

# REPUBLIC OF SOUTH SUDAN

## MINISTRY OF PETROLEUM



### MoP Petroleum Report



June, 2016– May, 2017  
Twelve Months Results



***Prepared and Published by***

The Ministry of Petroleum  
Republic of South Sudan

June 2017

## MESSAGE FROM THE MINISTER

*Honorable Amb. Ezekiel Lol Gatkuoth is the Minister of Petroleum for the Government of the Republic of South Sudan. He has guided the petroleum activities of the Ministry since August 2016.*

*A short biography of Honorable Ambassador Ezekiel Lol Gatkuoth. Minister of Petroleum.*

*Appointed minister of petroleum, Transitional Government of National Unity of the Republic of South Sudan in 2016 he is also the Chairman of the National Committee for External Relations, SPLM/SPA (2016). Chairman of the National Committee for External Relations SPLM/SPLA (2014-2015)*



*Appointed Ambassador of South Sudan to the United State (US)s and United Nations (UN), 2005-2011. Representative of SPLM/SPLA to the United States, United Nations (UN) and Canada 1998-2004. Former SPLM/SPLA veteran.*

### **Educational Background:**

*Diploma (AA) in Justice and Public Policy, Concordia University Wisconsin*

*Bachelor Art (BA) in Criminology and Criminal Justice, University of Maryland.*

*Master of Science (MSc.) in Administration of Justice and Security, University of Phoenix.*

*Presented several lectures on public matters and mad many policy statements to academic centers, strategic and studies centers in United States, UN, South Sudan etc.*

*Conducted many interviews on CNN, Al Jazeera TV, BBC, and other T channels and newspapers around the world.*

It is my great pleasure to present to you this fifth annual publication of the Ministry of Petroleum crude oil marketing report covering the government's fiscal year from June 2016 to May 2017. The report gives accounts of activities and statistics on the government's marketing accomplishments and demonstrates my ministry's commitment to openness and transparency in every work done.

Crude production in the Unity State oil fields remained shut down for the entire fiscal period due to regional insecurity and production in Northern Upper Nile State has remained low but steady. The Brent crude oil price, upon which our sales are based, has fallen greatly since June 2014 severely impacting our crude oil revenue stream. For instance, the Transitional Financial Arrangement (TFA) and other fees paid to Sudan do not change with the reduction in the crude price resulting in a disproportionately larger share of our earnings being allocated to this debt and other charges obligation. Nonetheless, during the fiscal year South Sudan oil sales

including Nile Petroleum's share totaled 8.73 million barrels with a realized sales value of US \$378.22 Million.

The Ministry of Petroleum has been working hard to find ways to minimize the impact of reduced production and the declining oil price. The ministry recognizes that we must focus on controllable issues and our staff has worked closely with our contractors to develop realistic oil field work plans and budgets that are fair to all parties. We are working with our neighboring countries on crude oil export and fuel import issues as well as participating in discussions on the feasibility of a new export pipeline. We are considering ways to move forward to restart Unity State production. Regional security issues also continue to hamper our infrastructure projects but we remain committed to the development of refineries, fuel storage facilities and domestic pipelines.

The past year has allowed the ministry to add additional key staff which has permitted us to enhance our regulatory and oversight obligations. We have improved our monitoring and reporting on production, transportation and shipping, marketing activities, crude oil entitlement and contractor audits. We have strengthened our environmental review efforts and worked more closely with local communities to address regional issues. We have implemented a new Management Systems regulation as well as a new system of administrative monetary penalties for environmental infractions. This will provide my ministry with stronger enforcement provisions for environmental violations backed by the full support of legislation and regulation.

**Honorable Amb. Ezekiel Lol Gatkuoth**

**Minister of Petroleum**

# MINISTRY OF PETROLEUM ORGANIZATIONAL STRUCTURE

The mandate and functions of the Ministry of Petroleum (MoP) are provided for in Section 175 of the Transitional Constitution and are guided by the Petroleum Act, 2012 and various regulations.

The MoP is responsible for the Petroleum Authority which consists of the two Departments: Downstream activities of Marketing, Entitlement, Oil Accounting & Auditing, Supply and Investment, the Upstream Operations, Health, Safety, Environment and Petroleum Infrastructure. Other Directorates and Departments include the Planning and Training Research Directorate, the Finance and Administration Directorate and the Legal Administration Department.

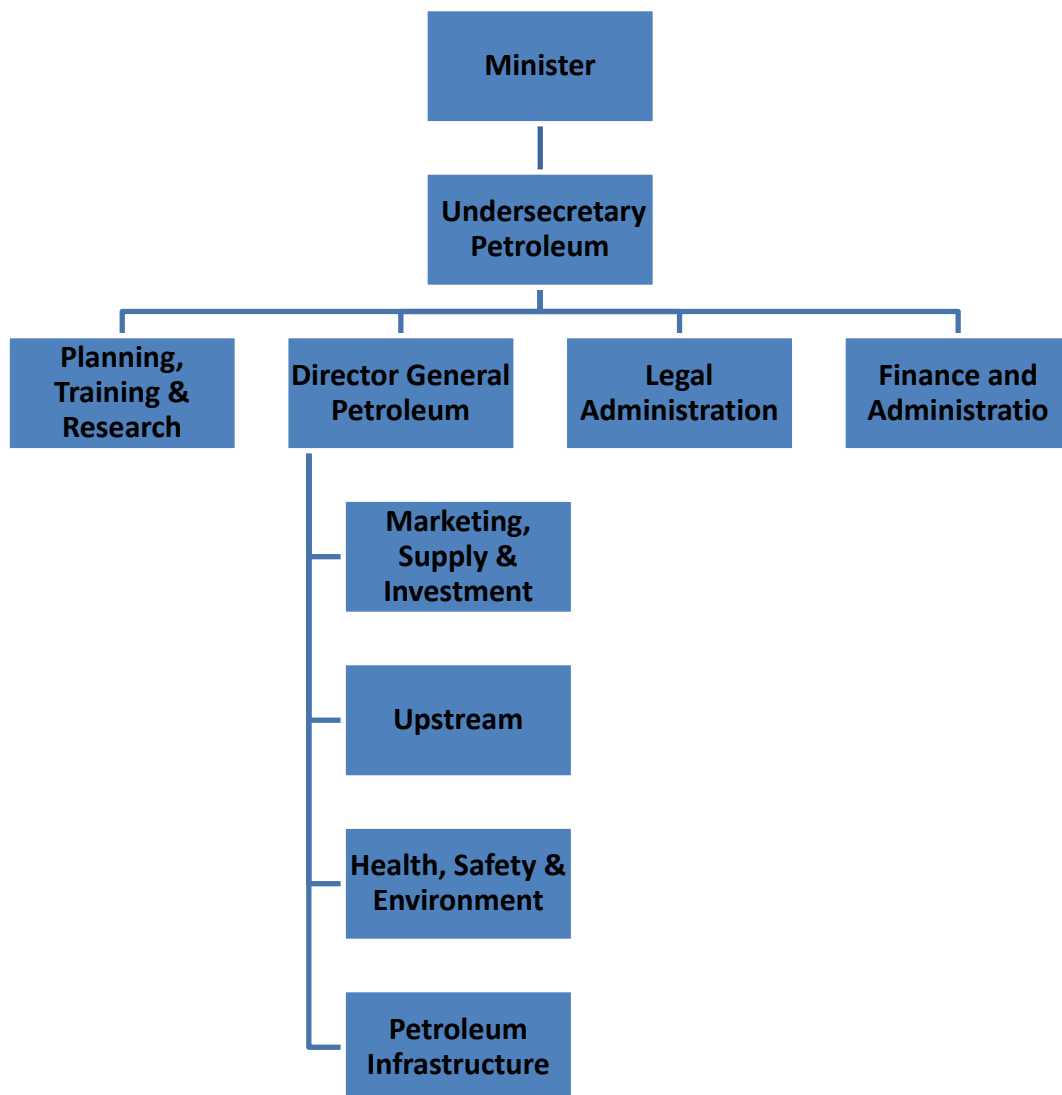


Figure 1: MoP Organizational Structure

## **Crude Oil Marketing Department Overview**

In accordance with the MoP's obligation to manage the country's petroleum resources on behalf of the government of South Sudan, the Ministry has established a crude oil marketing Department in 2011 by then under the Petroleum Directorate Downstream Group to market the country's entitlement share of production. The marketing Department is responsible for the following activities:

1. reviewing the monthly crude oil lifting programs
2. vetting potential crude buyers
3. preparing the bid tenders
4. issuing the tenders
5. working with the Marketing Committee on tender award recommendations to the Minister
6. preparing the sales contracts
7. monitoring vessel arrivals, loadings and departures at the marine terminal Port Sudan
8. preparing the invoices to the buyers
9. ensuring that sales proceeds are received on time and deposited into the appropriate government bank accounts
10. Preparing detailed marketing reports for use by MoP officials, other government ministries and agencies and for public release through the minister's office.

To further develop the activities of the marketing department as well as those of other MoP Directorates and Departments, Ministry officials have been actively engaged in defining and developing a comprehensive strategic plan that will establish short and long term priorities and programs. Strategic planning is the first step to the preparation of annual work plans and assigning responsibility and accountability. The work plan is also used for identifying budget and resource requirements, including skilled personnel, which is fundamental for ensuring future petroleum sector growth in South Sudan.

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## ABBREVIATIONS

### MPM Crude Oil Marketing Report

bbbl.	barrel
boe	barrels of oil equivalent
BOSS	Bank of South Sudan
CL	Comfort Letter
DM	developed markets
EIA	US Energy Information Administration
EM	emerging markets
EPSA	Exploration and Production Sharing Agreement
GOS	Government of Sudan
IAEA	International Atomic Energy Agency
ICP	Indonesia Crude Price
IEA	International Energy Agency
IMF	International Monetary Fund
Mbbl	thousand barrels
M3/D	thousand cubic meters per day
Mbbl/d	thousand barrels per day
MMbbl	million barrels
MMbbl/d	million barrels per day
MOFEP	Ministry of Finance and Economic Planning
MoP	Ministry of Petroleum
OECD	Organization for Economic Co-operation and Development
OPEC	Organization of the Petroleum Exporting Countries
PU	Payment Undertaking
RSS	Republic of South Sudan
SBLC	Standby Letter of Credit
STB	standard tank barrels
STP	standard temperature and pressure
STEO	short term energy outlook
SSP	South Sudan Pound
USD	United States Dollar
WTI	West Texas Intermediate
WB	World Bank

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# PART 1 – GLOBAL OIL ENVIRONMENT

June 2016 – May 2017

## 1.1 World Crude Oil Demand

The worldwide Oil demand for crude oil growth has changed from previous reports at (1.20mb/d) million barrels per day (MMbbl/d) in 2016 to 1.50 mb/d in 2017. According to the International Energy Agency (IEA), the estimate for world oil demand in 2016 averaged 96.1MMbbl/d. The IEA is predicting global consumption to grow by 1.6MMbbl/d in both 2016 and 2017. OPEC is also forecasting global oil demand to grow at 1.18 MMbbl/d in 2016 and predicts that total oil consumption is expected to peak up pace in 2017, leading to a total oil demand of 97.6 MMbbl/d for 2017.

### OECD

Based on the latest available data, oil demand growth in the OECD regions was kept unchanged from the previous month's level; as such oil demand growth in the OECD region is at 0.24 mb/d in 2017 and peak in the 3Q mainly supported by the US summer driving season.

The bulk of the OECD growth is apparent in OECD America, with the US leading the way. OECD Europe is also remained in positive territory for the third consecutive year, especially after solid data for the first two months of the year, which were primarily supported by higher heating oil requirements due to cold weather. OECD Asia Pacific is the only region to conclude 2017 with a negative oil demand growth, with Japan declining, although South Korea provided some support.



**Non-OECD** Based on the actual available data, oil demand growth in non-OECD regions was adjusted marginally higher in 2017. This took into consideration positive upward revisions in China during the 1Q, which were partially offset by downward revisions in Other Asia and Latin America. The region's oil demand growth is currently at approximately 1.02 mb/d. Sluggish data from India for the first two months of 2017, as a result of the de-monetization policy implemented in 4Q16, drew negative views on the 1Q17 data for the whole of the Other Asian region. This led to a downward revision for this region of 40 tb/d in 1Q17. However, looking ahead, oil demand remains positive, especially in the 2<sup>nd</sup> half of 2017 when the results of the de-monetization policy in India fade away.

## 1.2 World Crude Oil Supply

Global oil supply rose 0.2 mb/d in November to 97.8 mb/d, the highest in a year, on the back of rising US production. Output was nonetheless down 1.1 mb/d on a year ago when Russia and Middle East OPEC producers pumped at record rates. Non-OPEC supply is set to rise by 0.6 mb/d in 2017 and 1.6 mb/d next year.

OPEC crude supply fell in November for the fourth consecutive month to 32.36 mb/d, down 1.3 mb/d on a year ago. Output was lower in Saudi Arabia, Angola and Venezuela.

*Non OPEC Supply:* Non-OPEC output is expected to expand by 0.7 mb/d in 2017. It is also projected to grow by 0.58 mb/d, following a 0.18 mb/d upward revision, led by higher growth in the US and a lower decline in Colombia and China, to average 57.89 mb/d. The 2017 growth forecast for the US was revised up again by 0.20 mb/d to average 0.54 mb/d.

*OPEC Supply:* OPEC crude output rose by 230 kb/d in July to a 2017 high of 32.84 mb/d, led by a strong recovery in Libya. Output from the 12 members included in the output pact edged up.

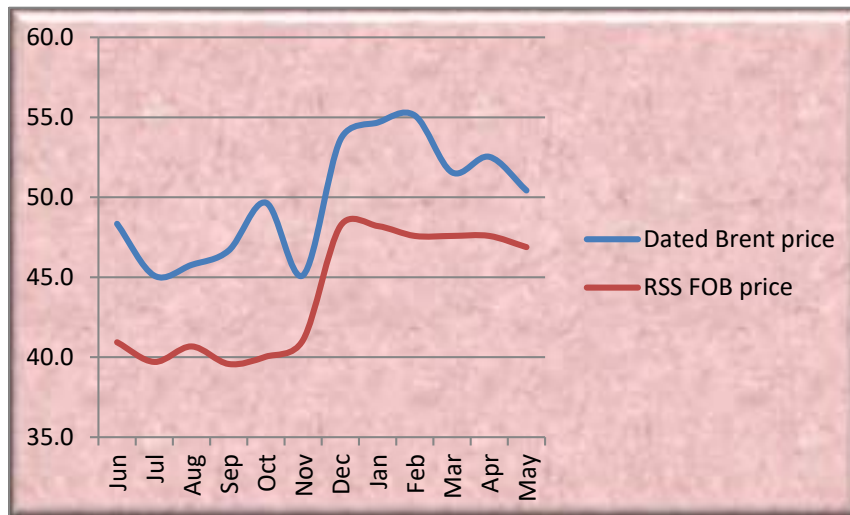
US crude oil production averaged 14.16 mb/d in 2017, 0.54 mb/d higher than in 2016, of which 19 kb/d is attributed to oil output growth in the US Gulf of Mexico (GoM), following a continuation in the ramp up of old fields, crude oil production in Texas and North Dakota increased by 41 kb/d and 34 kb/d respectively.

**South Sudan crude oil** output represents a small fraction of total daily global production. Typical buyers of the country's crude oil are also investors in South Sudan's petroleum sector and it is therefore likely that all crude oil produced in the future will be able to be marketed irrespective of total global supply levels.

## 1.3 Crude Oil Price Outlook

The Dated Brent crude oil price upon which all South Sudan sales are based has fallen by more than 60% since June 2014 when it was trading at nearly \$112 per barrel. The crude oil in the plat-wires market price had reached a low price of \$30.69/bbl in

January 2016 before climbing back to a range of \$39.73-\$50.02 at the end of this fiscal reporting period.



Graph 1: Brent vs. FOB Price

These price reductions during the past year can be mainly attributed to the following factors:

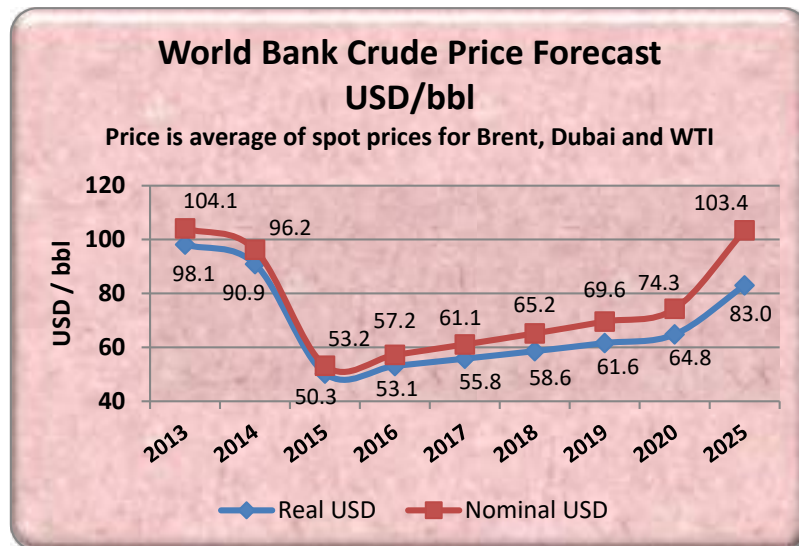
1. The United States has become the world's largest oil producer at 9.61 million barrels per day with the significant development of its shale oil capacity during the past several years. Though it does not export crude oil, the U.S. now imports much less, creating a lot of spare supply.
2. Saudi Arabia and its Gulf allies have elected not to reduce their production and thus their own market share to restore the price as they have done in the past. These countries could curb their production sharply, but the main benefits would accrue to countries with which they have a difficult political relationship such as Iran and Russia. Saudi Arabia could tolerate lower oil prices quite easily with \$900 billion in oil reserves and production costs of only \$5-6 per barrel.
3. Reduced global demand because of weak economic activity, increasing energy efficiencies, and a growing switch away from oil to other fuels.
4. The turmoil in Iraq and Libya—two big oil producers with nearly 4million barrels a day combined—has seemingly not affected their output as the markets appear to be more tolerant and accepting of geopolitical risk

**EIA Forecast** – The EIA is projecting that the Brent crude oil price will average \$34 per barrel in 2016 and \$54 per barrel in 2017 reflecting an increase in forecast non-OPEC crude oil production growth in 2016.

**Goldman Sachs Forecast** – Goldman Sachs has cut its price estimate for Brent for 2016-2018 to \$65 per barrel and is predicting that it will trade at \$55 per barrel in 2020. This is based on

the assumption that long term oil prices could drop and remain lower as producers make more permanent efficiency and productivity improvements.

**World Bank Forecast** – In April 2015 The World Bank (WB) released its Commodity Forecast, which predicts that the world crude oil price will decrease from the average USD 96 per barrel in 2014 to USD 50 per barrel in 2015 increasing to an optimistic USD 103 per barrel by 2020 as shown in Graph 4 below.



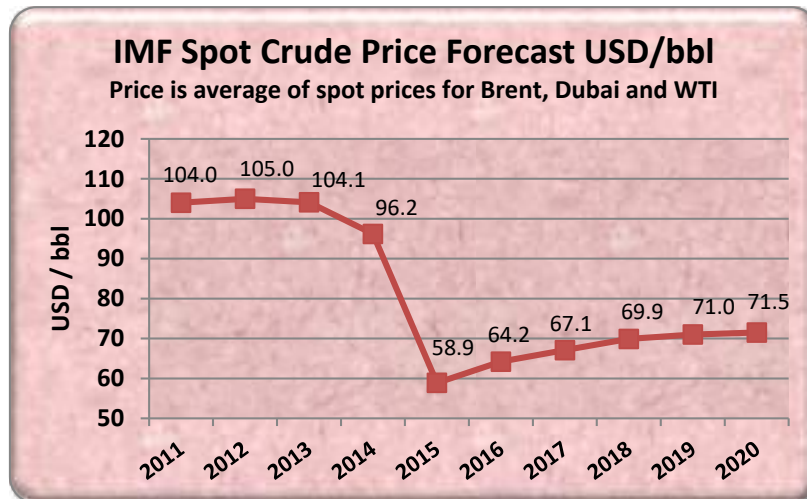
Graph 2: World Bank Price Forecast

**EIA Forecast** – The US Energy Information Agency (EIA), in its June 9, 2016 paper on the Short Term Energy Outlook (STEO), predicts a 2016 price for WTI of USD 62.04/bbl and a Brent price of US D67.04 per barrel.

EIA Report	2013	2014	2015	2016	2017
WTI Crude	97.98	93.17	55.35	62.04	51
Brent Crude	108.56	98.89	60.53	67.04	60

Table 1: EIA Crude Price Forecast

**IMF Forecast** – The International Monetary Fund (IMF), in its recent Commodity Price Forecast, predicts the spot average price for crude oil will drop to USD58.90 per bbl by 2015 recovering to USD 71.50 by 2020.



Graph 3: IMF Spot Price Forecast

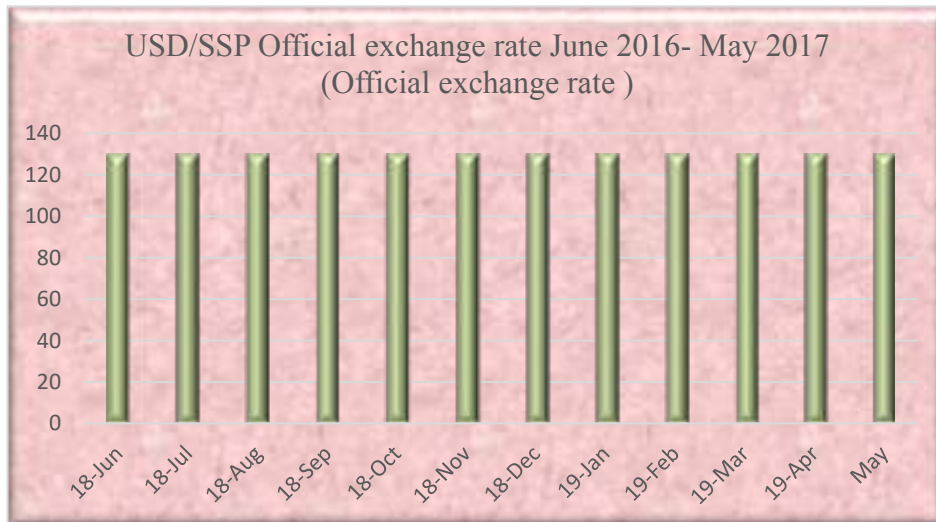
It is clear that the prediction of future oil prices is a difficult and complex exercise which is subject to many different political, geographical, financial and operational variables. Nonetheless, the longer-term price forecast by each of these reputable organizations suggest that crude oil prices are expected to remain in the low \$55-\$65 range in the near term and gradually rise towards the end of the decade.

Fundamental market changes are here to stay with lower demand, increasing energy efficiencies, alternative energy forms, and increased long term supply. **South Sudan**, which relies heavily on crude oil production, recognizes the need to maximize its current petroleum assets while at the same time find ways to diversify its energy supply / demand, develop a national energy program and adjust to the new reality.

#### 1.4. Currency Exchange Rates

**South Sudan Exchange Rate-** Since the end of June 2016, the USD to South Sudanese Pound (SSP) official exchange rate has been constant at 130.263 SSP/USD throughout the end of May 2017 as shown in Graph 7. All South Sudan oil sales are denominated in USD

which offers some protection from the currency variation; however domestic payments could be impacted by the exchange rate differences as USD is converted to SSP.



Graph 4: USD / SSP Official Exchange Rate

### 1.5 Africa and the South Sudan Region

**Africa**— According the U.S. Energy Information Agency total 2016 African crude oil production was estimated at about 8.7MMbbl/d. The five largest producers – Nigeria, Angola, Algeria, Egypt and Libya accounted for more than 87% of African production. Of the 20 oil producing countries in Africa listed by the EIA, South Sudan ranks ninth in total crude oil output averaging 130,000 thousand barrels per day throughout 2016 to 2017.

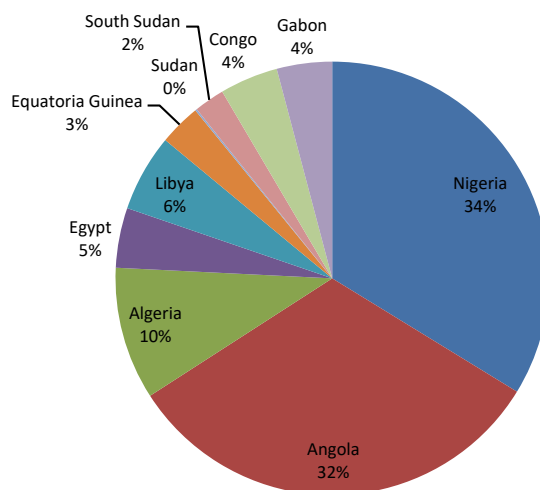


Chart 1: Africa Crude Oil Production Share – 2016



Overall production in Africa has been declining during the past year and combined with the sharp and possibly prolonged reduction in oil prices, it has required many countries to cut their budgets and reduce spending. The African Petroleum Producers Association, led by Angola and Algeria, is starting an initiative to seek collaboration between members of OPEC and other oil producers to reduce output and stabilize prices.

**South Sudan** – In 2016 only DPOC was producing, South Sudan has had average production of 170 Mbbbl/d. Production peaked at 247Mbbbl/d in early December 2013. Sales are made under a confidential bid tender program and prices received have been competitive and transparent and based on international market standards. Demand continued to be very good for South Sudanese Dar Blend crude oil, particularly in Asian markets such as China and Japan as their refineries are capable of handling the highly acidic Dar Blend crude oil.

According to South Sudan's annual review of oil reserves, the country has about 1.1 billion Standard Tank barrels of developed and undeveloped recoverable reserves as of January 1, 2016. The majority of reserves are located in the oil-rich Muglad and Melut basins, which extend into both countries (Sudan & South Sudan).

Oil field exploration and development work in South Sudan has been hampered since early 2014 due to the security situation in the regions. The recent push by government forces to drive out rebel factions has been unsuccessful, particularly in Unity State but successful in the Upper Nile area. Much work remains to be done in South Sudan to confirm additional oil reserves, to improve recovery factors and enhance production from the existing oil fields and to offer new areas for exploration to international investors. With the recent improvements in regional security, the Ministry of Petroleum looks forward to working closely with our producing partners in 2016-2017 to increase production for the mutual benefit of all.

## **PART 2 – PETROLEUM UPSTREAM FRAMEWORK AND ANALYSIS**

### **2.1 Republic of South Sudan – Petroleum Legislation and Regulations**

#### **2.1.1. 2012 Petroleum Act Overview**

- The Act has 21 chapters and 100 sections covering upstream – ownership of petroleum is vested in the people and managed by the Republic of South Sudan for their benefit;
- The Ministry of Petroleum is responsible for the management of the petroleum and Gas sector;
- Emphasis is on maximum recovery within a framework:
  - providing for “prudent operations”,
  - using best international practices,
  - ensuring safety, security and protection of the environment, and
  - requiring transparency, accountability and ethical behavior, on the part of licensees/contractors and Government;
- The EPSA (TA) Transitional Agreement contractual regime continues with certain key provisions of these agreements made part of the legislation;
- A licensing regime for reconnaissance activities, installers and operators of transportation systems (including pipelines) is provided for based on an open and transparent bidding process.

#### **2.1.2 Highlights & Current Status**

- Safety and environment put primary responsibility on the contractor;
- The Act endorses the concept of “*local content*”, using South Sudanese, if competent and available, to fill skilled and unskilled positions;
- The Act affirms Ministry of Petroleum responsibility for administration, implementation and enforcement;
- The Act provides for broad regulatory powers to legislative regime;
- The Act has been enacted and has been in force since July 2012.

### **2.1.3. Petroleum Revenue Management Act**

The Petroleum Revenue Management Act (PRMA) establishes a formalized structure for the distribution of petroleum revenues to:

- immediate budgetary needs;
- savings including revenue stabilization and future generations, and;
- Direct transfers to petroleum producing states and affected communities.

It establishes a high standard for reporting requirements for both the Government and oil companies, with the overarching principle of transparent and accountability management.

The Act was approved by South Sudan's two houses of parliament and was signed into law by the President of the Republic of South Sudan on November 10, 2013.

### **2.1.4. Petroleum Regulations**

- The Health, Safety and Environment Systems regulation was signed into law by the Minister of Petroleum on March 31, 2015. The regulations provide for:
  - Contractors to develop, implement, maintain, comply and ensure compliance with an adequate and effective management system
  - Must follow a "Plan – Do – Check – Act" framework
  - Must fit into the over-all management system framework
  - Must follow the Environmental and Social Impact Assessment (ESIA) for the area involved
  - Must be site specific for important stages in the life-cycle of petroleum activities

The regulation will better enable and support the ministry's HSE group to monitor and assess the contractors HSE performance against a defined management system and when combined with the administrative penalties program that is currently being developed, give the government extremely effective tools for compliance and enforcement.

- Amendments to the Petroleum Act 2012 have been drafted to enable a regulatory regime for charging and collecting administrative penalties and are under review by stakeholders; the draft regulation putting the regime into effect is also being prepared simultaneously with the draft statutory provisions.
- Four Petroleum Regulations are in various stages of development:

- A- Occupational health and safety,
- B- Records & reporting,
- C- Drilling & production, and
- D- Graticulation and licensing.

### 2.1.5. Exploration & Production Sharing Agreements (EPSA) Overview

The map in Figure 3 outlines the areas of current petroleum activities in the Republic of South Sudan.

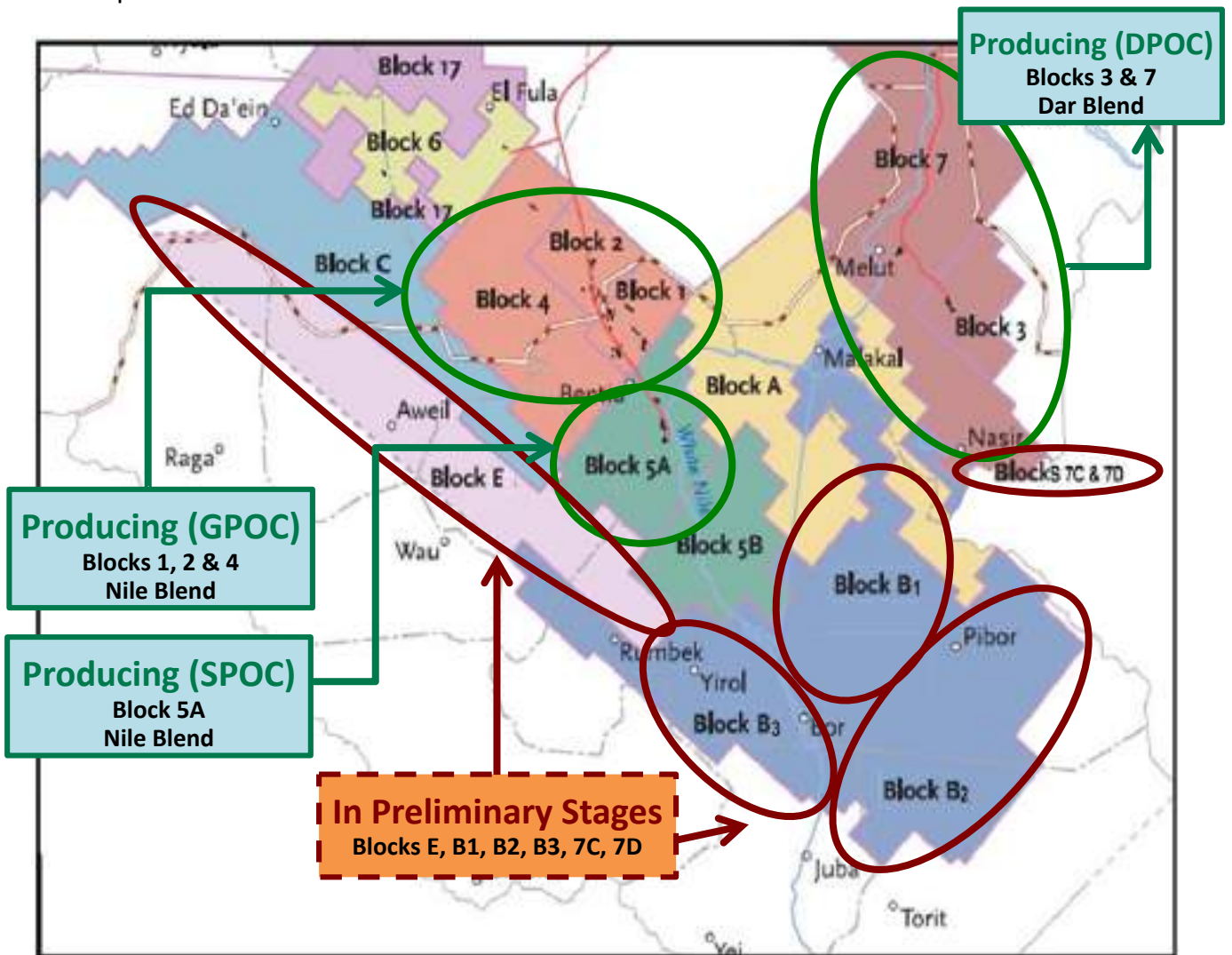


Figure 2: South Sudan Petroleum Blocks

The Republic of South Sudan has entered into or is negotiating six agreements with foreign investors for the exploration of the country’s petroleum reserves. Crude oil production is being realized under three agreements and the remaining three are still in various stages of the complex negotiation phase. These production and potential exploration areas include:

**Blocks 1a and 1b – Greater Pioneer Operating Company (GPOC) – former Unity State.**

Blocks 1a and 1b are located in former Unity State where the Nile Blend crude oil is produced from some 283 wells. Final oil processing is done at the Heglig facilities in Sudan prior to flowing into the larger Nile Blend export stream via the GNPOC pipeline to the marine terminal in Port Sudan and onwards to international markets. The producing wells are located in several different oil fields with varying qualities which are blended to average 34 API, 0.06% Sulfur. Highlights of the Blocks 1a and 1b EPSA are shown below:

<b>Greater Pioneer Operating Company (GPOC)</b>		
<i>Development Blocks 1b and 2b</i>		
Operating Costs	Recovered in year incurred	
Capital Costs	Recovered over four years	
Cost Oil Maximum	40%	
Excess Cost Oil	RSS 100%	
Profit Oil	60%	
Profit Oil Sharing	RSS	Contractor
< 25,000 bbls / day	61.5%	38.5%
> 25,000 bbls / day; < 50,000 bbls / day	71.0%	29.0%
> 50,000 bbls / day	80.0%	20.0%
<i>Exploration Blocks 1a, 2a and 4</i>		
Operating Costs	Recovered in year incurred	
Capital Costs	Recovered over four years	
Cost Oil Maximum	45%	
Excess Cost Oil	RSS 100%	
Profit Oil	55%	
Profit Oil Sharing	RSS	Contractor
< 25,000 bbls / day	60%	40%
> 25,000 bbls / day; < 50,000 bbls / day	70%	30%
> 50,000 bbls / day	80%	20%

**Table 2: GPOC EPSA Fiscal Terms**

**Block 5A – SUDD Petroleum Operating Company (SPOC) – former Unity State**

Block 5A is located in former Unity State and has some 55 producing oil wells. Crude oil designated as Nile Blend flows to the Heglig facilities in Sudan for final processing prior to export through the GNPOC pipeline. Due to the heavier crude oil characteristics, Block 5A production is typically restricted to about 10% of the total GNPOC throughput in order to not significantly degrade the total oil volumes. Highlights of the Block 5A EPSA are shown below:

<b>SUDD Petroleum Operating Company Limited (SPOC)</b>		
<b>Block 5A</b>		
Operating Expenses	Recovered in year incurred	
Exploration Expenses	20% per financial year	
Development Expenses	20% per financial year	
Cost Oil Maximum	40%	
Excess Cost Oil	Shared as per Profit Oil	
Profit Oil	60%	
Profit Oil Sharing	RSS	Contractor
< 25,000 bbls / day	71.5%	28.5%
> 25,000 bbls / day; < 50,000 bbls / day	72.5%	27.5%
> 50,000 bbls / day; < 100,000 bbls/day	76.25%	23.75%
> 100,000 bbls / day	81.25%	18.75%

**Table 3: SPOC EPSA Fiscal Terms**

**Blocks 3 & 7 – Dar Petroleum Operating Company (DPOC) – former Upper Nile State.**

Blocks 3 & 7 are located in former Upper Nile State and have some 640 oil wells producing the heavier and acidic Dar Blend crude. The crude oil is initially processed at the DPOC field processing facilities in Palouge prior to passing to the Al Jabalain central processing facilities across the border in Sudan for final processing and water removal. The oil then enters the Petrodar pipeline for transport to the Port Sudan marine terminal and onward to the international markets. The producing wells are located in several different oil fields with varying qualities which are blended to average 26 API, 0.1% Sulfur. Highlights of the Blocks 3 & 7 EPSA are shown below:

<b>Dar Petroleum Operating Company (DPOC)</b>		
<b>Development Block 3D</b>		
Operating Expenses	Recovered in year incurred	
Exploration Expenditures	25% per financial year	
Development Expenditures	25% per financial year	
Cost Oil Maximum	50%	
Excess Cost Oil	Shared as per Profit Oil	
Profit Oil	50%	
Profit Oil Sharing	RSS	Contractor
< 10,000 bbls / day	64%	36%
> 10,000 bbls / day; < 15,000 bbls / day	67%	33%
> 15,000 bbls / day; < 20,000 bbls / day	77%	23%
> 20,000 bbls / day	80%	20%
<b>Exploration Blocks 3E</b>		
Operating Expenses	Recovered in year incurred	
Exploration Expenditures	25% per financial year	
Development Expenditures	25% per financial year	
Cost Oil Maximum	45%	
Excess Cost Oil	Shared as per Profit Oil	
Profit Oil	55%	
Profit Oil Sharing	RSS	Contractor
< 25,000 bbls / day	70%	30%
> 25,000 bbls / day; < 50,000 bbls / day	73%	27%
> 50,000 bbls / day; < 75,000 bbls / day	75%	25%
> 75,000 bbls / day	80%	20%
<b>Exploration Blocks 7E</b>		
Operating Expenses	Recovered in year incurred	
Exploration Expenditures	25% per financial year	
Development Expenditures	25% per financial year	
Cost Oil Maximum	45%	
Excess Cost Oil	Shared as per Profit Oil	
Profit Oil	55%	
Profit Oil Sharing	RSS	Contractor
< 25,000 bbls / day	70%	30%
> 25,000 bbls / day; < 50,000 bbls / day	72%	28%
> 50,000 bbls / day; < 75,000 bbls / day	74%	26%
> 75,000 bbls / day	80%	20%

Table 4: DPOC EPSA Fiscal Terms

### Block B1– Total

There is no production from this block – re-negotiation for signing the Exploration and Production Sharing Agreement (EPSA) with the partners is still in progress.

### Block B2 – Total

There is also no production from this block – re-negotiation for signing the EPSA with the partners is in progress.

### Block B3

This Block will be tendered as per the Petroleum Act 2012 for potential operators to compete in order to win ownership and exploration.

## Block E

There is also no production from this block – negotiations for signing EPSA with the partners are continuing.

### 2.1.6 Crude Oil Reserves and Analysis

A recent comprehensive reserve assessment has not yet been independently completed by the Government. The MoP Upstream department has been working hard in consultations with the Joint Operating Companies (JOCs) to improve the accuracy of the reserve estimate. Data available from the JOCs shows total reserves of 1.1 billion Standard Tank Barrels (MMSTB) as at January 1, 2016.

Field	Petroleum Initially in Place (PIIP) (MMSTB)	Recovery Factor (RF) %	Estimated Ultimate Recovery (EUR) (MMSTB)	Cumulative Production (MMSTB)	Reserves (MMSTB)		Total Reserves (MMSTB)
					Developed	Undeveloped	
DPOC Blocks 3 & 7	5,385	23.00	1,257	606	499	152	651
GPOC Blocks 1, 2, 4	2,557.50	33.20	849.80	657.00	132.40	60.40	192.80
SPOC Block 5A	2,655.13	8.32	221.04	42.97	79.13	98.95	178.08
<b>Totals</b>	<b>10,618.49</b>	<b>21.50</b>	<b>2,283.84</b>	<b>1,246.89</b>	<b>754.83</b>	<b>328.87</b>	<b>1,083.71</b>

Table 5: South Sudan Crude Oil Reserves

The net change in reserves for the year 2015 for each of the producing areas is shown in the following Table 7. The net change reflects a reduction for the production for the year offset by any reserve additions or adjustments for the period.

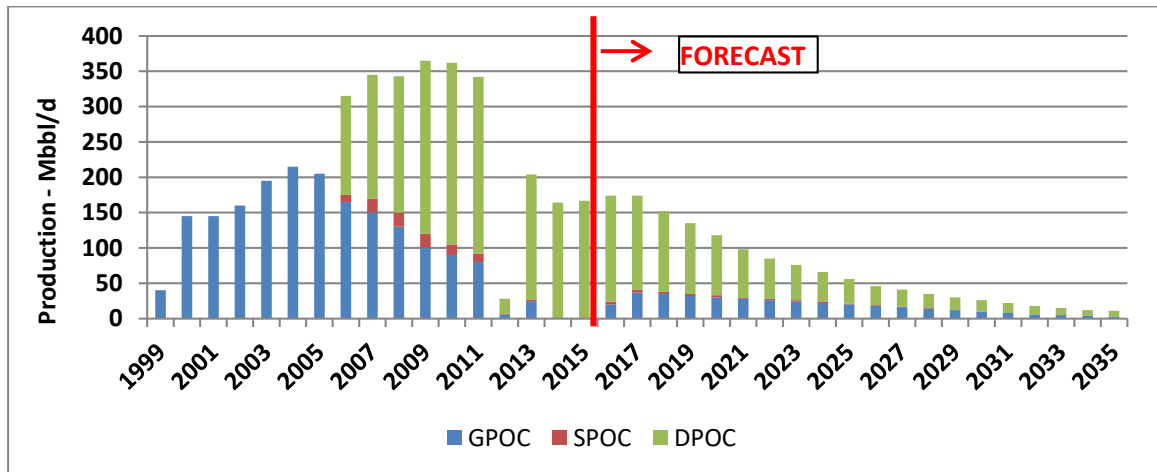
Crude Type	Contractor	Block	2017 Reserves (MMbbl)	2016 Reserves (MMbbl)	Net Change
Nile Blend	GPOC	1a, 1b	192.8	192.8	0
Nile Blend	SPOC	5A	178.08	178.08	0
<b>Sub Total</b>			<b>370.88</b>	<b>370.88</b>	<b>0</b>
Dar Blend	DPOC	3, 7	712.83	769.3	-56.47
<b>Total</b>			<b>1,083.71</b>	<b>1,140.18</b>	<b>-57.54</b>

Table 6: Net Change in RSS Crude Oil Reserves



### 2.1.7 Production Forecast and Recovery Factors

The graph below shows the average actual daily production to date and the projected decline rates for all three producing blocks through to 2035 without further reinvestment or new investments to replace reserves.



Graph 5: Historical Production & Production Forecast

Future investments to optimize oil field operations, implement improved / enhanced oil recovery schemes and initiate new exploration has the potential to significantly increase the levels of production and extend the life of the fields.

#### Production Forecast

- Production is predicted to continue at reduced levels of 166-120 thousand Bopd for the remainder of 2016 with no further production from the former Unity State Nile Blend oil fields expected until 2017.
- Production declines are expected over the next 5 years without further reserve replacement or production enhancements. This is a normal production reserves decline pattern without additional investment.
- The current shut down of former Unity State oil wells will not change the production profile as oil wells can probably restart without loss of accessible production. Only the timing of production is affected.
- Most future production derives from the Dar Blend fields in former Upper Nile State.
- The production profile takes into account only the estimated production from the fields currently active in production.
- Possible new discoveries and increased recovery rates from **IOR / EOR** projects may give higher future production.

- Additional participation in the fields, including new foreign investment and new technology, can materially improve the overall production forecast curve, as new investment will focus on production growth.

### 2.1.8 September 2012 Cooperation Agreements – South Sudan and Sudan

On September 27, 2012 the Government of South Sudan and the Government of Sudan entered into a number of agreements to cooperate across a range of areas of common interest and committed themselves to implementing these agreements including “The Agreement on Oil and Related Economic Matters”. Collectively these agreements are known as the 2012 Cooperation Agreements.

**Oil Agreement Highlights** – The principal highlights of The Agreement Concerning Oil and Related Economic Matters are: -

- South Sudan would have access rights to the GNPOC (Nile Blend) and Petrodar (Dar Blend) processing and transportation facilities located on the territory of Sudan;
- South Sudan would provide their proportionate share of pipeline fill which would be redelivered to South Sudan at the expiry of the agreement;
- Agreement on financial arrangements (United States Dollars per barrel) are:

United States Dollars	GNPOC (Nile Blend)	Petrodar (Dar Blend)
Processing Fee	1.60	1.60
Transportation Fee	8.40	6.50
Transit Fee	1.00	1.00
<b>Fee Sub Total</b>	<b>11.00</b>	<b>9.10</b>
Transitional Financial Arrangement	15.00	15.00
<b>Total Fees</b>	<b>26.00</b>	<b>24.10</b>

Table 7: Summary of Financial Arrangement with Sudan

- All payments will be based on the net barrels lifted at the Port Sudan marine terminal;
- The maximum cumulative amount of the **Transitional Financial Arrangement is USD 3.028 billion;**
- The initial period of the agreement was for a period of three years and six months as of the date of the first oil lifting at the marine terminal and a bill of lading issued (Start June 2013; Expired December 2016). The Agreement was further extended to December 31<sup>st</sup>, 2019.

## **PART 3 – TRANSPARENCY NOW AND FOR THE FUTURE**

### **3.1 International Best Practices**

On July 9, 2011 the Ministry of Petroleum, Republic of South Sudan assumed full and complete responsibility for petroleum operations on its territory. Petroleum operations are managed on behalf of the people of South Sudan and the responsibilities and obligations of the MoP are enshrined in the Transitional Constitution and guided by the Petroleum Act 2012.

The MoP is dedicated to forming an institutional structure and establishing business relationships in an open and transparent manner. Transparency in Marketing is the cornerstone to growing a new international customer base mandated to conform to the highest ethical standards, as well as to ensure oil revenue cash flows are conducted through proper channels. Examples of Transparency in our Marketing Team practices:

<b><u>Activity</u></b>	<b><u>Benefit</u></b>
• Formal Sales Contracts	Detailed and Comprehensive
• Limited Direct Negotiations	Only on Short Notice Avails
• Tender Approach to Selling	Allows for Open Bidding
• Guidelines for Awarding Cargoes	All Bidders Follow Same Rules
• Marketing Team Membership	Interdisciplinary Across Ministries
• Floating International Pricing	Established Industry Benchmark
• Customer Prescreening Application	Serves a Background Check
• Bids Reviewed by All Members	Sign off by Each Member
• All Revenues Directly to Finance	MoFEP Approved Accounts
• Documented Meeting Minutes	Recaps All Issues Discussed
• Ministerial Approval of Awards	Documented Official Approval

### **3.2 Pre-established Award Criteria**

Clearly established criteria to evaluate competing bids for RSS monthly crude oil sales has been developed and implemented by the Marketing Team. While price is the single most important factor, there are a number of important additional factors considered as well to safeguard RSS interests, as shown below:

## Republic of South Sudan - Ministry of Petroleum

### Bid Evaluation Criteria

#### **Pre-Approval**

Marketing Team pre-agree list of companies allowed to participate in tender

#### **Transparency**

All Bids received within the Tender timeline are tabled for review by Team

#### **Conformity**

Bids received that do not conform to Tender conditions may be eliminated

#### **Commitment**

Intention is to commit all cargoes offered in Tender if acceptable conditions

#### **Selling Priority**

Awards should be announced in date order to avoid distressed sale later

#### **Price**

Pricing is a major (not only) factor in awarding cargoes to winning Bidders

#### **Security**

Financial security is a major (not only) factor in cargo awards

#### **Diversification**

Spreading exposure to multiple Bidders is a factor in awards

#### **Target Buyers**

Recognition of large end user factored in if relationship adds value to RSS

#### **Negotiation**

Follow up direct negotiation should be limited to clarifying bid submissions

#### **Payment**

Early payment options considered to meet government operational needs

### 3.3 Other Transparency Initiatives

In addition to the marketing activities listed above related to the direct selling of crude oil, MoP is continuing to emphasize transparency in all of its business practices. For example, this is the fifth annual edition of the marketing report which provides comprehensive information to stakeholders, interested parties and the public on the crude oil marketing activities of the Ministry Petroleum. The Petroleum Revenue Management Act is strongly supported by the MoP and provides further guidance on crude oil revenue management as well as additional transparency under new reporting obligations. The implementation of the Extractive Industries Transparency Initiative (EITI) has also been strongly supported by the Ministry and, although progress to date

has been limited due to the capacity constraints of the Ministry as well as the need to address other urgent priorities, the MoP and the government of South Sudan continue to remain committed to its effective implementation.

The Ministry has also initiated the practice of providing periodic press releases which outline recent sales and production volumes, crude oil revenues, tariff and assistance fee payments to Sudan as well as other relevant marketing data. The Ministry is continuing to work to improve its website to enable much more information about Ministry activities to be disseminated to the public.

## **PART 4 – MARKETING PERFORMANCE**

**April 2015–May 2016**

### **4.1 The Marketing Team**

A pre-selected interdisciplinary group representing the Ministry of Petroleum, Ministry of Finance and Economic Planning, Ministry of Justice, and the Central Bank of South Sudan meet on a monthly basis to review crude marketing issues, consider sales strategy, address customer issues, and make the award recommendations for oil sales contracts. Members of the marketing team are:

**Eng. Mohamed Lino Benjamin,**  
**Chairman**

Undersecretary MoP

**Eng. Awow Daniel**

Director General of Petroleum  
Authority

**Mr. Angok Daniel**

Legal Advisor, MoP

**Mr. Simon Chol Martin**

Director of Marketing, MoP

**Mr. Jackson Wilson Bona**

Ministry of Finance & EP Member

**Mr. Chol Deng Majok**

Ag/Director for Marketing

**Mr. Loi Majak Mapuor**

Ministry of Finance and Economic  
Planning – Member

**Mr. Simon Kiman Lado**

Ministry of Finance and Economic  
Planning - Member

**Mr. Moses Makur Deng**

Bank of South Sudan - Member

**Mr. Peter Malual Mading**

Central Bank of South Sudan -  
Member

**Mr. Stephen Riak Deng**

Minister's Office, MoP– Member

**Mr. Barnaba Tito**

MoP Member

**Mr. Manase Machar Bol**

MoP Member

**Mr. Gatkuek Tung**

Legal Advisor, MoP

**Mr. Akuei Ajou Akuei**

MoP Member

**Ms. Nyawut Loth Adija**

MoP Member

**Mr. Tiberious Ohide**

MoP Member

**Mr. Khidir Ajak Deing**

MoP Member

This membership list will be expected to change from time to time and develop as reassignments within the various institutions will occur and additional experienced marketers from the Republic of Sudan are identified and recruited to strengthen the crude oil marketing function.

#### 4.2 Marketing and Transportation

Crude marketing began in mid-July, 2011, immediately following our country's independence, and successfully continued through mid-January, 2012. Production was shut down from January 2012 up to April 2013 in response to the confiscation of several RSS crude oil cargoes by Sudan as well as transportation and tariff disputes with the GoS. In April 2013 production was restarted through mutual agreement between South Sudan and Sudan and supported by the signing of the September 2012 Cooperation Agreements.

The following table summarizes the crude oil marketing activity in South Sudan for the reporting period of June 1, 2016 to May 31, 2017

June 1, 2016 - May 31, 2017	Cargoes	Volume (MMbbl)	USD	SSP	Percent
Republic of South Sudan Sales	12	8,734,740	378,224,846.78	49,169,230,081.40	100%

Table 8: Summary of RSS Crude Oil Marketing Activity

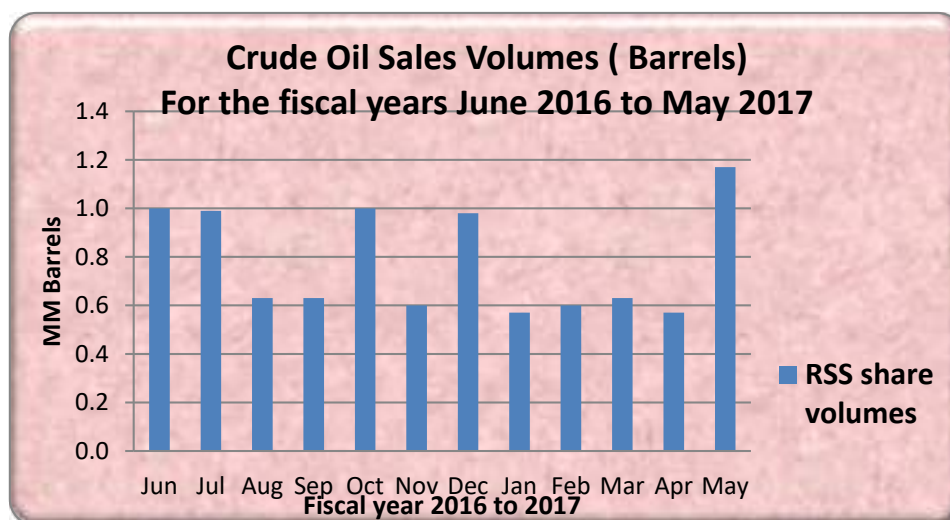
A total of 8.73 MMbbl of crude oil valued at USD 378.2 million (49.17 billion SSP) was sold during the current reporting period at an overall average net price, of USD 44.46 per barrel. During the previous reporting period of June 2015 and May 2016 South Sudan sold 17.4 MMbbl of crude oil at an average price of USD 33.74 per barrel for total revenue of USD 458.5 million. Therefore, production declined from 17.4 MMBBLS in 2015-2016 fiscal years to 16.3 MMBBLS in 2016-2017 where the low oil price continued.

Net crude oil revenues received into the Republic of South Sudan, Ministry of Finance and Economic Planning bank accounts for the reporting period were USD 675.2 million (87.8 billion SSP) from the sale of 16 MMbbl of crude oil at an average net price of USD 44.46 The final sales value is net of the transitional financial arrangement and tariff payments to Sudan and Nilepet sales payments for oil loaded under the RSS name onto our customer ships up to the end of May 2016 have or will have been collected by the end of June 2017. According to our standard international sales contract, payment is made by the buyer 30 days after the crude oil cargo has been loaded on board the vessel.

The entitlement sales volumes by month that were allocated to the RSS for the reporting period of June 2016 to May 2017 are shown in the first line of Table 10 below and total 16.3 MMbbl.

Sales Volumes by Month – RSS Share (MMbbl)													
	2016						2017						
	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Total
RSS Net Sales	1.00	0.99	0.63	0.63	1.00	0.60	0.98	0.57	0.60	0.63	0.57	1.17	9.36

Table 9: Crude Oil Sales Volumes by Month – RSS Share



Graph 6: Crude Oil Sales Volumes by Month – RSS Share

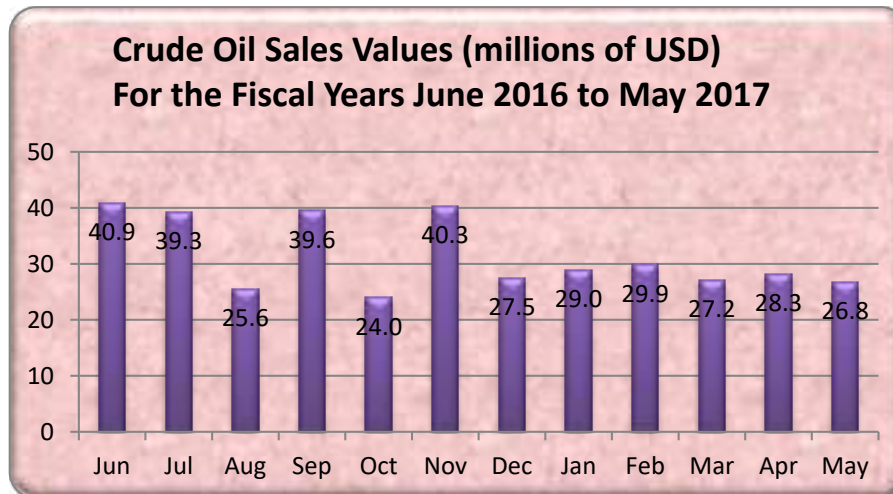
The allocation of monthly gross crude oil USD revenues received for the reporting period of June 2016 to May 2017 is shown in Table 11.

Crude Oil Revenues by Month – RSS Share (MMUSD)													
	2016						2017						
	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Total
RSS Net Sales	40.89	39.34	25.58	39.59	24.04	40.34	27.51	28.97	29.92	27.17	28.27	26.77	403.80

Table 10: Crude Oil Revenues by Month – RSS Share

Table 11. Graphical illustration of Crude oil sales values ( in millions USD) for the fiscal year June 2015 to May 2016 showing Nilepet and RSS Crude oil revenues.





Graph 7: Crude Oil Revenues by Month – RSS Share

The MoP Marketing group has assumed full responsibility for the marketing of the country's crude oil during the past four years since South Sudan independence and has gained valuable experience during this time. The group continued to receive some administrative and reporting guidance from our Petroleum Advisors, particularly in the area of management reporting. The multi-disciplinary Marketing Team consisting of members from MoP, MoFEP, BOSS, and MOJ meet monthly to review issues and evaluate and recommend the winning bidders and it provides important guidance and oversight to the crude oil marketing function.

### 4.3 South Sudan Crude Oil Entitlement

The Exploration and Production Sharing Agreements (EPSAs) that are in place in South Sudan provide for the sharing of production on a proven equitable basis. The production sharing terms of our agreements are consistent with well-established arrangements in place in many other countries worldwide.

Production sharing is classified into two components:

1. Cost oil – Shared only by the equity owners in the oil fields
2. Profit oil – shared by the equity owners and the government of South Sudan

Production sharing is primarily based on three inputs:

1. Price
2. Production Volume
3. Operating and Capital Expenditures

**Price** – The oil price is a critical input as it determines the volume of oil that will be allocated to cost oil and thus the level of cost recovery that the contractor will realize. Oil volumes must be monetized in order to calculate the proportion of crude oil production that can be allocated to cost oil. When oil prices fall as they have during the past twelve months, more physical oil is allocated to cost oil to recover the same amount of expenditures.

**Production Volumes** – The volume of production is the cornerstone of production sharing. Higher volumes mean that there is more oil to share between the contractor and the government.

**Operating and Capital Expenditures** – The contractor is entitled to recover 100% of all eligible expenditures incurred on the producing property. Cost recovery is restricted to a maximum amount of the monetized crude oil in any month. For Dar Blend crude the cost recovery maximum is 45%-50% of the crude produced depending upon the license area of delivery. If the actual monetized cost oil is less than the maximum allowed, the surplus allowance is allocated to and shared as profit oil in which the government of South Sudan will share. If the cost oil is greater than the maximum allowed, the excess costs are carried forward to be recovered in future periods.

Crude oil for sales purposes is shared between the government and contractor in cargo lots of either 600 thousand or 1 million barrels; therefore, actual monthly allocations for sales may differ from the calculated entitlement share resulting in an over or under lift position for the party which will be adjusted in the following period. Selected entitlement data for the reporting period, as reported by the contractor, is shown in the following table and is unaudited.

	Jun-16	Jul-16	Aug-16	Sep-16	Oct-16	Nov-16	Dec-16	Jan-17	Feb-17	Mar-17	Apr-17	May-17
<b>FOB Price</b>	\$48.34	\$45.10	\$45.77	\$46.67	\$49.66	\$45.13	\$53.60	\$54.67	\$55.11	\$51.56	\$52.53	\$50.43
<b>Production (MMbbls)</b>	3.41	3.64	3.60	3.46	3.55	3.45	3.64	3.51	3.17	3.50	3.39	3.79
<b>Expenditures (MMS)</b>												
Operating	19.43	9.56	46.57	46.57	46.57	46.57	46.57	36.56	36.56	36.56	36.56	30.69
Capital	-57.37	-18.1	7.78	7.78	7.78	7.78	7.78	0	0	0	0	3.35
Total	-37.94	-8.54	54.35	54.35	54.35	54.35	54.35	36.56	36.56	36.56	36.56	34.04
<b>Entitlement (MMbbls)</b>												
RSS Profit Oil	1.85	2.32	1.64	1.53	1.57	1.52	1.48	1.81	1.56	1.80	1.72	1.90
Nilepet Cost Oil	0.07	0.04	0.11	0.11	0.11	0.11	0.13	0.08	0.08	0.09	0.08	0.10
Nilepet Profit Oil	0.05	0.07	0.04	0.04	0.05	0.04	0.04	0.05	0.04	0.05	0.05	0.05
Government Total	1.97	2.43	1.79	1.68	1.73	1.67	1.65	1.94	1.68	1.94	1.85	2.05
Contractor Oil	1.44	1.21	1.92	1.78	1.82	1.78	1.99	1.57	1.49	1.56	1.54	1.74
Total All Oil	3.41	3.64	3.71	3.46	3.55	3.45	3.64	3.51	3.17	3.50	3.39	3.79
<b>Entitlement (%)</b>												
RSS Profit Oil	54.25%	63.74%	44.20%	44.22%	44.23%	44.06%	40.66%	51.57%	49.21%	51.43%	50.74%	50.13%
Nilepet Cost Oil	2.05%	1.10%	2.96%	3.18%	3.10%	3.19%	3.57%	2.28%	2.52%	2.57%	2.36%	2.64%
Nilepet Profit Oil	1.47%	1.92%	1.08%	1.16%	1.41%	1.16%	1.10%	1.42%	1.26%	1.43%	1.47%	1.32%
Government Total	57.77%	66.76%	48.25%	48.55%	48.73%	48.41%	45.33%	55.27%	53.00%	55.43%	54.57%	54.09%
Contractor Oil	42.23%	33.24%	51.75%	51.45%	51.27%	51.59%	54.67%	44.73%	47.00%	44.57%	45.43%	45.91%
Total All Oil	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%

Table 11: Republic of South Sudan Crude Oil Entitlement

During the period of June 1, 2016 to May 31, 2017 South Sudan's crude oil entitlement has ranged from 54.25% to 50.13%. Current entitlement is about 1.90 MMbbl. As noted above, when the oil prices increase, less oil is allocated to cost oil, and more oil is allocated to profit oil in which the government does share.

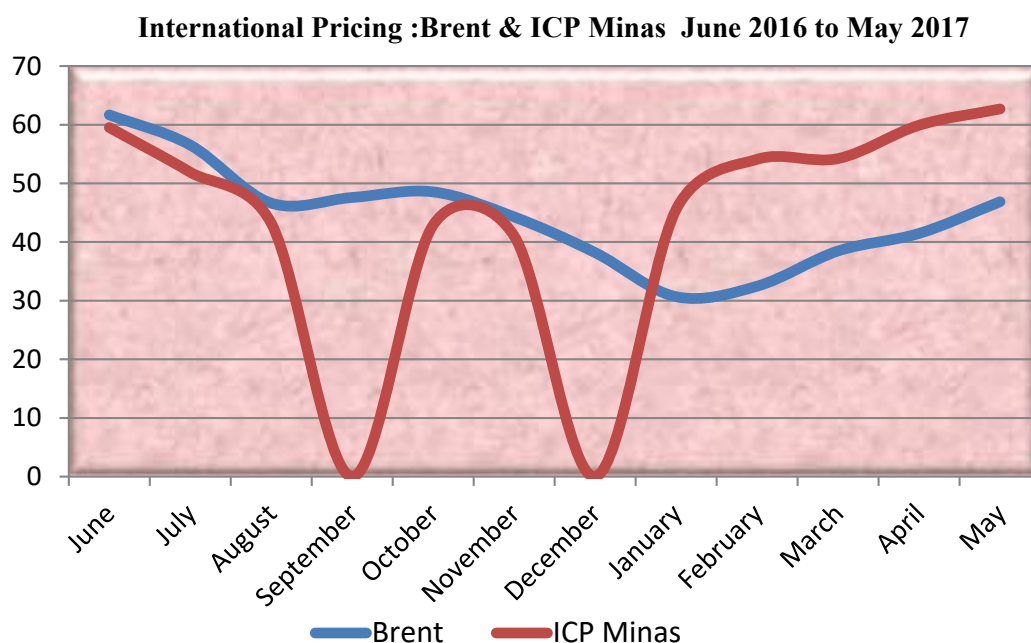
#### 4.4 Market Prices Achieved

Brent crude oil prices, upon which all of the South Sudan Dar Blend oil sales are currently based, ranged from a low of \$48.34 in June 2016 to a high of \$54.67 in January 2017. The weighted average price for Dar Blend sales for the twelve month reporting period, excluding Nilepet sales, is \$44.46. Despite the high price volatility during the reporting period, the marketing group was able to achieve favorable discount rates through the bid / tender process and therefore obtain competitive prices for South Sudan crude oil. Nile Blend oil sales are based on the Indonesian Crude Price (ICP) Minas. Due to the shut down in the Unity oil fields, no sales of this type of oil were realized during the reporting period; therefore, only the simple average price for ICP Minas of \$75.80 is shown in the table for the twelve-month period.

The table and graph below illustrates the average monthly official international reference prices for Dated Brent that were incorporated into our Dar Blend contract price formulas and for ICP Minas in our Nile Blend contract price formulas and reflect the steep decline in global oil prices during the reporting period along with the calculated averages.

International Pricing Formula Used in RSS Crude Contracts							
2016	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Dated Brent (Dar)	61.69	56.54	46.64	47.61	48.56	44.29	38.21
ICP Minas (Nile)	59.54	51.91	43.21	-----	42.92	41.03	-----
2017	Jan	Feb	Mar	Apr	May	Average	
Dated Brent (Dar)	30.69	32.48	38.49	41.48	46.88	<b>44.46</b>	
ICP Minas (Nile)	45.56	54.11	54.24	59.92	62.70	<b>75.80</b>	

Table 12: Dated Brent and ICP Minas Actual Crude Pricing



Graph 8: International Pricing – Brent vs. ICP Minas

#### 4.5 Sales Price Differentials

The marketing group was able to maintain favorable sales price differentials or discount rates through its bid / tender process and therefore obtain competitive prices in spite of the very difficult period of falling prices for benchmark crudes such as Brent. The realized weighted average price discount for all Dar Blend crude oil sold by the MoP marketing team, excluding Nilepet, was -\$11.43 for the twelve month reporting period. This compares unfavorably with the -\$10.05 discount achieved in the previous 2015-2016 reporting period when the marketing climate was more positive.

Realized Weighted Average Price Differential							
2016	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Dar Blend	(\$7.24)	(\$10.31)	(\$14.13)	(\$12.69)	(\$16.13)	(\$15.48)	(\$19.19)
Nile Blend	No Sales	No Sales	No Sales	No Sales	No Sales	No Sales	No Sales
2017	Jan	Feb	Mar	Apr	May	Average	
Dar Blend	(\$6.47)	(\$14.29)	(\$3.98)	(\$13.72)	(\$3.55)	(\$11.43)	
Nile Blend	No Sales	No Sales	No Sales	No Sales	No Sales	No Sales	

Table 13: RSS Realized Weighted Average Price Differential

## 4.6 Global Customer Base

The MoP Marketing Team continued to work at maintaining the customer base for our crude oil to ensure competitive bidding and maximize prices. 39 customers, up from 33 one year ago and including both end users and oil traders, were allowed to bid on our crudes following screening, with seven companies winning one or more cargoes over the marketing period as shown in Table 15. One of the companies, Petro Diamond, was awarded a Nilepet cargo through its marketing process and is not on the official list of MoP customers.

RSS Customers and Cargoes Loaded								
2016	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
Trafigura	1							
Trafigura		1						
Addax			1	1				
Trafigura					1			
Trafigura						1		
Trafigura							1	
<b>Sub-total</b>	<b>1</b>	<b>1</b>	<b>1</b>	<b>1</b>	<b>1</b>	<b>1</b>	<b>1</b>	<b>7</b>
2017	Jan	Feb	Mar	Apr	May			
Trafigura	1							
Addax		1						
Trafigura			1					
Sudan				1				
Addax					1			
Trafigura					1			
<b>Sub-total</b>	<b>1</b>	<b>1</b>	<b>1</b>	<b>1</b>	<b>2</b>			<b>6</b>
<b>Total</b>								<b>13</b>

Table 14: RSS Crude Oil Customers and Cargoes Loaded

## 4.7 Customer Invitations

The following list of customers has been pre-approved by the Marketing Team to be considered as potential buyers of RSS crude oil and can be included in the monthly cargo tender. It should be noted that with the assistance of the Bank of South Sudan a financial assessment of the required level of financial security has been established for each company, which appears on the right side column.

	<u>Invitation List</u>	<u>Activity</u>	<u>Type</u>	<u>Security</u>
1.	Addax Energy	Active	Trader	SBLC
2.	AsconTimpet	No Activity	Trader	SBLC
3.	Augusta Energy	No Activity	Trader	SBLC
4.	Chi'an Wei Ltd	Active	Trader	SBLC
5.	China Oil	Award Winner	Refiner	PU + CL
6.	CNOOC	No Activity	Refiner	Open
7.	Concord Energy	No Activity	Trader	SBLC

8.	Glencore	Award Winner	Trader	SBLC
9.	Gunvor	No Activity	Trader	SBLC
10.	Investsouth (Triton Global Petroleum)	Bidder	Trader	SBLC
11.	Investsouth Co. Ltd	Bidder	Trader	SBLC
12.	Kepu	No Activity	Trader	SBLC
13.	Kernel Oil (Suisse Ltd)	Bidder	Trader	SBLC
14.	LENKOR	No Activity	Trader	SBLC
15.	LOTCO	No Activity	Trader	SBLC
16.	Mena Energy	No Activity	Trader	SBLC
17.	Mercuria	No Activity	Trader	SBLC
18.	Mitsubishi	No Activity	Refiner	SBLC
19.	Money Maker Management	Bidder	Trader	SBLC
20.	Nabta General Trading	Bidder	Trader	SBLC
21.	Nasdec General	No Activity	Trader	SBLC
22.	Petronas	Active	Refiner/Equity	SBLC
23.	Petro Diamond*	Award Winner	Trader	SBLC
24.	Royal Energy	No Activity	Trader	SBLC
25.	Safadi Group	No Activity	Trader	SBLC
26.	Sahara Energy	Active	Trader	SBLC
27.	Serha Oil	No Activity	Trader	SBLC
28.	Shell	No Activity	Refiner	Open
29.	SK Energy	No Activity	Refiner	SBLC
30.	SOCCAR	No Activity	Refiner/Trader	SBLC
31.	Southex	No Activity	Trader	SBLC
32.	Total	No Activity	Refiner	Open
33.	Toyota Tsusho	No Activity	Refiner/Manufact	Open
34.	Trafigura	Award Winner	Trader	SBLC
35.	Tri Ocean	No Activity	Trader/Equity	SBLC
36.	Trinity Energy	Bidder	Trader	SBLC
37.	Unipet	Award Winner	Refiner	PU
38.	Vitol	Award Winner	Refiner/Trader	SBLC
39.	Zenhuaoil Co. Ltd	No Activity	Trader	SBLC

Table 15: Pre-approved Customer List

## 4.8 Marketing Report Card

The MPM marketing effort for the period of June 2016 to May 2017 continued to be stronger given the extremely difficult global crude oil environment with supply outstripping demand and the dramatic fall in prices during the period. The marketing group has clearly manifested the capability of the Ministry of Petroleum staff and the Marketing Team to successfully sell the country's entitlement share of crude oil at the best prices possible. The Ministry of Petroleum will continue to work hard to monetize our crude oil into the international marketplace at attractive price formulas, contract terms, and in a professional and transparent manner.

The Ministry will also continue to ensure that controls are in place to provide assurance that all oil revenues are documented and that all payments made by buyers are fully accounted for.

MoP will continue to develop its marketing expertise and add new talent to its work force to address current challenges, help identify marketing opportunities and improve prices. The identification of new buyers and new markets, and the analysis of market behavior and crude oil prices are just some of the areas that will be subject to future development.

## 4.9 Transitional Financial Arrangement and Tariff Payments to Sudan

*RSS Payment Obligations to Sudan* – For the reporting period of June 2016 to May 2017, the Republic of South Sudan has paid or is obligated to make the following payments to Republic of Sudan under the terms of The Agreement Concerning Oil and Related Economic Matters:

Description	Per bbl	Quantity / Value
Net Quantity Shipped (Barrels)		18,610,122.28
Transitional Financial Arrangement (USD)	\$15.00	279,151,834.20
<b>Net TFA Obligation</b>		<b>279,151,834.20</b>
Fees		
Processing	\$1.60	29,776,195.65
Transportation	\$6.50	120,965,794.82
Transit	\$1.00	18,610,122.28
Total Fees	\$9.10	169,352,112.75
<b>Net Fees Obligation</b>		<b>169,352,112.75</b>
<b>Total Payment Obligations (USD)</b>		<b>448,503,946.95</b>

Table 16: Payments to Sudan



As of the end of May 2017 the remaining balance on the Transitional Financial Arrangement obligation to Sudan is USD 1.28 billion.

The severe decline in oil prices in the latter half of 2016 has resulted in significantly reduced revenues and has put pressure on South Sudan's budget execution. This has caused delays in paying transport related fees and the transitional financial arrangement to Sudan and has resulted in an agreement to settle the outstanding obligation in a series of transfers in kind. The agreement to this arrangement has not yet been finalized and the pricing mechanism is under discussion regarding how the netback price should be calculated.

The valuation for settlement is to be based on the average FOB prices realized for South Sudan cargo sales at Port Sudan. The only netback deduction being made to this price for purposes of this presentation is for processing at Al Jabalain since South Sudan is obligated to provide clean oil to Sudan. No deductions are made for transit, transport or transitional financial arrangement since these fees are not payable if the oil is not shipped through Port Sudan as per the terms of the 2012 Cooperation Agreement on Oil.

Payments made to date to Sudan under this arrangement are calculated by the MoP as follows:

	<b>Mar/17</b>	<b>Apr/17</b>	<b>May/17</b>	<b>Total</b>
Average Monthly FOB Price	\$47.58	\$47.58	\$47.23	
Less: Processing Fee at Al Jabalain	\$1.60	\$1.60	\$1.60	
Net Price for Valuation	\$45.98	\$45.98	\$45.63	
Net Barrels Transferred to Sudan	1,409,839.55	1,450,885.31	2,014,130.19	<b>4,874,855.05</b>
Value for Settlement	64,824,422.51	66,711,706.55	91,904,760.57	<b>223,440,889.63</b>

Table 17: Payment in Kind to Sudan

#### 4.10. Outstanding Issues

##### *Data in Khartoum*

A significant amount of oil field data which is owned by South Sudan after independence remains in storage in Khartoum. The RSS is responsible for the data and is currently constructing its own storage facility. The data has been fully inventoried and is ready for relocation to South Sudan. The data is important to the RSS to support the design and implementation of effective IOR/EOR programs, assist with the development of a new reserve assessment and to support new exploration promotion programs.

### ***Financial Audits of Contractors***

As provided in the EPSAs an initial assessment of the Contractors' audit status has been completed by the firm Ernst and Young and a report has been issued to the Ministry. The financial and operational records for the periods subject to audit are located in Khartoum and the Contractors have offered to host the audits in that location. Final detailed audit work is being undertaken by Ernst and Young and audit reports will be issued to the ministry after which further action may be required by the MoP.

## **PART 5 – FUTURE ACTIVITIES**

### **May 2016 and Beyond**

#### **5.1 Re-Start Former Unity State Oil Production**

The restart of production operations in former Unity State remains dependent on the security situation. The main oil processing facilities are secured but the oil fields cover a large geographic area and the risk remains high in outlying areas where many of the oil wells are located. Once security is stabilized the contractor can return to the area to assess damage and determine what remediation work needs to be done and the materials, supplies and manpower that will be required. Only after an assessment is completed can a time line for the return to production be reasonably determined.

#### **5.2 Improved / Enhanced Oil Recovery Opportunities**

The oil production rates in the South Sudan oil fields are rapidly declining with increasing water cut. One of the options being considered by the Ministry of Petroleum and the Contractors is the implementation of Improved Oil Recovery (IOR) / Enhanced Oil Recovery (EOR) schemes. IOR / EOR projects have the potential to arrest the decline, significantly increase the amount of recoverable oil from the reservoir and prolong the life of the field.

There are various methods and technologies available for IOR / EOR projects that are being considered such as thermal, polymer flooding and gas injection, but they generally require significant investment and have a fairly long payout period. As a result, it may be necessary in some instances for the government to renegotiate license extensions on existing producing oil fields in order to ensure that the additional investments will be beneficial to the government and economically fair to the contractors.

## 5.3 Infrastructure Options

### 5.3.1 Refinery Projects

The refineries proposed would work to refine crude oil from different oil fields in the RSS, and produce mainly diesel, kerosene, naphtha and residue fuel crises across South Sudan (Heavy Fuel Oil).

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#### ***Thiangrial Refinery in former Upper Nile State: -***

- Design capacity is 20,000 BPD to be constructed in two modular phases, phase one 10,000 BPD and another phase after two years of 10,000 BPD.
- Main petroleum fractions/products: Diesel, kerosene, naphtha and HFO (Heavy Fuel Oil).
- Financer: Frontiers Resource Group, USA; Contractor Ventech Engineering, USA.
- Status: Construction work has been stopped due to the political crises in South Sudan.

#### ***Bentiu Refinery, former Unity State***

- Design capacity: 7,000 BPD modular construction.
- Operational Capacity: 5000 BPD
- Additional expansion to the facility would be 25,000 BPD including complex facilities to cater for cracking the long residue in order to increase the yield of light products.
- Financer: Saffinat Limited of Russia; Constructed by Saffinat
- Status: The refinery construction was completed in January 2014 and pre-commissioned before it was stopped because of the crises in South Sudan.
- It should resume once the security situation is cleared.

#### ***Akon Refinery, former Warrap State***

- The initial proposed capacity: 50,000 BPD but it is likely to be reduced.
- Financier: yet to be identified.
- Status: This year, 2016-17, no progress was witnessed regarding this project.

### ***Pagak Refinery, former Upper Nile State***

- Proposed capacity: 50,000 BPD.
- Financier: Black Rhino, USA.
- Status: Feasibility study is being finalized by Foster Wheeler; project has been put on hold.

#### **5.3.2 Fuel Depot Projects**

A number of fuel depots were proposed to be constructed in different locations in the country since 2012, but none of these have found its way to execution due to lack of funding. Now, with a new approach being adopted by the MoP, Nilepet is assuming responsibility for funding the fuel storage terminals, and it is expected that progress will be realized in the near future.

#### **5.3.3 Pipeline Projects**

- The first phase of the feasibility study for an alternative export pipeline was completed and presented to the RSS Cabinet in November, 2013.
- Two export pipeline routes have been studied and compared, in order to facilitate a decision as to which should be the best solution that serves the interests of the Republic of South Sudan; however due to the crisis, a decision has not yet been made. It is expected to be finalized soon.
- Plans for inland alternative evacuation pipeline from the Thar jath oil fields – former Unity state to Paloch – former Upper Nile State has been initiated. The conceptual design is completed and we expect to proceed with the project subject to security considerations.

### **5.4 Products Supply**

The Republic of South Sudan primarily consumes distillates in the form of diesel for truck and power generation fuel. Products are currently imported via Kenya and Sudan. The supply of products for domestic consumption is being handled by Nilepet along with other private companies. The Ministry of Petroleum, Republic of South Sudan and the Government of Kenya have an agreement in place regarding the allocation of ullage. The MoP also provides the formal approval for companies to pick

up and transport product from Kenya. Nilepet is responsible for product distribution within South Sudan.

Downstream depots and import routes are illustrated below.

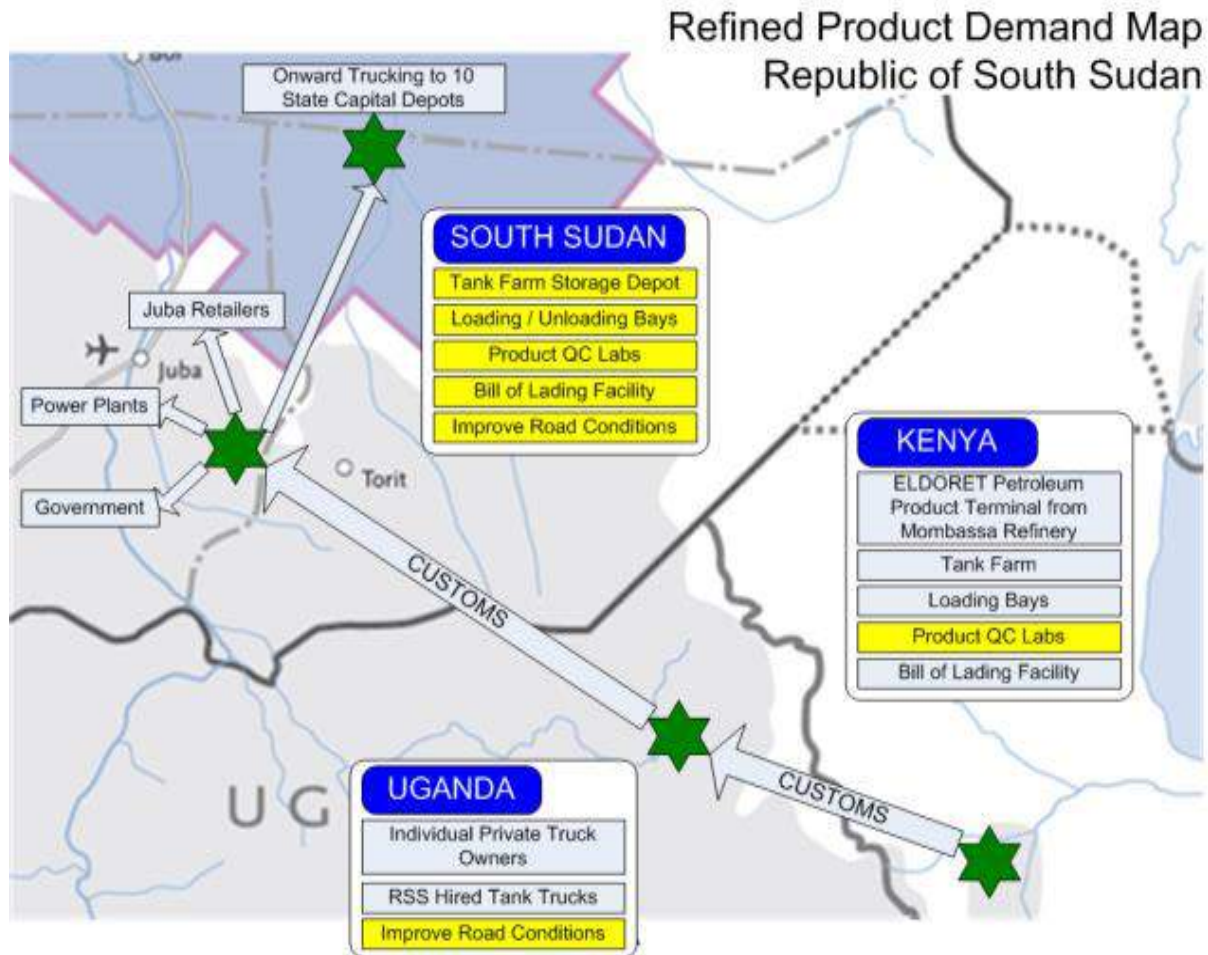


Figure 3: RSS Refined Product Demand Map

### 5.5 Challenges and Opportunities Ahead

The Ministry of Petroleum Marketing Group has both challenges and opportunities ahead. We have highlighted in this report many of the successes and achievements since the restart of production in South Sudan. As we celebrate the Sixth anniversary of our country’s independence, we have clearly proven our ability to market our crude oil in a transparent manner and at attractive international prices. Marketing staff are located at the main MoP office in Juba and at the marine terminal in Port Sudan to oversee the tanker loadings of the government cargoes. With the guidance of the Downstream Department these staff members have assumed complete responsibility for the marketing of our country’s crude oil.

The number of work stations and the amount of quality office space for employees has increased. Training has been improved through the offerings of the contractors and

the crude oil buyers and advisor support is now generally limited to administrative oversight. The strengthened capacity of our staff, even as we continue to experience deficiencies in manpower and financial resources, is notable. The MoP website continues to be improved and will eventually house public marketing information and contacts.

The MoP continues to work through many of the internal organizational challenges to improve the performance of the people within the department. Some of our initiatives include:

- Continuous improvement in education and training for our staff;
- Clearly defined roles & responsibilities for all levels within MoP;
- Developing an internet database platform for all employees to utilize daily;
- Improving internal and external communication of marketing information;
- Developing a seamless working relationship with other ministries.

Work has begun, but more hard work is needed to build upon our past experiences...but the marketing road ahead remains bright.....!



## **Closing Remarks**

“This Marketing Report is the fifth issue by the Ministry of Petroleum, Republic of South Sudan. It provides an overview of the world’s oil markets and fundamentals, price forecasts, oilfield reserves, and the MoP marketing performance. It offers an outline of our infrastructure plans such as refineries, storage depots and other related infrastructures and provides insight into our efforts to ensure transparency in all our activities in addition to building the capacities and competencies of the local workforce and companies.

The junior employees in our marketing group have demonstrated their understanding of the fundamentals of crude oil marketing and their enthusiasm for their work. But we cannot stop here. Crude oil marketing must continue to develop with buyer and market diversification and a better understanding of global economics and pricing mechanisms. These activities will be enhanced once MoP establishes on-line communications with the global oil markets and with the main world crude oil pricing center Platts, London. The communication delay is the result of the current instability in the oil sector since the shutdown of our oil production, which has not allowed either subscriptions arrangements to Platts to be completed or the installation of effective internet connections to be realized.

Our Health, Safety and Environment (HSE) Department has trained internally and abroad in 2015 – 2016, highlighting the MoP’s strong commitment to our people and our environment and enhancing our ability to monitor and enforce regulations in the petroleum sectors.

Our goal with this and subsequent editions of the MoP Marketing Report is to provide you with comprehensive information which clearly explains the monetization of our country’s crude oil. Our emphasis is on transparency and full compliance with our legislative requirements for information disclosure. Our efforts will not end with this report – we will continue to look at ways to improve our marketing operations and add value. It is our hope that as we move forward, we will fully capture the new developments occurring within the Ministry on the path of reaching the goal of energy independence, and a greater prosperity for our people.”

--- Sincerely,

Mohamed Lino Benjamin  
Undersecretary MoP