INVEST IN THE ENERGY SECTOR OF SOUTH SUDAN
South Sudan has made a significant move towards peace with the establishment of a national unity government.

The world’s youngest nation seems to be at the dawn of a new era. After over six years of an intermittent yet devastating conflict, the Sudan People’s Liberation Movement, led by President of South Sudan Salva Kiir, and the Sudan People’s Liberation Movement in Opposition, led by President Kiir’s newly appointed First Vice President Riek Machar – reached a peace agreement in February 2020 and moved to form a transitional government. President Kiir lauded the agreement as “the official end of the war” in South Sudan and proclaimed the moment as “a new dawn, peace is never to be shaken ever again.”

As stated by the Special Representative and head of the UN Mission in South Sudan David Shearer, this agreement was not achieved without considerable courage from both parties and numerous concessions.

“On 15 February 2020, President Salva Kiir – against the wishes of many of his many supporters – agreed to a compromise to return South Sudan to its pre-2015 position of 10 states, although he added three administrative areas,” Shearer said. It was that decision that allowed for the peace agreement to be reached.

The transitional unity government was formed also under the condition that Riek Machar would again be sworn in as the First Vice President and that he would have control key ministerial appointments, including the petroleum minister. James Wani Igga was sworn in as Second Vice President (the position he already held); Taban Deng Gai took on the position of Third Vice President, and Fourth Vice President is Rebecca Garang, the widow of John Garang, who led the long fight for independence from Sudan. The transitional government is set to lead the country until elections can be held in three year’s time.

The two men who signed this alliance for peace were first sworn in as President and Vice President in 2011. They were once rival leaders in the Sudan People’s Liberation Movement, which led the push for independence from Sudan. In December 2013, President Kiir accused Vice President Machar of orchestrating a coup d’état aimed at overthrowing the presidency. This reignited conflict that has continued intermittently since then.

Today, South Sudan’s leadership is looking at rebuilding the country’s infrastructure that was destroyed during the war and continuing the resumption and upgrading of oil and gas production, which constitutes the largest source of income for the nation.

At the same time, the country’s relationship with its northern neighbor, Sudan, continues to be a delicate one, but relations have shown improvements in recent years. In December 2019, the two countries’ oil ministers agreed to once again extend the Transition Financial Arrangement that establishes Sudan’s compensation for lost revenue from South Sudan’s oil wells, while allowing South Sudan to continue to transport and process its oil through Sudan’s pipelines and refineries, and to export oil via Port Sudan.
The Republic of South Sudan has proclaimed a new dawn through the 2020 formation of our Transitional Government of National Unity, which has united the nation and cemented the peace. This is an essential milestone towards stability and a brighter future for the South Sudanese people.

In my capacity as the Minister of Petroleum, I vow to work tirelessly to return oil production to pre-conflict levels as soon as possible.

The Republic of South Sudan is East Africa’s only producing country. Our target is to attract more investment into our oilfields to regain our status as a leading Sub-Saharan African producer, and to attract new technologies to optimize production and environmental performance.

We have positioned ourselves alongside OPEC and its partners to promote market stability. Low oil prices and the COVID-19 pandemic have slowed the recovery of our economy and we naturally welcome all efforts to stabilize the oil market. The Republic of South Sudan will continue to play its role in ensuring market stability for the benefit of all stakeholders.

Furthermore, our government will continue doing its utmost in meeting the oil production adjustment targets and fighting COVID-19. These are priorities and we will continue collaborating with all of our partners to preserve the interests of our industry and our economy. I look ahead with optimism and confidence, and I am honored to present the Africa Energy Series: South Sudan special report, which documents opportunities and achievements within South Sudan’s burgeoning oil and gas sector.
South Sudan exports its crude oil via pipeline from Hegleig and Paloch to Khartoum and then to Port Sudan. To keep the oil flowing, it has invited international companies to participate in investment opportunities in its refining and infrastructure sectors.

These fees include the actual crude oil transport costs and a $15 per barrel fee that corresponds to the $3 billion South Sudan must compensate Sudan for. After 2022, if no further extensions are needed, the cost per barrel should come down to $9.1 and $11 for the GNP and Petrodar pipelines respectively, reflecting the conclusion of that payment. The agreement also states that South Sudan must supply as much as 28,000 barrels of crude oil per day to the Khartoum refinery.

Another Path

Despite improved relations, dependency on Sudan’s oil infrastructure remains a risk and South Sudanese leaders wish to have alternatives. Hence, the country joined one of Africa’s biggest infrastructure developments, the Lamu Port-South Sudan-Ethiopia Transport Corridor project (LAPSSET), which is a multi-billion dollar project spearheaded by Kenya to create a transport corridor for oil and other commodities.

The oil pipeline alone is expected to cost up to $4 billion. While the project seemed to have stalled over the last few years, in January 2020, LAPSSET received its biggest support yet, when the African Union announced it was adopting the project as its own, stating it would even be extended to form a continent-wide corridor connecting to Kribi Port in Cameroon. The African Development Bank, the United Nations Economic Commission for Africa and the African Union’s New Partnership for Africa’s Development are all involved in promoting its implementation.

It is, however, uncertain how long the project will take to materialize and no new target date has been given for its conclusion. Currently, the COVID-19 outbreak has forced the suspension of the second stage of the land surveys in Kenya, meant to assess the compensations needed for the land used for the pipeline.
Impact of COVID-19

Like most of Sub-Saharan Africa, South Sudan has been relatively spared by the COVID-19 pandemic so far, with the number of infections below 1,700 in mid-June. The economic consequences of the pandemic, however, have had a profound impact on the country as it started to establish the provisions of the peace agreement.

With the national economy dependent almost exclusively on the export of crude oil, the sharp decline in global oil demand and the following crash in oil prices meant that South Sudan’s access to capital was compromised. The situation was further worsened by the need to divert those funds to fight the spread of the virus.

The virus is also likely to delay the resumption of oil production in blocks 1A, 1B and 5A, and has forced the Minister of Petroleum to delay the bidding round scheduled for March 2020. The first bidding round to take place since the country’s independence comprises 14 oil blocks. It is expected to help accelerate economic recovery, as well as spur the appetite of international oil investors and services companies to enter the country’s oil and gas sector once a new date has been confirmed.

Meet the Operators

South Sudan’s upstream energy is dominated by Asian national oil companies, which lead the three main consortia. Each operating group is almost entirely controlled by Malaysian Petronas, India’s ONGC, Videsh and the China National Petroleum Corporation, with other companies such as Sinopec, ToOcean and KUFPEC holding minority shares and the national oil company Nilepet represented as a stakeholder in all the operating consortia.

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Nile Petroleum Corporation Nilepet

Though not yet an operator, South Sudan’s national oil company Nilepet has a vital role to play in the development of the country’s oil sector and the industry’s continued growth.

Incorporated in 2009 after the Comprehensive Peace Agreement of 2005 and two years before independence was granted to South Sudan in 2011, Nilepet holds a stake in each consortium operating in South Sudan. Nilepet took over from the state-owned oil company of Sudan, Sudapet, upon independence.

The company is active in both South Sudan’s upstream and downstream industries, with responsibility for regulating fuel imports, distribution and storage and also running its own retail stations. Importantly, Nilepet represents the state’s interest in upstream activities. The company has announced it is interested in becoming an operator. In the services sector, Nilepet has entered a variety of important joint ventures with international firms with the aim of building capacity in South Sudan and optimizing operations. These JVs include local drilling contractor Nile Drilling, brownfield and technology developer Nile Delta, and engineering consultancy SIPET.

Dar Petroleum Operating Company

A consortium of China National Petroleum Corporation (41%), Petronas (40%), Nilepet (8%), Sinopec (6%) and ToOcean Energy (5%), Dar Petroleum Operating Company (DPOC) is an exploration and production company based in Juba and operating Blocks 3 and 7 in the Melut Basin. Dar Petroleum is the only oil and gas consortium currently producing oil significant volumes in South Sudan, though the company produces Dar blend crude, a lower quality as compared to Nile blend.

Its fields have a capacity of 175,000 barrels per day, with a potential of up to 240,000 barrels per day, according to Nilepet. The company announced a new discovery in 2019 in the Azad oil field that contains 300 million barrels of recoverable oil.

Sudd Petroleum Operating Company

Sudd Petroleum Operating Company (SPOC) operates Block 5A in Tharthar, which has a production capacity of 80,000 barrels of oil per day of high-quality Nile blend. Facilities are not currently operating but production is expected to restart following the new peace agreement.

SPOC has also re-initiated corporate social responsibility activities in the production area, providing water and medical supplies to a community of 50,000 people.

Production in Block 5A began in 2006 at 40,000 barrels per day and peaked at 54,000 barrels per day in 2009. By 2014, however, production was reduced significantly to 4,500 barrels per day. SPOC is owned by Petronas (67.8%), ONGC Videsh (25%) and Nilepet (5%). The area has a production capacity of 58,000 barrels per day of high-quality Nile Blend. Before independence, Block 1B was operated by the Greater Nile Petroleum Operating Company, which also operated Blocks 2 and 4. These were allocated to Sudan under the Comprehensive Peace Agreement of 2005.

Greater Pioneer Operating Company

GPOC is the descendent of the Greater Nile Petroleum Operating Company, which operates in the oil rich border area. The consortium was created to handle investment in Block 1A and Block 1B, which contains the oil-rich Unity Field. This area, to the far north of South Sudan, has been at the epicenter of violence since 2013, but production has restarted in the last year. The GPOC consortium consists of CNPC (40%), Petronas (30%), ONGC Videsh (25%) and Nilepet (5%). The area has a production capacity of 38,000 barrels per day of high-quality Nile Blend. Before independence, Block 1B was operated by the Greater Nile Petroleum Operating Company, which also operated Blocks 2 and 4. These were allocated to Sudan under the Comprehensive Peace Agreement of 2005.

Invest in the Energy Sector of South Sudan

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Meet the Investors

The three historic Asian consortia currently producing in South Sudan were recently joined by the South African SFF, in 2017, and the Nigerian Oranto, in 2019, who signed exploration agreements for two of the country’s oil blocks: Block B, neighboring Oranto’s acreage, and Block B2, which was split into three separate licenses. Oranto stated its willingness to work together with any future operators of neighboring blocks 1 and 2 to find the most efficient solutions to explore the asset. It is considered a low-risk high reward acreage and the company has committed to invest $500 million on the exploration campaign. The exploration period is divided into three periods of three years, two years and a single year, with the latter two being optional. The first stage includes acquiring airborne geophysical surveys, acquiring and processing 2D seismic and assessing existing data, while both optional stages include drilling commitments. Besides South Sudan, Oranto has exploration interests in Benin, Ghana, Liberia, Namibia, São Tomé and Príncipe, Senegal, Uganda and Zambia, and producing assets in Nigeria and Equatorial Guinea. In South Sudan, besides its exploratory work, it has partnered with the government to support the country’s education system and, in 2019, financed educational programs to provide training for 25 teachers in the most under-privileged parts of the country.

Developing the Industry

<table>
<thead>
<tr>
<th>Year</th>
<th>Event</th>
</tr>
</thead>
<tbody>
<tr>
<td>1975</td>
<td>Oil was first discovered in Southern Sudan by Chevron</td>
</tr>
<tr>
<td>1979</td>
<td>Chevron struck oil near Abu Jabra and then al Sharaf, on the border between Darfur and Kordofan</td>
</tr>
<tr>
<td>1978</td>
<td>Chevron’s most significant discovery was made in the Unity oilfield in South Sudan</td>
</tr>
<tr>
<td>1982</td>
<td>Heglig field was discovered in South Sudan</td>
</tr>
<tr>
<td>1984</td>
<td>Chevron suspended its operations</td>
</tr>
<tr>
<td>1992</td>
<td>Concord International bought Chevron concession</td>
</tr>
<tr>
<td>1997</td>
<td>Greater Nile Petroleum Operating Company constructed the longest pipeline in Africa</td>
</tr>
<tr>
<td>1999</td>
<td>600,000 barrels of oil were exported to international markets</td>
</tr>
<tr>
<td>2005</td>
<td>A comprehensive peace agreement was signed</td>
</tr>
<tr>
<td>2006</td>
<td>Production began in South Sudan’s Melat Basin</td>
</tr>
<tr>
<td>2011</td>
<td>South Sudan gained independence</td>
</tr>
<tr>
<td>2012</td>
<td>The Petroleum Act was adopted</td>
</tr>
<tr>
<td>2013</td>
<td>Oil production resumed</td>
</tr>
<tr>
<td>2015</td>
<td>Oil production rose to 169,000 bpd</td>
</tr>
<tr>
<td>2016</td>
<td>Sudan and South Sudan extended oil agreement for three more years</td>
</tr>
<tr>
<td>2017</td>
<td>Launch of South Sudan Oil and Power Conference &amp; Exhibition</td>
</tr>
<tr>
<td>2019</td>
<td>South Sudan boosts crude output by over 15,000 barrels</td>
</tr>
<tr>
<td>2019</td>
<td>Plans to launch petroleum licensing Round, Environmental Audit</td>
</tr>
<tr>
<td>2019</td>
<td>South Africa’s Strategic Fuel Fund invests in Block B2</td>
</tr>
<tr>
<td>2020</td>
<td>New oil discovered at the Adar oilfield in Block 3</td>
</tr>
<tr>
<td>2020</td>
<td>South Sudan and Egypt signed a Memorandum of Understanding</td>
</tr>
<tr>
<td>2020</td>
<td>Sudan and South Sudan extend oil agreement for three more years a second time</td>
</tr>
<tr>
<td>2020</td>
<td>Launch of first phase of Juba power plant</td>
</tr>
<tr>
<td>2020</td>
<td>Tender for environmental oilfields audit announcement</td>
</tr>
<tr>
<td>2020</td>
<td>South Sudan invites Russian companies to its oil and gas sector</td>
</tr>
<tr>
<td>2020</td>
<td>2018 peace deal sealed with formation of new unity government on 22 February, 2020</td>
</tr>
</tbody>
</table>
With an Eye on Oil

South Sudan’s drive to increase its oil and gas production is by no means disengaged from environmental concerns and risks surrounding the oil industry. Decades of production activity pre- and post-independence were found to have caused extensive damage to the environment and are suspected to be behind the emergence of health issues in the communities living close to exploration areas. Reported damages include loss of grazing land, deforestation, and soil and water contamination. Since independence, the South Sudanese government has been keen on improving the sector’s environmental track record and included environmental protection obligations in the Petroleum Act of 2012. In January 2020, ahead of the launch of the country’s first bid round, H.E. President Salva Kiir announced a tender for the country’s first bid round, H.E. President Salva Kiir announced a tender for the country’s first bid round.

**Production Figures**

(barrels of crude oil per day)

<table>
<thead>
<tr>
<th>Year</th>
<th>Oil Production Rate</th>
</tr>
</thead>
<tbody>
<tr>
<td>2012</td>
<td>221,000</td>
</tr>
<tr>
<td>2013</td>
<td>116,000</td>
</tr>
<tr>
<td>2014</td>
<td>148,000</td>
</tr>
<tr>
<td>2015</td>
<td>153,000</td>
</tr>
<tr>
<td>2016</td>
<td>152,000</td>
</tr>
<tr>
<td>2017</td>
<td>150,000</td>
</tr>
<tr>
<td>2018</td>
<td>125,000</td>
</tr>
</tbody>
</table>

**Breaking down the sector**

- **186,000 Barrels per Day**
  Oil production rate at the end of 2019

- **3.5 Billion Barrels**
  Oil reserves

**Three Main Operating Consortia**

- The Petroleum Operating Company
- Sud Petroleum Operating Company
- Greater Pioneer Operating Company

**Two Oil and Gas Explorers**

- Oranto Petroleum (entered in 2017)
- Strategic Fuel Fund (entered 2019)

**National Oil Company**

Nile Petroleum Corporation (Nilepet)

**Responsible Sector Managers**

Ministry of Petroleum
National Petroleum and Gas Commission

**Greater Nile Oil Pipeline**

From Heglig field to El Bashayer port, on the Red Sea in Sudan
1,610 km, commissioned 1999, 250,000 bpd capacity

**Petrodar Pipeline**

From Puloce to the city of Port Sudan, in Sudan
1,300 km, commissioned 2005, 300,000 bpd capacity

**Payments to Sudan of $24.10 and USD$2.66 per Barrel 2012**

Cooperation Agreement on Oil, extended from 2019
Applies to oil exports through Sudan:
- Transitional Financial Arrangement: $15 per barrel Fees (processing, transportation and transit): $9.10 per barrel (Greater Nile Pipeline) and USD$11 (Petrodar Pipeline)

South Sudan suffers from a debilitated power network. Already lacking in capacity before independence, the national grid suffered further damages during the civil war and today is very limited in its ability to distribute power.

The country has about 514 MW of mostly diesel-based power generation capacity. From that, 42 MW has been built in the Paloch petroleum field.

Electricity demand in the country is estimated at 500 MW, much higher than current capacity. Pricing electricity has also been challenging. In 2014, the South Sudan Electricity Company (SSEC) changed the tariff system in 2017 raised the average cost to $0.43 per kWh, where it currently stands. Compared to most countries in the world, this tariff is high. Tariffs in neighboring Kenya and Uganda range between $0.24 and $0.35.

In 2018, South Sudan estimated the number of customers connected to the grid at 30,000, a miniscule share of the population.

To address this issue, the government, through the Ministry of Energy and Dams, has sought out support to finance the expansion and improvement of the power network. The first success story emerging from those efforts came in the form of Juba’s new power generation plant, which was financed through a $290 million loan from the African Development Bank (AfDB), which South Sudan will pay over the course of 17 years.

The plant first started being built in 2017, under a public private partnership (PPP) with the Ezra Group. The first phase of the plant came online in December 2019, adding 53 MW to the national grid and supplying power to 100 thousand households. Once fully operational, the facility will produce up to 100 MW of power.

The Ministry now intends to replicate the success of this PPP in other cities across the country. For the time being, however, the vast majority of South Sudanese people do not have access to the national grid, having to rely on diesel generators to access power.

The country also offers opportunities in renewable energy and the government has a plan to produce 10 to 40 MW of power from renewable sources with the financial support of the AfDB.
South Sudan plans to launch an oil and gas bidding round, which comprises 14 oil blocks in the northern oilfields in 2020. The bidding round will be used as a means to accelerate economic recovery, as well as spur the appetite of international oil investors and services companies to enter the country’s oil and gas sector.

**Producing areas**

**Blocks 1, 2 & 4**
- Greater Pioneer Operating Company (GPOC)
- **Blend**: Nile
- **Fields**: Unity, Toma, Mangwa, Heglig, Bamboo, Diffra, Neem

**Block 5A**
- Sudd Petroleum Operating Company (SPOC)
- **Blend**: Nile
- **Fields**: Mala, Thar Jath

**Blocks 3 & 7**
- Dar Petroleum Operating Company (DPOC)
- **Blend**: Dar
- **Fields**: Palogue, Adar-Yale

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**Operated Exploration Areas**

**Block B2**
- Strategic Fuel Fund (SFF)

**Block B3**
- Oranto Petroleum
Now in its fourth edition, South Sudan Oil & Power has emerged as the leading investment event for the country as it strives to increase capital investments in hydrocarbons, infrastructure, power generation and technology. The conference is organized under the auspices of the Ministry of Petroleum and the Ministry of Energy & Dams.