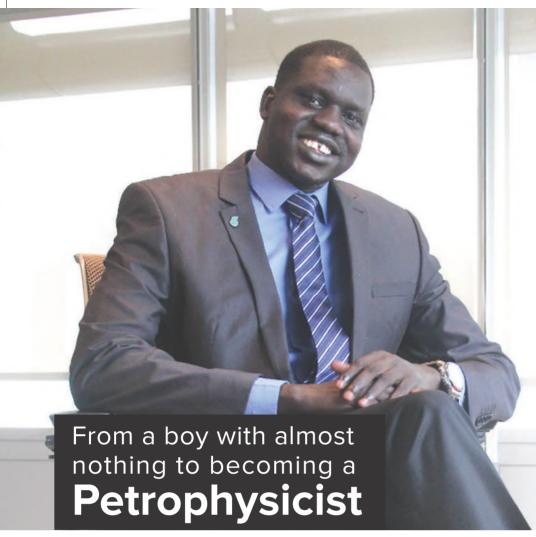
but demand expands in every five-year period to the end of the timeframe.

For the downstream sector, the medium-term outlook envisages significant crude distillation capacity additions of around 8md/d between 2019 and 2024, with over 70% of the additions in the Asia-Pacific and the Middle East. Moreover, this is close to 50% of the total capacity additions required in long term to 2040.

In terms of trade, the global crude oil and condensate trade is estimated to remain relatively static at around 38mb/d between 2018 and 2025, before increasing thereafter to around 42mb/d by 2040. While the USA and Canada are expected to increase crude and condensate exports in the mediumterm, in the long-term the major trade route remains the Middle East to Asia Pacific.

From the outlook, the opportunities are clear for major oil industry investments. In the period to 2040, the world oil outlook forecast a need for around \$10.6 trillion of investment across the upstream, midstream and downstream sectors. According to OPEC Secretary General, OPEC member countries are fully committed to making the necessary investments to keep consumers well supplied.

With the industry so much concerned about policies that detrimentally impact investments; related example, those climate-related financial disclosures, OPEC is fully engaged and supportive of the Paris Agreement on the policy front with member countries making significant efforts to diversify their economies and making investments in renewables and energy efficiency measures.



STANDFIRST:

South Sudan, at times not knowing where his next meal would come from, Bior Atem Bior Barach, 35, navigated his way around the obstacles that life threw in his way, fueled by his passion for knowledge and a brighter future. PETRONAS, a global energy and solutions company, recognized this potential in him and offered him a scholarship. PETRONAS later hired him and Bior now a petrophysicist, aspires to pay it forward to other kids like him.

STORY:

THE story of Bior Atem Bior Barach's childhood is one that would be familiar to many children of South Sudan who, like Bior, were born and grew up during a tumultuous time in the country's history.

Displaced from his ancestral village

in Jonglei State, central South Sudan, Bior and his family trekked southwards on foot, moving from one internally-displaced persons' camp to another.

As with many children born in a time of conflict, Bior's schooling was interrupted, many times. Bior spent five primary-school years in five different schools. There were times when there was no class, because there was no school literally to go to and the children would have to pitch in to lay the bricks to build it. There were months when classes were held in the shade of a tree.

"When it rained, we would quickly run to the teacher's house and keep our books there, so that they wouldn't get wet!" chortles Bior with the memory of a surprisingly innocent childhood.

At the tender age of 11, Bior's parents sent him to study across the border in Uganda. He would stay with a former colleague of his uncle's.

"People who didn't get the opportunity to cross over to Uganda lost out on a consistent and structured education. If their families didn't have even the small amount of money to help them cross over, and if they didn't know anybody on the other side with whom the children could shelter under their umbrella, they would drop out."

Refugee children were permitted to study in Ugandan schools. And even though Bior was not a registered refugee, he asked to study in a school, sat for an assessment test, did well, and was permitted to school in Uganda.

After a while, the uncle's friend was granted asylum in the United States and Bior had to stay at a boarding hostel.

"I had to learn a new language to relate with people. I didn't have my family there, so you have to devise your way of living to survive.

"As a kid, sometimes I would miss a meal. But, you train yourself that if you miss it for a few hours, you can get it later and if you miss it for a day, you can eat tomorrow. Nobody is going to make sure that you get your meal every time because you are not staying with your mum

After class, Bior would sit with his friends and explain what they had learnt. By explaining it, he understood it better and helped his friends. "School was a passion for me and my friends."

In Senior One, Bior missed two terms of school and was not permitted to take the final exam, even though he insisted that he was

up to it. He was instead advised to re-take the year. This did not sit well with Bior, who wanted to move up with his peers. So, he quit that school, went to another one, and sat for an assessment test. He passed it and was allowed into Senior Two.

"I was very resourceful when I was younger!" reflects Bior on what he had to do to survive.

After his A-Levels, Bior went back to South Sudan to live with an uncle who worked as a medical assistant in a hospital in Nimule. He had done well in the exams; but, not enough to win a scholarship to go to medical school in Uganda.

With nothing to do, Bior befriended a Frenchman who worked with the World Health Organization, and volunteered as a translator. On learning that Bior wanted to study Medicine, the Frenchman arranged for Bior to volunteer at the hospital. After two months, he was offered a position as a nurse.

The plan was to work his way up to clinical officer, and then get a medical degree. But, after two years at the hospital, an elderly cousin had a different plan for him. Having signed the comprehensive peace agreement in 2005, the Regional Government of Southern Sudan was giving scholarships for South Sudanese youths to study at the University of Juba in Khartoum.

As a lot of bright young people were studying Medicine, Bior's cousin suggested that he diversify study Geology instead, since South Sudan was sitting on natural resources and not a lot of people were studying Geology or Petroleum Engineering.

"My cousin said, 'See, all your peers are in the same career. Don't you want to be a rare man in a rare field? Do something to make you stand apart from people."

After one year at the University of Juba, the College Dean shortlisted him and two others for an interview for a PETRONAS scholarship to study at Universiti Teknologi PETRONAS (UTP) in Malaysia. He did well and was offered a scholarship to study Petroleum Engineering at UTP.

Transitioning to life in Malaysia has its own set of challenges in terms of culture and way of life. Bior remembers the friends who helped him along the way.

"I formed a study group with two Malaysians, two Thais, one Mozambican, and two other South Sudanese. We divided the topics between us, studied our given topics, and then presented it to the group. That's how we studied to improve ourselves.

"We spent one semester adapting. By the second semester, we came in at the same level as everyone else."

After graduating, Bior went back to South Sudan and briefly worked at the Ministry of Petroleum before being offered a job at PETRONAS in Petrophysics.

"When I was a student, I would



go to Kuala Lumpur with my friends. And we would look at the PETRONAS Twin Towers and often wondered if by some miracle I could come and work in these towers?""

"I knew that PETRONAS would help me develop my skills well. The training I received from PETRONAS would be invaluable.

Bior knew that the opportunities PETRONAS provided him in terms of capability building, experience and exposure to other international companies, would allow him to contribute more meaningfully to South Sudan one

"PETRONAS has given me all the training necessary to become who I am. And this training prepares me to contribute back to South Sudan, either in training people, or improving the way they do things."

As a Petrophysicist at the Petroleum Engineering Department for the past six years, Bior pays it forward by mentoring South Sudanese UTP students, who come often to his house and consider him as an elder. "I tell them: 'Don't call me an elder. Don't create a barrier between you and the other person; the most important thing is believing in yourself and helping others to achieve their best. "

Bior is grateful that doors opened for him because PETRONAS believed in him. Today, he is able to take care of his family and help put other kids through school, rewarded when he sees the happiness it brings to others. If not for PETRONAS, a company headquartered thousands of miles from South Sudan, who believed in me, and provided the right opportunities, I wouldn't be where I am today, Bior reflected.

PETROQUEST 2019 GALLERY



























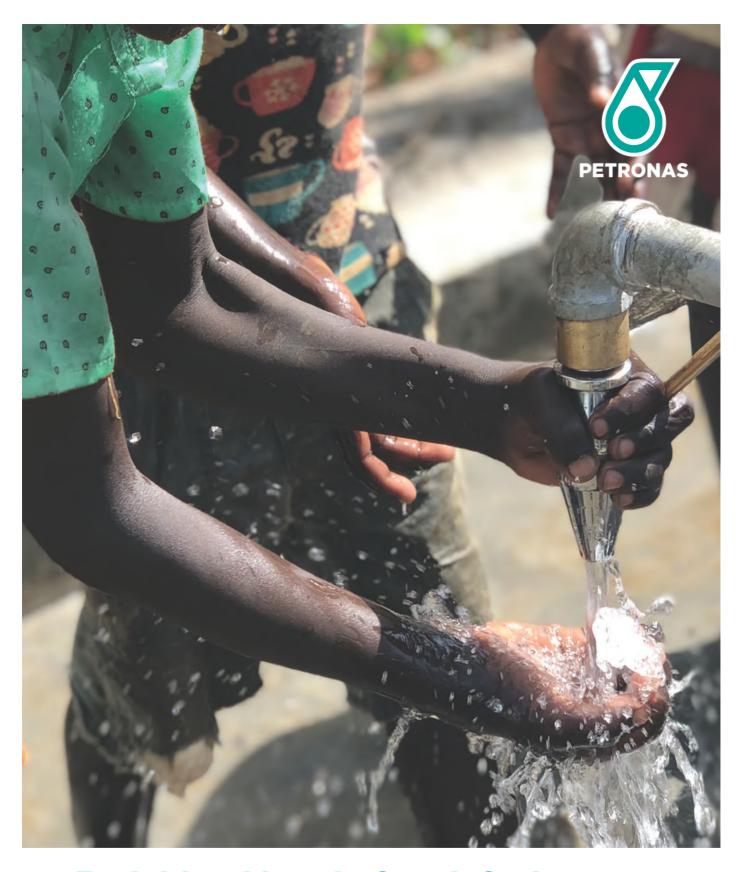












Enriching Lives in South Sudan

PETRONAS provides safe and clean water to more than 40,000 people in Juba through our Water for Life project.

Water for Life, a PETRONAS initiative in collaboration with the Ministry of Petroleum and Nile Hope, to sustainably improve the quality of life of the people.

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