South Sudan Oil Almanac

An OpenOil Reference Guide

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European Coalition on Oil in Sudan

Disclaimer: Map is informational only. ECOS does not warrant its accuracy or suitibility for any particular purpose.

ECOS website: www.ecosonline.org
Contact: info@ecosonline.org

Block 1,2,4, GNPOC
- 40% CNPC
- 30% Petronas
- 25% ONGC Videsh
- 5% Sudapet

Block 3,7, PDOC
- 41% CNPC
- 40% Petronas
- 8% Sudapet
- 6% Sinopec
- 5% Al Thani

Block 5A, WNPOC-1
- 68,875 Petronas
- 24,125 ONGC Videsh
- 7% Sudapet

Block 5B, WNPOC-2
10% awarded to GOSS; composition to be renegotiated
- 39% Petronas
- 24,5% Lundin
- 23,5% ONGC Videsh
- 13% Sudapet

Block 6, CNPCIS
- 95% CNPC
- 5% Sudapet

Block 8, WNPOC-3
- 77% Petronas
- 15% Sudapet
- 8% Hi Tech

Block 9,11, Sudapak I
- 85% Zafir
- 15% Sudapet

Block 10, Free

Block 12A, Qahtani & Others
- 33% Qahtani
- 20% Ansan
- 20% Sudapet
- 15% Dindir Petroleum
- 7% Hi Tech
- 5% A.A. In.

Block 12B, Free

Block 13, CNPC, Pertamina & Sudapet
- 40% CNPC
- 15% Pertamina
- 15% Sudapet
- 10% Dindir Petroleum
- 10% Express Petroleum & Gas
- 10% Africa Energy

Block 14, Petro SA
- 80% Petro SA
- 20% Sudapet

Block 15, RSPOC
- 35% Petronas
- 35% CNPC
- 15% Sudapet
- 10% Express Petroleum & Gas
- 5% Hi Tech

Block 16, Lundin

Block 17, Ansan
- 66% Ansan
- 34% Sudapet

Block A, Sudapak II
- 83% Zafir
- 17% Sudapet

Block B, Total
- 32,5% Total
- 27,5% Kufpec
- 10% Sudapet
- 10% GOSS
- 20% open

Block C, APCO
- 65% Hi Tech
- 17% Sudapet
- 10% Khartoum State
- 8% Hegleig

Block Ea, Free

Introduction

The South Sudan Oil Almanac has been created to significantly increase the stock of information available in local contexts among journalists, civil society actors, government officials and others. The Almanac provides a living database of publicly available information around the South Sudanese oil industry, from both domestic and international perspectives, and will form the basis for a locally based knowledge community on these issues. The first edition of the Almanac has been prepared by OpenOil UG.

It is anticipated that the Almanac will provide the basis for a series of capacity building workshops for local South Sudanese wiki editors, who will then go on to be the sole administrators of the Arabic version of the wiki, as well as to create a lasting resource of information around the South Sudanese oil industry.

The online version of the wiki can be seen at southsudan.wiki.openoil.net. The information currently available will only increase in quantity and quality as the number of contributors to the platform increases.

All information included here is taken from publicly available sources and is clearly referenced (see the footnotes at the end of each page), enabling the reader to locate the source from which the information was taken for further research. Crucially, it was created using MediaWiki software, meaning that there now exists an online database of all of the articles which can be updated as more information becomes available. As such, this printed Almanac is merely a snapshot of what the database looks like at any given moment; this bank of information will grow in the future as the online articles are updated.

The ultimate goal of this resource is to create, by means of the capacity building workshops, a group of trained local editors who can take ownership of the guide and be responsible for its maintenance. This in turns creates a platform by which South Sudanese can share perspectives and are able to access all of the information necessary to hold their government to account in its use of extractive industry revenues, in order to achieve valuable development outcomes for the South Sudanese people.

OpenOil has created similar guides for a range of other countries across the Middle East, Africa and South America. If you are interested in finding out more, please see our website at openoil.net, see our series of guides at wiki.openoil.net or get in touch with us at wikiguides@openoil.net.

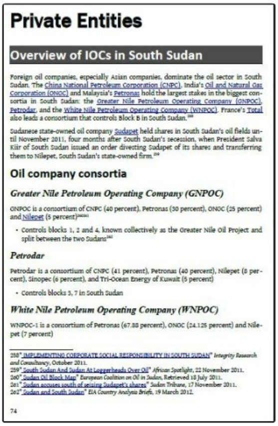
How To Use This Book

For readers unfamiliar with how to use the book, the following three pages illustrate potential use scenarios for journalists, civil society actors, and government officials.

Scenario #1: Journalist

Imagine that a journalist has just come from a press conference in which Company X, an international oil and gas company operating in South Sudan, has announced the discovery of significant oil reserves in an exploration block. Using this Almanac, the journalist can...

... learn more about the company by flipping to page 74 for the chapter on private entities, where he or she can find Company X and read up on its global profile and its history in South Sudan.



Private Entities

Overview of IOCs in South Sudan

Foreign oil companies, especially Asian companies, dominate the oil sector in South Sudan. The China National Petroleum Corporation (CNPC), India's Oil and Natural Gas Corporation (ONGC) and Malaysia's Petronas hold the largest stakes in the biggest consortia in South Sudan: the Greater Nile Petroleum Operating Company (GNPOC), Petrodar, and the White Nile Petroleum Operating Company (WNPOC). France's Total also leads a consortium that controls Block B in South Sudan.[258]

Sudanese state-owned oil company Sudapet held shares in South Sudan's oil fields until November 2011, four months after South Sudan's secession, when President Salva Kiir of South Sudan issued an order divesting Sudapet of its shares and transferring them to Nilepet, South Sudan's state-owned firm.[259]

Oil company consortia

Greater Nile Petroleum Operating Company (GNPOC)

GNPOC is a consortium of CNPC (40 percent), Petronas (30 percent), ONGC (25 percent) and Nilepet (5 percent)[260][261]

- Controls blocks 1, 2 and 4, known collectively as the Greater Nile Oil Project and split between the two Sudans[262]

Petrodar

Petrodar is a consortium of CNPC (41 percent), Petronas (40 percent), Nilepet (8 percent), Sinopec (6 percent), and Tri-Ocean Energy of Kuwait (5 percent)

- Controls blocks 3, 7 in South Sudan

White Nile Petroleum Operating Company (WNPOC)

WNPOC-1 is a consortium of Petronas (67.88 percent), ONGC (24.125 percent) and Nilepet (7 percent)

258" IMPLEMENTING CORPORATE SOCIAL RESPONSIBILITY IN SOUTH SUDAN" *Integrity Research and Consultancy*, October 2011.
259" South Sudan And Sudan At Loggerheads Over Oil" *African Spotlight*, 22 November 2011.
260" Sudan Oil Block Map" *European Coalition on Oil in Sudan*, Retrieved 18 July 2011.
261" Sudan accuses south of seizing Sudapet's shares" *Sudan Tribune*, 17 November 2011.
262" Sudan and South Sudan" *EIA Country Analysis Briefs*, 19 March 2012.

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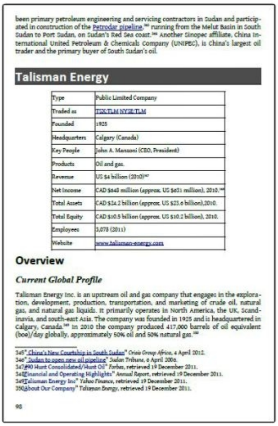
Private entities on p. 74



been primary petroleum engineering and servicing contractors in Sudan and participated in construction of the Petrodar pipeline,[346] running from the Melut Basin in South Sudan to Port Sudan, on Sudan's Red Sea coast. Another Sinopec affiliate, China International United Petroleum & Chemicals Company (UNIPEC), is China's largest oil trader and the primary buyer of South Sudan's oil.

Talisman Energy

Type	Public Limited Company
Traded as	TSX:TLM NYSE:TLM
Founded	1925
Headquarters	Calgary (Canada)
Key People	John A. Manzoni (CEO, President)
Products	Oil and gas.
Revenue	US $4 billion (2010)[347]
Net Income	CAD $648 million (approx. US $631 million), 2010.[348]
Total Assets	CAD $24.2 billion (approx. US $23.6 billion),2010.
Total Equity	CAD $10.5 billion (approx. US $10.2 billion), 2010.
Employees	3,078 (2011)
Website	www.talisman-energy.com

Overview

Current Global Profile

Talisman Energy Inc. is an upstream oil and gas company that engages in the exploration, development, production, transportation, and marketing of crude oil, natural gas, and natural gas liquids. It primarily operates in North America, the UK, Scandinavia, and south-east Asia. The company was founded in 1925 and is headquartered in Calgary, Canada.[349] In 2010 the company produced 417,000 barrels of oil equivalent (boe)/day globally, approximately 50% oil and 50% natural gas.[350]

345" China's New Courtship in South Sudan" *Crisis Group Africa*, 4 April 2012.
346" Sudan to open new oil pipeline" *Sudan Tribune*, 6 April 2006.
347"#90 Hunt Consolidated/Hunt Oil" *Forbes*, retrieved 19 December 2011.
348"Financial and Operating Highlights" *Annual Report*, retrieved 19 December 2011.
349"Talisman Energy Inc" *Yahoo Finance*, retrieved 19 December 2011.
350"About Our Company" *Talisman Energy*, retrieved 19 December 2011.

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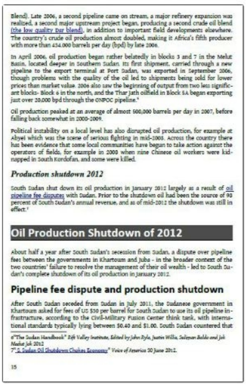
For example, Talisman Energy on p. 98

#2: Civil Society Actor

A member of a civil society organization active in South Sudan wants to learn about the reasons behind South Sudan's oil production shut-down in January 2012, so he...

... turns to the article on the topic on p. 15 and, for background, also checks out the article on revenue sharing arrangements between South Sudan and Sudan on p. 45 and reads up on pipelines and transit fees on p. 63.



Blend). Late 2006, a second pipeline came on stream, a major refinery expansion was realized, a second major upstream project began, producing a second crude oil blend (the low quality Dar blend), in addition to important field developments elsewhere. The country's crude oil production almost doubled, making it Africa's fifth producer with more than 434.000 barrels per day (bpd) by late 2006.

In April 2006, oil production began rather belatedly in blocks 3 and 7 in the Melut Basin, located deeper in Southern Sudan. Its first shipment, carried through a new pipeline to the export terminal at Port Sudan, was exported in September 2006, though problems with the quality of the oil led to shipments being sold for lower prices than market value. 2006 also saw the beginning of output from two less significant blocks- Block 6 in the north, and the Thar Jath oilfield in Block 5A began exporting just over 20,000 bpd through the ONPOC pipeline.[6]

Oil production peaked at an average of almost 500,000 barrels per day in 2007, before falling back somewhat in 2008-2009.

Political instability on a local level has also disrupted oil production, for example at Abyei which was the scene of serious fighting in mid-2008. Across the country there has been evidence that some local communities have begun to take action against the operators of fields, for example in 2008 when nine Chinese oil workers were kidnapped in South Kordofan, and some were killed.

Production shutdown 2012

South Sudan shut down its oil production in January 2012 largely as a result of oil pipeline fee disputes with Sudan. Prior to the shutdown oil had been the source of 98 percent of South Sudan's annual revenue, and as of mid-2012 the shutdown was still in effect.[7]

Oil Production Shutdown of 2012

About half a year after South Sudan's secession from Sudan, a dispute over pipeline fees between the governments in Khartoum and Juba - in the broader context of the two countries' failure to resolve the management of their oil wealth - led to South Sudan's complete shutdown of its oil production in January 2012.

Pipeline fee dispute and production shutdown

After South Sudan seceded from Sudan in July 2011, the Sudanese government in Khartoum asked for fees of US $30 per barrel for South Sudan to use its oil pipeline infrastructure, according to the Civil-Military Fusion Center think tank, with international standards typically lying between $0.40 and $1.00. South Sudan countered that

6"The Sudan Handbook" *Rift Valley Institute, Edited by John Ryle, Justin Willis, Suliman Baldo and Jok Madut Jok 2012*
7"S. Sudan Oil Shutdown Chokes Economy" *Voice of America 30 June 2012.*

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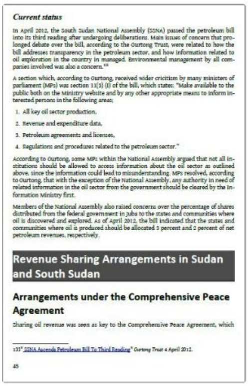
Production shutdown on p. 15



Current status

In April 2012, the South Sudan National Assembly (SSNA) passed the petroleum bill into its third reading after undergoing deliberations. Main issues of concern that prolonged debate over the bill, according to the Gurtong Trust, were related to how the bill addresses transparency in the petroleum sector, and how information related to oil exploration in the country in managed. Environmental management by all companies involved was also a concern.[133]

A section which, according to Gurtong, received wider cricitism by many ministers of parliament (MPs) was section 11(3) (I) of the bill, which states: "Make available to the public both on the Ministry website and by any other appropriate means to inform interested persons in the following areas;

1. All key oil sector production,
2. Revenue and expenditure data,
3. Petroleum agreements and licenses,
4. Regulations and procedures related to the petroleum sector."

According to Gurtong, some MPs within the National Assembly argued that not all institutions should be allowed to access information about the oil sector as outlined above, since the information could lead to misunderstanding. MPs resolved, according to Gurtong, that with the exception of the National Assembly, any authority in need of related information in the oil sector from the government should be cleared by the Information Ministry first.

Members of the National Assembly also raised concerns over the percentage of shares distributed from the federal government in Juba to the states and communities where oil is discovered and explored. As of April 2012, the bill indicated that the states and communities where oil is produced should be allocated 3 percent and 2 percent of net petroleum revenues, respectively.

Revenue Sharing Arrangements in Sudan and South Sudan

Arrangements under the Comprehensive Peace Agreement

Sharing oil revenue was seen as key to the Comprehensive Peace Agreement, which

133" SSNA Ascends Petroleum Bill To Third Reading" *Gurtong Trust 4 April 2012.*

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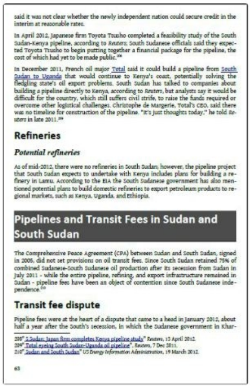
Revenue sharing on p. 45



said it was not clear whether the newly independent nation could secure credit in the interim at reasonable rates.

In April 2012, Japanese firm Toyota Tsusho completed a feasibility study of the South Sudan-Kenya pipeline, according to *Reuters*. South Sudanese officials said they expected Toyota Tsusho to begin putting together a financial package for the pipeline, the cost of which had yet to be made public.[208]

In December 2011, French oil major Total said it could build a pipeline from South Sudan to Uganda that would continue to Kenya's coast, potentially solving the fledgling state's oil export problems. South Sudan has talked to companies about building a pipeline directly to Kenya, according to *Reuters*, but analysts say it would be difficult for the country, which still suffers civil strife, to raise the funds required or overcome other logistical challenges. Christophe de Margerie, Total's CEO, said there was no timeline for construction of the pipeline. "It's just thoughts today," he told *Reuters* in late 2011.[209]

Refineries

Potential refineries

As of mid-2012, there were no refineries in South Sudan; however, the pipeline project that South Sudan expects to undertake with Kenya includes plans for building a refinery in Lamu. According to the EIA the South Sudanese government has also mentioned potential plans to build domestic refineries to export petroleum products to regional markets, such as Kenya, Uganda, and Ethiopia.

Pipelines and Transit Fees in Sudan and South Sudan

The Comprehensive Peace Agreement (CPA) between Sudan and South Sudan, signed in 2005, did not set provisions on oil transit fees. Since South Sudan retained 75% of combined Sudanese-South Sudanese oil production after its secession from Sudan in July 2011 - while the entire pipeline, refining, and export infrastructure remained in Sudan - pipeline fees have been an object of contention since South Sudanese independence.[210]

Transit fee dispute

Pipeline fees were at the heart of a dispute that came to a head in January 2012, about half a year after the South's secession, in which the Sudanese government in Khar-

208" S.Sudan: Japan firm completes Kenya pipeline study" *Reuters*, 13 April 2012.
209" Total eyeing South Sudan-Uganda oil pipeline", *Reuters*, 7 Dec 2011.
210" Sudan and South Sudan" *US Energy Information Administration*, 19 March 2012.

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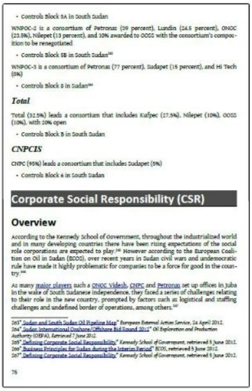
Transit fees on p. 63

#3: Government Official

A non-oil ministry government official in South Sudan is seeking to establish the roles and responsibilities of foreign companies operating in South Sudan, so he...

... turns to p. 75 of the Almanac to learn about corporate social responsibility (CSR) in South Sudan and to p. 35, where he can read about the social and environmental issues companies operating in South Sudan face, as well as local content and employment issues on p. 36.



- Controls Block 5A in South Sudan

WNPOC-2 is a consortium of Petronas (39 percent), Lundin (24.5 percent), ONGC (23.5%), Nilepet (13 percent), and 10% awarded to GOSS with the consortium's composition to be renegotiated

- Controls Block 5B in South Sudan[263]

WNPOC-3 is a consortium of Petronas (77 percent), Sudapet (15 percent), and Hi Tech (8%)

- Controls Block 8 in Sudan[264]

Total

Total (32.5%) leads a consortium that includes Kufpec (27.5%), Nilepet (10%), GOSS (10%), with 20% open

- Controls Block B in South Sudan

CNPCIS

CNPC (95%) leads a consortium that includes Sudapet (5%)

- Controls Block 6 in South Sudan

Corporate Social Responsibility (CSR)

Overview

According to the Kennedy School of Government, throughout the industrialized world and in many developing countries there have been rising expectations of the social role corporations are expected to play.[265] However according to the European Coalition on Oil in Sudan (ECOS), over recent years in Sudan civil wars and undemocratic rule have made it highly problematic for companies to be a force for good in the country.[266]

As many major players such a ONGC Videsh, CNPC and Petronas set up offices in Juba in the wake of South Sudanese independence, they faced a series of challenges relating to their role in the new country, prompted by factors such as logistical and staffing challenges and undefined border of operations, among others.[267]

263" Sudan and South Sudan Oil Pipeline Map" *European External Action Service, 24 April 2012.*
264" Sudan International Onshore/Offshore Bid Round 2012" *Oil Exploration and Production Authority (OEPA), Retrieved 7 June 2012.*
265" Defining Corporate Social Responsibility" *Kennedy School of Government*, retrieved 5 June 2012.
266" Business Principles for Sudan during the Interim Period" ECOS, retrieved 5 June 2012.
267" Defining Corporate Social Responsibility" *Kennedy School of Government*, retrieved 5 June 2012.

75

CSR on p. 75

according to *Al Jazeera*, and said his government had set up a special bank account in Kenya where officials can deposit the embezzled funds.

In May 2011, the government of the then semi-autonomous region of South Sudan on Tuesday said it would adopt electronic public finance management to seal graft avenues.[90]

Social and Environmental Context

Social impacts

The negative social impacts of oil industry activity in South Sudan are well-documented, especially in Block 5A in north-central South Sudan, where a consortium led by Lundin Petroleum was engaged in exploration and development of fields between 1997 and 2003. The start of oil exploration set off a violent conflict in the area, according to the European Commission on Oil in Sudan (ECOS) in what was essentially a military campaign by the Sudanese government to secure and take control of the oil fields in Block 5A.[91]

Main article: Lundin Petroleum

Social impacts of oil production shut-down

Main article: Oil Production Shutdown of 2012

Environmental impacts

A 2007 study by the US Agency for International Development (USAID) on South Sudan, which was then the southern part of the country of Sudan, found that effects of oil exploration and extraction in the region included disruption of water flow patterns as a result of seismic testing and diking; wetland and floodplain fragmentation due to access roads and oil exploration sites; and contamination due to oil spills and contamination with human wastes.[92]

The study highlighted the Sudd wetlands in north-central South Sudan as a particularly vulnerable ecosystem to oil development, stating that "income generation opportunities can result in increased population in this fragile area... Roads and other infrastructure can irreversibly change the character of the Sudd."

90South Sudan launches electronic public finance management, *Sudan Tribune', 31 May 2011.*
91" The Legacy of Lundin, Petronas and OMV in Block 5A, Sudan 1997 - 2003, ECOS, June 2010.
92" SOUTHERN SUDAN ENVIRONMENTAL THREATS AND OPPORTUNITIES ASSESSMENT" USAID, September 2007

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Social context on p. 35

Local Content and Employment Issues

As of mid-2011, the majority of foreign owned firms operating in South Sudan, including oil companies, had very few indigenous employees, according to Melody Atil[93] of the finance organization Peace Dividend.[94]

The South Sudan Petroleum Bill of 2012, which as of April 2012 was in its third reading in the National Assembly,[95] endorses the concept of local content using South Sudanese, if competent and available, to fill skilled and unskilled positions in the petroleum industry.[96]

Local content development

The critical issues hindering the development of local content in South Sudan, according to Atil, are the labour court, the attitude and values of the majority of the labor force, and the lack of transparent information that enables employers to rapidly identify and hire suited employees.

The labor court in South Sudan is one of the biggest hindrances to foreign companies hiring local employees, according to Atil, because it is almost impossible to fire a South Sudanese staff without the employee filing a claim with the labor court. Since a court proceeding is expensive and the ruling almost inevitably in favor of the local employee, foreign firms in South Sudan often opt for an informal arrangement offering the employee several months' salary as means of severance pay. The employment culture in South Sudan is another issue. According to Atil, foreign firms report that on average South Sudanese employees tend to be unreliable, insubordinate, and often tend to prioritize family and culture before their employee contract. Many also find it demeaning to work in the lower rungs of a corporate hierarchy, according to Atil. The effect, in sum, of these complexities is that foreign firms often view local employees as more of a liability than an asset.

One solution suggested by Atil is the creation of a public employment database, which would reduce the friction within the labor market, while a further facilitation system between job seekers and employers could ease the burdensome screening for the larger firms. Atil also suggests the creation of a small and medium enterprise (SME) fund geared toward driving the growth of Sudanese firms with high local content. Granting indigenous firms in South Sudan access to capital and knowledge networks, according to Atil, is key to generating a competitive local industry.

93" A strategy to promote local economy in South Sudan through investment" *Melody Atil, March 2011.*
94" International Network for Economics and Conflict" *United States Institute for Peace*, Retrieved 3 July 2012.
95" SSNA Ascends Petroleum Bill To Third Reading" *Gurtong*, 4 April 2012.
96" Oil Investment Conference" *Ministry of Petroleum and Mining*, March 2012.

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Local content on p. 36

Context of South Sudanese Extractive Industries

History of Oil and Gas Industry

The beginnings of exploration

Oil exploration in Sudan began in 1959, when Agip, an Italian oil company, was given an exploration concession in the Red Sea area in the northeast of Sudan; no oil was found.[1] After Agip, other Western oil companies like Oceanic Oil Company, Total, Texas Eastern, Union Texas and Chevron moved in to search, but no results were made and most companies relinquished their concessions, according to a joint report by Fatal Transactions and the European Coalition on Oil in Sudan in 2008.[2]

Onshore activities

Onshore petroleum activities began in Sudan in 1975 when US oil giant Chevron was granted a large concession in several provinces of south-central Sudan, including in Western Kordofan and Western Upper Nile. In 1979, Chevron struck oil near abu Jabra and then al Sharaf, on the border between Darfur and Kordofan. They soon went on to make major discoveries in Western Upper Nile in what is now Block 1, near Bentiu, and developed the Muglad Basin where they found two huge oil fields, Unity and Heglig, both in the South.[3]

In February 1984, Chevron suspended its operations after three of its expatriate field workers were killed by the Southern rebels of the Anyanya II movement, and following this, suspended oprations in the Bentiu region in December 1985 and by 1988 had dismantled its operations at Unity.

While there was no oil extraction during this period, during the civil war the then President Jafar Nimeiri attempted to redraw the boundary of Upper Nile province so that the oil fields discovered would be within the province of North Kordofan, north of the administrative boundary between northern and southern Sudan which would later turn into the international border with South Sudan. It was also in this period that the first plans for a pipeline were drawn up – this pipeline would head to Port Sudan on the Red Sea in the North. This meant the bulk of the oil infrastructure would be built in the North, and all the exports would flow through this northward route. During the 1980's, Saudi Arabia provided loans, and oil at well below international prices, to Su-

1" Fact sheet 2- A History of Oil in the Sudan" *Understanding Sudan* Retrieved 29 May 2012.
2" Sudan- Whose oil?" *Fatal Transactions and the European Coalition on Oil in Sudan* April 2008.
3" Soil and Oil - Dirty business in Sudan" *Coalition for International Justice* February 2006.

dan.

The 1990s

This was to change at the beginning of the 1990's. Following the 1989 coup, Sudan supported Iraq in the first Gulf War, leading to Saudi Arabia suspending all support, and the expulsion of 200,000 Sudanese migrants from Saudi Arabia.

In June 1992, Sudan's president Bashir announced that Concorp International, a small company which was owned by Sudanese businesmann and senior National Islamic Front party members Mohamed Abdullah Jar el-Nabi, had bought the Chevron concession. Although Chevron had invested nearly a billion dollars, it was sold to Concorp for merely $25 million, a deal which according to the Coalition for International Justice, was not without controversy. In 1992-1993, the Government of Sudan began to create a *cordon sanitaire* - that is, an area completely devoid of civilian life, stretching for kilometers beyond each oil rig, oil road and piece of equipment around these potentially rich oil fields.

In March 1997, GNPOC began to build a 1540 km oil pipeline from the oilfields to a marine export terminal on the Red Sea. At the beginning of 1998, contracts were signed worth $1 billion with Chinese, Malaysian and European suppliers. In 1999, the pipeline began delivery, and the first 600,000 barrels were loaded onto a Shell tanker. Also in 1997, Lundin, a Swedish company, signed a contract for a concession in Block 5A, and two years later came across the first oil discovery in the field. Lundin's involvement in Sudan was also tinged with controversy after they were accused in a report released by the European Coalition on Oil in Sudan (ECOS) of possible complicity in war crimes and crimes against humanity.

Post-CPA signing

The signing of the Comprehensive Peace Agreement (CPA) in January 2005 improved conditions for oil production and export. But tensions between South Sudan and Sudan soon flared again over a series of unresolved issues, including the border between the two countries, the future of disputed territories and ownership of oil. Since then, peace negotiations have been held in Addis Ababa, Ethiopia under the auspices of the African Union.[4] As of June 2012, these negotiations were still underway. Key issues in the negotiations include South Sudan's use of Sudan's oil infrastructure to export its crude, demarcation of the unstable border between the two countries, and the status of the oil-rich, disputed territory of Abyei.[5]

Oil production post-CPA

Until 2006 Sudan had only one major upstream project (Blocks 1, 2 and 4, operated by the Greater Nile Petroleum Operating Company in the Muglad Basin), one export pipeline (Greater Nile Oil Pipeline - GNOP), and one crude oil blend (high quality Nile

4" Talks under way to end Sudan conflict" *Al Jazeera* 30 May 2012.
5" Sudan's delegation on security issues departs for Addis Ababa" *Sudan Tribune* 4 July 2012.

Blend). Late 2006, a second pipeline came on stream, a major refinery expansion was realized, a second major upstream project began, producing a second crude oil blend (the low quality Dar blend), in addition to important field developments elsewhere. The country's crude oil production almost doubled, making it Africa's fifth producer with more than 434.000 barrels per day (bpd) by late 2006.

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Oil Production Shutdown of 2012

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Pipeline fee dispute and production shutdown

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6"The Sudan Handbook" *Rift Valley Institute, Edited by John Ryle, Justin Willis, Suliman Baldo and Jok Madut Jok* 2012

7" S. Sudan Oil Shutdown Chokes Economy" *Voice of America* 30 June 2012.

it would pay only $0.63-0.69 per barrel, in addition to a one-time payment of $1.7 billion to compensate for Sudan's loss in oil revenue when South Sudan gained independence.[8]

When South Sudan refused to pay the high transit fee, Khartoum began in December 2011 diverting South Sudan's Nile Blend crude to its Khartoum and el-Obeid refineries.[9] According to the Civil-Military Fusion Center, Sudan also seized at least four tankers laden with South Sudanese oil headed for export as compensation until an agreement was reached.

In response, on 20 January South Sudan announced that it would shut down its oil production until a fair deal was reached on transit fees, or an alternative pipeline was built. The shut-down took place incrementally, first at Block 5A and moving to Blocks 3, 7 and oil fields in the Greater Nile Oil Project (Blocks 1, 2 and 4). Water was injected into South Sudan's 2,500 kilometer pipeline to prevent clogging, according to international oil companies operating in the area, and some of the companies' foreign workforce was sent home.

Attempts at resolving dispute

In February 2012 the African Union's High-Level Implementation Panel (AUHIP) suggested two possible solutions to break the deadlock: the first was to initiate a "30-day transition period" in which South Sudan would continue using Sudan's infrastructure while negotiations continued; the second was for South Sudan to pay Sudan approximately US $4 billion over five years as compensation for Sudan's lack of access to the oil fields; South Sudan was also to pay Sudan the value of 35,000 barrels per day. Juba, however, rejected the deal, with President Salva Kiir citing a lack of clarity in several provisions and claiming that the solution does not comprehensively address the issues underlying the stalemate.[10]

As of July 2012, the issues which led to South Sudan's production shut-down had yet to be resolved; negotiations between South Sudan and Sudan on the pipeline fee dispute, among many other unresolved issues, were taking place in Addis Ababa, Ethiopia.[11]

Economic and social impacts of shut-down

Marcelo Giugale, the World Bank's Director of Economic Policy and Poverty Reduction Programs for Africa, said in May 2012 that the South Sudanese government was not aware of aware of the economic implications of the oil shut-down, which he predicted would also have debilitating social impacts. Giugale said that despite austerity measures adopted by the government to offset the loss in oil revenues, South Sudan's foreign reserves might be depleted by July 2013, "at which point state collapse becomes a

8" Sudan and South Sudan's Oil Industries: Growing Political Tensions" *Civil-Military Fusion Center*, May 2012.
9" Sudan and South Sudan" *US Energy Information Administration*, 19 March 2012.
10" East Africa: Sudanese Oil Stalemate Persists" *All Africa*, 2 February 2012.
11" Sudan: 'Slow and Uneven' Progress As Bashir and Kiir Meet in Addis" *All Africa*, 30 May 2012.

real possibility."[12]

Some potential social impacts of the shut-down Giugale mentioned included: the percentage of population living in poverty could jump from 51% in 2012 to 83% in 2013; under-five child mortality could double from 10% live births in 2012 to 20% in 2013; and school enrollment could drop from 50% to 20% over the same period.

Dependence on Extractive Industries

Oil revenue dependence

The US Institute of Peace (USIP) called South Sudan the most oil-dependent country in the world in a July 2011 report, citing 97 to 98 percent of its domestically generated income coming from oil.[13] South Sudan's dependence threatens its political and economic growth especially because the country entered statehood in July 2011 with a mature oil industry potentially on the verge of sharp decline. The USIP reported an expected drop in oil output from 2015, leaving South Sudan little time to use its oil wealth to lay the foundations of a non-oil economy.[14]

In early 2012, after South Sudan shut down its oil production due to a dispute over oil transit feeds with Sudan, the UN's humanitarian affairs chief, Valerie Amos, called the situation "extremely precarious" and warned that the decision and resulting hit in revenues would result in South Sudan becoming even more dependent on international food aid.[15]

World Bank South Sudan country director Laura Kullenberg said in April 2011 that the bank would work together with the government and other stakeholders to diversify the economy into other sectors, especially agriculture and mining.[16]

Non-oil revenues

Other than oil, the domestic economy of South Sudan consists predominantly of small-scale agriculture and livestock-raising, according to the South Sudan Development Plan 2011-2013, released by the government in August 2011. There is little domestic production for markets, even for agriculture products, and much less so for export markets outside of oil. Despite South Sudan's agricultural potential, trade data indicate that about 60% of imports from neighboring Uganda and Kenya are agriculture

12" South Sudan: Exclusive - South Sudan Economy On the Verge of Collapse, World Bank Warns" *All Africa*, 6 May 2011
13" Oil and State Building in South Sudan" *US Institute of Peace*, July 2011.
14" Policy Analyst Warns S. Sudan's Oil Dependency" *Gurtong.net*, 22 February 2012.
15" South Sudan: Oil Stoppage Will Leave More Needing Aid in Country, UN" *All Africa*, 3 February 2012.
16" World Bank: South Sudan's economic diversification our key priority" *Sudan Tribune*, July 2011.

products.[17]

The capital, Juba, and a few other economic centers have booming construction and service sectors, although this is underpinned by government spending and thereby wholly dependent on oil revenue. Many of the goods sold and inputs used, including labor, are imported.

The Development Plan noted that non-oil revenue had accounted for 2-3% of total government revenue since 2008. According to the Development Plan, personal income tax revenues in South Sudan fell from about 85 million Sudanese pounds (SDG) in 2008 and 2009 to an estimated SDG 40 million in 2010. The sum of customs, value added tax (VAT) and other national revenue, all related to the national government, fluctuated around SDG 20 million. Other government revenue, not specified in the Development Plan, has been on a positive trend, rising from SDG 15 million in 2008 to a projected SDG 54 million in 2011.

Sudan's Economy Before Discovery of Oil

Farming was a mainstay of Sudan's economy before oil exports started at the end of the 1990s.[18]

At independence in 1956, the gross domestic product (GDP) was dominated by agriculture, with virtually no industrial sector to speak of.

Sudan's GDP composition, 1955/56

Sector	GDP share (%)
Agriculture	60.7
Transport	13.2
Government	6
Construction	5.7
Real Estate	2.9
Industry	1.1
Public Utilities	0.4
Other	10.0[19]

17" South Sudan Development Plan 2011-2013" *Government of the Republic of South Sudan*, August 2011.
18" In Sudan's breadbasket, a revolution is waiting to happen, *AFP*, 4 July 2011.
19" Explaining Sudan's Economic Growth Performance, *AFRICAN ECONOMIC RESEARCH CONSORTIUM*, January 2004.

The economy transformed over the coming decades, with the sectoral share of agriculture declining as the service sector gained prominence.

Structural transformation in Sudan

Period	Agriculture share (%)	Industry share (%)	Services share (%)
1960-64	52.42	13.56	34.02
1965-69	39.83	15.59	44.58
1970-74	44.33	13.79	41.88
1975-79	38.77	13.11	48.13
1980-84	34.12	14.87	51.01
1985-89	33.06	16.08	50.92
1990-97	38.34	15.79	45.36

Still, in the early 1990s, agriculture and livestock raising were the main sources of livelihood in Sudan for about 61 percent of the working population,[20] with livestock providing all or a large part of the livelihood of more than 40 percent of the country's population in the 1980s, according to the United States Library of Congress.[21] Agriculture employed some 80% of the population in 1988.[22] Agricultural products regularly accounted for about 95 percent of the country's exports, and total activity in the agriculture sector contributed an estimated 40 percent of gross national product (GDP) in the early 1970s. Industry, which was mostly agriculturally-based, accounted for 15 percent of GDP in 1988.

Sudan became an oil exporter in 1999;[23] by 2001, agricultural products accounted for just 19.2% of exports, and the country had an agricultural trade deficit of US $24.5 million.[24] By 2012, after South Sudan seceded from Sudan and before it shut down oil production in January 2012, the South Sudanese government was heavily dependent on oil revenues, which accounted for about 98% of its income.[25]

Impact of Sanctions

The United States imposed sanctions on Sudan in 1997 during the presidency of Bill

20" AGRICULTURE, *Country Studies*, Retrieved 27 June 2012.
21" LIVESTOCK, *Country Studies*, Retrieved 27 June 2012.
22" Sudan Economy, *iss.co.za*, Retrieved 27 June 2012.
23" Oil export pipeline projects on track, *Petroleum Economist*, 1 August 1999.
24" Sudan - Agriculture, *Encyclopedia of the Nations*, Retrieved 27 June 2012.
25" South Sudan refuses to be held to ransom by the north, *The Guardian*, 17 May 2012.

Clinton,[26] prohibiting transactions in Sudan's petroleum and petrochemical industries[27] in response to the Khartoum government's support for terrorism and human rights violations. Those sanctions were extended by the administration of George W. Bush in 2007 and again in November 2011 by Barack Obama, with adjustments made to allow trade with the newly independent South Sudan.

However, the intricate linkage between the oil sectors of South Sudan and Sudan - most oil fields are located in South Sudan, but the refineries and pipelines are in Sudan - have made it difficult to selectively lift sanctions to minimize the impact on South Sudan.[28]

Impacts on South Sudan

US sanctions have prevented firms in the US, Europe and some in Asia from investing in South Sudan's oil industry because such activity could benefit the government in Khartoum, according to the *Washington Times*, and businesses from China, India and Malaysia - China National Petroleum Corporation (CNPC), ONGC and Petronas, predominantly - have capitalized on the absence of US competitors and come to dominate the South Sudanese oil sector.

A major economic impact of the sanctions regime was how it limited South Sudan's ability to sell its low quality Dar Blend of crude oil. The number of refineries capable of processing Dar Blend was limited to begin with, and sanctions, which prevented sales to US refineries that could process Dar Blend, further complicated the task of trading the crude. With a large slice of the global refining capacity in the US and Europe off-limits to Sudanese Dar blend crude, the prices South Sudan obtained for this oil were significantly lower than average, according to the Royal African Society.[29]

Figures revealed by Sudan's State Minister of Finance Lual Deng, speaking at a conference in Washington, DC in April 2009, showed that South Sudan's Dar Blend was at the time being traded at just under a 60 percent discount off spot prices offered for oil of a similar quality – representing an annualized estimated loss of revenues to the South Sudanese government of some US $690 million, or roughly 40 percent of its budget expenditure estimate for 2009.

This loss in oil revenues, the Royal African Society wrote in May 2009, had significant implications for the stability and security of South Sudan, citing the government's inability to pay salaries to most of its military personnel in the Sudan People's Liberation Army (SPLA) since January of that year.

Lifting of sanctions on South Sudan

On 8 December 2011, an order from the US treasury department signalled a re-inter-

26" Sudan and South Sudan's Oil Industries: Growing Political Tensions" *Civil-Military Fusion Center*, May 2012.
27" China's New Courtship in South Sudan" *International Crisis Group*, 4 April 2012.
28" U.S. eases sanctions on Sudanese oil industry" *The Washington Times*, May 2012.
29" Sanctions And South Sudan: The Oil Factor" *Royal African Society*, 8 May 2009.

pretation of the existing sanctions regime. The new licenses allow transactions in South Sudan's industry and the transfer of goods through Sudan (to or from South Sudan), insofar as they afford "maximum benefit to the South and minimum benefit to the North". South Sudan's ambassador in Washington, Ezekiel Lol Gatkuoth, responded that the Treasury's action was "excellent news," adding, "This is something we have been asking the State Department, the Treasury, the White House to do."

In March 2012, US President Barack Obama also declared South Sudan eligible for a preferential trade program, the Generalised System of Preferences. As of April 2012, South Sudan's eligibility for the African Growth and Opportunity Act was pending. Crisis Group Africa suggested in an April 2012 report that South Sudan's freedom from sanctions may eventually draw Western companies back to the oil sector, where China currently dominates.

Security and the Extractive Industries

Security has long been a leading concern of international oil companies operating in Sudan and South Sudan. The main security issues as of mid-2012 involved the instability of the border between the two countries.[30] A 2010 report by Concordis International said that "the presence of divergent interests, marginalisation, complex alliances, a militarised culture and the availability of arms" have created a volatile security situation, especially among border communities.[31]

Security issues for IOCs

Chevron, the US company which discovered the highly productive Heglig and Unity oil fields in 1982, suspended its operations in Sudan when civil war broke out in 1983. Chevron stopped its operations again in 1984, when three of its workers were killed by forces allied to the Southern Sudanese movement called Anyanya II. After the killing, Chevron demanded an "Oilfield Protection Force" in addition to normal military forces, but in 1988, unhappy with security considerations, Chevron dismantled its operations in Bentiu and Unity provinces.[32]

French company Total suspended its exploration activities in Block B in southern Sudan in 1985, due to escalating insecurity in the region related to the civil war.[33] Block 5B, operated by Sweden's Lundin Petroleum, was also the site of violent conflict when the Sudanese government displaced thousands of locals to clear land for Lundin's oil activities.[34]

30" Sudan and South Sudan's Oil Industries: Growing Political Tensions" *Civil-Military Fusion* , May 2012.
31" More Than A Line: Sudan's North-South Border" *Concordis International*, September 2010.
32" Fact Sheet Two: A History of Oil in the Sudan" *Understanding Sudan* , 2009.
33" Project Description" *Total website*, Retrieved 5 June 2012.
34" The Legacy of Lundin, Petronas and OMV in Block 5A, Sudan 1997 - 2003, *ECOS*, June 2010.

Disputed border areas

The Concordis report summarized some of the outstanding border contestations in oil-rich areas between South Sudan and Sudan:

Abyei

A 2009 ruling of the Permanent Court of Arbitration (PCA), based in The Hague, on Abyei area boundaries placed majority of oil outside the area but national dispute over implementation of the ruling still threaten to derail the CPA. Misseriya groups reject the ruling and are increasingly militarised. Dinka Ngok accept the ruling and reject participation of Misseriya in the Abyei Referendum.

Southern Kordofan-Unity 'Triangle'

National contestation over Kharasana and the Heglig/Bamboo oil fields (placed outside the disputed Abyei Area by a PCA ruling). Pariang County claims the wider area was administered in South Sudan in 1/1/56. Heavy militarisation as of 2010, with ongoing clashes between nomads and SPLA. Southern Kordofan is, according to Concordis International, potentially the most problematic disputed area.

South Darfur-Western Bahr al Ghazal

The large mineral rich Kafia Kinji area is locally and nationally contested. Diverse but sparsely populated, it was transferred to Darfur in 1960 and was as of 2010 administered by Al Rodom Locality. Sudan's Sudanese Armed Forces (SAF) and South Sudan's Sudan People's Liberation Army (SPLA) both present. As of 2010, recent clashes had been between SPLA and Rezeigat.

Megenis Mountains

Dispute between the South Sudanese state of Upper Nile and the Sudanese state of South Kordofan over part of reportedly mineral/oil rich mountains. Local disputes over settling of nomads and associated local resource exploitation.

Kaka

Strategically important for its access to the Nile and to oil producing areas. Transferred to Nuba Province, in present-day Sudan, in the 1920s but returned to the South Sudanese state of Upper Nile in 1928. The area has been a low level dispute between the parties due to the presence of the SAF. The area is locally contested between Shilluk and nomads who have traditionally used it for seasonal cultivation.

Abyei Dispute

Abyei is an area between South Sudan and Sudan granted "special administrative status" by the 2004 Abyei Protocol as part of the Comprehensive Peace Agreement (CPA) that ended the Second Sudanese Civil War.[35] During the transitional period from January 2005 to July 2011 - at the end of which South Sudan gained independence - Abyei was being run by a joint administration between the government of Sudan and South Sudan's Sudan People's Liberation Movement (SPLM).[36]

As of mid-2012, both South Sudan and Sudan claimed Abyei and the dispute over control of the region remained unresolved.[37]

Overview

Though often described as "oil-rich", the BBC wrote in May 2011, most of the oil fields near the South Sudan-Sudan frontier now fall outside Abyei's borders after the 2009 Permanent Court of Arbitration (PCA) ruling in The Hague; since then issues in the area have been more ethnic than economic.[38]

Boundaries and population

The Abyei area has a surface area of about 10,460 square kilometers.[39] The PCA concluded that the northern boundary of the Abyei area runs along latitude 10°10'00"N, from longitude 27°50'00"E to longitude 29°00'00"E; the southern boundary runs along the Kordofan – Bahr el-Ghazal – Upper Nile boundary as it was defined at Sudan's independence on 1 January 1956; the eastern boundary runs along longitude 29°00'00"E, from latitude 10°10'00"N south to the Kordofan – Upper Nile boundary, also as it was defined at independence; the western boundary runs along longitude 27°50'00"E, from latitude 10°10'00"N south to the Kordofan – Darfur boundary, as defined at independence in 1956. The PCA ruling stressed, however, that the "transfer of sovereignty in the context of a boundary delimitation should not be construed to extinguish traditional rights [eg. grazing rights] to the use of land."[40]

The UN Mission in South Sudan estimated Abyei area's population at between 80,000 and 100,000 in August 2010, stating at the time that the government believed another 75% to be displaced.[41] A UN spokeswoman estimated Abyei town's population at around 20,000, *Reuters* reported in May 2011.[42]

35" Sudan: Protocol on the resolution of Abyei conflict" *Relief Web*, 26 May 2004.
36" Abyei: An Ongoing Dilemma" *Sudan Vision*, April 2008.
37" Abyei crisis: UN confirms Sudan troop pullout" *BBC News Africa*, 30 May 2012.
38" Sudan: Why Abyei is crucial to north and south" *BBC News Africa*, 23 May 2011.
39" Sudan Referendum: Abyei - one tiny issue yet unresolved" *PanaPress.com*, 18 January 2011.
40" PCA Press Release - Abyei Arbitration: Final Award Rendered" *Permanent Court of Arbitration*, 22 July 2009.
41" Briefing Paper on Abyei Area" *UN Mission in South Sudan*, 5 August 2010.
42" North Sudan seizes disputed Abyei, thousands flee" *Reuters*, 22 May 2011.

Role of oil

Oil played a key role in the dispute over Abyei once oil production rose quickly starting in 1999. By 2003, more than one quarter of Sudan's oil production was coming from Abyei.[43] One of the key features of the Abyei Protocol was an agreement on the division of Abyei's oil revenues between the Sudanese national government in Khartoum (50%), the government of South Sudan (42%), the region of Bahr el Ghazal (2%), the state of Western Kordofan (2%), and the tribal groups Ngok Dinka (2%) and Misseriya (2%).[44]

Since then, however, production at all the fields within Abyei has begun to decline, and Abyei's relative importance to Sudan's oil sector has also declined, according to ECOS, writing in April 2008. From over a quarter of all oil production in 2003, ECOS estimated the region's share at less than 8 percent in 2007. The PCA ruling in 2009 largely delinked the issue of oil wealth-sharing from Abyei's boundaries by placing the majority of oil producing areas and oil infrastructure outside the Abyei area, according to Concordis International. The ruling placed the major Heglig oil fields outside Abyei, while the Diffra fields remained within.

Ethic conflicts

Located between the Bahr al Ghazal region and Warrap state in northwestern South Sudan and the Sudanese state of South Kordofan, the area has traditionally been inhabited by agro-pastoralist groups and also hosts a number of migration routes for nomadic groups. The discovery of oil in the region in 1979 lent Abyei increased strategic importance, and soon thereafter national politics interacted with local disputes to further entrench divides between the communities along North-South lines.

As of mid-2012, both countries harbored strong ties to the region. The Misseriya, a Sudanese group, take their cattle through the region every year; meanwhile the Dinka Ngok, the permanent residents of the area, want Abyei to be part of South Sudan, according to the *BBC*.

Fighting and displacement

The Abyei conflict has in recent years been characterized by flare-ups of heavy fighting and the displacement of hundreds of thousands of people.

After a three-year stalemate following the signing of the CPA in 2005, for example, the dispute erupted into violence in May 2008, when Sudanese armed forces razed Abyei town and forcibly displaced an estimated 60,000 people - the majority of the town's population. Following weeks of negotiations, representatives of the NCP and South Sudan's SPLM agreed to refer the boundary dispute to international arbitration.[45]

Violence flared up again after the referendum on South Sudanese independence on 9

43" Sudan's Oil Industry" *European Coalition on Oil in Sudan*, April 2008.
44" More Than A Line: Sudan's North-South Border" *Concordis International*, September 2010.
45" Abyei: Sudan's Next Test" *Enough Project*, July 2009.

January 2011. The SPLM and the Sudanese army clashed the following May, after which Sudan's forces gained full control of most of the Abyei area, including Abyei town.[46] The fighting, which according to the *Sudan Tribune* began after a Sudanese convoy was attacked by South Sudanese forces, resulted in the displacement of over 100,000 people, including saw the majority of people in South Sudan's Warrap, Unity and Northern/Western Bahr el Ghazal states. The fighting also saw Abyei's Dinka Ngok people flee into South Sudan. According to the UN peacekeeping force in Abyei (UNISFA), by 17 June 2012 a total of 8,936 people had returned to their places of origin in Abyei north of the River Kiir/Bahr el Arab, while 1,072 had reached Abyei town.[47]

Ongoing negotiations

A referendum on Abyei's status was supposed to be held simultaneously with the January 2011 referendum which led to the independence of South Sudan, but was postponed due to differences between the NCP and the SPLM over who has the right to vote in the referendum. The NCP said the Misseriya tribe has the right to vote, while the SPLM insisted that only the Dinka Nkok tribe has that right, according to news agency *Xinhuanet.*

As of July 2012, delegates from South Sudan and Sudan were negotiating the status of Abyei, along with many other unresolved issues, in Addis Ababa, Ethiopia. The negotiators agreed to terms for a joint military observation committee for Abyei, news agency *All Africa* reported on 15 July 2012. Still, commenting on the peace talks, the African Union Commission called the progress of negotiations as a whole "slow and uneven".[48]

46" Sudanese army controls Abyei following heavy fighting" *Xinhuanet*, 22 May 2011.
47" Abyei displaced make "cautious return" after fleeing in 2011" *Sudan Tribune*, 23 June 2012.
48" Sudan: 'Slow and Uneven' Progress As Bashir and Kiir Meet in Addis" *All Africa*, 30 May 2012.

Energy Industry Background

Hydrocarbon Reserves of Sudan and South Sudan

Oil and Gas

Reserves

Sudan and South Sudan had a combined five billion barrels of proven oil reserves as of January 2012, according to the *Oil & Gas Journal.*[49] About 75% of these lie within South Sudan,[50] in the Muglad and Melut basins.[51] Other analysts have put the combined reserves of the two countries as low as 4.2 billion barrels (*Wood Mackenzie*) and as high as 6.7 billion barrels (*BP Statistical Review*).

The countries also have a combined 3 trillion cubic feet (tcf) of known gas reserves, but as of March 2012 gas exploration had been limited, and development of oil had taken priority over gas.

Production

Oil production in Sudan began in the late 1990s, and combined crude production in Sudan and South Sudan in 2011 averaged about 425,000 barrels per day (bpd), according to the US Energy Information Administration (EIA). Production in 2011 was disrupted on several occasions due primarily to labor shortages, brought about in part by the temporary evacuation of north Sudanese workers in April of that year; for the remainder of the year, production was adversely affected by the migration of skilled workers from the North after the secession of the South in July 2011.[52]

As of January 2012, Sudan's oil production was 115,000 bpd, according to Azhari Abdalla, director general of the Oil Exploration and Production Administration (OEPA), who said the country planned to produce 180,000 bpd by the end of 2012 by improving the recovery rate of its fields from 23 percent to to 47 percent through the application of more efficient technologies. He added that production would be stable at 180,000 bpd until 2016, after which Sudan wanted to increase production to 320,000 bpd.[53]

South Sudan shut down all of its production in January 2012 due to a dispute with Su-

49" EIA Country Analysis" *US Energy Information Administration*, 19 March 2012.
50" Sudanese refugees flee to South Sudan" *UPI.com*, 6 June 2012.
51" Oil and Gas in Sudan - Overview" *MBendi Information Services*, retrieved 22 May 2012.
52" South Sudan becomes an independent nation" *BBC News Africa*, 8 July 2011.
53" Sudan to boost oil output to 180,000 bpd in 2012" *Reuters Africa*, 15 January 2012.

dan over pipeline fees,[54] and in March 2012 the EIA said it was difficult to estimate when companies operating there would be able to restart production.

Exploration

Sudan

The northern Sudanese government has focused its oil exploration efforts on two key zones in areas it has controlled since before the secession of South Sudan in July 2011 - Darfur in the west and the Red Sea zone in the east.[55]

Sudan started drilling its first offshore exploration well in in Block 15 in the Red Sea Basin in February 2010. Exploration activities were being led by the Red Sea Petroleum Operating Co., a consortium of five firms led by China National Petroleum Corporation (CNPC) and Malaysia's state oil firm Petronas (each with 35% interest in Block 15), along with Sudan's state oil firm Sudapet, Nigeria's Express Petroleum and Sudanese firm High Tech Group.[56]

Exploration activities in north Darfur state in Sudan led to the discovery of several new oil fields in March 2012. Ownership of the discovered fields was the subject of dispute between the Adeela Locality (East Darfur State) and Gibaish Locality (North Kordofan State), according to the commissioner of the Adeela Locality.[57] As of March 2012, native administrators in the two localities had reached a temporary agreement pending demarcation of the border, to be supervised by Sudan's Decentralized Government Chambers.[58]

South Sudan

French oil company Total announced in February 2012 that it planned to restart exploration activities on its Block B concession in South Sudan after a 27-year hiatus, writing in an emailed statement that "a preparatory work programme is to be soon submitted to South Sudanese authorities for their approval," news agency *The Citizen* reported.[59] Total holds a 32.5 per cent share of Block B, which is located in Jonglei State, near the Ethiopian border. The company signed an exploration and production sharing agreement for the concession in 1980, but suspended operations in 1985 as insecurity in the region escalated due to the civil war.[60]

A workshop was held in Juba in March 2012, hosted by the Greater Nile Petroleum Operating Company (GNPOC), to evaluate the way forward for exploration activities in South Sudan's oil fields, resulting in the passing and signing of "Exploration Technical Review" and "Development Technical Review" papers by GNPOC and its partners;

54" South Sudan shuts down its oil production countrywide" *Sudan Tribune*, 20 January 2012.
55" Sudan: New oil wells could avert civil war" *UPI.com*, 23 June 2010.
56" Sudan starts oil exploration in Red Sea" *Sudan Tribune*, 3 February 2010.
57" Sudan Discovers New Oil Fields in Central Darfur" *Gulf Oil and Gas*, 2 March 2012.
58" Sudan Discovers New Oil Fields" *Petroleum Africa*, 2 March 2012.
59" Total to resume South Sudan oil exploration after 27 years" *The Citizen*, 5 February 2012.
60" Block B" *Total website*, Retrieved 5 June 2012.

namely the China National Petroleum Company (CNPC), Petronas, ONGC Videsh, Nilepet and the government.[61]

The 'Energy Mix'

Overview

The 'energy mix' refers to the distribution of consumption per energy source from one region to another. Each country uses energy differently, defining its own energy mix.[62]

According to the *BP Statistical Review*, in 2010 oil consumption accounted for 34% of the world's primary energy; coal accounted for 30% of the mix; gas contributed 24%; hydro-power contributed 6.5% and non-hydro renewables (including biofuels) contributed 1.8%.[63]

According to the *Economist*, one source of power has always dominated the energy mix. In the pre-industrial age wood dominated, during the industrial revolution coal dominated and oil has dominated the 20th century. By 2030 natural gas is predicted to gain in importance, however energy efficiency will mean that economic growth will be far less energy intensive across the globe.[64]

BP's *Energy Outlook 2030* report highlights three key trends shaping the modern energy economy: industrialisation; urbanisation and motorisation. These trends are led by:

- increased energy consumption.
- increased efficiency of energy use in production and consumption.
- increasing diversification of sources of energy.
- increased demand for clean and convenient energy at the point of use.

Historical trends

The first great wave of industrialisation was powered by coal, a fuel which remained dominant until after the Second World War. The next major transition came with electricity and the internal combustion engine, which allowed diversification away from coal. Coal gradually came to be replaced as the principal fuel in power generation by natural gas and renewable energy sources.

However between 2000-2011 coal's share of the energy mix has increased by 4% on the back of strong growth in China, most of whom's growth in the 21st century has come from burning coal. Coal consumption in 2011 was up by 7.6% and was growing faster

61" Exploration Technical Review Paper Passed By GNPOC And Partners" *Gurtong*, 8 March 2012.
62" The Energy Mix" *Planete Energies*, retrieved 1 February 2012.
63" The world gets back to burning" *Economist*, 8 June 2011.
64" Watts next" *Economist*, 25 January 2012.

than at any time since 2003.

Unconventional Energy Sources

According to oilfield services provider *Schlumberger*, unconventional resources is an umbrella term referring to oil and natural gas produced by means that do not meet the criteria for conventional production. The qualification criteria for unconventional resources inevitably shifts over time depending on the availability of exploration and production technologies, the economic environment and other factors. As of 2011 resources such as coal bed methane (CBM), shale gas, fractured reservoirs and tight gas sands are considered unconventional resources.[65]

The *Petroleum Economist* predicts that unconventional resources will play a critical role in meeting global energy demand in the future, the "game changer" being the rise of unconventional gas in the US. However nearly 75% of the world's total unconventional resources lie outside North America.[66]

According to the IEA's 2011 report 'Are we entering a golden age of gas?', unconventional gas resources are now estimated to be as large as conventional resources, and unconventional gas now makes up around 60% of marketed production in the US.[67]

Shale Gas

The *Economist* asserts that the discovery of vast stores of shale gas will also lead to a significant shift in the world's energy mix, predicting that the location of the planet's biggest shale reserves in China, America, Argentina, Mexico and South Africa, will disrupt traditional geopolitics of energy supply.[68]

KPMG, in their report "Shale Gas - A Global Perspective" argue that this resource has the potential to turn the world's energy industry on its head and to displace fossil fuels in the energy mix of selected locations, potentially slowing the development of renewable resources. However the industry must first face considerable reputational and regulatory obstacles.[69]

Coal Bed Methane

Coal Bed Methane (CBM) is one unconventional source which is being developed in Australia, China, India and Indonesia, among other countries.

Oilfield services provider *Halliburton* claims that although the contribution of CBM to the total energy mix was still modest as of 2009, it has impressive potential for the future. According to petroleum engineer Joe Awny, in some region CBM could eventually grow from a supplement to conventional natural gas supply to a main source of gas. In

65" Unconventional resources" *Schlumberger*, retrieved 9 February 2012.
66" Unconventional gas's global potential" *Petroleum Economist*, 18 July 2011.
67" Are we entering the golden age of gas?" *IEA*, 2011.
68" The World in Figures:Energy" *Economist*, 17 November 2011.
69" Shale Gas - A Global Perspective" *KPMG Institutes*, December 2011.

the long term, he said CBM is expected to be of great significance for the US, India, China, Poland, South Africa, Zimbabwe and elsewhere as a main source of gas supply.[70]

Renewable Energy Sources

Renewable energy includes such sources as wind, photovoltaic and thermal solar, tidal and wave power, among others. The renewable energy industry is still in its infancy, however while the global contribution is still minor, it shows a high growth rate. Wind power, for example, showed growth rates above 30% between 1997-2007.[71]

According to a 2011 Progress Report on renewables, renewable energy worldwide has seen 30-40% growth rates in recent years, due to market-creating policies and cost reductions. However, demand for fossil-based energy, such as coal and oil, has outpaced demand for clean energy.[72]

Future Projections

The IEA predicts that the share of natural gas in the global energy mix will increase from 21% in 2011 to 25% in 2035 and the share of coal will decline. However according to their report, an increased share of natural gas in the energy mix is far from enough to avoid an average global temperature rise of less than 2 C, as although gas is estimated to replace some coal and oil in the mix it will also displace some nuclear power, thereby increasing greenhouse gas emissions.

According to BP's estimates, the fuel mix will change relatively slowly due to long asset lifetimes. However the fastest growing fuels will be renewables, which are expected to grow at 8.2% per year between 2010-2030. Among fossil fuels, gas is expected to grow at the fastest rate (2.1% per year). Their outlook predicts that oil will continue a long decline in market share and that recent gains by coal in market share, due to rapid industrialisation in China and India, will be reversed by 2030.

In terms of contributions to growth, over the period 1990-2010 fossil fuels contributed 83% of energy growth, whereas over the period 2010-2030 fossil fuels are predicted to contribute only 64% of growth.

The 'Energy Mix' in South Sudan

Fuel-wood and charcoal are the conventional sources of energy for most people in South Sudan, according to Boghos Ghougassian of the Middle East Centre for the Transfer of Appropriate Technology (MECTAT).[73] Charity fundraising website GlobalGiving.org cited other unprocessed biomass fuels, such as dung and crop residues, as

70“ Coalbed Methane Development–A Vital Part of the Total Energy Mix ” *Halliburton*, 2009.
71“ World Energy and Population Trends to 2100” *Approaching the Limits to Growth*, October 2001.
72“ Clean Energy Progress Report” *IEA*, June 2011.
73" Al-Bia Wal-Tanmia investigates environmental challenges facing the new nation" *MECTAT*, Retrieved 17 July 2012.

the main sources fuel for daily cooking and heating.[74]

Wood resources are essentially considered "free resources" that can be used without limitation, according to Ghougassian, which has led to the depletion of forests and created an urgent need for large-scale use of efficient stoves and better demand-side management of wood energy.

Estimates on the contribution of oil and gas to South Sudan energy consumption mix were not readily available as of July 2012, but the total primary energy supply of the formerly united Sudan in 2007 was 14,675 thousand tons of oil equivalent (ktoe), with biomass accounting 72.8 percent, oil and petroleum 26.3 percent and hydro 0.8 percent, according to the South Sudan-American Friendship and Trade Association.[75]

Renewable energy potential

South Sudan has high potential for renewable energies to generate electricity, including small-scale hydropower and, with about eight hours of sunshine per day, photovoltaic. The main barriers to solar energy in South Sudan are the initial and running costs of the technology, according to the South Sudan-American Friendship and Trade Association.[76]

South Sudan has also shown an interest in partnering with Kenya's Geothermal Development Company (GDC) to assist it in exploring and developing its own geothermal energy resources, news agency *All Africa* reported in June 2011. Eng Elhadi, the general manager of Investment and Finance in South Sudan, said his country had three potential sites it would like to develop in collaboration with GDC, according to *All Africa*. A GDC manager said once GDC establishes the existence of geothermal energy in South Sudan, it would undertake surface exploration studies; as of mid-2012, though, the Kenyan company had not yet received any formal request for assistance from South Sudan.[77]

Energy Access

With only 25 megawatts (Mw) of installed electricity generation capacity currently as of April 2012, only one percent of the country’s nine-million people had regular access to electricity, and these were mainly in the capital city, Juba.[78] Only three towns in South Sudan - Juba, Malakal, and Wau - have partial access to diesel stations for electricity, according to the South Sudanese government's official website in June 2012.[79]

74" Unprocessed Biomass open fires Stoves" *Global Giving*, 2 June 2011.
75" Country Energy Profile: Sudan" *South Sudan-American Friendship and Trade Association*, Retrieved 17 July 2012.
76" Geothermal" *South Sudan-American Friendship and Trade Association*, 15 June 2011.
77" Kenya: S. Sudan Seeks Kenya Support to Tap Geothermal Power" *All Africa*, 15 June 2011.
78" South Sudan sets up national power company", *Engineering News*, 20 April 2012
79" GOSS Online", *Infrastructure*, Retrieved 18 June 2012

The existing grid system only covers six states out of the ten in the country and the northern parts of the Blue Nile, according to the government, but news agency *All Africa* reported in May 2012 that because of economic austerity measures, there was no electricity supply from the national grid, and that government departments and businesses had to rely entirely on power from generators that consume large quantities of fuel on a daily basis.[80] The Global Poverty Project reported in April 2012 that women in South Sudan could spend up to three hours each day collecting grass to burn for lighting.[81]

All Africa reported acute fuel shortages in Juba in May 2012, causing commodity prices to skyrocket in April-May and show no signs of improving. Most manufactured goods and processed food items in South Sudan are imported from neighboring countries. *All Africa* also reported in May 2012 that the foreign owners of the petrol stations, planning to increase the price of fuel at the pump, were at odds with the South Sudanese government, which wanted to maintain the price of petrol at SSP 6 (roughly $1.50 USD) to keep fuel more affordable for the ordinary consumer.

Expansion plans

The *Engineering News* reported in April 2012 that South Sudan had established a national power company to spearhead investments in the energy sector as part of measures to rebuild the war-torn country. The Southern Sudan Electricity Corporation, falling under the Ministry of Energy and Mining, was formed to oversee the energy subsector with its mandates being the generation, transmission, distribution and sale of electricity.

The South Sudanese government has developed an ambitious program aimed at electrifying 70 to 80 percent of South Sudan by 2020, according to the government's official website; the website cited three new power plants and localized distribution networks recently built in Juba, Malakal and Wau, as well as small-scale hydropower stations planned as a medium to longer-term solution for extending grids. According to *Engineering News* in April 2012, South Sudan started negotiations with Ethiopia with the intention of importing about 100 Mw of electricity as a short term measure.

Hydropower, geothermal and solar plans

South Sudan has vast potential to generate electricity from hydropower, especially along the Nile river. As of April 2012, South Sudan was undertaking feasibility studies for various hydropower projects with a combined capacity of 2,000 MW. The planned projects include Fula (890 Mw), Shukoli (235 Mw), Lakki (410 Mw) and Bedden (570 Mw). small hydro plants with capacities ranging between 3 MW and 11 MW are also in the planning stages, according to the *Engineering News* agency.

The agency also reported in April 2012 that South Sudan is planning to partner with Kenya to exploit geothermal potential estimated at 2,500 Mw. Officials from South Su-

80" South Sudan: Fuel Thirst", *All Africa*, 17 May 2012
81" Transforming Lives With Technology", *Global Poverty Project blog*, 18 April 2012

dan's Ministry of Energy and Mining visited Kenya on a fact-finding mission to this end in January 2012.

A new initiative by a company called Eight19 which provides off-grid solar power panels was launched in February 2012.[82]

Electricity power plant capacity in South Sudan

Area	Units	Capacity per unit	Total capacity	Comments
Juba (Wartsila)	8	1.5 Megawatts (Mw)	12 Mw	Operational
Juba (Cummins)	5	1 Mw	8 Mw	Not operational
Malakal	6	0.8 Mw	4.8 Mw	Operational
Wau	2	1 Mw	2 Mw	Operational
Bor	2	1 Mw	2 Mw	Under construction
Yambio	2	1 Mw	2 Mw	Under construction
Rumbek	2	1 Mw	2 Mw	Under construction
Renk	S/Station	40 megavolt amperes (MVA)	2 MVA	Operational

Public Finances

South Sudan's National Bureau of Statistics (NBS) estimated the country's GDP at US $13.2 billion in 2010, making it the fifth-largest East African economy, according to the NBS, and giving it the highest GDP per capita in the region at US $1,546. Kenya had the highest overall nominal GDP in the region at US $31.4 billion, based on World Bank figures from 2010, but maintained a lower per capita figure than South Sudan by virtue of a population roughly four times the size of its western neighbor.[83] South Sudan's 2010 GDP figures were thanks largely to oil and natural resource revenues; but the country has yet to transform these endowments into infrastructure and improved livelihoods, the World Bank blogged in August 2008.[84]

As a result of the oil revenue sharing deal with the North, gross national income (GNI is defined as GDP less net payments to the rest of the world) is much lower than GDP at US$984 per capita. But this is still significantly higher than any country in East Africa. Export of oil amounts to 71 percent of GDP, and oil revenue accounts for almost 98% of

82 Eight19 brings pay-as-you-go solar to South Sudan", *Eight19 official website*, 12 April 2012
83 Release of first Gross Domestic Product (GDP) and Gross National Income (GNI) figures for South Sudan by the NBS, *Republic of South Sudan - National Bureau of Statistics*, 11 August 2011.
84 South Sudan launches its first GDP estimate, *blogs.worldbank.org*, 23 August 2011.

total Government revenue.[85]

As of June 2012, South Sudan was desperately in need of money, suffering from a lack of oil revenues since it shut down production in a dispute with Sudan in January of that year. The World Bank in May 2012 warned of possible "state collapse" if South Sudan runs out of foreign exchange reserves, which it said could be depleted by July.[86]

Ministry of Finance and Economic Planning

The World Bank wrote in December 2007 that the Government of South Sudan was establishing a system of public financial management virtually from scratch. The former Sudan People's Liberation Movement (SPLM) Secretariat of Finance, which managed resources of around $100,000, by 2007 had transformed itself into a Ministry of Finance and Economic Planning responsible for managing over one and a half billion dollars annually, including significant external financing.[87] A report by the Sudd Research Institute in May 2012 revealed that only 16 percent of South Sudan's national budget was reaching state governments, with 84 percent being spent by the federal government in Juba, the capital. The report, authored by Augustino Ting Mayai, the institute’s director of research, found that on average South Sudan’s states spend 97 million South Sudanese pounds (SSP) per year. The Ministry of Finance and Economic Planning, meanwhile, spends 348 million SSP annually. The Office of the President spends 159 million SSP, while the Ministry of Health, a service institution, spends only 68 million SSP. [88]

In April 2012, the Ministry of Finance and Economic Planning launched a campaign to increase revenue from non-oil sources. The campaign will see the ministry improve its tax collection systems to make it easier to conduct business.[89]

Corruption

According to a report by the South Sudanese auditor-general, over $1 billion in oil revenues were unaccounted for during 2005 and 2006, and there was no financial reporting of what happened to non-oil revenues that were collected in taxes by the national government or states for two consecutive years, *Al Jazeera* reported in June 2012. Billions more were feared missing between 2007 and 2011, and millions of dollars were also reportedly smuggled out of South Sudan in bags across borders to unknown destinations.

In June 2012, Salva Kiir, South Sudan's president, accused current and former senior government officials of stealing at least $4 billion in state funds. He promised amnesty and confidentiality for any of the 75 accused officials who return the money they took,

85 South Sudan launches its first GDP estimate, *World Bank Blog*, 23 August 2011.
86 Can South Sudan combat corruption?, *Al Jazeera*, 6 June 2012.
87 SUDAN Public Expenditure Review, *Poverty Reduction and Economic Management Unit Africa Region, World Bank*, December 2007.
88 Only 16% of South Sudan’s budget reaches state governments - report, *Sudan Tribune*, 24 May 20012.
89 South Sudan looking for non-oil revenue, *Miraya FM*, 26 April 2012.

according to *Al Jazeera*, and said his government had set up a special bank account in Kenya where officials can deposit the embezzled funds.

In May 2011, the government of the then semi-autonomous region of South Sudan on Tuesday said it would adopt electronic public finance management to seal graft avenues.[90]

Social and Environmental Context

Social impacts

The negative social impacts of oil industry activity in South Sudan are well-documented, especially in Block 5A in north-central South Sudan, where a consortium led by Lundin Petroleum was engaged in exploration and development of fields between 1997 and 2003. The start of oil exploration set off a violent conflict in the area, according to the European Commission on Oil in Sudan (ECOS) in what was essentially a military campaign by the Sudanese government to secure and take control of the oil fields in Block 5A.[91]

Main article: Lundin Petroleum

Social impacts of oil production shut-down

Main article: Oil Production Shutdown of 2012

Environmental impacts

A 2007 study by the US Agency for International Development (USAID) on South Sudan, which was then the southern part of the country of Sudan, found that effects of oil exploration and extraction in the region included disruption of water flow patterns as a result of seismic testing and diking; wetland and floodplain fragmentation due to access roads and oil exploration sites; and contamination due to oil spills and contamination with human wastes.[92]

The study highlighted the Sudd wetlands in north-central South Sudan as a particularly vulnerable ecosystem to oil development, stating that "income generation opportunities can result in increased population in this fragile area... Roads and other infrastructure can irreversibly change the character of the Sudd."

90South Sudan launches electronic public finance management, *Sudan Tribune', 31 May 2011.*
91" The Legacy of Lundin, Petronas and OMV in Block 5A, Sudan 1997 - 2003, *ECOS*, June 2010.
92" SOUTHERN SUDAN ENVIRONMENTAL THREATS AND OPPORTUNITIES ASSESSMENT" *USAID*, September 2007

Local Content and Employment Issues

As of mid-2011, the majority of foreign owned firms operating in South Sudan, including oil companies, had very few indigenous employees, according to Melody Atil[93] of the finance organization Peace Dividend.[94]

The South Sudan Petroleum Bill of 2012, which as of April 2012 was in its third reading in the National Assembly,[95] endorses the concept of local content using South Sudanese, if competent and available, to fill skilled and unskilled positions in the petroleum industry.[96]

Local content development

The critical issues hindering the development of local content in South Sudan, according to Atil, are the labour court, the attitude and values of the majority of the labor force, and the lack of transparent information that enables employers to rapidly identify and hire suited employees.

The labor court in South Sudan is one of the biggest hindrances to foreign companies hiring local employees, according to Atil, because it is almost impossible to fire a South Sudanese staff without the employee filing a claim with the labor court. Since a court proceeding is expensive and the ruling almost inevitably in favor of the local employee, foreign firms in South Sudan often opt for an informal arrangement offering the employee several months' salary as means of severance pay. The employment culture in South Sudan is another issue. According to Atil, foreign firms report that on average South Sudanese employees tend to be unreliable, insubordinate, and often tend to prioritize family and culture before their employee contract. Many also find it demeaning to work in the lower rungs of a corporate hierarchy, according to Atil. The effect, in sum, of these complexities is that foreign firms often view local employees as more of a liability than an asset.

One solution suggested by Atil is the creation of a public employment database, which would reduce the friction within the labor market, while a further facilitation system between job seekers and employers could ease the burdensome screening for the larger firms. Atil also suggests the creation of a small and medium enterprise (SME) fund geared toward driving the growth of Sudanese firms with high local content. Granting indigenous firms in South Sudan access to capital and knowledge networks, according to Atil, is key to generating a competitive local industry.

93" A strategy to promote local economy in South Sudan through investment" *Melody Atil*, March 2011.
94" International Network for Economics and Conflict" *United States Institute for Peace*, Retrieved 3 July 2012.
95" SSNA Ascends Petroleum Bill To Third Reading" *Gurtong*, 4 April 2012.
96" Oil Investment Conference" *Ministry of Petroleum and Mining*, March 2012.

Regional Dynamics

Uganda

According to IWPR, the South Sudanese – unlike the Khartoum government – have had good relations with Kampala for at least 20 years. However, in 2008, their relationship took a downturn after rebel leader Joseph Kony twice failed to appear to sign a peace agreement that had been two years in the making. Following Kony's no-show in May 2008, Uganda demanded military action against the rebels.[97]

In 2011, according to Southern Sudan minister of Information and Broadcasting, Dr. Barnabas Marial, Uganda was earning about $200million (about sh460b) annually from trade with Southern Sudan. Dr. Marial said Uganda was the biggest trading partner to Sudan, with over 150,000 traders from Uganda in Southern Sudan.

From 1993, Joseph Kony received full support from the Sudanese government. Shortly before unleashing aerial attacks on the South's territory, Sudan had blamed Juba and Kampala for backing rebels in Darfur.[98]

Sudan President Omar Bashir's advisor, Mustafa Osman Ismail, warned that Khartoum would not standby idly while Kampala and Juba continued backing rebels in Darfur.

In May 2012, it was announced that the Ugandan Parliament will send a delegation to Khartoum and to Juba in a bid to find a solution to the tension between the two neighbours. The deputy Speaker, Jacob Oulanyah, is quoted in New Vision, a Ugandan daily newspaper, as saying "As Ugandans, we do not want war between the two countries. It will affect the region adversely... We shall constitute a delegation to Khartoum and to Juba and if possible visit the area under tension,"[99]

Kenya

Reports indicate that South Sudan officials have also been courting Nairobi to intervene on its side. Mombasa is the South Sudan's main conduit of arms with some of the arms supplies docking at Mombasa supposedly for Kenya only to end up in South Sudan.

With Nairobi pursuing its biggest infrastructure project, the billion dollar Lamu Port and Southern Sudan-Ethiopia Transport Corridor (LAPSSET), experts say Kenya will likely be on Juba's side.

97" South Sudan Falls Out With Uganda" *ACR Issue 178*, 10 July 2008.
98" Kenya, Uganda risk entering Sudan conflict " *The Independent, Uganda*, 21 April 2012.
99" Uganda sends peace team to Sudan" *New Vision*, 18 May 2012.

In January 2012, it was announced that South Sudan had agreed a deal with Kenya to build an oil pipeline, potentially reducing its dependence on its northern neighbour Sudan.No date was announced as set for the start of the project but Elizabeth James Bol, South Sudan's deputy minister for petroleum and mining, says it will be "as soon as possible".[100]

The relationship between Kenya and South Sudan was further enhanced by the support the South Sudan refugees received during their refugee stay in Kenya. This has made it easy for the two countries to establish other relationships both at individual and country levels. Indeed following independence of South Sudan there have been several initiatives aimed at strengthening and formalizing relations between the two countries. A significant role played by Kenya was to support the country in establishing a new government system in South Sudan.

In early 2012, the countries of South Sudan, Ethiopia and Kenya held a ceremony in Lamu, Kenya. The ceremony was the ground breaking ceremony for the proposed new port, complete with a new oil refinery to take care of South Sudan's oil and now hopefully Kenya's new oil find. The project also comprised of a railway line connecting South Sudan and Ethiopia all the way to Cameroon. The project dubbed LAPSET is expected to help South Sudan and Ethiopia have access to a port as both countries are landlocked.

Ethiopia

In March 2012, the first Ethiopia-South Sudan Joint Ministerial Commission meeting was held in Juba with the signing of eight Memoranda of Understandings (MoU) to advance economic and political ties, covering issues including transit, communications, transport, exports education and capacity building. An MoU was also signed on a Joint Strategic Partnership aimed at promoting development, peace, security and stability in the region and Africa as a whole.[101]

Representatives from Ethiopia and South Sudan met in Ethiopia's Gambela town, the *Sudan Tribune* reported in April 2012, to discuss ways of fostering cooperation over a broad range of interests and concerns; by the end of the meeting Gambella state (Ethiopia) chief Umod Ubong and Jonglei state (South Sudan) deputy governor Hussien Mar had signed an agreement for Ethiopia and South Sudan to undertake a range of joint activities along their shared border.

Within the joint border commission, both delegations agreed to control the illegal movement of people across the border by establishing immigration checkpoints at the main crossings at Gambella and Akoba on Ethiopian side and Pagak and Nasir areas on the South Sudanese side.

100" South Sudan in Kenyan oil pipeline deal" *BBC News*, 25 January 2012.
101" South Sudan, Ethiopia sign security, development cooperation accord" *Sudan Tribune*, 6 April 2012.

Trilateral Agreements with Djibouti

Pipeline plans

South Sudan signed memoranda of understanding (MoU) with Ethiopia and Djibouti around trade in February 2012 which included the possibility of building an oil pipeline[102] linking South Sudan to Djibouti via Ethiopia.[103]

South Sudan's Minister for Information Barnaba Marial Benjamin told the AFP news agency, according to the BBC, that Chinese, US and European companies have shown interest in carrying out feasibility studies for the pipeline. Djibouti - on the Gulf of Aden at the entrance to the Red Sea - is at least 1,000 kilometers away from South Sudan's oil fields, and crosses remote, difficult terrain where South Sudanese and other militia groups operate. In May 2012, a high level delegation from Ethiopia and Djibouti arrived in Juba, South Sudan's capital, to discuss a technical framework that would focus on terms and conditions for the implementation of the pipeline construction project. South Sudan's Deputy Minister of the Ministry of Petroleum and Mining, Elizabeth James Bol, according to news agency *All Africa*, said that the project would take almost three to five years to be implemented due to technical challenges.[104]

Broader economic cooperation

The agreement formed part of a broader economic cooperation agreement with Ethiopia and South Sudan, Djiboutian Finance Minister Ilyas Moussa Dawaleh said according to *Bloomberg Businessweek*. Other areas of cooperation between the three countries will include extending the telecommunications networks in Ethiopia and Djibouti into South Sudan, while improving road and rail networks in the region,[105] and linking their economies through duty free zones.[106]

Chinese Investment in Africa

Overview

Since the turn of the century China and Africa have rapidly expanded their political and economic relations and in recent years China has increasingly focused on securing resources in order to fuel its economic growth by turning to the African continent. In line with this strategy China has used investment to help many African countries de-

102" Djibouti: Western bases pose manageable risk" *Chicago Tribune*, 11 July 2012.
103" South Sudan in Ethiopia-Djibouti oil pipeline deal" *BBC Africa*, 9 February 2012.
104" South Sudan: Ethiopia, Djibouti Delegations in Juba for Pipeline Construction Strategy" *All Africa*, 4 May 2012.
105" South Sudan, Ethiopia Sign Accord on Djibouti Oil Pipeline" *Bloomberg Businessweek*, 9 February 2012.
106" Ethiopia, South Sudan and Djibouti Sign Trilateral Agrement" *EZega.com*, 12 February 2012.

velop their fledgling oil sectors, while benefiting from oil imports through advantageous trade deals.[107]

As of 2011 Africa was supplying 35% of China's oil and two-way trade between the countries grew by 39% over 2010.[108] The Heritage Foundation estimates that between 2005 and 2010 about 14% of China's investment abroad was made in sub-Saharan Africa.[109]

Political commentator Patrick Corcoran, writing for news syndicate *Policy Mic*, argues that China's investment strategy is a simple one: China will build infrastructure in exchange for oil. The Director of the China-Africa Network also commented that the Chinese are the biggest builders of infrastructure on the continent, however Chinese investment in Africa has met with some domestic resistance.[110]

China's strategy has been to access resources in locations deemed too politically risky by Western companies and invests heavily in African mines, oil exploration and auxiliary infrastructure such as pipelines, roads, railways, power plants and transmission lines. Sudan is typical of this strategy, where China's CNPC expanded when its Western counterparts withdrew in outrage over the civil war.[111]

Resource-backed development loans

Since 2004 China has concluded several deals on resource-backed development loans with several resource-rich countries in Africa, totalling nearly $14 billion. Reconstruction in Angola was helped by three oil-backed loans from Beijing, with China pledging to build roads, railways, hospitals, schools and water systems. Nigeria took out two similar loans to finance gas and electricity projects, and in 2010 Chinese workers were building a hydropower project in Ghana, to be repaid in cocoa beans.[112]

In Angola Chinese loans of $2 billion and $2.4 billion from Eximbank (the Export-Import Bank of China) for example, were tied to infrastructure investments such as road building, railway rehabilitation or construction of schools and houses.[113] EximBank is not the only Chinese policy bank which supports trade and investment in Africa. However it is quickly expanding its exposure in Africa. In May 2007 the bank pledged to commit approximately $20 billion for loans to Africa over the next three years. This compares to only $4.8 billion of World Bank-approved projects for Africa in 2006.

A 2011 report by the Economic Intelligence Unit (EIU) asserted that Ghana's decision to allow the use of 70% of future oil revenue as collateral for borrowing costs was causing concern. The report warned that if not managed properly, there would be little benefit from the US $3bn loan package for infrastructure from China, other than greater

107" Expanding China-Africa Oil Ties" *Council on Foreign Relations*, 8 February 2012.
108" Rumble in the jungle" *Economist*, 20 April 2011.
109" The Chinese are coming...to Africa" *Economist*, 22 April 2011.
110" Africa's Oil, China's Investment" *Policy Mic*, 22 April 2011.
111" China's Environmental Footprint in Africa" *SAIS*, 2008.
112" Africa's Eastern Promise" *Foreign Affairs*, 2008.
113" Is Chinese Investment Good for Africa?" *Council on Foreign Relations*, 20 February 2007.

debt levels and greater potential for corruption.[114]

Criticisms

China has faced growing international criticism since stepping up its engagement with African countries over its allegedly exploitative business practices, as well as a failure to promote good governance and human rights in its operations.[115]

According to the *Economist* Africans have become disillusioned with how the Chinese destroy national parks when exploring for resources and disregard health and safety rules, alleging that some workers are even shot by managers. Reports claim that roads and hospitals built by the Chinese are often faulty, partly because of bribes involved in the contracting process, and that Chinese engagement is exacerbating Africa's struggle with corruption.

Chinese Investment in South Sudan

History

China established relations with the Sudan in 1959 and became actively involved in the oil sector in the 1990s.[116] The imposition of economic sanctions on Sudan by the United States in 1997, according to the Civil-Military Fusion Center, allowed China to gain a virtual monopoly over the country's oil industry. Prior to South Sudan's independence, China owned multi-billion dollar investments in Sudan that were predominantly concentrated in the oil sector, giving China an estimated 60% share (490,000 barrels per day) of Sudan's daily production. In 2011, after the secession of South Sudan, about 66% of the two countries' total production was exported to China.[117]

Arms industry

From 2003 to 2006, the period prior to South Sudan's independence covering the worst abuses by Sudanese government forces in Darfur, China sold over $55 million worth of small arms to Khartoum.[118] Media reports have covered evidence of this seen, for example, in video footage of a military parade in Khartoum in 2011 showing new-generation Chinese T96 and upgraded T59D main battle tanks and T92 wheeled infantry fighting vehicles fitted with Russian 2A72 30-mm cannon guns. A Sudanese military parade in 2007, according to United Press International, had a strong Chinese color as

114" Ghana cautioned on Chinese $3-billion loan arrangement" *The Africa Report*, 13 February 2012.
115" Expanding China-Africa Oil Ties" *Council on Foreign Relations*, 8 February 2012.
116" China's New Courtship in South Sudan" *International Crisis Group*, 4 April 2012.
117" Sudan and South Sudan's Oil Industries: Growing Political Tensions" *Civil-Military Fusion Center*, May 2012.
118" The Facts: China's Arms Sales to Sudan" *Human Rights First* 2006.

most of the armored weapons were from China.[119]

Managing tensions between South Sudan and Sudan

Since South Sudan's independence, China has attempted to maintain good relations with South Sudan, which acquired the majority of the region's oil production after its July 2011 secession, without upsetting relations with Sudan, a long-time ally.[120]

Al Jazeera points to problems that have arisen as China talks of friendship with Juba while it continues to supply Khartoum with arms and money.[121]

The South Sudanese acting charge of affairs in Beijing called China a "significant co-ordinator" between South Sudan and Sudan, according to news agency *China Daily*, which quoted the official as saying "China, an old friend of Sudan and a new strategic friend of South Sudan, is playing a significant role mediating between the two countries."[122]

However, tension along the border has threatened China's relations with both Sudans, according to an *Al Jazeera* video on the topic in April 2012. As Juba, the capital of South Sudan, has attempted to pull China south, away from Khartoum, it has been frustrated by Chinese companies' conduct in the oil sector, and by China's continued support for Sudan's military through arms sales.[123] According to a report produced in April 2012 by the International Crisis Group, China has been "drawn into a high-stakes oil crisis" between South Sudan and Sudan, concluding that Juba has made it clear that, despite China's relationship with Khartoum, if the Chinese are the first to come and partner in developing the new nation, they will be welcomed with open arms.

Imbalance in investment in two Sudans

Despite significant Chinese-backed development projects in north Sudan, South Sudanese civil society activists have contended that such projects in their country are not yet comparable in scale. One activist in Unity state said, according to the UK non-governmental organization Saferworld, "In the South, China has done almost nothing compared to what it has done in the North – in terms of roads, infrastructure and agriculture." Another Unity state activist echoed these claims: "[China] say they have built things – hospitals and schools – but this is in the North, not in the South. They have built a computer laboratory at the University of Juba – it is a start, but more is needed." [124]

Some of China's projects in South Sudan, such as a $760,000 investment for a hospital

119" Analysis: China sells arms to Sudan" *UPI* Feb 15, 2008.
120" South Sudan 'agrees $8bn deal with China'" *BBC News Africa*, 28 April 2012.
121" Sudan tensions imperil China's investments" *Al Jazeera* 7 April 2012.
122" Beijing's mediation praised in Sudan, S. Sudan issues" *China Daily USA*, 29 May 2012.
123" Sudan tensions imperil China's investments" *Al Jazeera*, 7 April 2012.
124" China and conflict-affected states" *Saferworld*, January 2012.

in Bentiu, Unity state, have come under fire for catering mainly to the elite. Informants interviewed by Saferworld in Unity state in August 2011 pointed out that the hospital was not a gift but a business, and that it would provide medical services for fees that most local people were unable to afford.

Infrastructure and development investment

However, Chinese officials have enunciated China's intention to increase investment in physical infrastructure, hydroelectric energy, agriculture, health, education and other sectors in South Sudan, as reported in the *Sudan Tribune* in June 2011.[125] In light of this, a Chinese company, Pan-China Construction Group, was in October 2011 awarded a lucrative contract to design Ramciel, the proposed location for South Sudan's new capital, to be situated about 105 kilometers north of Juba, the country's current capital.[126] Also planned are Chinese programs to develop existing state capitals in South Sudan, as well as other projects to construct hospitals, schools and agricultural processing facilities for locally produced meat and rice, according to Saferworld. In March 2011, South Sudan's Ministry of Agriculture and Forestry and the Chinese construction firm Beijing International signed an agreement to enhance agricultural technologies and techniques in South Sudan.

In October 2011, China granted South Sudan US $31.5 million for development projects.[127] *China Daily* estimated in June 2011 that Chinese investment in South Sudan over the past six years totaled between $60 million and $100 million, largely in construction projects to build schools and hospitals and digging wells.[128]

Loan announced in April 2012

Government officials in South Sudan said in April 2012 that China had agreed to loan it $8 billion for major development projects, including roads, bridges and telecom networks, and to develop agriculture and hydroelectric power. There was no mention of plans to build a new pipeline to export oil from the newly independent state, according to the BBC.

South Sudan's information minister, Barnaba Mariel Benjamin, told the BBC that the Chinese wanted to help develop the country and that there were "no strings attached". The Chinese funding would be provided over the following two years, and projects would be conducted by Chinese firms.

South Sudan's President Salva Kiir visited Beijing also in April of 2012, according to the *Christian Science Monitor*, to tighten economic links to China, traditionally a close ally of Omar al-Bashir, the President of Sudan.[129]

125" China to expand investment in South Sudan after independence" *Sudan Tribune*, 1 June 2011.
126" Chinese firm wins contract for S. Sudan's new capital" *Sudan Tribune*, 28 October 2011.
127" China grants South Sudan $31.5m for development projects" *Sudan Tribune*, 24 October 2011.
128" China keen to foster south Sudan ties" *China Daily*, 5 June 2011.
129" On trip to China, South Sudan's leader warns of war with Sudan (+video)" *The Christian Science Monitor*, 24 April 2012.

Regulatory Framework

Overview of Hydrocarbon Regulation

In December 2011 at the International Engagement Conference for South Sudan in Washington, President Salva Kiir announced that the Financial Management and Accountability act had been passed, with the aim of strengthening the process of accountability and ensuring transparency in the management of their resources.[130]

He also announced that his Government will implement the EITI (Extractive Industry Transparency Initiative), the global standard for transparency of natural resource revenues.[131]

South Sudan Petroleum Bill 2012

With independence in July 2011, the South Sudanese government drafted a new petroleum policy that includes a petroleum bill. According to the Ministry of Petroleum and Mining, the bill has 21 chapters and 98 sections covering petroleum upstream activities in South Sudan. The bill states that ownership of petroleum is vested in the people, to be managed by the government for their benefit. The bill emphasizes maximum recovery within a framework that seeks to ensure safety, security and protection of the environment and require transparency, accountability and ethical behavior on the part of both licensees/contractors and the government.[132]

According to the Ministry of Petroleum and Mining, the bill continues the Exploration and Production Sharing Agreement (EPSA) contractual regime, with certain key provisions of these agreements made part of the legislation. The bill also establishes a licensing regime for reconnaissance activities, installers and operators of transportation systems (including pipelines), based on an open and transparent bidding process. The safety and environmental regime puts primary responsibility on the contractor to identify hazards and manage the risks of operations; the bill also endorses the concept of local content, encouraging companies to use South Sudanese workers to fill skilled and unskilled positions. The bill also affirms the Ministry of Petroleum and Mining as the ministry responsible for administration, implementation and enforcement of the bill, with some approval powers vested in the National Petroleum Commission.

130" South Sudan's Kiir promises accountability and transparency to promote investments" *Sudan Tribune* 15 December 2011.
131" President of South Sudan commits to global transparency standard" *EITI website* 21 December 2011.
132" Oil Investment Conference" *Ministry of Petroleum and Mining*, March 2012.

Current status

In April 2012, the South Sudan National Assembly (SSNA) passed the petroleum bill into its third reading after undergoing deliberations. Main issues of concern that prolonged debate over the bill, according to the Gurtong Trust, were related to how the bill addresses transparency in the petroleum sector, and how information related to oil exploration in the country in managed. Environmental management by all companies involved was also a concern.[133]

A section which, according to Gurtong, received wider cricitism by many ministers of parliament (MPs) was section 11(3) (I) of the bill, which states: "Make available to the public both on the Ministry website and by any other appropriate means to inform interested persons in the following areas;

1. All key oil sector production,
2. Revenue and expenditure data,
3. Petroleum agreements and licenses,
4. Regulations and procedures related to the petroleum sector."

According to Gurtong, some MPs within the National Assembly argued that not all institutions should be allowed to access information about the oil sector as outlined above, since the information could lead to misunderstanding. MPs resolved, according to Gurtong, that with the exception of the National Assembly, any authority in need of related information in the oil sector from the government should be cleared by the Information Ministry first.

Members of the National Assembly also raised concerns over the percentage of shares distributed from the federal government in Juba to the states and communities where oil is discovered and explored. As of April 2012, the bill indicated that the states and communities where oil is produced should be allocated 3 percent and 2 percent of net petroleum revenues, respectively.

Revenue Sharing Arrangements in Sudan and South Sudan

Arrangements under the Comprehensive Peace Agreement

Sharing oil revenue was seen as key to the Comprehensive Peace Agreement, which

133" SSNA Ascends Petroleum Bill To Third Reading" *Gurtong Trust* 4 April 2012.

brought Sudan's long-running civil war to an end in 2005.[134]

The wording in the Comprehensive Peace Agreement (CPA) itself stated that it was was "not intended to address ownership of [natural] resources".[135] Under the terms of the CPA, in article 5.4 it was stated that "An Oil Revenue Stabilization Account shall be established from government oil net revenue derived from actual export sales above an agreed benchmark price. Also, both parties agreed that at least 2% of oil revenue should be allocated to the oil producing states/regions in proportion to output produced in such states/regions. The next article, article 5.6, states that "After the payment to the Oil Revenue Stabilization Account and to the oil producing states/regions, 50% of net oil revenue derived from oil producing wells in Southern Sudan shall be allocated to the Government of Southern Sudan... and the remaining 50% to the National Government and States in Northern Sudan.

According to international NGO Global Witness, the agreement changed the role of oil from a driver of conflict to an incentive for peaceful cooperation, and saw Khartoum transfer more than $10 billion to Juba over a five year period. This has been crucial in sustaining the fragile peace. However, a persistent lack of transparency and independent verification of the revenue split has also fuelled mistrust between north and south.[136]

Effectiveness of the CPA

However, investigations by Global Witness into the management of the revenue sharing deal revealed discrepancies of 9-26% between the oil production figures published by the Khartoum government and those reported by Chinese state-owned CNPC, the main oil company operating in Sudan. These production figures provide the basis for dividing the oil revenues, so being able to verify them was crucial.

UK based newspaper The Guardian states that between the time that the CPA was signed until the independence of South Sudan, and hence the end of this agreement, the North transferred $10bn in revenue to the South.[137]

The wealth-sharing system stipulated by the CPA did not become fully effective until 2008—and, according to a commentary produced by the Carnegie Endowment for International Peace, even then its implementation continued to be hampered by political tensions and weak administrative capacity. The commentary highlights the lack of transparency in Sudan's oil sector as having undermined the implementation progress, as seen in the absence of publicly available information on the contracts between the government of Sudan and its investors. In addition, the lack of information on the country's total production of oil and the amount of revenue received made it nearly impossible to independently verify the amount of oil exploitation, produc-

134" Oil and peace in Sudan" *Guardian* 7 January 2011.
135" Comprehensive Peace Agreement between the Government of The Republic of the Sudan and The Sudan People's Liberation Movement/Sudan People's Liberation Army" *United Nations Mission in Sudan* Retrieved 4 June 2012.
136" Sudan and South Sudan" *Global Witness site* Retrieved 4 June 2012.
137" Oil and peace in Sudan" *Guardian* 7 January 2011.

tion, and revenues.[138]

Following independence of South Sudan

Following independence South Sudan acquired about 75% of the former Sudan's oil output—although it continued to rely on pipelines running north through Sudan to a Red Sea port (Port Sudan) to export oil.[139] According to a publication by the UK Parliament's International Development Committee, a final settlement on oil revenues has been one of the key sticking points in negotiations between the two countries. There was agreement that South Sudan would pay Sudan a fee for use of the pipelines (rather than a share of revenues) but the author of the publication heard in both Khartoum and Juba, that the two parties have very different views of what the fee rate should be. In December 2011, Sudan announced that it would take payment of transit fees in kind, in other words siphoning off part of Juba's share, as compensation for unpaid fees it claimed South Sudan owed.[140]

In January 2012, South Sudan decided to shut down oil production, which provides 98% of the government's revenue, after Khartoum impounded South Sudanese oil shipments amid a dispute over transit fees.[141] The north was asking the South to pay $36 (£23) per barrel to transit oil through the Greater Nile pipeline, which is considerably more than 10 times the international average. At this fee, the south would have paid the north $2.6 billion, which is almost exactly what the north would have earned had South Sudan not gained independence.[142]

April 2012

The crisis came to a head in April 2012, after months of border skirmishes, when South Sudan seized an oil field at Heglig, which is internationally accepted to be in Sudan, saying the area was being used as a base for Sudanese attacks on its territory.

In April, fighting broke out along the border between Sudan and South Sudan, when South Sudan seized Heglig, one of the last oil fields Sudan still has.[143] In May 2012, the two sides were discussing a seven-point security "road map" that required pulling back from contested border areas, setting up a joint monitoring mechanism and ending covert support for proxy militias. The Security Council had given negotiators two more months to tackle the really delicate issues, like oil, but there was still a huge gap between the two, with the north wanting more than $30 a barrel in transit fees and the south offering about a dollar.

According to the New York Times, most analysts predict an oil compromise may be

138" The Comprehensive Peace Agreement- a commentary" *Guardian* 7 January 2011.
139" South Sudan Signs Deal To Try And End Tribal Violence In Oil Region" *Wall Street Journal* 7 May 2012.
140" South Sudan: Prospects for Peace and Development" *UK Parliamentary Business* Retrieved 4 June 2012.
141" South Sudan 'bombing' despite UN sanctions deadline" *BBC News* 4 May 2012.
142" South Sudan refuses to be held to ransom by the north" *Guardian* 17 May 2012.
143" Sudan-Index" *New York Times* 1 June 2012.

reached, but the more complicated territorial disputes may have to go to international arbitration, which could take years. While all this grinds on, analysts anticipate more breakdowns and attempts to patch things up, more violence followed by more hastily arranged cease-fires.

Generic Oil and Gas Terms

Definition of Hydrocarbon Reserves

Overview

Different systems have been used to classify reserves of oil and gas since the industry first developed in the nineteenth century. But the most widely used definitions today are provided by the Petroleum Resources Management System of the American Society of Petroleum Engineers.[144]

Reserve estimates are a major driver of value for exploration and production companies. All reserves are estimates of underground reservoirs which cannot be physically inspected and always involve some degree of uncertainty. However, such systems are important in creating a 'universal language' of clear terms and definitions that result in reliable and easily comparable reserve estimations for investors, regulators, governments and consumers.[145] However it should be noted that around the world, government agencies and organizations use slightly different definitions.

According to the Vice President of petroleum consultancy Ryder Scott, there has been a trend towards commissioning external audits of estimated reserves. With increased attention given to corporate responsibility in financial reporting, he asserts that oil and gas companies are now engaging third-party engineers to evaluate or audit petroleum reserves.[146]

Reserves

According to the SPE Guidelines, 'reserves' are a subset of 'resources', representing the part of resources which are commercially recoverable and have been justified for development. Reserves can be subsequently divided into the following three categories depending on certainty of recovery.

Proved Reserves

> The highest valued category of reserves is “proved” reserves. Proved reserves have a “reasonable certainty” of being recovered, which means a high degree of confidence that the volumes will be recovered. To be clear, reserves must have all commercial aspects addressed. It is technical issues which separate proved from unproved categories.

144" Petroleum Reserves & Resources Definitions" *Society of Petroleum Engineers*, retrieved 18 January 2012.
145" SPE Petroleum Resources Management System Guide for Non-Technical Users" *Society of Petroleum Engineers*, retrieved 18 January 2012.
146" The Reserves Audit" Ryder Scott, retrieved 18 January 2012.

The term 1P is frequently used to denote proved reserves. BP publishes an annual Statistical Review which details proved reserves for over 50 producing countries.[147]

Probable and Possible Reserves

> "Probable" or "possible" reserves are lower categories of reserves, commonly combined and referred to as "unproved reserves," with decreasing levels of technical certainty. Probable reserves are volumes that are defined as "less likely to be recovered than proved, but more certain to be recovered than Possible Reserves". Possible reserves are reserves which analysis of geological and engineering data suggests are less likely to be recoverable than probable reserves.

The term 2P is used to denote the sum of proved and probable reserves and 3P the sum of proved, probable and possible reserves. The best estimate of recovery from committed projects is generally considered to be the 2P sum of proved and probable reserves.

Resources

'Resources' denotes less certainty than 'reserves' because some significant commercial or technical hurdle must be overcome prior to there being confidence in the eventual production of the volumes.

Contingent Resources

> These are resources that are potentially recoverable but not yet considered mature enough for commercial development due to technological or business hurdles. For contingent resources to move into the reserves category, the key conditions, or contingencies, that prevented commercial development must be clarified and removed. As an example, all required internal and external approvals should be in place or determined to be forthcoming, including environmental and governmental approvals. There also must be evidence of firm intention by a company's management to proceed with development within a reasonable time frame (typically 5 years, though it could be longer).

Prospective Resources

> Prospective resources are estimated volumes associated with undiscovered accumulations. These represent quantities of petroleum which are estimated, as of a given date, to be potentially recoverable from oil and gas deposits identified on the basis of indirect evidence but which have not yet been drilled. This class represents a higher risk than contingent resources since the risk of discovery is also added. For prospective resources to become classified as contingent resources, hydrocarbons must be discovered, the accumulations must be further evaluated and an estimate of quantities that would be recoverable under appropriate development projects prepared.

External Links

SPE Non-Technical Guide: www.spe.org/industry/docs/PRMS_guide_non_tech.pdf

147" BP Statistical Review 2009

Oil Field Depletion

Oil field depletion refers to the decline in an oil field's production over time,[148] when a field's recoverable resources become exhausted and production is reduced due to the physical limitations of the reservoir.[149] Depletion is a natural process by which an oil field produces an increasing volume of oil, that volume stops increasing and production hits a peak, after which the volume that can be pumped out of that field gradually declines.[150]

The analysis of depletion rates is a key element in forecasting the future production of oil reservoirs.

Crude Oil Qualities

Density

Oil density is generally expressed in degrees using an API scale. This is a specific gravity scale developed by the American Petroleum Institute (API), designed to measure the relative density of various petroleum liquids. The measure is expressed in degrees and most values fall between 10° and 70° API gravity.[151] The specific gravity of oil is its relative density to water at 60° Farenheit.[152]

Light Oil

Otherwise known as "conventional oil", light oil has an API gravity of 22° or over.[153]

For example, Saudi Arabia's new blend of super light crude has an API gravity of 44°.[154] The oil produced from Libyan fields is also typically very "light" and the country's nine export grades have API gravities that range from 26-43.3°.[155]

Heavy Oil

Heavy oil is a dense, viscous oil with low API gravity. Definitions vary, but it is gener-

148" The life of an oil reservoir" *The Oil Drum*, 14 August 2006.
149" Depletion and Decline Curve Analysis in Crude Oil Production" *Global Energy System*, May 2009.
150" Oil Fields and what they do (or might) produce, and when" *Natural Hub*, Retrieved 1 February 2012.
151" API Gravity" *Schlumberger Oil Glossary*, retrieved 22 January 2012.
152" Tech Talk - Venezuela, heavy crudes, API gravity and refinery gains" *The Oil Drum*, 9 January 2011.
153" What is Heavy Oil and How is it Formed?" *Rigzone*, retrieved 22 January 2012.
154" What is Heavy Oil and How is it Formed?" *Wall Street Journal*, retrieved 22 January 2012.
155" Saudi's New Super Light Crude Blend To Hit Market In April -Source" *IEA*, 31 March 2011.

ally accepted that the upper limit for heavy oils is 22°API.

Heavy oils are usually not recoverable in their natural state through a well or using ordinary production methods. Most need to be heated or diluted so that they can flow into a well or through a pipeline.

In Venezuela for example, the Bachaquero Heavy Crude Oil has an API gravity of 17º.[156]

Extra Heavy Oil

Extra heavy oil has an API gravity of less than 10°.

Extra Heavy Oil Natural Bitumen

Otherwise known as "oil sands", bitumen shares many attributes of heavy oil but is even more dense and viscous.

Sulphur Content

Crude oil can also be measured in terms of sulphur content (from "sweet" to "sour"). "Sweet" crude is usually defined as oil with a sulphur content below 0.5%, while "sour" crude has a sulphur content of 0.5% or over.[157]

Impact on Refining

The density and "sourness" of crude oil feedstocks affects the amount of processing and conversion necessary to achieve what is known as an optimal mix of products.

Light, sweet crude demands a higher price than heavier, sourer crude as it requires less processing and produces a greater percentage of value-added products, such as gasoline, diesel and aviation fuel. Heavier grades of fuel generally require additional processing to producer lighter products.

Natural Gas

Overview

About 85% of natural gas produced from conventional wells is methane, a highly flammable compound made up of one carbon atom and four hydrogen atoms.[158] It is colourless and, in its pure form, odourless. As the gas has no odour, gas companies often add a chemical to the gas to give it a distinctive smell so that gas leaks may be detec-

156" Crude Oil Types" *A Barrel Full*, 31 March 2011.
157" Types of Crude Oil" *Neste Oil*, retrieved 23 January 2012.
158" Oil and Gas Resources and Their Uses" *TEEIC*, retrieved 13 February 2012.

ted by smell.[159]

Natural gas can be found as either associated gas, non-associated gas, wet gas (a type of non-associated gas) or coal bed methane.

The units of measurement used for natural gas are generally based on volume and measured in cubic feet (a cubic foot being one foot long, by one foot wide, by one foot deep). This volume is usually expressed in BCF (billion cubic feet), TCF (trillion cubic feet) and MCF (thousand cubic feet).[160]

According to the US Department of Energy, for many years natural gas was considered worthless and discarded, and is still released by flaring today in many countries.

Non-associated gas

Non-associated gas is gas which is found in reservoirs which do not contain significant quantities of crude oil.[161] It often occurs at greater depths where heat has split all of the hydrocarbons into smaller, lighter gas molecules. Shale gas is one type of unconventional non-associated gas.

Associated gas

Associated gas is found in association with crude oil, either dissolved in the oil or as a "cap" of free gas above the oil.

Where it cannot be used, associated gas is either reinjected into the well, flared or vented.

Coal Bed Methane

Coal bed methane (CBM) or coal seam gas (CSG) is the natural gas extracted from coal beds during underground coal mining.

History of Natural Gas

In the absence of pipelines, through the 1800s the natural gas which was found was used almost exclusively as a fuel for lamps. However the invention of the "bunsen burner" in 1885 proved that gas could be used to provide heat for cooking and warming buildings.

The construction of pipelines allowed natural gas to be brought to new markets. One of the first substantial pipelines was built in 1891 in the US, however few pipelines were built until after the Second World War in the 1940s.[162]

159" Natural Gas" *US Department of Energy*, retrieved 13 February 2012.
160" Natural Gas Measurement" *KGM*, retrieved 13 February 2012.
161" NON-ASSOCIATED GAS DEFINITION" *Oil and Gas Glossary*, retrieved 13 February 2012.
162" The History of Natural Gas" *US Department of Energy*, retrieved 13 February 2012.

Role of natural gas in the energy mix

The *International Energy Association* estimates that natural gas could overtake coal and rival oil by 2035 to account for over 25% of global energy demand.[163]

According to the London-based *Petroleum Economist*, the growing interest in gas as an element in today's energy mix represents a "structural shift in energy markets." Natural gas holds several benefits as a fuel for a low-carbon future, including:

- the lowest carbon footprint of all fossil fuels.
- a shorter lead time to build gas-fired power plants and greater operational flexibility.
- ability to reduce greenhouse gas emissions by 25% in the transport sector compared to traditional motor fuels.[164]

The *International Energy Agency* (IEA) also points out that gas can help to diversify energy supply and so improve energy security.[165]

Natural Gas Flaring

Gas flaring is the disposal by burning of unwanted associate natural gas released from an oil field by burning it. It is widely used where there is no infrastructure to make use of the gas. However it is widely recognized as a waste of energy and as environmentally dangerous in contributing carbon emissions to the atmosphere.[166]

Fuel Subsidies

Background

According to the World Trade Organization a subsidy is "a financial contribution by a government or any public body within the territory of a Member which confers a benefit".[167] Therefore, fuel subsidies cover a wide range of government actions that lower the cost of fossil fuels.[168] A report by the Organisation for Economic Co-operation and Development (OECD) in 2011 listed over 250 individual budgetary and taxa-

163" Gas could make up 25% of global energy mix by 2035: IEA" *Platts*, 2011.
164" Unconventional Gas's Global Potential" *Petroleum Economist*, 18 July 2011.
165" Are We Entering a Golden Age of Gas?" *IEA*, 2011.
166" Global Gas Flaring Estimates" *NOAA*, retrieved 15 February 2012.
167" Subsidies and Countervailing Measures: Overview" *World Trade Organisation*, retrieved 19 April 2012.
168" Fossil Fuel Subsidies" *Price of Oil*, retrieved 19 April 2012.

tion mechanisms for altering the price of fossil fuels[169], and therefore estimating fuel subsidies can be difficult. The most commonly used methodology for quantifying fuel subsidies, known as the price-gap approach, calculates subsidies applied to fossil fuels that are consumed directly by end-users or consumed as inputs to electricity generation.[170] This approach compares an average price paid by the end-user with a reference price that corresponds to the full cost of supply.

The International Energy Agency (IEA) estimates that fossil-fuel subsidies amounted to US$ 409 billion worldwide in 2010, and they predict that subsidies could rise to US$ 660 billion by 2020, equating to 0.7 percent of global Gross Domestic Product (GDP).[171] Deutsche Bank said that in 2010, 70 percent of fuel subsidies were made in the world's major oil and gas exporting nations, and that such subsidies have been instrumental in driving an increase in domestic demand within Organization of the Petroleum Exporting Countries (OPEC) countries and other oil-exporting countries in the 2000s.[172]

The table below illustrates the 15 countries that spend the most on fossil-fuel subsidies in absolute terms (US $ billions), along with the relative value of such subsidies compared with their Gross Domestic Product (GDP).[173] [174]

Country	Total Fossil-Fuel Subsidies (US $ billions)	Fossil-Fuel Subsidies as a share of GDP
Iran	80.8	22.6%
Saudi Arabia	43.5	9.8%
Russia	39.3	2.7%
India	22.3	1.4%
China	21.3	0.4%
Egypt	20.3	9.3%
Venezuela	19.9	6.9%
U.A.E.	18.2	6%
Indonesia	16.0	2.5%
Uzbekistan	12.0	30.5%
Iraq	11.4	13.8%
Algeria	10.6	6.6%

169" Inventory of estimated budgetary support and tax expenditures for fossil fuels" *Organisation for Economic Co-operation and Development*, retrieved 18 April 2012.
170" Fossil-fuel subsidies – methodology and assumptions" *International Energy Agency*, retrieved 19 April 2012.
171" World Energy Outlook 2011" *International Energy Agency*, retrieved 18 April 2012.
172" Crude Oil: Iceberg Glimpsed Off West Africa" *Deutsche Bank*, retrieved 19 April 2012.
173" Fossil fuel subsidies: a tour of the data" *The Guardian*, retrieved 19 April 2012.
174" Fossil-Fuel consumption subsidy rate as a proportion of the full cost of supply, 2010" *International Energy Agency*, retrieved 19 April 2012.

Mexico	9.5	0.9%
Thailand	8.4	2.7%
Ukraine	7.9	5.60%

Criticism

The International Energy Agency (IEA) said in a 2011 report that the normal rationale for fuel subsidies is that they promote economic development and alleviate poverty. However they argued that subsidies can have unintended consequences such as encouraging wasteful consumption, discouraging energy efficiency and reducing the competitiveness of renewable fuels. Crucially the IEA rejected the argument that fuel subsidies promote development, arguing that instead they foster inequality through disproportionately benefiting richer households who are more likely to own fuel-consuming cars and electrical appliances. Therefore the IEA concluded that fuel subsidies are an extremely inefficient means of assisting the poor, with only eight percent of the US$ 409 billion spent on fuel subsidies in 2010 reaching the poorest 20% of the global population. G20 Leaders have also criticised fuel subsidies, agreeing in 2009 to "rationalise and phase out over the medium term inefficient fossil-fuel subsidies", with the leaders of the Asia-Pacific Economic Cooperation (APEC) making a similar commitment the same year.[175]

In March 2012 a United Nations Development Programme (UNDP) report put forward the case for eliminating fossil fuel subsidies, arguing that the savings made could be used to help the poorest citizens cope with rising world energy prices. On top of this, the report said that the move would address climate change, reduce energy waste, cut government expenditure and minimise social inequality. [176] Balazs Horvath, the report's lead author, pointed out that in Europe and Central Asia the elimination of fuel subsidies has been followed by both economic growth and fall in greenhouse gas production, which "gives quite a bit of weight to the argument that this can work". Between 1990 and 2008 GDP expanded by 22 percent in the region whilst carbon emissions fell by 28 percent - the largest regional decline in the world.[177]

Unrest

The elimination of fuel subsidies presents a political dilemma.[178] In the first quarter of 2012 alone, multiple protests and strikes have been launched against the prospect of fuel subsidy cuts.

175" Inventory of estimated budgetary support and tax expenditures for fossil fuels" *Organisation for Economic Co-operation and Development*, retrieved 18 April 2012.
176" From Transition to Transformation" *United Nations Development Programme*, retrieved 18 April 2012.
177" Cutting fuel subsidies key to sustainable development - report" *Alert Net*, retrieved 18 April 2012.
178" Removal of Fuel Subsidies in Nigeria: An Economic Necessity and a Political Dilemma" *Brookings*, retrieved 19 April 2012.

In January 2012 Nigeria experienced a wave of protests in response to the government decision to remove subsidies on imported oil products. Unions said they would cease production, and the government responded by partially re-instating the subsidies.

Ghanaian fuel prices increased by about 20 percent when their fuel subsidy was cut at the end of 2011.[179] In January 2012 civil society groups such as the Ghanaian Trade Union Congress talked of nationwide strikes,[180][181] and by February 2012 the government had effectively reversed the policy.[182]

In March 2012 the Indonesian government was forced to rule out a fuel subsidy cut after weeks of protests across the country. Indonesia officials were wary of the political consequences of fuel price hikes; in 1998 a fuel price rise in Indonesia helped trigger student riots that toppled the 32-year Suharto dictatorship.[183]

Energy Governance Weak Points

Pre-Production Stage

Exploration Licenses

Oil and gas production often works in two stages, with licenses awarded to explore given regions at the initial stage, and then separate arrangements being made once oil or gas is discovered. Given that prediction is so difficult, and the potential rewards are so great, even the license to explore certain areas can present an opportunity for corruption. For example, in 1999 Nigeria granted a series of exploration licenses for offshore exploration to companies which did not have any experience in oil production.[184] In Libya meanwhile, it was lucrative exploration contracts which were at stake when BP faced an outcry in 2010 over links made by the press between the company and the release of Lockerbie bomber Ali al-Megrahi,[185] who was released on 'compassionate grounds' by the Scottish government. BP denies any lobbying that linked Libyan prisoners to commercial contracts.[186]

179" How Ghana, Tanzania, Uganda tackle fuel subsidy" *BusinessDay*, 18 January 2012.
180" Ghana Reinstates Fuel Subsidy But Higher Transport Fares Remain" *SaharaReporters.com*, 8 February 2012.
181" Protests, strikes may erupt in Ghana over removal of fuel subsidy" *Punch*, retrieved 19 April 2012.
182" Ghana: mixing politics and fuel prices" *Financial Times*, 9 February 2012.
183" Emerging Asia struggles to cut soaring fuel subsidies" *Agence France-Presse*, retrieved 19 April 2012.
184" Africa: Nigerian generals deny corruption". *BBC News*, 10 May 1999.
185" Libyan controversy adds to BP's woes". *Washington Post*, 16 July 2010.
186" A black cloud on the horizon for Anglo-American relations?". *The Economist*, 21 July 2010.

Production Awards

Once discoveries have been made, the right to produce presents a further opportunity for corruption. In some cases, the company which made the discovery has already agreed terms to go ahead and produce the oil. But especially in post-conflict countries, licenses may be obtained without due process. A 2004 review of companies extracting minerals in Liberia found that only 45 out of 70 operating companies were in possession of proper licenses.[187] In other cases, officials in host governments can use the threat of renegotiation or revocation of production rights to exort illegal payments from companies. Many economists regard auctions as the best way to manage both corruption and asymmetry of information between governments and companies at the production award stage.[188] Nevertheless, corruption is possible even in the context of an auction process, since a company and a government official can collude over subsequent modifications and renegotiations to the contract.

Production Stage

Import licenses, dues, levies

Once a company is producing in the country, the host government has a range of tools by which it can effectively change conditions for operating companies, which have now sunk large investments and so have incentives to keep producing even in the face of extra burdens. This is known to the economists as a "time-inconsistency" problem.[189]This ability to hold the company to ransom over its sunk investment can either be exploited for public interest - as when the government of Abdul Karim Qassem raised port fees in Basra Oil Terminal by 1200% overnight as part of its struggle with the Iraq Petroleum Company in the 1960s,[190] or it can be used for private gain by influential officials in the host government.

Among such blocking tools are licenses to import equipment needed to produce, such as has happened in Angola,[191] transit fees in ports and along pipelines, such as happened in the Iraqi industry when it fell into disagreement with neighbouring Syria, and more recently between Ukraine and Russia,[192] and changes in various forms of corporate and other taxes.

Support Service Contracts

The oil industry, in line with trends in the rest of the global economy over recent decades, has taken to outsourcing aggressively. This means that even when a top level operating license has been granted under public scrutiny through an auction process,

187“ Corruption and the renegotiation of mining contracts”. *U4*, 30 November 2007.
188“ Managing the 'curse' of natural resources: charter offers guide for politicians”. *The Guardian*, 5 February 2009.
189“ Dynamic Inconsistency”. *Wikipedia*, retrieved 25 October 2011.
190“ Iraq: Post-World War II Through the 1970s”. *US Library of Congress*, retrieved 25 October 2011.
191“ Angola Trade Report”. *US Trade Department*, retrieved 25 October 2011.
192“ Q&A: Russia-Ukraine gas row”. *BBC News*, retrieved 25 October 2011.

the primary operator then issues contracts, which could be worth hundreds of millions of dollars, to other companies who in turn implement various activities to fulfil the contract with the host government. Since these contracts are between two private sector companies, they usually fall outside the scope of any governmental audit or integrity agency.[193]

Cost Recovery Accounting

Many oil contracts make provisions for an oil company to recovery the heavy investment it has made to discover and then produce oil and gas. This is typically on a sliding scale over time, whereby a large portion of oil revenues are awarded to the company to cover their costs at the outset, but the proportion gradually diminishes over time.[194] Big oil companies often have sophisticated accounting methods at their disposal and can, for example, find ways to increase costs and decrease profits in one country with relatively high taxation, transferring the profits to another country where corporate taxes are lower. In some cases, multinational companies engage in complex transactions between several subsidiary companies across different legal jurisdictions. This is known as "transfer pricing", which can result in above market "costs", which they can then reclaim out of the oil revenues created by their production.[195]

All of these issues can be disputes between a host government and an oil company, as was seen in Indonesia in 2009-10 with cost recovery accounting.[196]

Oilfield services industry

Overview

Oilfield services companies assist drilling companies in the oil industry in setting up oil and gas wells. Such companies may manufacture, repair or maintain the equipment used in oil extraction and transport. Services can include seismic testing (mapping the geological structure beneath the ground), transport services (such as movement of land and water rigs) and directional services (such as angled or horizontal holes).[197] National Oil Companies (NOCs) and international oil companies (IOCs) often lack such technical and geological skills and so turn to service companies.[198]

According to a 2010 report by GBI Research, the global oilfield services industry has

193“ The oil service industry: Rigging the market”. *The Economist*, 23 June 2011.
194“ Glossary of Terms Used in Petroleum Reserves/Resources Definitions ”. *Society of Petroleum Engineers*, retrieved 25 October 2011.
195“ Cost Recovery And High Oil Price: How Can Host Governments Capture Adequate Revenue? A Case Study Of Nigeria”. *CEPLMP*, 04 June 2009.
196“ Indonesia to drop cost recovery cap”. *Upstream Online*, 05 January 2010.
197" Industry Handbook: The Oil Services Industry" *Investopedia*, retrieved 12 March 2012.
198" The oil-services industry: Rigging the market" *Economist*, 23 June 2011.

witnessed considerable growth in recent years, is expected to become $200 billion industry by 2015 (an increase on $140 billion in 2008). In part this is due to the growth in activity in offshore fields around the world. However the global economic downturn in 2009 did lead to a period of slower growth.[199]

Major Trends

Unconventionals and Offshore Drilling

Industry observers predict that the burgeoning unconventional energy industry will create a boost in demand for the services industry. Production of shale oil and other unconventionals brings logistical and technological challenges and demands a huge increase in the number of rigs supplied. A surge in offshore drilling activity is also predicted to boost demand. The *Economist* reported, for example, that America's Halliburton was planning to boost its workforce of 60,000 by 25% over 2011. Dahlman Rose, a bank, estimated that global exploration budgets would rise by around 14% in 2011 to $533 billion.

According to reports in the *Economist* America is the centre of the oilfield service boom, where firms pioneered the technique of horizontal drilling in order to access shale oil and shale gas.

Demand for Local Content

According to Ayman Asfari, CEO of UK-based Petrofac, NOCs are increasingly demanding to see "local content" (ie. local operators) playing a part in new contracts for exploration, production and plant construction. This puts international oil companies at a disadvantage and creates an opportunity for oil services companies to build assets with local partners, maintain that asset for a period of time and then "hand it back" to the NOC to run in the long term.[200]

Key Industry Players

According to *Arabian Oil and Gas*, as of 2008 the ten largest oilfield service companies globally were:

1. Schlumberger Limited
2. Halliburton
3. Saipem
4. Transocean Ltd.
5. Baker Hughes
6. Fluor
7. Weatherford International
8. BJ Services Company
9. Petrofac
10. China Oilfield Services Ltd.

199" The Future of the Oil Fields Services Industry to 2015 - Rebound in Exploration and Drilling Activity Drives Growth" *GBI Research*, May 2010.
200" Ayman Asfari on Petrofac's road to Damascus" *Telegraph*, 30 October 2010.

A report by the *Economist* suggests that by offering a full range of oilfield services, the "big four" of the industry (Schlumberger, Halliburton, Baker Hughes and Weatherford International) enjoy an advantage over smaller firms, as NOCs often prefer to deal with only one firm rather than deal with several.

In 2011 a group of business school professors carried out a study to identify the 100 most innovative companies globally. They found that the oilfield services industries accounted for six of the top 100. Two of these were Schlumberger and Halliburton, and a further two were leading drilling equipment companies FMC Technologies and Cameron International. The remaining two were China Oilfield Services and Tenaris SA.[201]

201" Musings: The Innovators in The Oilfield Service Industry Identified" *RigZone*, 30 October 2010.

Key Infrastructure

Overview of Oil Infrastructure

South Sudan retained three-quarters of total Sudanese-South Sudanese oil production when it gained independence from its northern neighbor in July 2011; but the South has little oil infrastructure of its own and can only export its oil through pipelines owned by the North. The two countries failed to reach an understanding on oil transit fees prior to the South's secession.[202]

Pipelines

The Unity and Heglig oil fields in South Sudan, which produce the bulk of the country's Nile Blend crude oil, are connected to a terminal at Port Sudan, on Sudan's Red Sea coast, through a 1,540-km pipeline[203] operated by the Greater Nile Petroleum Operating Company (GNPOC).[204]

Petrodar owns and operates a separate pipeline beginning at its oil blocks in the Melut Basin of Upper Nile state, in northern South Sudan, and stretching some 1,500 kilometers also to Port Sudan.[205] The pipeline has a carrying capacity of 500,000 barrels per day (bpd); the system also includes production facilities and a 300,000 bpd processing facility.[206]

Potential pipelines

According to the US Energy Information Administration (EIA), South Sudan has signed non-binding memoranda of understanding with both the Kenyan and Ethiopian governments on a proposal to build two pipelines through both countries. If constructed, the pipeline through Kenya would go to the port of Lamu and the pipeline through Ethiopia would end at the port of Djibouti. South Sudan wants the planned pipeline from South Sudan to Kenya's Port of Lamu to be just over 1,000-miles long, with a capacity of 500,000 bbl/d, and completed within 18 months. However, most analysts remain skeptical and believe that, if constructed, the pipeline would take at least 2-3 years to complete, given the general logistics, lack of roads, and security concerns surrounding the pipeline route.[207] Industry analysts cited by news agency *All Africa* also

202" South Sudan: Government's Announcement of U.S.$8 Billion Loan From China Draws Skepticism", *All Africa*, 15 May 2012.
203" Focus On Diplomacy & Sudan", *Highbeam Business*, 15 August 2005.
204" Pipeline Division", *GNPOC website*, Retrieved 17 July 2012.
205" China's New Courtship in South Sudan" *International Crisis Group*, 4 April 2012.
206" Chinese Investments to Secure Natural Resource Supplies" *Peterson Institute for International Economics*, Retrieved 18 July 2012.
207" Sudan and South Sudan- Analysis", *US Energy Information Administration*, 19 March 2012.

said it was not clear whether the newly independent nation could secure credit in the interim at reasonable rates.

In April 2012, Japanese firm Toyota Tsusho completed a feasibility study of the South Sudan-Kenya pipeline, according to *Reuters*; South Sudanese officials said they expected Toyota Tsusho to begin putting together a financial package for the pipeline, the cost of which had yet to be made public.[208]

In December 2011, French oil major Total said it could build a pipeline from South Sudan to Uganda that would continue to Kenya's coast, potentially solving the fledgling state's oil export problems. South Sudan has talked to companies about building a pipeline directly to Kenya, according to *Reuters*, but analysts say it would be difficult for the country, which still suffers civil strife, to raise the funds required or overcome other logistical challenges. Christophe de Margerie, Total's CEO, said there was no timeline for construction of the pipeline. "It's just thoughts today," he told *Reuters* in late 2011.[209]

Refineries

Potential refineries

As of mid-2012, there were no refineries in South Sudan; however, the pipeline project that South Sudan expects to undertake with Kenya includes plans for building a refinery in Lamu. According to the EIA the South Sudanese government has also mentioned potential plans to build domestic refineries to export petroleum products to regional markets, such as Kenya, Uganda, and Ethiopia.

Pipelines and Transit Fees in Sudan and South Sudan

The Comprehensive Peace Agreement (CPA) between Sudan and South Sudan, signed in 2005, did not set provisions on oil transit fees. Since South Sudan retained 75% of combined Sudanese-South Sudanese oil production after its secession from Sudan in July 2011 - while the entire pipeline, refining, and export infrastructure remained in Sudan - pipeline fees have been an object of contention since South Sudanese independence.[210]

Transit fee dispute

Pipeline fees were at the heart of a dispute that came to a head in January 2012, about half a year after the South's secession, in which the Sudanese government in Khar-

208" S.Sudan: Japan firm completes Kenya pipeline study" *Reuters*, 13 April 2012.
209" Total eyeing South Sudan-Uganda oil pipeline", *Reuters*, 7 Dec 2011.
210" Sudan and South Sudan" *US Energy Information Administration*, 19 March 2012.

toum asked for transit fees of US $30 per barrel, according to the Civil-Military Fusion Center think tank, while international standards typically lie between $0.40 and $1.00. South Sudan countered that it would pay only $0.63-0.69 per barrel, in addition to a one-time payment of $1.7 billion to compensate for Sudan’s loss in oil revenue when South Sudan gained independence.[211]

South Sudan's refusal to pay the high transit fee, and Sudan's subsequent seizure of South Sudanese oil as compensation, led South Sudan to entirely shut down its oil production in January 2012. As of mid-2012, the pipeline fee dispute and South Sudan's production shut-down had yet to be resolved.

Main article: Oil Production Shutdown of 2012

South Sudan's new pipeline plans

To reduce its dependency on Sudan's infrastructure, South Sudan in January signed memorandum of understanding (MoU) with the Kenyan government to build an oil pipeline from South Sudan to the Kenyan port of Lamu; a month later Juba signed another MoU with Ethiopia's government to build an oil pipeline via Djibouti.[212]

Main article: Overview of Oil Infrastructure in South Sudan

211" Sudan and South Sudan’s Oil Industries: Growing Political Tensions" *Civil-Military Fusion Center*, May 2012.
212" South Sudan, Ethiopia Sign Accord On Djibouti Oil Pipeline" *Bloomberg*, 9 February 2012.

Oil and Gas Fields

Overview of Oil and Gas Fields

As of March 2012, nearly all of the oil produced in South Sudan came from Blocks 3, 7 and 5A, located mostly within South Sudanese territory, as well as Blocks 1, 2, and 4, known as the Greater Nile Oil Project and located in an area that straddles Sudan, South Sudan, and the disputed Abyei region.[213]

Producing blocks – see map, p. 5

Blocks 3, 7

Blocks 3 and 7 are located in the Melut Basin in the northeast of South Sudan, which contains the Fal, Adar Yale, and Palogue oil fields. The blocks are operated by the Petrodar consortium, led by CNPC and Malaysia's Petronas with a 41 percent and 40 percent stake in the consortium, respectively.[214] Production in the two blocks averaged about 230,000 barrels per day (bpd) of the heavy, highly acidic Dar blend in 2011.

Block 5A

Block 5A, located in north-central South Sudan, is operated by a joint venture between Petronas, ONGC and Nilepet. As of March 2012 the block had a production capacity of about 25,000 bpd of the Nile blend crude oil.[215]

Blocks 1, 2 and 4

Collectively known as the Greater Nile Oil Project (GNOP), Blocks 1, 2, 4 are located in the Muglad Basin, covering an area of 48,388 square kilometers. The largest fields in the area are the Heglig and Unity fields, which began production in 1996. Combined production from Blocks 1, 2 and 4 in 2011 was an estimated 120,000 bpd of Nile blend, according to the US Energy Information Administration, down from their 2004 peak of nearly 290,000 bpd.

Since fields within the Greater Nile Oil Project (GNOP) straddle both Sudans, the area is a subject of ongoing dispute. The Unity field lies fully in South Sudan, but the Heglig field in Block 2 remains disputed. The Permanent Court of Arbitration in The Hague ruled in 2009 that two fields from this block - Heglig and Bamboo - belong to the North; but protracted negotiations over the future of these fields have delayed the investment needed to stave off production declines.

213" EIA Country Analysis" *US Energy Information Administration*, 19 March 2012.
214" Head of Petrodar oil company expelled from South Sudan" *Sudan Tribune*, 21 February 2012.
215" Oil Investment Conference" *Ministry of Petroleum and Mining*, March 2012.

In April 2012, South Sudan seized the Heglig field after violent clashes in the border region, in a move UN General Secretary Ban ki-Moon called "an infringement on the sovereignty of Sudan and a clearly illegal act".[216]

Additional blocks

In Block B, in southeastern South Sudan, the Total-led consortium was as of March 2012 seeking a partner to replace Marathon Oil; Block 5B was under exploration by Nilepet, Petronas and Ascom, which were seeking additional partners in the block. South Sudan's Ministry of Petroleum and Mining reported at the Oil Investment Conference, in the capital Juba in March 2012, that the National Petroleum Commission had recently mapped out a new block, Block EA, which runs along existing fields in the Muglad Basin. It also said it was seeking additional partners in Block A, in north-central South Sudan.

Crude Oil Qualities in South Sudan

South Sudan produces two main blends of crude oil: Nile, a light, sweet and waxy blend, and Dar, a heavy and sour blend that is more difficult to refine.[217]

Nile blend

Nile blend is a light, sweet waxy crude located mostly in the Muglad Basin, which straddles the border between South Sudan and Sudan. Nile blend had an API gravity high of 36.2, reported in April 2000, which subsequently declined to 33.7 API by June 2002, indicating a somewhat heavier crude than previously reported. Nile has a 0.05 weight percentage of sulfur. The first exports of Nile blend began in September 1999, through a pipeline to an export terminal on the Red Sea.[218]

Dar blend

The low quality Dar blend is found in the Melut Basin east of the White Nile, mostly in South Sudan but extending northward into Sudan.[219] Dar blend has a gravity of 26.4 API, according to energy consultancy *Platts*, and a sulphur content of 0.12 percent.[220] Because Dar is a heavy paraffinic oil, it needs to be transported at high temperatures (45-50 degrees celsius) to avoid congealing in its storage tanks in ships. Additionally, its high acidity means that it will erode ordinary refinery metalwork. Dar blend contains high levels of arsenic, which acts as a pollutant to refinery catalysts. The combined effects of these properties make it unacceptable for many customers; some cus-

216" UN says South Sudan seized Heglig oil field illegally" *BBC News Africa*, 19 April 2012.
217" Oil production estimates for Sudan and South Sudan are cut amid revenue-sharing dispute" *International Energy Agency*, 15 February 2012.
218" Crude Grade : NILE BLEND" *Petro Tech Intel*, Retrieved 4 June 2012.
219" SUDAN'S OIL INDUSTRY Facts and Analysis, April 2008" *European Union*, April 2008.
220" METHODOLOGY AND SPECIFICATIONS GUIDE" *Platts*, May 2012.

tomers, meanwhile, blend it with other components in order to sell it as fuel oil. As of 2008, plans were in place to build a refinery at Port Sudan to treat Dar blend, but as of June 2012 construction on this refinery had not yet begun.

Crude oil pricing

Nile blend is sold at much higher prices than Dar, according to an April 2008 report funded by the European Union.[221]

The South Sudan Development Plan 2011-2013, released by the government in August 2011, produced a list of oil price assumptions for Nile and Dar blends relative to the benchmark Brent price for the years 2011, 2012 and 2013, in each of which Nile Blend was sold at a US $2 discount from the Brent price and Dar Blend was sold at a US $10 discount from Brent.[222]

Bloomberg News in January 2012 obtained a tender document detailing a proposed sale of the two blends of crude by the Ministry of Petroleum of South Sudan. The document detailed the sale of 4.7 million barrels of Dar Blend, to be loaded in February 2012, at Dated Brent pricing,[223] which in February stood at US $119.70 per barrel;[224] along with 1.3 million barrels of Nile Blend at Indonesian Crude Price (ICP) Minas pricing, which in February 2012 stood at US $124.63 per barrel.[225]

India's Oil & Natural Gas Corp (ONGC) sold a cargo of Nile Blend at a record premium - US $3 per barrel - in December 2011 after a dispute between South Sudan and Sudan over pipeline transit fees reduced supplies, India's *Economic Times* reported.[226] Previously, in November 2011, South Sudan had sold a cargo of Nile Blend crude to Chinaoil at a premium of US $1.20 a barrel. *Reuters* reported at the time that this was the highest premium in at least four years as fears of possible confrontation with neighbouring Sudan drove up prices; Nile Blend's spot premium had last surged more than $1 a barrel in 2007 when a massive earthquake rocked Japan.[227]

Unity oil field

The Unity oil field is an oil field in Unity State, South Sudan. It lies to the north of the state capital Bentiu in Rubkona County,[228] and, according to the *Guardian*, represents

221" SUDAN'S OIL INDUSTRY Facts and Analysis, April 2008" *European Union*, April 2008.
222" South Sudan Development Plan 2011-2013" *Government of the Republic of South Sudan*, August 2011.
223" South Sudan Offers Nile, Dar Blend Crude Cargoes For February" *Bloomberg*, 13 January 2012.
224" Crude Oil (petroleum); Dated Brent Monthly Price - US Dollars per Barrel" *Index Mundi*, 10 July 2012.
225" Indonesia Pertamina sets Feb term Minas price at $124.63/bbl, up $6.25/bbl" *RIM Intelligence Co*, 1 March 2012.
226" ONGC sells Sudan Nile Blend crude for January at a record premium to Arcadia" *The Economic Times*, 27 December 2011.
227" S. Sudan sells Dec Nile Blend; highest in 4 years" *Reuters Africa*, 8 November 2011.
228" Fact Sheet Two: A History of Oil in the Sudan" *Understanding Sudan*, 2009.

the largest and most important oil reserve in either of the Sudans.[229] The University of California website *Understanding Sudan* wrote in 2009 that both the Unity and Heglig fields were in decline, with water ratios of 65 percent.

The field is connected to an export terminal near Port Sudan, on Sudan's Red Sea coast, via the 1,600 kilometer long Greater Nile pipeline.

History

The oil field, and the Heglig field further north, were discovered by US company Chevron in 1982, and became one of the most productive fields in the former Sudan. Chevron spent almost $880 million in exploration, according to *Understanding Sudan*, but suspended operations soon after the Second Sudanese Civil War (1983-2005) began, a major reason being the killing in 1984 of three Chevron workers by Anyanya II rebels. Chevron demanded a special oilfield protection force in addition to the army; but, dissatisfied with security, Chevron closed its operations in Unity province by 1988.

South Sudan and Sudan clashed in border areas near Unity field in the April 2012, with one military official telling the *BBC* that the Unity field was targeted in Sudanese attacks.[230]

Heglig oil field

Production at Heglig, a disputed area in the Muglad Basin between South Sudan and Sudan, began in 1996 with the development of the Heglig and Unity fields, which are now the largest in the area.[231] The fields were discovered in 1992 by US company Chevron,[232] and have collectively come to be known as the Greater Nile Oil Project. As of April 2012 the Heglig field was operated by the Greater Nile Petroleum Operating Company (GNPOC), a consortium of China National Petroleum Corporation (CNPC), Petronas, ONGC and Sudapet.[233]

The field is connected to an export terminal near Port Sudan, on Sudan's Red Sea coast, by the 1,600 kilometer long Greater Nile pipeline[234] with a capacity of 450,000 barrels per day (bpd). According to *Reuters*, GNPOC said in May 2012 it would go ahead with plans to increase the field's output to 70,000 bpd from 60,000 bpd. The teaching resource *Understanding Sudan* wrote in 2009 that both the Unity and Heglig fields were in decline, with water ratios of 65 percent.

229" South Sudan refuses to be held to ransom by the north" *The Guardian*, 17 May 2012.
230" South Sudan's oil facility 'bombed by Sudan'" *BBC News*, 21 April 2012.
231" FACTBOX-Sudan's Heglig oilfield" *Reuters*, 19 April 2012.
232" Unity Oil Field" *OilVoice*, Retrieved 5 July 2012.
233" IMPLEMENTING CORPORATE SOCIAL RESPONSIBILITY IN SOUTH SUDAN" *Integrity Research and Consultancy*, October 2011.
234" South Sudan refuses to be held to ransom by the north" *The Guardian*, 17 May 2012.

Dispute over ownership

South Sudan and Sudan have traded claims and counterclaims over the Heglig oil field. The Sudanese government in Khartoum has cited a 2009 ruling by the Permanent Court of Arbitration in The Hague that said Heglig was not part of the disputed Abyei territory; according to *Reuters*, maps issued by the court appear to put Heglig in the north. Juba, however, has hotly contested Khartoum's claim according to *Reuters*, often citing an internal boundary marked by British colonial administrators, and the ethnicity of the local population. Many southerners call the area Panthou.

Heglig was the scene of intense fighting in April 2012, when South Sudan seized the field,[235] accusing Khartoum of using it as a base to launch attacks.[236] Sudanese troops recaptured the Heglig oil field later that month after battling South Sudanese forces, whose President Salva Kiir ordered an immediate withdrawal.[237] Key parts of the oil infrastructure in Heglig were destroyed in the fighting, including oil pipelines and the power plant.

Heglig is vital to Sudan's economy because it produces almost half of the country's output of 115,000 bpd.

Adar oil field

The Adar oil field, also known as Adar-Yar, with estimated oil in place of about 276 million barrels, is located in the Melut basin in the northern Upper Nile.[238]

The field was discovered by US oil company Chevron in 1981 and was inaugurated by Sudan President Omar al-Bashir in March 1997, at which point it was producing about 5,000 barrels per day (bpd). The first Sudanese crude to be exported came from Adar. The exports were minimal - one cargo every fortnight, or up to 2,500 bpd; by May 1998, production had increased to 10,000 b/d, which remained a tiny fraction of the field’s potential.[239]

Chevron left Sudan in 1990 and as of 2011 Adar field was operated by the consortium Petrodar.[240]

Thar Jath oil field

Drilling activities and oil production in Thar Jath, located in Unity state, began in April

235" UPDATE 2-Sudan says Heglig oilfield repaired, pumping oil" *Reuters*, 2 May 2012.
236" South Sudan 'to withdraw troops' from Heglig oil field" *BBC News*, 20 April 2012.
237" Sudan retakes Heglig oil field as South orders withdrawal" *The China Post*, 21 April 2012.
238" Economic Development of Southern Sudan" *by Benaiah Yongo-Bure*, 2007.
239" Oil development in northern Upper Nile, Sudan" *European Coalition on Oil in Sudan*, May 2006.
240" Adar Yale, Agordeed & Gasab Fields" *Petrodar Operating Company*, Retrieved 2 July 2012.

1999 by the International Petroleum Company (IPC), owned by Sweden's Lundin Petroleum. As of late 2011, Thar Jath was operated by the White Nile Petroleum Operating Company (WNPOC), which started oil production from the field in April 2006.[241]

Production from Block 5A, which includes Thar Jath and the Mala field, was about 25,000 barrels per day (bpd) in 2008, according to the European Coalition on Oil in Sudan (ECOS), with full capacity estimated at 60,000 bpd. According to ECOS, Thar Jath crude's quality is poor and has to be mixed with Nile Blend to prevent a price discount.[242]

Human rights and environmental issues

When production first began at Thar Jath in the late 1990s, "the local communities living in or near it experienced attacks, harassment and displacement from the central government and from breakaway groups of [the Sudan People's Liberation Movement] SPLM/A during the war", wrote Maren Gunnarson Fallet for the Norwegian Department of International Environment and Development Studies in May 2010. Block 5A was the site of major human rights violations when Lundin was the lead operator of the block until 2003.[243] In 2009, German development organisation Sign of Hope accused WNPOC, operator of the field, of contaminating water supplies in the area, affecting at least 300,000 people in Unity state.[244]

241" South Sudan's Oil: A Common Good?" *Comboni.org*, 17 August 2011.
242" Sudan's Oil Industry on the Eve of Referendum" *European Coalition on Oil in Sudan*, 17 August 2011.
243" The Impact of the Oil Industry on Local Communities in South Sudan" *Department of International Environment and Development Studies*, May 2010.
244" Oil 'polluting South Sudan water'" *BBC News*, 16 November 2009.

State-owned Entities

Ministry of Petroleum and Mining

Internal organisation

As of early June 2012, South Sudan's incumbent Minister of Petroleum and Mining was Stephen Dhieu Dau and the Deputy Minister was Elizabeth James Bol.[245] The Ministry's official mission is stated as: To formulate necessary legislation and regulation for the management and development of the energy and mining sectors as well as develop and implement GOSS policies and strategies on power generation and distribution.

Within the Ministry, there are five directorates- the Directorate of Administration, the Directorate of Energy, the Directorate of Geological Survey, the Directorate of Minerals Development and the Directorate of Power Planning.

According to reports in November 2011, a South Sudanese official commented that the new country would be marketing its own fuel rather than having a crude oil marketing firm, such as Switzerland's Glencore, to do this on its behalf. Official at the Ministry Macar Aciek Ader said that "nobody will accept giving a national resource of this nature to a private company to go and market it. Nobody will do that. Oil is politics, and it will continue to be politics."

Foreign technical assistance

USAID

In April 2012, the Ministry of Petroleum and Mining in partnership with the United States Agency for International Development (USAID) held a workshop on Pipeline development at Home and Away Business Centre in Juba.[246]

World Bank

According to the Extractive Industries source book, a World Bank funded project, a World Bank administered grant in the amount of 3.3 million USD has been prepared by the World Bank working closely with the South Sudanese Government and other key donors such as Norway to address South Sudan's urgent petroleum sector priorities.[247]

245" Petroleum and Mining", *Government of South Sudan official website*, Retrieved 7 June 2012.
246" Petroleum Ministry, USAID Convenes Oil Pipeline Workshop", *Gurtong*, 20 April 2012.
247" Key Institutional Issues", *Extractive Industries Source book*, Retrieved 7 June 2012.

Norwegian aid

Through the Norwegian programme, Oil for Development, the Government of South Sudan has received various technical assistance, including an audit of wealth sharing in the oil sector and a functional analysis of the previous Ministry of Mines in South Sudan.[248]

Also, according to the Sudan profile on the Norwegian Agency for Development Co-operation (Norad) website, Norway and other donors will deploy experts and advisors in the finance and oil ministries in Juba. They will conduct training and transfer of knowledge, as well as assisting in establishing an administration and best practices for financial management.[249]

Disputes with Sudan

South Sudan's Minister for Petroleum and Mining, Stephen Dhieu Dau, has accused the Khartoum government of taking the country's crude oil, despite Khartoum's refusal to accept a payment from South Sudan of US $2.6 million to help it recover from the economic shock that resulted from South Sudan's secession in July of 2011.[250]

Reports that Khartoum had been diverting Juba's crude en route to Port Sudan for export provoked South Sudan to suspend its production of 350,000 barrels of oil per day (bpd) on 20 January 2012. According to the Horn Business Journal, the order to shut down oil production came from South Sudan's President Salva Kiir, who directed Minister Dhieu Dau to execute it with immediate effect.[251]

Nilepet

Nilepet is the technical, operational and commercial arm of the Ministry of Energy and Mining in the government of the Republic of South Sudan. Nilepet was created to build the national technical capabilities of the Government of South Sudan and to maximize government take of profit oil.[252]

Overview

History

Nilepet was established in 2003 under the Civil Authority for New Sudan (CANS) to link

248" 2011 Oil for Development Work plan", *Norad official site*, Retrieved 7 June 2012.
249" Sudan country profile", *Norad official site*, Retrieved 7 June 2012.
250" Khartoum refuses RSS financial assistance, takes South Sudan oil - Petroleum minister ", *Embassy of South Sudan in Washington DC*, 11 January 2012.
251" Oil Impasse: Juba Issues an International Legal Notice - By Musa Radoli", *Horn Business Journal*, Retrieved 7 July 2012.
252" About Us" *Nilepet official website*, retrieved 7 June 2012.

the oil companies with CANS, the then civil government in the liberated areas of South Sudan. Nilepet was incorporated on the 1st day of June 2009 under the New (South) Sudan Companies Act 2003 by the South Sudanese Ministry of Legal Affairs and Constitutional Development.

On 7 November 2011, South Sudanese President Salva Kiir issued an order divesting Sudapet, Sudan's national oil company, of its shares in South Sudan's oilfields and transferring them to Nilepet.[253]

Joint ventures and subsidiaries

In July 2011, the Government of South Sudan released a press statement saying they had formed a joint venture with Glencore International, called Petronile International, with the purpose of marketing the crude oil entitlements of the Republic of South Sudan and of Nilepet in the international markets from July 9th onwards. [254]

Subsidiaries include Geometrics Engineering Company which is responsible for executing engineering projects in the upstream, midstream and downstream segments of the oil and gas industry[255] , the Nile Pipeline Corporation which is tasked with the construction and management of all existing and new pipelines, storage depots and pipeline facilities for exporting South Sudan crude to the international market [256], Nile Refinery Company, and the Nile Geophysical Group which is responsible for seismic acquisition, processing, and interpretation.[257]

253" South Sudan and Sudan at loggerheads over oil talks" *Miami Herald*, 22 November 2011.
254" Press Release" *Government of South Sudan website*, retrieved 7 June 2012.
255" Geometrics Engineering Company" *Nilepet official website*, retrieved 7 June 2012.
256" Nile Pipeline Corporation" *Nilepet official website*, retrieved 7 June 2012.
257" Nile Geophyscal Group" *Nilepet official website*, retrieved 7 June 2012.

Private Entities

Overview of IOCs in South Sudan

Foreign oil companies, especially Asian companies, dominate the oil sector in South Sudan. The China National Petroleum Corporation (CNPC), India's Oil and Natural Gas Corporation (ONGC) and Malaysia's Petronas hold the largest stakes in the biggest consortia in South Sudan: the Greater Nile Petroleum Operating Company (GNPOC), Petrodar, and the White Nile Petroleum Operating Company (WNPOC). France's Total also leads a consortium that controls Block B in South Sudan.[258]

Sudanese state-owned oil company Sudapet held shares in South Sudan's oil fields until November 2011, four months after South Sudan's secession, when President Salva Kiir of South Sudan issued an order divesting Sudapet of its shares and transferring them to Nilepet, South Sudan's state-owned firm.[259]

Oil company consortia

Greater Nile Petroleum Operating Company (GNPOC)

GNPOC is a consortium of CNPC (40 percent), Petronas (30 percent), ONGC (25 percent) and Nilepet (5 percent)[260][261]

- Controls blocks 1, 2 and 4, known collectively as the Greater Nile Oil Project and split between the two Sudans[262]

Petrodar

Petrodar is a consortium of CNPC (41 percent), Petronas (40 percent), Nilepet (8 percent), Sinopec (6 percent), and Tri-Ocean Energy of Kuwait (5 percent)

- Controls blocks 3, 7 in South Sudan

White Nile Petroleum Operating Company (WNPOC)

WNPOC-1 is a consortium of Petronas (67.88 percent), ONGC (24.125 percent) and Nilepet (7 percent)

258" IMPLEMENTING CORPORATE SOCIAL RESPONSIBILITY IN SOUTH SUDAN" *Integrity Research and Consultancy*, October 2011.
259" South Sudan And Sudan At Loggerheads Over Oil" *African Spotlight*, 22 November 2011.
260" Sudan Oil Block Map" *European Coalition on Oil in Sudan*, Retrieved 18 July 2011.
261" Sudan accuses south of seizing Sudapet's shares" *Sudan Tribune*, 17 November 2011.
262" Sudan and South Sudan" *EIA Country Analysis Briefs*, 19 March 2012.

- Controls Block 5A in South Sudan

WNPOC-2 is a consortium of Petronas (39 percent), Lundin (24.5 percent), ONGC (23.5%), Nilepet (13 percent), and 10% awarded to GOSS with the consortium's composition to be renegotiated

- Controls Block 5B in South Sudan[263]

WNPOC-3 is a consortium of Petronas (77 percent), Sudapet (15 percent), and Hi Tech (8%)

- Controls Block 8 in Sudan[264]

Total

Total (32.5%) leads a consortium that includes Kufpec (27.5%), Nilepet (10%), GOSS (10%), with 20% open

- Controls Block B in South Sudan

CNPCIS

CNPC (95%) leads a consortium that includes Sudapet (5%)

- Controls Block 6 in South Sudan

Corporate Social Responsibility (CSR)

Overview

According to the Kennedy School of Government, throughout the industrialized world and in many developing countries there have been rising expectations of the social role corporations are expected to play.[265] However according to the European Coalition on Oil in Sudan (ECOS), over recent years in Sudan civil wars and undemocratic rule have made it highly problematic for companies to be a force for good in the country.[266]

As many major players such a ONGC Videsh, CNPC and Petronas set up offices in Juba in the wake of South Sudanese independence, they faced a series of challenges relating to their role in the new country, prompted by factors such as logistical and staffing challenges and undefined border of operations, among others.[267]

263" Sudan and South Sudan Oil Pipeline Map" *European External Action Service*, 24 April 2012.
264" Sudan International Onshore/Offshore Bid Round 2012" *Oil Exploration and Production Authority* (OEPA)*, Retrieved 7 June 2012.*
265" Defining Corporate Social Responsibility" *Kennedy School of Government*, retrieved 5 June 2012.
266" Business Principles for Sudan during the Interim Period" *ECOS*, retrieved 5 June 2012.
267" Defining Corporate Social Responsibility" *Kennedy School of Government*, retrieved 5 June 2012.

ECOS Guidelines

The Transitional Constitution in South Sudan sets out the broad legal framework for the oil sector, however in addition to the South Sudan-specific legislation, oil companies and consortia must also comply with international legislation such as the ILO Conventions on Fundamental Principles and Rights at Work, if the South Sudan government becomes a signatory. Beyond this there are a series of voluntary standards such as the EITI or the World Bank Gas Flaring Project, with which companies may choose to comply.[268]

In an attempt to pull together many of these standards, the European Coalition on Oil in Sudan (ECOS) released a consolidated set of business principles for the sector during the transition period and beyond. In their analysis, the upstream oil business in particular has been at the centre of conflict and violations of human rights and had to thoroughly rethink the way it operates from 2005 onwards.

The guidelines identify five priority principles, drawn from international law, authoritative voluntary standards for business behaviour and the provisions and purpose of the CPA. The document also proposes a set of 13 activities, including the essential impact assessments.

Findings of 'Integrity Research' report

A report released by Integrity Research and Consultancy in 2011 assessed the CSR policies and practices of oil companies in South Sudan, with the aim of better understanding the potential for international oil companies to play a positive role in nation-building and development.

As part of the Comprehensive Peace Agreement (CPA) in 2005, principles were laid out for the sustainable utilization and control of natural resources, consultation of local communities, shared rights over revenues and compensation over past violations of human rights. However accordig to Integrity Research the CPA was never fully implemented, partly due to uncertainty over the specific responsibility of oil companies, leading to an 'accountability vacuum'.

The report found that while some companies which participated in the research (CNPC, ONGC and Petronas) had global CSR policies to which they adhere, in most cases there was no corresponding local policy. The research also found that most company representative were not aware of global CSR principles such as the ICMM or the World Bank Gas Flaring Project), however of all the global initiatives the Extractive Industries Transparency Initiative (EITI) was the most commonly recognized.

No company interviewed had a mechanism to monitor relations with local communities and the research found that the perception of CSR among companies in South Sudan tends to fall firmly into the "philanthropy" space, carried out in an ad-hoc and unmonitored manner rather than being thoroughly integrated into corporate strategy.

268" IMPLEMENTING CORPORATE SOCIAL RESPONSIBILITY IN SOUTH SUDAN" *Integrity Research and Consultancy*, October 2011.

In particular, the logistical difficulties of companies relocating offices to Juba may explain the fact that CSR is low down on the list of priorities for these actors.

Among the recommendations made by the consultancy were; a clarification of accountabilities between oil companies, JOCs and the government; capacity building for senior management and community contact staff on conflict sensitivity; regular updates on key global initiatives; and the creation of an anonymous space to raise concerns and questions in the form of Oil Affairs Committees.[269]

External Links

ECOS: Business Principles for Sudan during the Interim Period

Greater Nile Petroleum Operating Company (GNPOC)

The Greater Nile Petroleum Operating Company (GNPOC) is a consortium of China National Petroleum Corporation (CNPC) (40 percent share), Malaysia's Petronas (30 percent), India's ONGC (25 percent) and South Sudan's national oil company Nilepet (5 percent).[270] The consortium controls oil blocks 1, 2 and 4, collectively known as the Greater Nile Oil Project and containing fields that straddle the border between the two Sudans.

History

GNPOC acquired an interest in blocks 1, 2, and 4 from Canada's Arakis Energy Corporation in December 1996. In March 1997, GNPOC began to build a 1540 kilometer (km) oil pipeline from the oilfields to a marine export terminal on the Red Sea; the first 1,500 barrels of crude oil traveled through the pipeline in August 1999.[271]

GNPOC's production in blocks 1, 2 and 4 reached its peak of 328,000 bbl/d in 2005. According to a report by the European Coalition on Oil in Sudan (ECOS), GNPOC's policy to pump as much as possible as quickly as possible led to a loss of production potential at the fields; by April 2008, the publishing date of the ECOS report, the Heglig and Unity fields were in decline with produced water ratios exceeding 65%.[272]

The Neem field in Block 4, which came on stream in July 2006, offset most of the decline in production from the Unity and Heglig fields and by 2007, GNPOC was producing from eight main oil fields: Heglig, Unity, El Toor, El Noor, Toma South, Bamboo, Munga and Diffra. The oil was transported through the GNPOC pipeline supplying over

269" IMPLEMENTING CORPORATE SOCIAL RESPONSIBILITY IN SOUTH SUDAN" *Integrity Research and Consultancy*, October 2011.
270" Oil Investment Conference" *Ministry of Petroleum and Mining*, March 2012.
271" Sudan's Oil Industry" *European Coalition on Oil in Sudan*, April 2008.
272" Project Overview" *GNPOC website*, Retrieved 17 July 2012.

60,000 barrels of oil per day for local consumption to the El Obied and the Khartoum refineries in Sudan, with the remaining portion exported through thee marine terminals in Port Sudan, on Sudan's Red Sea coast.

ECOS wrote in 2008 that production from the Neem field together with other, smaller new fields, would allow GNPOC to remain Sudan's main oil producing company for a few more years.

Environmental record

The April 2008 ECOS report stated that GNPOC's oil extraction activities in Western Upper Nile were known to discharge large quantities of contaminated water onto the surface, to the detriment of the agro-pastoralists in the area. The discharged water was not potable for humans, according to ECOS, unfit for animals and too filthy for irrigation; in most oil areas there was no proper sewage treatment, and flare pits, drilling pits, sewage pits and garbage pits were left behind without care.

White Nile Petroleum Operating Company (WNPOC)

White Nile Petroleum Operating Company (WNPOC), incorporated in 2001,[273] is a joint operating company between Petronas of Malaysia and Sudapet of Sudan, each of which owns a 50% share.[274] As of mid-2012, however, Sudapet's claim to a share of WNPOC was unclear, as the South Sudanese government in November 2011 called on all of Sudapet's shares in South Sudan to be transferred to the country's national oil company, Nilepet.[275]

Organization

WNPOC operates in South Sudan and Sudan through three subsidiary companies: WNPOC-1 in Block 5A and WNPOC-2 in Block 5B, both in South Sudan; and WNPOC-3 in Block 8, in Sudan.[276][277]

- WNPOC-1 is a consortium of Petronas (67.88 percent), ONGC (24.125 percent) and Nilepet (7 percent)
- WNPOC-2 is a consortium of Petronas (39 percent), Lundin Petroleum (24.5 percent), ONGC (23.5%), Nilepet (13 percent), and 10% awarded to the government of South Sudan with the consortium's composition to be renegotiated

273" PETRONAS SIGNS TRANSITION AGREEMENT WITH SOUTH SUDAN" *Petronas website*, 13 January 2012.
274" Block 8 probes deliver for WNPOC" *European Coalition on Oil in Sudan*, 2 June 2009.
275" Sudan accuses south of seizing Sudapet's shares" *Sudan Tribune*, 17 November 2011.
276" Sudan Oil Block Map" *European Coalition on Oil in Sudan*, Retrieved 18 July 2011.
277" Sudan and South Sudan" *EIA Country Analysis Briefs*, 19 March 2012.

- WNPOC-3 is a consortium of Petronas (77 percent), Sudapet (15 percent), and Hi Tech (8%)

History

WNPOC secured the rights to develop the Thar Jath and Mala fields[278] in Block 5A[279] in April 2005, in partnership with ONGC. WNPOC began oil production from Thar Jath in April 2006, followed by Mala main field in December 2006 and Mala satellite field in April 2008. The oil from WNPOC's fields is exported to Port Sudan via a 180-kilometer pipeline that ties into the Greater Nile Petroleum Operating Company's main pipeline, though as of June 2012 all production in South Sudan remained shut in due to pipeline fee disputes with Sudan.

Petrodar

Petrodar is a consortium of China National Petroleum Corporation (CNPC) (41 percent share), Malaysia's Petronas (40 percent), South Sudan's national oil company Nilepet (8 percent), China's Sinopec (6 percent), and Tri-Ocean Energy of Kuwait (5 percent). It operates in blocks 3D, 3E and 7E with a total concession area of 72,420 square kilometers in the Melut Basin[280] of South Sudan. Petrodar was incorporated on the British Virgin Islands in October 2001.[281]

History

Petrodar's exploration activities started in 2001 in blocks 3 and 7, which at the time contained only the Adar Yale oilfields.[282] In 2006,[283] Petrodar opened a pipeline beginning at its oil blocks in the Melut Basin of Upper Nile state and stretching some 1,500 kilometers to Port Sudan, on Sudan's Red Sea coast.[284] The pipeline has a carrying capacity of 500,000 barrels per day (bpd); the system also includes production facilities and a 300,000 bpd processing facility.

According to the Petrodar website in July 2012, the company's operations subsequently expanded to the Greater Palougue and Teng-Mishmish fields;[285] the Agordeed and Gasab fields, which had first oil production in July 2006 and December 2007 respectively;[286] the Moleeta and Mooz fields, both of which started production in

278" Oil in Sudan" *Total website*, Retrieved 22 June 2012.
279" About Company" *WNPOC website*, Retrieved 22 June 2012.
280" Petrodar In Brief" *Petrodar Operating Company*, Retrieved 18 July 2012.
281" Chinese Investments to Secure Natural Resource Supplies" *Peterson Institute for International Economics*, Retrieved 18 July 2012.
282" Upstream Operations" *Petrodar Operating Company*, Retrieved 18 July 2012.
283" Sudan to open new oil pipeline" *Sudan Tribune*, 5 April 2006.
284" China's New Courtship in South Sudan" *International Crisis Group*, 4 April 2012.
285" Greater Palogue , Teng-Mishmish Fields" *Petrodar Operating Company*, Retrieved 18 July 2012.
286" Adar Yale, Agordeed & Gasab Fields" *Petrodar Operating Company*, Retrieved 18 July 2012.

March 2009;[287] and the Gumry, Geradon and Zarzor fields, which started production in August 2008.[288]

Blocks 3 and 7, according to the Peterson Institute for International Economics, accounted for about half of the oil produced in formerly united Sudan in 2006; in 2008, Petrodar's daily production capacity in Sudan was at 200,000 barrels of oil, with annual production at 10 million tons.

Expulsion of Petrodar president from South Sudan

South Sudan expelled the Chinese head of Petrodar, Liu Yingcai, in February 2012, accusing him of covering up the theft of South Sudanese oil by Sudan. Specifically, South Sudan's oil minister Stephen Dhieu Dau wrote in a letter announcing the expulsion that Liu continued to pay Sudan oil transit fees using South Sudanese oil money without the consent of the South Sudanese government.[289] Petrodar denied this claim, according to the *Sudan Tribune*, insisting it had complied with all instructions from Juba.

The government also accused Petrodar of lack of cooperation in its decision to shut down oil production in January 2012, and negligence on the impacts of oil operations on the environment. The South Sudanese Ministry of Petroleum also said, according to the *Sudan Tribune*, that as it implemented the production stoppage it discovered that Petrodar was producing 40,000 barrels per day (bpd) more than the 230,000 bpd it was declaring. The South Sudanese government was also annoyed that Petrodar had not transferred its main office from Khartoum, Sudan's capital, to Juba, according to the same article in the *Sudan Tribune*.[290]

The company named Baidzawi Chemat as its acting president days after the southern government expelled his predecessor, Liu Yingcai, in February 2012.[291]

China National Petroleum Corporation

Type	Government-owned Corporation
Founded	1988
Headquarters	Beijing, PR China
Key people	Jiang Jiemin (President)

287" Moleeta & Mooz Fields" *Petrodar Operating Company*, Retrieved 18 July 2012.
288" Gumry Fields" *Petrodar Operating Company*, Retrieved 18 July 2012.
289" South Sudan Expels Petrodar Executive" *The Wall Street Journal*, 22 February 2012.
290" South Sudan gives PetroDar President 72 hours to leave Juba" *Sudan Tribune*, 22 February 2012.
291" Petrodar Names New Acting Head After South Sudan Expulsion" *Bloomberg Businessweek*, 24 February 2012.

Products	Oil, natural gas, petrochemicals, oil exploration.
Revenue	US $240.2 billion (2010)[292]
Net income	US $14.4 billion (2010)
Total assets	US $399.1 billion
Total equity	US $211.8 billion
Employees	1,674,541 (2011)
Website	www.cnpc.com.cn

Overview

Current Global Profile

Government-owned CNPC is China's largest integrated oil and gas company, with exploration and production projects in China and 30 other countries. It is an oilfield services provider in 50 countries and operates some older refineries and a gas pipeline network in China (including 70% of the country's crude oil pipelines). The CNPC has a network of 18,000 gas stations across China.

In 2009 the company completed more than 1,900 exploration wells and reported proved reserves of more than 1 billion metric tons of oil equivalent.[293]

In 2011, CNPC was ranked 6th on CNN's Global 500 list of the world's largest corporations.[294] According to the Fortune Global 500, part of CNPC's strength comes from its partnerships with governments of oil-rich countries and the multinational companies that operate there. In 2011 CNPC was working with Russia, Venezuela, Iraq and Qatar, and had partnered with BP, Total S.A. and Shell.

Company Report Highlights

CNPC's 2010 Annual Report[295] notes that 2010 was the final year of China's 11th Five-Year Plan and that CNPC has been seeking a greater international role over the past five years.

The Report claims that the company's operating performance exceeded expectations in 2010, with operating income up 41% on the previous year's figures and total profit up 34.5%.

In its Exploration and Production activities, CNPC made significant strategic discover-

292" Fortune 500: China National Petroleum Corporation", *CNN Money*, retrieved 9 December 2011
293" China National Petroleum Corporation: Company Description", *Hoovers*, retrieved 8 December 2011
294" Global 500", *CNN Money*, retrieved 8 December 2011
295" 2010 Annual Report", *CNPC*, 2010

ies, contributing to sustained high growth in reserves. Natural gas operations maintained rapid growth, now accounting for 35.4% of domestic production in terms of oil equivalent.

CNPC's overseas business continued to grow in scale as a result of expanding cooperation with host countries and international oil companies, with important cooperation with Russia, Kazakhstan, Turkmenistan, Venezuela and Canada. The company acquired Australia's 'Arrow Energy' and established a presence in Qatar's hydrocarbon exploration in partnership with Shell. In Iraq, the CNPC was continuing its cooperation with BP, Total and Petronas.

Looking ahead to 2011, the first year of the 12th Five Year Plan, CNPC claims to feel positive. The company plans to adapt their development to changes at home and abroad, focusing on the oil and gas business but promoting technological innovation, strengthening safety procedures and environmental protection, and enhancing energy efficiency.

Global Snapshot

EITI

As of early 2012, CNPC was not a supporting company of EITI.

UN Global Compact

As of early 2012, CNPC did not participate in the UN Global Compact.

CSR Review

CNPC's CSR Activities are outlined in its 2010 Annual Report, and include the following highlights:

- Energy saving and water efficiency measures saved 1.87 million tons of standard coal equivalent and 38.21 million cubic metres of water in 2010.
- During the 11th Five-Year Plan period, CNPC cumulatively saved 9.37 million tons of standard coal equivalent and 302 million cubic metres of water, and met their target one year ahead of schedule.
- In July 2010, CNPC was honoured with 'Outstanding Award for Energy Conservation and Emission Reduction' by the State-Owned Assets Supervision and Administration Commission of the State Council.

External Coverage

- In November 2005 there was an explosion at a CNPC-operated chemical plant in China's Jilin province which forced the downstream city of Harbin to shut down the civilian water supply for five days. Not only the Songhua river but also Russia's

Amur river. CNPC was threatened with large economic penalties and compensation for the pollution caused.[296]

- In July 2010 oil spilled into the sea at the Xingang port oil storage facility in northeast China, partly owned by CNPC, after the explosion of two crude pipelines, causing the port to be sealed.[297]

CNPC Operations in South Sudan

CNPC is the largest shareholder in three separate consortia in South Sudan: Petrodar, the country's largest oil producer and pipeline operator, in which CNPC has a 41 percent share in partnership with Petronas (40 percent), Nilepet (8 percent), Sinopec (6 percent), and Tri-Ocean Energy of Kuwait (5 percent); the Greater Nile Petroleum Operating Company (GNPOC), in which CNPC has a 40 percent share in partnership with Petronas (30 percent), ONGC (25 percent) and Nilepet (5 percent); and CNPCIS, in which CNPC has a 95% share in partnership with Nilepet (5%).[298]

GNPOC controls blocks 1, 2 and 4, which are split between South Sudan and Sudan; Petrodar controls blocks 3 and 7 in South Sudan; and CNPCIS controls block 6 in South Sudan. As of 2009, CNPC also had majority interests in two more blocks currently in the exploration phase, 13 and 15, both located offshore north Sudan.[299]

History

Sudan was the first country in Africa to receive large-scale Chinese oil investment when CNPC invested in 1996. In the same year, the company signed an exploration and production sharing agreement for Block 6, in present-day north Sudan. In 1996, CNPC gained a 40% stake in the Greater Nile Petroleum Operating Company (GNOPC) consortium, which operates Blocks 1,2 and 4 - the most productive blocks in Sudan in 2009 - and in 2000, acquired a 41% stake in the Petrodar consortium, which operates blocks 3 and 7. CNPC gained shares in two offshore blocks, 15 and 13, located off the coast of northeastern Sudan in the Red Sea.[300]

CNPC has also been active in the oilfield services and construction industries, having completed the pipeline from Heglig (in a disputed area along the border of South Sudan and Sudan) to Port Sudan, as well as the pipeline from the Melut Basin (blocks 3 and 7) to Port Sudan. CNPC also acquired in 2008 the right to market Dar Blend crude, the lower quality of South Sudan's two crude export grades.

CNPC opened a small office in Juba, the capital of South Sudan, late in 2010. The staff of ten provides support to CNPC's operating companies, and will be scaled up to fifteen, Crisis Group Africa reported in April 2012. A series of CNPC subsidiaries responsible for

296" Northeast cleans up after chemical blast", *Asia Times*, 30 November 2005.
297" China seals oil port after spill; PetroChina cuts runs", *China Daily*, 19 July 2010.
298" South Sudan And Sudan At Loggerheads Over Oil" *African Spotlight*, 22 November 2011.
299" Fact Sheet Nine: The Main International Oil Companies Present in Sudan, *Understanding Sudan*, 2011.
300" Oil and State Building in South Sudan, *US Institute of Peace*, July 2011.

exploration, engineering, construction, and drilling have also transitioned south to Juba, though as of April 2012 they had been largely idle since South Sudan's production shut down in January 2012.[301]

Kufpec

Type	Government-owned Corporation
Founded	1981
Headquarters	Safat, Kuwait
Key people	Fahed S. Al Ajmi (Chairman and Managing Director)
Products	Crude oil and natural gas exploration, development and production
Revenue	US $1.09 billion (2010)
Net income	US $143 million (2010)[302]
Website	www.kufpec.com

Overview

Current Global Profile

The Kuwait Foreign Petroleum Exploration Company (KUFPEC), established in 1981[303] as a subsidiary of Kuwait Petroleum Company (KPC), is an international oil company engaged in exploration, development and production of crude oil and natural gas outside Kuwait.[304]

According to the company's 2010 Annual Report, Kufpec is active in 16 countries, with operations grouped within four core areas: South East Asia (Indonesia, Malaysia, Vietnam); Far East and Australia (Australia, China, Philippines); Middle East (Pakistan, Yemen, Syria); Africa (Egypt, Sudan, Tunisia, Ivory Coast, Mauritania, Congo.

Company Report Highlights

Kufpec's total revenues in 2010 were US $1.09 billion, compared to $821 million in 2009; total net profits were $143 million in 2010, compared to $108 million in 2009. The company's daily average production in December 2010 was 80,102 barrels of oil equivalent per day (boepd), compared with 58,300 boepd in 2009; and its total reserves in

301" CHINA'S NEW COURTSHIP IN SOUTH SUDAN, *Crisis Group Africa*, 4 April 2012.
302" 2010 Annual Report, *Kufpec website*, Retrieved 9 July 2012.
303" History, *Kufpec website*, Retrieved 9 July 2012.
304" Overview, *Kufpec website*, Retrieved 9 July 2012.

2010 were 237 million barrels of oil equivalent (mmboe), compared to 221 mmboe the previous year.

Looking ahead, Kufpec's annual report set a target of 130 million barrels of oil equivalent per day (mboepd) net production target by 2015 supported by a net reserve base of 430 mmboe. It set a 200 mboepd net production target by year 2020 supported by a net reserve base of 650 mmboe, with the goal of maintaining it through 2030.

Global Snapshot

EITI

As of mid 2012, Kufpec through its parent company KPC was not a supporting company of EITI.[305]

UN Global Compact

As of mid 2012, Kufpec through its parent company KPC was not a supporting company of the UN Global Compact.

CSR Review

- In 2009, contributed to the rehabilitation of the Wadi Hadhramaut region in Yemen following floods in the area, according to the Kufpec website.
- Also in 2009, Kufpec and its partners participated in South Sudan in the completion of project to process a physics laboratory at the University of Juba, with a cost of US $500,000, and included a contribution to build two primary schools and a school for secondary and a center of activities for women.
- In 2011, the company donated to the victims of droughts in Somalia, floods in Pakistan, and made a donation to the Kuwaiti Fire Service Directorate.[306]

Kufpec Operations in South Sudan

Kufpec holds a 27.5 percent interest in a Total-led consortium exploring in Block B in southern South Sudan.

According to the Kufpec website in July 2012, the joint venture's efforts in 2010 were focused on finalizing the consortium by completing the assignment of a 10% participating interest share to Nilepet, representing the South Sudan interests. Significant delays occurred due to the referendum on separation between South and North of 2011.[307]

305" Stakeholders, *EITI website*, Retrieved 9 July 2012.
306" Philanthropy, *Kufpec website*, Retrieved 9 July 2012.
307" Director's Report on Activities, *Kufpec website*, Retrieved 9 July 2012.

Lundin Petroleum

Type	Privately owned company
Founded	1981
Founder(s)	Adolf H. Lundin
Headquarters	Stockholm, Sweden
Key people	C. Ashley Heppenstall (President and CEO)
Services	Oil and gas exploration and production
Net income	US $155.2 million (2011)
Total assets	US $8 billion
Employees	316 (2011)[308]
Website	www.lundin-petroleum.com

Overview

Current Global Profile

Lundin Petroleum is an independent Swedish oil and gas exploration and production company. Production is generated from assets in Norway, France, Tunisia, Netherlands, Russia and Indonesia; the company also has exploration assets in Malaysia, Congo (Brazzaville) and Ireland. The company has existing proven and probable reserves of 211 million barrels of oil equivalent (MMboe) and a forecast net production range for 2012 of 32,000-38,000 barrels of oil equivalent per day (boepd), according to the Lundin website in July 2012.[309]

The company was founded by Adolf H. Lundin as International Petroleum in 1981, with exploration assets in the Middle East, Texas and the Bay of Biscay. The company commenced production of the Saleh field, offshore United Arab Emirates, in 1983. In 1995, Adolf Lundin became the largest shareholder in Sands Petroleum AB in April 1995; International Petroleum and Sands Petroleum merged in 1997 to form Lundin Oil AB. Following the merger Lundin Oil had reserves of 158 MMboe, producing assets in Malaysia/Vietnam and the UK and operations in a further six countries.[310]

Lundin Oil was sold to Talisman Energy for 4 billion Swedish krona in 2001; Lundin Petroleum in its current form was founded in the same year with about US $50 million of cash equity.

308" Annual Report 2011, *Lundin Petroleum*, Retrieved 19 July 2012.
309" Operations, *Lundin website*, Retrieved 19 July 2012.
310" History, *Lundin website*, Retrieved 19 July 2012.

Company Report Highlights

Lundin averaged production of 33,300 barrels of oil equivalent per day (boepd) in 2011, with total reserves climbing 21 percent relative to the previous year to 211 MMboe, according to the company's 2011 annual report. The company achieved a net profit of US $155.2 million and had an operating cash flow of US $676.2 million in 2011.

Lundin also sold 12.4 MMboe during 2011 at an average price of USD 101.04 per barrel resulting in net sales of MUSD 1,257.7. Sales volumes for 2011 were 14 percent higher and the achieved oil price was 40 percent higher than in 2010, resulting in a 60 percent increase in oil and gas revenues.

Global Snapshot

EITI

As of early 2012, Lundin was not a supporting company of EITI.[311]

UN Global Compact

Lundin Petroleum joined the United Nations Global Compact in May 2010.[312]

CSR Review

Lundin's corporate social responsibility (CSR) activities are outlined in its 2011 Annual Report, and include the following highlights:

- Lundin Petroleum has supported SOS Children's Villages, Sweden (SOS) from the start of its Corporate Donations Program in 2006. The company has contributed to children's villages in operated (Indonesia, Tunisia) as well as non-operated (Vietnam, Cambodia) areas.
- Lundin Tunisia contributes on an annual basis to the Association des Amis du Belvedère, which maintains a park situated the capital, Tunis. The association has initiated renewable energy projects, from solar to wind energy, and has introduced environmental protection projects such as the planting of trees and the recycling of waste.
- In 2011, the company contributed to capacity projects in which it covered part of the fee for a Master's Degree in Community Development student (South Sudan), covered the costs of the internship of a Petroleum Engineering student in each Malaysia and France, and established two scholarships at the Bandung Institute of Technology in Indonesia.

311" Stakeholders, *EITI website*, Retrieved 9 July 2012.
312" Global compact, *Lundin website*, Retrieved 19 July 2012.

External Coverage

Lundin has faced intense scrutiny for its role in a violent conflict in southern Sudan's oil Block 5A, where the company was active between 1997 and 2003, which resulted in the violent displacement of local communities. The European Coalition on Oil in Sudan (ECOS) in June 2010 released an exhaustive report on Lundin's role in the conflict, alleging that Lundin Petroleum may have been complicit in "war crimes and crimes against humanity" in Block 5A.[313]

Lundin Operations in South Sudan

History

Lundin entered Sudan through its subsidiary International Petroleum Corporation (IPC) in 1991. From 1997 until 2003, IPC held a 40.375% share in Block 5A in Sudan, which would become the site of violent conflict after oil exploration began in the area. In May 1998, IPC was folded into its parent, Lundin Oil AB. Lundin Oil was bought by Talisman in 2001 and the Sudan holdings were transferred to a new company called Lundin Petroleum.[314] In June 2003, Lundin sold its interest in Block 5A to Petronas for US $142.5 million, while retaining a 24.5% interest in Block 5B.

As of 2009, Lundin's role in Sudan's oil was limited to a non-operator stake of 24.5% in Block 5B, operated by Petronas and Sudapet for the White Nile Petroleum Operating Company (WNPOC) consortium.[315] Lundin began drilling operations in Block 5B at an exploration well on the western flank of the Muglad basin in February 2008.[316]

Complicity in conflict and displacement

Violent conflict in Block 5A

In 1997, Lundin Oil AB had formed a consortium in which it held 40.4 percent ownership, in partnership with Petronas from Malaysia (28.5 percent), OMV from Austria (26.1%), and the Sudanese state-owned oil company Sudapet (5 percent). Lundin was the leader of the consortium and in this capacity acquired a concession from the Sudanese government in Block 5A, which at the time was not under full government control.

The start of oil exploration set off a vicious war in the area and between 1997 and 2003, according to the European Commission on Oil in Sudan (ECOS), "international crimes were committed on a large scale" in what was essentially a military campaign by the Sudanese government to secure and take control of the oil fields in Block 5A. ECOS wrote in a June 2010 report that it believed that the Lundin consortium - includ-

313" The Legacy of Lundin, Petronas and OMV in Block 5A, Sudan 1997 - 2003, *ECOS*, June 2010.
314" Lundin: war crimes allegations 'unfounded', *The Local*, 18 March 2012.
315" Fact Sheet Nine: The Main International Oil Companies Present in Sudan, *Understanding Sudan*, 2009.
316" Swedish Oil Firm Resumes Drilling in South Sudan, *Panyijiar News blog*, 18 February 2008.

ing the companies Lundin, Petronas and OMV - may have been complicit in the commission of war crimes and crimes against humanity.

In order to guarantee security for the consortium and facilitate oil exploration, according to ECOS, the Sudanese government began clearing the population in this area using a variety of tribal militias, the country's army and air force, and Arab muraheleen units. Using artillery, ground troops, helicopter gunships, and high-altitude bombers against the civilian population, the government of Sudan deliberately forced almost 200,000 civilians off their lands and killed thousands. Among the reported crimes, according to ECOS, were arbitrary attacks on civilians, unlawful killing, arson, looting, rape, enslavement, underage recruiting, torture, and theft.

The ECOS report alleged that, throughout the war in Block 5A, the Lundin consortium worked alongside the perpetrators of war crimes. The consortium's infrastructure enabled the commission of crimes by others, expanding the geographic reach of armed groups, enabling year-round access to formerly isolated communities, and facilitating the Sudan Armed Forces (SAF) and armed groups to violently displace much of the population in Block 5A. The report also suggested there were grounds to investigate whether the Lundin consortium provided financial and material support to the agencies carrying out the crimes.

Lundin, for its part, has denied that it violated the norms of international law and that it participated in illegal acts. While present from 1997 to 2003, Lundin Petroleum AB made a total net profit of US $92.6 million in Block 5A.

Formal investigation

In June 2010 Swedish public prosecutor Magnus Elving launched a formal investigation into the allegations. In Sweden, much of the attention focused on the potential for criminal prosecution of Foreign Minister Carl Bildt, who was a member of Lundin's board from 2000-06.[317]

Petronas

Type	State-owned
Founded	1974
Headquarters	Kuala Lumpur, Malaysia
Key People	Dato' Shamsul Azhar Bin Abbas (CEO, President)
Products	Oil, natural gas, petrochemicals, shipping.
Revenue	RM 421.2 billion (approx. US$133.6 billion) 2011

317" Swedish oil company under scrutiny after Sudan war crimes report, *Government of Southern Sudan Natural Resources Management Group*, 23 June 2012.

Net Income	RM 54.8 billion (approx. US$17.4 billion) 2011
Total Assets	RM 439 billion (approx. US$ 139.3 billion) end 2011
Website	www.petronas.com.my

Overview

Current Global Profile

Petronas, short for "Petroliam Nasional Berhad", was founded in 1974 and is Malaysia's state-owned national oil company and the country's most profitable company. The company is Malaysia's only representative in the Fortune 500.[318] Petronas' subsidiaries operate in more than 20 countries, primarily in Asia and Africa. The company has reserves of more than 27 billion barrels of oil equivalent (boe) and is a major producer of liquid petroleum gas (LPG) and liquefied natural gas (LNG).[319]

In 2007, the Financial Times identified Petronas as one of the "new seven sisters"- one of the most influential energy companies from countries outside the Organisation for Economic Co-operation and Development (OECD).[320] In turn, the *Economist* refers to Petronas as "a successful example of a national oil company" commenting that, in contrast to Brazil's Petrobras, Malaysia has not made significant domestic oil discoveries in recent years. Subsequently, in the 1990s the company began expanding abroad, mostly in Africa and by 2007 had invested in 66 upstream projects in 22 countries.[321]

Global Snapshot

Transparency

EITI Supporter Status

As of December 2011, Petronas was not a supporter of the EITI.

UN Global Compact

As of December 2011, Petronas was not a member of the UN Global Compact.

CSR Review

The 2011 Annual Report highlights the following achievements in corporate social responsibility:

- The successful launch of the community outreach initiative 'Program Sentuhan

318" Malaysia's Petronas profit falls 23 percent ", The Boston Globe, July 1 2010
319" Petronas" *Hoovers*, retrieved 15 December 2011.
320" The New Seven Sisters" *Financial Times*, 12 March 2007.
321" Drilling and nation-building" *Economist*, 8 October 2009.

Harapan' in Miri, Sarawak, where the Malaysian prime minister and company officials presented hampers containing basic food items to deserving families.

- Continued commitment to cancer research in Malaysia, with a RM 3 million contribution to the Cancer Research Initiatives Foundation (CARIF).
- Membership of the Oil Spill Response Limited (OSRL), from June 2011.
- 2010 launch of ZeTo, or Zero Tolerance Rules, for high-risk activities, aiming to improve safety performance. Over the year under review there were 52 cases of ZeTo rules violations and 25 staff and 27 contractors were investigated.
- Fall in the 'Fatal Accident Rate' for the fifth year in a row.

External Coverage

- In December 2009 Petronas signed a sponsorship deal with the Mercedes Formula One team, allowing for the company's branding to be used on cars and team liveries in a long term agreement.[322]

Petronas Operations in South Sudan

Malaysia's Petronas was as of July 2011 active in all South Sudan oil blocks, and as such is one of the dominant players in the country's oil production sector, along with the China National Petroleum Corporation (CNPC) and India's Oil and Natural Gas Corporation (ONGC).[323]

According to the company's website in January 2012, Petronas is active in South Sudan through its interests in Greater Nile Petroleum Operating Company (GNPOC) (30%), Petrodar Operating Company (40%) and White Nile Petroleum Operating Company (WNPOC) (67.87%), the respective joint operating companies for the three contract areas: Blocks 1, 2 and 4, Blocks 3 and 7, and Block 5A. Petronas' partners are (CNPC), ONGC, China Petroleum & Chemical Corporation and Tri-Ocean Energy.[324]

History

In the late 1990s, Petronas and ONGC financed the development of the current set of oil fields, according to the US Institute of Peace (USIP), and built the network of pipelines, refineries, and export terminals that enabled the sector to grow.

Petronas entered Sudan's petroleum industry by acquiring a 30% stake in the Greater Nile Petroleum Operating Company (GNPOC), which controls oil blocks 1, 2, and 4 in the border area between South Sudan and Sudan. In 1997, Petronas acquired a 28.5% stake in Block 5A, which increased to 69% when Swedish company Lundin sold its stake to Petronas in 2003. The company acquired a 41% stake in Block 5B in 2001; ex-

322" Petronas to sponsor Mercedes Formula One team next year, *Guardian*, 21 December 2009.
323" Oil and State Building in South Sudan, *US Institute of Peace*, July 2011.
324" PETRONAS SIGNS TRANSITION AGREEMENT WITH SOUTH SUDAN, *Petronas website*, 13 January 2012.

ploration on this field began in February 2008, though, as of May 2009, none of the three exploratory drills had struck oil.[325]

Conflict of interest with Ascom in Block 5B

In June 2005, the South Sudanese government signed a deal with Moldovan oil firm Ascom Group giving the company rights to Block 5B, which the Khartoum government had awarded to Petronas in 2001. In May 2007, in an effort to halt the growing dispute over the awards to Ascom, President Salva Kiir of South Sudan ordered Petronas to halt exploration on the block, and asked Petronas and its partner in Block 5B, Lundin, to give up a portion of their stakes in the block.[326][327] In January 2008, Petronas got permission from South Sudan's government to begin oil exploration in Block 5B, after the company agreed to let Ascom Group keep part of the concession, according to the *Sudan Tribune*.[328] According to the USIP, however, as of July 2011, Block 5B was held by Ascom. The company had undertaken seismic surveys and some drilling but with no success in finding oil, and had ceased active exploration.

Relations with South Sudan

Petronas and the South Sudanese Energy and Mining ministry in March 2011 signed a two-year memorandum of understanding (MoU) aimed at boosting mutual cooperation between the two parties and creating an avenue to exploit existing business opportunities between Malaysia and South Sudan. The agreement also created a platform for Petronas and the South Sudanese ministry to share experiences and expertise in the management of petroleum resources through capability building and other training programs, according to the *Sudan Tribune*.

In January 2012, Petronas signed a Transition Agreement with the now-independent government of South Sudan for its continued operations in upstream blocks in South Sudan previously awarded by Sudan. The agreement granted Petronas and its partners the right to conduct petroleum operations in Blocks 1, 2 and 4, Blocks 3 and 7, and Block 5A. These were existing contract areas that had been granted through previous Exploration & Production Sharing Agreements (EPSA).

Environmental record

The government of South Sudan has raised concerns about Petronas' exploration wells in Block 5B, which were located in the Sudd swamp, the largest freshwater wetland in the world. As of 2009, little environmental assessment had been carried out. According to *Reuters* in April 2007, after visiting Petronas operations in other parts of Sudan and seeing their plans for the southern states of Warrap and Jonglei, South Sudanese Vice President Riek Machar said: "I was not happy with what I saw ... The way they handled

325" Fact Sheet Nine: The Main International Oil Companies Present in Sudan, *Understanding Sudan*, 2011.
326" Moldova's Ascom probes Petronas Sudan oil block, *ECOS*, 11 October 2005.
327" Petronas and Lundin Asked to Part with Percentage of Sudan, *Petroleum Africa*, 16 August 2007.
328" South Sudan, Malaysia's Petronas sign oil agreement, *Sudan Tribune*, 13 March 2011.

the water associated with the oil, the use of chemicals used in exploration and the roads constructed blocking the flow of streams without bridges or culverts is a concern."[329]

ONGC Videsh

Type	Government-owned Corporation
Founded	1965
Headquarters	New Delhi, India
Key people	A.K. Hazarika (Chairman)
Products	Oil and natural gas exploration, development, production, transportation and export
Revenue	186.8 billion Indian rupees (US $3.37 billion) (2011)
Net income	26.9 billion Indian rupees (US $485.1 million (2011)
Net equity	US $2.62 billion (2011)
Employees	233 (2011)[330]
Website	www.ongcindia.com

Overview

Current Global Profile

ONGC Videsh Limited (OVL) is a wholly-owned subsidiary of the Oil and Natural Gas Corporation Limited (ONGC), the flagship national oil company of India[331] and the #3 company in India by market capitalization, according to MoneyControl.com in July 2012.[332]

OVL was rechristened on 15 June 1989 from the earstwhile Hydrocarbons India Private Limited, which was incorporated on 5 March 1965. The primary business of OVL is to prospect for oil and gas acreages abroad, including acquisition of oil and gas fields, exploration, development, production, transportation and export of oil and gas. OVL has grown to become the second-largest exploration and production (E&P) company in India both in terms of oil production and oil and gas reserve holdings.

329" South Sudan sets terms for Petronas expansion, *Reuters*, 2011.
330" Annual Report 2010 - 2011, *ONGC Videsh Ltd.*, Retrieved 9 July 2012.
331" ONGC Videsh: Accreting hydrocarbon resources abroad, *ONGC Videsh Ltd.*, Retrieved 9 July 2012.
332" Top Companies in India by Market Capitalization - BSE, *MoneyControl.com*, Retrieved 9 July 2012.

According to the company's 2010-2011 Annual Report, OVL has participation either directly or through wholly owned subsidiaries/joint venture company in 33 E&P projects in 14 countries namely Vietnam (2 projects), Russia (2 projects), Sudan (3 projects), Iran (1 project), Iraq (1 project), Libya (1 project), Myanmar (2 projects), Syria (2 projects), Cuba (2 projects), Brazil (6 projects), Nigeria (2 projects), Colombia (6 projects), Venezuela (2 projects) and Kazakhstan (1 project) and is actively seeking more opportunities across the world. Out of 33 projects, OVL is operator in 11 projects and joint operator in 6 projects.

Company Report Highlights

OVL's 2010-2011 Annual Report notes that the the company's consolidated production of Oil plus Oil-Equivalent Gas (O+OEG) increased from 8.870 MTOE in 2009-10 to 9.448 MMT in 2010-11, registering growth of about 6.5%, and marking OVL's highest ever oil and gas production from its overseas assets.

The company's proved reserves as of 1st April 2011 stood at 202.908 MTOE (O+OEG), which next to ONGC, was the second largest holding of proved oil and gas reserves by any Indian Company, and its consolidated gross revenue was up by 21% from 2009-10 to 2010-11, with consolidated net profit up by 29% over the same period.

OVL's consolidated networth was 145,530 million Indian rupees as of 31 March 2011, compared to 116,449 million Indian rupees in 2010.

Global Snapshot

EITI

As of early 2012, OVL was not a supporting company of EITI.[333]

UN Global Compact

As of mid 2012, OVL participated in the UN Global Compact through its parent company ONGC; however, despite OVL's investment in many of the most troubled regions in the world, ONGC reports on its human rights activities within India only.[334]

CSR Review

OVL's corporate social responsibility (CSR) activities are outlined in its 2010-2011 Annual Report, and include the following highlights:

- The company provided scholarships to four Sudanese students for pursuing course in management and engineering courses
- Contributed US $100,000 to the Venezuelan government as a mark of solidarity

333" Stakeholders, *EITI website*, Retrieved 9 July 2012.
334" Firms cannot be silent on human rights, *Human Rights Watch*, 12 November 2007.

and help to the people of Venezuela to recover from heavy rains

- Contributed US $2 million for sponsorship of South Sudan Special projects to create an amicable business atmosphere in South Sudan to pursue its business plans and strategies in the future

OVL has framed a CSR Policy for achieving the CSR objectives in all its overseas projects/assets: the 2010-2011 annual report stated that a budget of 0.5% of the previous year's Profit After Tax (PAT) or target as per MOU with ONGC - whichever is higher - would be allocated towards CSR every year from financial year 2011-12 onwards. This budget allocation would be non-lapsable.

External Coverage

- In addition to its abstention from EITI, ONGC has not endorsed industry standards such as the Voluntary Principles on Security & Human Rights, which would oblige the company to respect human rights with regards to the security of their personnel and facilities.
- ONGC Videsh is an investor in a gas project in Myanmar where there are well-founded fears, according to Human Rights Watch, that a proposed pipeline will fuel serious human rights abuses.
- Egbert G.Ch. Wesselink, Coordinator of the European Coalition on Oil in Sudan (ECOS), told *Project Monitor* in September 2004 that "ONGC Videsh is in business in Sudan because of the war", saying that OVL's takeover of Austrian company OMV's Sudanese assets, the site of widespread human rights abuses, came "at a big war discount". The added that there was "a lot of resentment in Sudan against ONGC Videsh and its business partners."[335]

ONGC Operations in South Sudan

Activities in South Sudan

ONGC's operations in Sudan are run through ONGC Videsh Limited (OVL), which holds a 25% share in the Greater Nile Petroleum Operating Company (GNPOC).[336] OVL's main activities in this capacity take place in the Greater Nile Oil Project (GNOP), located in the Muglad Basin, in the disputed border region between South Sudan and Sudan, which contains oil blocks 1, 2 and 4 spread over 49,500 square kilometers.[337]

ONGC also has a 24.125% participating interest (PI) in Block 5A, located in the Muglad basin in the center-north of South Sudan and operated by the White Nile Petroleum Operating Company (WNPOC), a consortium of Petronas (67.875% PI) and the Sudanese state-owned company Sudapet (8% PI). Within Block 5A, the TharJath, Mala and Mala's

335" 'ONGC Videsh is in business in Sudan because of the war', *Project Monitor*, 15 January 2004.
336" Fact Sheet Nine: The Main International Oil Companies Present in Sudan, *Understanding Sudan*, 2011.
337" Assets - Sudan, *ONGC Videsh Limited website*, Retrieved 27 June 2012.

satellite fields had been put on production. As of March 2011, OVL had incurred a cumulative capital expenditure of approximately US $428 million in Block 5A.

History

OVL entered Sudan in 2003 by gaining a 25% share in the Greater Nile Petroleum Operating Company (GNPOC), after Talisman decided to to sell its stake in the venture. In 2004, OVL gained a stake two more blocks: a 24% stake in Block 5A from the Austrian company OMV, and a 23.5% stake in Block 5B, both of which are operated by WNPOC.

In April 2009, OVL announced that it would sell its share in Block 5B after South Sudanese authorities allowed the Moldovian company Ascom Group to drill in the area, which OVL claimed contradicted an earlier resolution taken by the National Petroleum Council (NPC).

Indian news magazine *Tehelka* reported in June 2012 that OVL and China National Petroleum Company (CNPC) had shown interest in building an oil pipeline from South Sudan to Kenya's East African coast.[338] South Sudan's shut-down of oil production in January 2012 dealt a major blow to OVL's ambitions in the country, since over half its international oil production over the past decade came from South Sudan and Sudan.[339]

Sinopec

Type	Public Limited Company
Traded as	HKEX: 386
Founded	2000[340]
Headquarters	China
Key People	Shulin Su (CEO, 2011)
Products	Oil and gas exploration.
Employees	373,375 (2011)
Website	www.sinopec.com

Company Profile

China Petroleum & Chemical Corporation (Sinopec) is a China-based energy and chemicals company. Its oil and gas operations consist of exploring for, developing and pro-

338" From battlegrounds to new synergies, *Tehlka*, 22 June 2012.
339" For oil and peace, India must stand up in the two Sudans, *The Hindu*, 21 February 2012.
340Sinopec-China Petroleum" *Forbes*, retrieved 12 March 2011

ducing crude oil and natural gas, transportation, refining of crude oil into finished petroleum products, and marketing of these products. Chemical operations include the manufacturing and marketing of a range of chemicals for industrial uses. (Forbes)

South Africa refinery plans

Sinopec and PetroSA, South Africa's national oil company, signed a memorandum of understanding in September 2011 to build a refinery through a plan called Project Mthombo. PetroSA first announced plans to build the refinery in 2008, but struggled to find sufficient funding until it teamed up with Sinopec. PetroSA said in 2008 that it expects the refinery in the Coega Industrial Development Zone to process 400,000 barrels of oil a day and cost between $9 billion and $10 billion to build. The final cost and capacity will be determined by a study to be undertaken by Sinopec Engineering, which will take as many as 18 months to complete, according to the *Wall Street Journal*. The refinery is scheduled to be commissioned between 2018 and 2020.[341]

Official Accreditations and Global Perceptions

EITI

As of March 2012, Sinopec was not a supporting company of the EITI.[342]

UN Global Compact

Sinopec began its participation in the UN Global Compact in 2004.[343]

In addition, at a November 2011 meeting in Beejing, Sinopec Chairman Fun Chengyu agreed to serve as the inaugural chairman of the Global Compact China Network Board, which aims to promote the ten Global Compact principles among Chinese companies, mobilize more to join the initiative and to make important contributions to sustainable development.[344]

Sinopec Operations in South Sudan

Sinopec operates in South Sudan through its subsidiary Sinopec International E&P Corporation Sudan Branch (SIPC Sudan). In this capacity Sinopec has a minority stake stake (6 percent) in the Petrodar consortium, which operates blocks 3 and 7; its partners in the consortium include CNPC (41 percent stake), Petronas (40 percent), Sudapet (8 percent), and Tri-Ocean (5 per cent).

Two other Sinopec subsidiaries - Sinopec International Petroleum Service Corp (SIPSC), Sinopec Group’s fully-owned international engineering and service arm, and Zhongyuan Petroleum Exploration Bureau (ZPEB), another servicing subsidiary - have

341" Sinopec Joins Effort to Build South Africa Refinery" *The Wall Street Journal*, 21 May 2012.
342" Supporting Companies" *EITI*, retrieved 12 March 2011.
343" Participant information: Sinopec" *UN Global Compact* , retrieved 13 March 2012.
344" Global Compact Relaunches China Network" *UN Global Compact*, 28 November 2011.

been primary petroleum engineering and servicing contractors in Sudan and participated in construction of the Petrodar pipeline,[345] running from the Melut Basin in South Sudan to Port Sudan, on Sudan's Red Sea coast.[346] Another Sinopec affiliate, China International United Petroleum & Chemicals Company (UNIPEC), is China's largest oil trader and the primary buyer of South Sudan's oil.

Talisman Energy

Type	Public Limited Company
Traded as	TSX:TLM NYSE:TLM
Founded	1925
Headquarters	Calgary (Canada)
Key People	John A. Manzoni (CEO, President)
Products	Oil and gas.
Revenue	US $4 billion (2010)[347]
Net Income	CAD $648 million (approx. US $631 million), 2010.[348]
Total Assets	CAD $24.2 billion (approx. US $23.6 billion),2010.
Total Equity	CAD $10.5 billion (approx. US $10.2 billion), 2010.
Employees	3,078 (2011)
Website	www.talisman-energy.com

Overview

Current Global Profile

Talisman Energy Inc. is an upstream oil and gas company that engages in the exploration, development, production, transportation, and marketing of crude oil, natural gas, and natural gas liquids. It primarily operates in North America, the UK, Scandinavia, and south-east Asia. The company was founded in 1925 and is headquartered in Calgary, Canada.[349] In 2010 the company produced 417,000 barrels of oil equivalent (boe)/day globally, approximately 50% oil and 50% natural gas.[350]

345" China's New Courtship in South Sudan" *Crisis Group Africa*, 4 April 2012.
346" Sudan to open new oil pipeline" *Sudan Tribune*, 6 April 2006.
347#90 Hunt Consolidated/Hunt Oil" *Forbes*, retrieved 19 December 2011.
348Financial and Operating Highlights" *Annual Report*, retrieved 19 December 2011.
349Talisman Energy Inc" *Yahoo Finance*, retrieved 19 December 2011.
350About Our Company" *Talisman Energy*, retrieved 19 December 2011.

In 2011 Talisman Energy was ranked at number 559 in Forbes' 'Global 2000' list of the world's biggest public companies. (Forbes) It is listed on the Toronto and New York stock exchanges and at year-end 2010 the company's enterprise value was more than $25 billion.

Talisman was created in 1992 when BP spun off its Canadian unit. CEO Manzoni formerly worked for BP as head of the company's refining and marketing unit.[351]

Company Report Highlights

According to Talisman's 2010 Annual Report, net income for the year was up by 48% on 2009 figures to $648 million, which was attributed to higher commodity prices and improved operating performance. Production averaged 417,000 boe/day, significantly above initial targets and, excluding asset sales, year-on-year production increased by 7%.

In 2010 Talisman replaced 164% of production with proved reserves. The company also sold over $2 billion of non-core assets, predominantly in North American natural gas properties. However the company acquired assets in two liquid areas, establishing a position in the Eagle Ford shale play in Texas, as well as producing assets in Colombia.

In 2011 Talisman was planning to spend US $700 million in international exploration, with a number of key wells in Colombia and Peru, as well as activity in the North Sea, Papua New Guinea, Indonesia, the Kurdistan region of northern Iraq and the first shale wells in Poland.[352]

Global Snapshot

Transparency

EITI Supporter Status

Talisman Energy became an EITI supporting company in 2005.[353]

UN Global Compact

Talisman Energy has been a participant in the UN Global Compact since 2004.[354]

CSR Review

According to the official Talisman CR Report for 2010, the following are the company's highlights in corporate social responsibility:

- The company carried out a comprehensive review of their global drilling opera-

351" BP sells $1.9B Colombian assets to Ecopetrol, Talisman" *Colombia Reports*, 3 August 2010.
3522010 Annual Report" *Talisman Energy*, retrieved 19 December 2011.
353Transparency" *Talisman Energy*, retrieved 19 December 2011.
354Talisman Energy Inc." *UN Global Compact*, retrieved 19 December 2011.

tions in the aftermath of the BP plc Deepwater Horizon incident and used the findings to apply additional rigour to the design, procedures and safety processes in preparation for the first deepwater well.

- Combined employee and contractor lost-time injury frequency improved by 18% from 2009.
- The number of spills greater than a half-barrel was reduced by 31% to 109 from 157 in 2009.
- Roll-out of 10 Golden Rules for Safe Operations – compliance with these rules is a condition of working at any Talisman site.
- Development of a new global community relations policy (GCRP) to create a consistent, best-practice approach to interacting with, and gaining the support of, local stakeholders.
- The company invested $8.5 million worldwide in community initiatives.[355]

External Coverage

- Human rights groups campaigned extensivly against Talisman's operations in Sudan, claiming that the oil revenues they paid to the Sudanese government were used to buy arms for the ongoing civil war. Talisman entered the country in 1998 and sold it's stake in the Greater Nile Oil Porject in 2003, however the Presbyterian Church of Sudan filed a lawsuit in 2001 claiming that Talisman aided the Sudanese military in a "brutal ethnic cleansing campaign".[356]

Talisman Energy Operations in South Sudan

Talisman entered Sudan in 1998 when it purchased Arakis Energy, which had acquired interests in Blocks 1, 2 and 4 in 1992 and brought in Chinese, Malaysian and Sudanese partners in 1996 to form the Greater Nile Petroleum Operating Company (GNPOC).[357] Talisman sold its assets in Sudan to India's ONGC Videsh in 2003 following intense pressure from non-governmental organizations and a lawsuit filed by the Presbyterian Church of Sudan in a U.S. court.[358]

Law suit alleging human rights violations

Allegations

The lawsuit, filed in 2001 on behalf of as many as 250,000 non-Muslim Sudanese, alleged that the company committed violations of international law stemming from its

355 2010 CR Report" *Talisman Energy*, retrieved 19 December 2011.
356 Talisman Sudan suit to proceed" *BBC*, 20 March 2003.
357 " Fact Sheet Nine: The Main International Oil Companies Present in Sudan, *Understanding Sudan*, 2009.
358 " Talisman learned lessons from Sudan, *Canada.com*, 1 May 2008.

oil exploration activities in blocks 1, 2 and 4, and claimed churches were bombed, church leaders slain, and villages attacked to clear the way for oil exploration.[359] The allegations included extrajudicial killing, forcible displacement, war crimes, confiscation and destruction of property, kidnapping, rape, and enslavement - activities which, taken collectively, amounted to genocide, according to the plaintiffs. The suit alleged that Talisman worked with the Sudanese government, based in Khartoum, to devise a plan of security for the oil fields and related facilities; and that based on the joint Talisman-Government strategy, "Government troops and allied militia engaged in an ethnic cleansing operation to execute, enslave or displace the non-Muslim, African Sudanese civilian population from areas that are near the pipeline or where Talisman wanted to drill."[360]

Suit dismissal

US District Judge Denise Cote, in Manhattan, New York, dismissed the lawsuit in September 2006,[361] a decision which was upheld by a federal appeals court in 2009 which ruled that the plaintiffs hadn't alleged enough facts for the suit to go forward, writing "Plaintiffs have not established Talisman's purposeful complicity in human rights abuses."

Total S.A.

Type	Public Limited Company
Traded as	Euronext:FP NYSE:TOT
Founded	1924
Headquarters	Courbevoie, France
Key people	Christophe De Margerie (CEO), Thierry Desmarest (Chairman), Patrick de la Chevardiere (CFO) Jean-Francoise Lassalle (VP for Public Affairs – France and NGOs).
Products	Oil and natural gas exploration, production, refining and marketing, electricity generation, oil and gas engineering and construction.
Revenue	€159.27 billion (approx. US $220 billion), 2010.
Operating income	€10.62 billion (approx. US $14.67 billion), 2010.
Net income	€10.81 billion (approx. US $14.93 billion), 2010.

359" Talisman Court Upholds Sudan Genocide Suit Dismissal (Update2), *Bloomberg*, 2 October 2009.
360" The Presbyterian Church of Sudan versus Talisman Energy, Inc, *US District Court Southern District of New York*, Retrieved 19 July 2012.
361" Talisman Energy Dismissed in Lawsuit, *Time*, 12 September 2006.

Total assets	€143.72 billion (approx. US $198.46 billion), end 2010.
Total equity	€61.27 billion approx. US $84.6 billion), end 2010.
Employees	92,855 (end 2010)
Website	www.total.com

Overview

Current Global Profile

Together with its subsidiaries and affiliates, in 2009 Total was the fifth largest publicly-traded integrated international oil and gas company in the world[362] and as of 2011 was operating in over 130 countries. Total engages in Upstream, LNG and Downstream operations, and also produces base chemicals.[363]

Company Report Highlights

Total's Registration Document 2010 reveals that adjusted net income for 2010 was €10.3 billion, up 32% compared to 2009. This was claimed to reflect the 2010 oil market environment, which was marked by a 29% increase in average Brent price to $79.5/barrel. Production in the upstream segment grew more than 4% compared to 2009 and Total has continued to add to its acreage with new exploration focused on pre-salt projects and unconventional gas.

In 2010 Total's production in Libya amounted to 55,000 barrels of oil equivalent (boe) per day, accounting for 2.3% of total production, down from 2.6% in 2009 and 3.2% in 2008. This fall was primarily due to OPEC quotas and new contractual provisions.

Global Snapshot

Transparency

EITI Supporter Status

Total joined the EITI on its creation in 2002, was elected to the EITI Board as an alternate member in September 2007 and later elected a permanent member in February 2009 in recognition of their commitment to the initiative. Their representative on the 20-member Board in 2011 was Jean-François Lassalle. As part of their commitment, Total publish detailed reports on a number of host countries, accounting for 59% of production in 2010.[364]

362" Our Businesses". *Total*,retrieved 04 October 2011.
363" Total S.A.". *Financial Times Market Data*, retrieved 04 October 2011.
364" The Extractive Industries Transparency Inititative". *Total*, retrieved 06 October 2011.

UN Global Compact

As of December 2011, Total was a member of the UN Global Compact, having joined in 2002.

CSR Review

Total's 2010 Society and Environment Report,[365] *In Other Words*, which aimed to continue the dialogue with stakeholders initiated in the previous issue, outlined the three action plans the company had set itself to meet the challenge of partnering civil society and achieving environmental sustainability:

1. Meeting energy needs while responding to Climate Change and Natural Resource Challenges (minimizing energy use; 15% target by 2015 for reduction of greenhouse gas emissions; Total Ecosolutions program; providing affordable, sustainable energy for low-income communities.

2. Reducing Impact of Operations on People and the Environment (in accordance with their Health, Safety, Environment and Quality Charter; assessing environmental and health risks in advance; protecting biodiversity)

3. Helping to Spur Local Social and Economic Development: Transparency of financial contributions in compliance with local legislation; education and training; socioeconomic programs.

External Coverage

- In 2010, Total was placed under formal investigation after an eight year investigation into bribery charges related to oil deliveries from Iraq under Saddam Hussein’s rule. The case was based on claims that politicians received vouchers for oil in exchange for lobbying for sanctions to be loosened on Hussein’s regime, and that employees of Total purchased the oil. Three years after CEO Christophe de Margerie was placed under investigation, the prosecutor’s office recommended dismissing the case against employees. This included De Margerie, who occupied the post of Head of Middle East Operations in the 1990s, the period during which the Oil For Food program was set up. This program allowed Iraq to sell a certain amount of crude oil under the understanding that they use the proceeds for humanitarian goods.[366]
- As of 2010 Total was the biggest Western firm with operations in Burma, running the Yadana offshore gas field alongside Chevron. The company has faced lawsuits accusing it of condoning human rights abuses in the country.[367]

365“ In Other Words: Ten Questions You Asked Us”. *Total*, retrieved 06 October 2011.
366“ Total under investigation over Iraq oil-for-food”. *Bloomberg Business Week*, 06 April 2010.
367“ Turning a profit in Burma”. *Bloomberg Business Week*, 1 November 2010.

Total Operations in South Sudan

As of June 2012, Total operated Block B, in Jonglei State near South Sudan's border with Ethiopia, with a 32.5% interest and was responsible in that capacity for exploring and developing the concession.[368]

History

Total began operations in Sudan in November 1980 though its subsidiary Total E&P Sudan,[369] when it signed an exploration and production sharing agreement for the 118,000 square kilometer Block B southeastern Sudan.

The company suspended exploration activities there in 1985, with the Sudanese government's agreement, due to deteriorating security conditions; but Total retained its contractual rights in Block B through an annually renewed moratorium. In December 2004, Total and its partners in the block, US company Marathon (32.5 percent stake), Kuwait's Kufpec Sudan (25%) and Sudan's state-owned Sudapet (10%), signed a Revised Exploration and Production Sharing Agreement (Revised EPSA) with the Sudanese government, to update the 1980 contract and bring it closer in line with international best practice models, especially with regards to corporate social responsibility. Marathon withdrew from the joint venture in March 2008 and Sudan's Nilepet, designated by the Government of Southern Sudan, entered the consortium with a 10% stake under the same terms and conditions as Sudapet.

Total opened a representative office in Khartoum, the capital of Sudan, in February 2005 and liaison offices in Juba and Bor, both in Southern Sudan, 2006 and 2009, respectively. A team was also assigned to Rumbek in Southern Sudan in 2009.

Reuters reported in February 2012 that Total planned to restart exploration activities on Block B after a 27 year hiatus, citing an emailed statement from the French company.[370] The company launched discussions with South Sudan to re-enter its oil acreage in March 2012, according to *New Europe Online*.[371] Any oil found in Block B could feed a pipeline the Total may build from South Sudan to Uganda and on to Kenya's coast, *Reuters* also reported.

Dispute with White Nile

UK oil company White Nile announced in February 2005 that it had been awarded Block Ba, a 67,000 square kilometer area in the Muglad basin that overlapped more than half of the concession held by the Total-led consortium. According to the Total website, the rights claimed by White Nile in this area conflict with the EPSA signed by Total for an initial term of 40 years. Additionally, according to Total, Article 4 of the peace agreements signed between Northern and Southern Sudan states that all oil contracts signed prior to the Comprehensive Peace Agreement (CPA) would be

368" Block B" *Total website*, Retrieved 5 June 2012.
369" Total Updates Block B Contractual Terms in Sudan" *Sudan Vision*, Retrieved 5 June 2012.
370" Total says to resume South Sudan exploration soon" *Reuters Africa*, 4 February 2012.
371" Total vying for South Sudan oils" *New Europe Online*, 18 March 2012.

honored.

The UK High Court ruled in favor of Total in May 2006, the Court of Appeal in London upheld this ruling in January 2007, and the National Petroleum Commission, a joint Northern-Southern Sudan commission established by the peace agreements, confirmed on 17 June 2007 that Total had valid, sole rights to Block B.

Tri-Ocean Energy

Type	Government-owned Corporation
Founded	2006
Headquarters	Safat, Kuwait
Key people	Mohamed El Ansary (Chief Executive Officer)
Services	Oil and gas exploration and production, trading and shipping, oil derivatives, renewable energy
Employees	53

Tri-Ocean Energy is a privately-owned energy company active in oil and gas exploration and production, trading and shipping of oil and oil derivates and renewable energy.[372] The company is a subsidiary of Egypt Kuwait Holding (EKH), the investment arm of the Kuwaiti Kharafi group in Egypt. EKH holds 76.86 percent of Tri-Ocean; another Kharafi affiliate owns about 10 percent, and Egypt's Commercial International Bank owns 14 percent of the company.[373]

The company was established in 2006, and has since become one of the first privately-owned, vertically integrated energy companies in the Middle East and North Africa. According to the Egypt Kuwait Holding website in July 2012, Tri-Ocean Energy was involved in oil exploration and production in South Sudan, Sudan, Egypt and Syria.[374]

Tri-Ocean Energy Operations in South Sudan

Tri-Ocean Energy entered South Sudan in March 2008, when it signed an agreement with Sudanese state-owned company Sudapet to buy a 5 percent stake in the Sudanese oil consortium Petrodar for $400 million;[375] the consortium includes China National Petroleum Corporation (CNPC) (41 percent), Petronas (40 percent), Sudapet (8 percent) and Sinopec (6 percent).[376] Tri-Ocean signed the agreement with Sudapet, at the time one of the shareholders of Petrodar. Tri-Ocean Energy's holdings in Sudan consisted of

372" Tri-Ocean Energy" *Egypt Kuwait Holding website*, Retrieved 5 July 2012.
373" Egypt Kuwait Hldg buys 5 pct of Sudan's Petrodar" *Reuters*, Retrieved 5 July 2012.
374" Tri-Ocean Energy" *Egypt Kuwait Holding website*, Retrieved 5 July 2012.
375" Egypt Kuwait Hldg buys 5 pct of Sudan's Petrodar" *Reuters*, Retrieved 5 July 2012.
376" IMPLEMENTING CORPORATE SOCIAL RESPONSIBILITY IN SOUTH SUDAN" *Integrity Research and Consultancy*, October 2011.

producing fields in blocks 3 and 7, which in 2011 had an average production of approximately 245,000 barrels per day (bpd).[377]

As part of its shipping and trading operations, according to the company website, Tri-Ocean Energy loaded 600,000 barrels cargo from South Sudan in October 2011, worth about US $60 million, while also opening up new markets for Dar Blend crude.[378]

The company signed a transitional agreement with South Sudan's South Sudanese Ministry of Petroleum and Mining in January 2012.[379]

377" Tri-Ocean Energy" *Egypt Kuwait Holding website*, Retrieved 5 July 2012.
378" Shipping & Trading" *Egypt Kuwait Holding website*, Retrieved 5 July 2012.
379" S. Sudan: Foreign oil companies sign transitional agreement" *South Sudan Today*, 16 January 2012.

Resource Transparency Opportunities

Resource Curse

Overview

The "Resource Curse" is the idea that the presence of large amounts of natural resources, relative to other sources of income for a state or a society, actually leads to negative social, political and economic effects rather than positive ones. The Resource Curse is a direct result of dependency on oil revenues. As the resource transparency movement has gained ground much research has been carried out into the weak points in the chain of oil production at which corruption and abuses can occur.

History and Current Status of the Idea

The idea that natural resources resulted in poor outcomes has been in play since the 1950s, when it was hotly contested by the ideological camps of the Left and Right. Empirical data began to accumulate to support the idea over time. In the 1970s, Gobind Nankani, a vice-president at the World Bank, showed that a group of mineral exporting countries grew on average by 1.5% per year during the period 1960 to 1976, about half the growth in a control group of non resource-rich countries.[380] In 1988, a study commissioned by the World Bank examined the windfalls accruing to six oil-rich countries during the boom of the 1970s and concluded that those states had performed less well than other, resource-poor countries.[381]

Sachs Work in the 1990s

Jeffrey Sachs and Andrew Warner's Natural Resource Abundance and Economic Growth at the end of the 1990s examined 97 countries over a period of 18 years, 1971 to 1989, and found that states with a high abundance of natural resource exports had abnormally slow economic growth in general, relative to other countries. The study became the basis of a growing recognition of the need to address the problems that natural resource abundance can create in developing societies.[382]

380" Developmental Problems of Mineral Exporting Countries" *World Bank background paper for the 1980 World Development Report* Retrieved 24 October 2011.
381" Oil Windfalls, Blessing or Curse?" *Alan Gelb and Associates* Oxford University Press, New York, 1988.
382" NATURAL RESOURCE ABUNDANCE AND ECONOMIC GROWTH" *Jeffrey D. Sachs and Andrew M. Warner* November 1997.

Opponents of the Term "Resource Curse"

Some economists have resisted the term "resource curse" because they say it sounds fatalistic.[383] Oxford professor Paul Collier suggests that the term poses the problem the wrong way round, since he estimates there are more natural resources in developed countries than in developing ones. The dominance of natural resource industries in some developing country economies is simply, he states, due to the fact that they have had few other options for economic development, which in turn is due to a whole host of political and social factors.[384] Collier argues that for the world's "Bottom Billion" - the poorest billion people on the planet - a greater problem is rather that their natural resources have not been discovered or developed enough.

Attitudes of Major Institutions

International Institutions

The International Monetary Fund has published papers recently discussing how to address the resource curse in Nigeria[385] and Botswana.[386] The World Bank uses the term "Resource Curse"[387][388] while arguing that it is not inevitable and can be avoided by good governance. But some critics have challenged whether the policies the World Bank has pursued are effective, notably in the case of their support for an oil pipeline from Chad through Cameroon which was tied to poverty alleviation policies.[389]

Oil Companies

In recent years, energy companies have started to acknowledge the challenges that natural resource revenues can present to developing countries.

"The reality of the problems which have afflicted a number of different countries as a result of natural resource development is undeniable. I am convinced that there are things we can do to mitigate many of the problems but it would be quite wrong to start from a position of denial," said NJ Butler, then vice-president of British Petroleum, in a speech in 2004.[390]

383" Resource Curse, or Resource Trap?" *M. Lorenzo Warby* Retrieved 24 October 2011.
384" The Plundered Planet Why We Must - and How We Can - Manage Nature for Global Prosperity" *Paul Collier* Oxford University Press, 2009.
385" Addressing the Natural Resource Curse. An Illustration from Nigeria" *IMF Working Paper* Retrieved 24 October 2011.
386" Escaping from the Resource Curse: Evidence from Botswana and the Rest of the World" *IMF Staff Papers, 2007* pp. 54, 663–699.
387" Property Rights and the Resource Curse" *Leif Wenar* World Bank Research Paper, Retrieved 24 October 2011.
388" 'Contributing to development'?" *Interview with Somit Varma, director of the World Bank's Oil, Gas, Mining and Chemicals Group, Critical Resource website* Retrieved 24 October 2011.
389" Can policy intervention beat the resource curse? Evidence from the Chad–Cameroon pipeline project" *Scott Pegg*, African Affairs 105(418):1-25 (2006)
390" Escaping the Resource Curse: Managing Natural-Resource Revenues in Low-Income

Exxon Mobil has rejected use of the term Resource Curse but says it supports the EITI process because it acknowledges that good governance is necessary to deliver benefits from oil production, and that transparency is a part of that.[391]

Economic Causes

Dutch Disease

So-called Dutch disease is the effect on a country's economy when it earns a lot of revenues from exporting a natural resource. It was named after the Netherlands to explain a decline in manufacturing through the 1960s after a major natural gas field was discovered at the end of the 1950s.[392]

The theory is that oil exports earn a lot of foreign currency which tends to lead to a rise in the exchange rate of the local currency. That makes exports from other sectors uncompetitive, and so the natural resource starts to dominate all exports. At the same time, the earning power of the oil sector draws in labour and capital, and therefore also adversely affects all other sectors of the economy, whether they are export-oriented or not.[393]

Correlation Between Oil and Debt

Economists have long noted the link between oil revenues and higher fiscal spending. Venezuela during the 1970s oil boom is a famous case, where President Carlos Andres Perez increased public spending dramatically, leading the country into debt. The fact that all government spending, as well as liquidity in the economy as a whole, rises and falls unpredictably with the fluctuations in the price of oil and other commodities is a severe management problem.[394]

A 2005 study by the Institute for Public Policy Reform analysed data from 101 countries for the period 1991 to 2002 and concluded there was a statistical correlation between increased oil production and exports, and public debt in the producing country.[395]

Countries" *BP Website* Retrieved 24 October 2011.

391" Transparency can promote better natural resource management" *Exxon Mobil website* Retrieved 24 October 2011.

392" Mineral-Rich Countries and Dutch Disease" *World Bank Policy Paper, 2008* Retrieved 11 June 2012.

393" Mineral-Rich Countries and Dutch Disease" *World Bank Policy Paper, 2008* Retrieved 11 June 2012.

394" Venezuela: Anatomy of a collapse" *Edited by Ricardo Hausmann, Harvard University and Francisco Rodríguez, Wesleyan University* Retrieved 6 June 2012.

395" Drilling into Debt" *Institute of Public Policy Research, UK, 2005* Retrieved 24 October 2011.

Political Causes

Weakening of the State

Many political scientists have outlined a Resource Curse which both makes rulers in a state unaccountable, and state institutions weak. They are unaccountable because resource revenues allow them not to have to raise taxes in order to provide welfare and public services (to a greater or lesser extent depending on the degree of their resource wealth). And they are weak because the institutions of the state never develop under real discipline, through meritocracy and against measured goals and results. The most notable exponent of this theory has been Professor Terry Lynn Karl, who studied Venezuela, Nigeria, Algeria and Iran.[396]

Conflicts

Analysts of the resource curse point to many cases where natural resource wealth creates or exacerbates conflicts, either between states or within them. Notable cases include:

- Southern Sudan, where the presence of oil is renewing tensions between the Khartoum government and southern separatists.
- The Cabinda region of Angola, which is oil-rich. A secessionist movement has flourished in the region since the discovery of oil.
- Nigeria, where the concentration of oil in the Niger Delta was a contributing factor to the Nigerian Civil War of 1966-70, and ever since has been a cause of constant unrest.[397]

Natural Resource Charter

Overview

The Natural Resource Charter is described as an international convention in the making, an attempt to spread best practice and governance issues across the energy and extractive industries worldwide. As such it is the latest development in the resource transparency movement.

396" The Paradox of Plenty: Oil Booms and Petro States" *Terry Lynn Karl* University of California Press, 1997.
397" The Natural Resource Curse: A Survey" *Jeffrey Frankel, Feb 2012* Harvard Kennedy School, Retrieved 11 June 2012.

Foundation of Charter

The charter was conceived by economist Paul Collier, as he worked on his book the Plundered Planet. Recognising the precedent set by the EITI, the charter is an attempt to extend the principles of good governance across every area of natural resource management. A draft of the charter was announced in February 2009.[398] As well as Collier, the charter was sponsored by a number of distinguished academics and the Revenue Watch Institute.

Collier's idea is that natural resources are key to the development of many countries, particularly in Africa. But the reason so many countries have suffered from the Resource Curse is a series of breaks in a crucial chain of decisions required to ensure effective exploitation of resources: the lack of sufficient investment in the discovery process, failure to impose adequate taxation, shortage of domestic investment of revenue, and the need to 'invest in investments' by building civil service capacity to manage investment portfolios.

Precepts

The charter is made up of a number of precepts, or basic principles. These are thought to be universally applicable to all natural resource producing countries, in the same way as the Universal Declaration of Human Rights. Each of the principles has a detailed explanation and an accompanying document on ways to achieve it on the charter's website.[399]

Overarching Issues

- Precept 1: The development of natural resources should be designed to secure maximum benefit for the citizens of the host country.
- Precept 2: Extractive resources are public assets and decisions around their exploitation should be transparent and subject to informed public oversight.

Upstream Issues

- Precept 3: Competition is a critical mechanism to secure value and integrity.
- Precept 4: Fiscal terms must be robust to changing circumstances and ensure the country gets the full value from its resources.
- Precept 5: National resource companies should be competitive and commercial operations. They should avoid conducting regulatory functions or other activities.
- Precept 6: Resource projects may have serious environmental and social effects which must be accounted for and mitigated at all stages of the project cycle.

398" New Charter to help oil-rich poor countries - launched today" *Charter website* Retrieved 24 October 2011.
399" Natural Resource Charter - Precepts" *Charter website* Retrieved 24 October 2011.

- Precept 7: Resource revenues should be used primarily to promote sustained economic growth through enabling and maintaining high levels of domestic investment.

Downstream Issues

- Precept 8: Effective utilization of resource revenues requires that domestic expenditure be built up and gradually smoothed to take account of revenue volatility.
- Precept 9: Government should use resource wealth as an opportunity to secure effective public expenditure and to increase the efficiency of public spending.
- Precept 10: Government policy should facilitate private sector investments in response to new opportunities and structural changes associated with resource wealth.

Global Responsibility

- Precept 11: The home governments of extractive companies and international capital centers should require and enforce best practice.
- Precept 12: All extraction companies should follow best practice in contracting, operations and payments.

Institution

The charter is at present a draft put together by a group of leading international scholars. In March 2010, the charter announced that it had an advisory board which includes former president of Mexico Ernest Zedillo, and African businessman Mo Ibrahim.

Resource Transparency Movement

Many organisations work in the resource transparency area, such as Transparency International, Global Witness and the Revenue Watch Institute.

History

What might be called a coherent movement for resource transparency really evolved in the 1990s on two different tracks.

First, NGOs like Transparency International (TI) and Global Witness were founded.[400] TI was dedicated to changing the legal and regulatory environment which governs the

400" Global Witness History" and " TI About Us" *GW and TI websites, respectively* Retrieved 24 October 2011.

way business in general is done, and Global Witness was set up to investigate and expose individual cases of corruption, especially those related to mining industries and oil and gas. The issue of transparency around natural resources gained great public attention in Western countries with the exposure of the "Blood for Diamonds" scandal[401] in which it became clear that wars in some African countries were being prolonged by the fact that both governments and rebel factions could finance themselves through selling precious stones onto world markets.

In parallel to the projects of individual organisations, there were several large initiatives from multilateral international organisations.

In 1997, the OECD approved an anti-bribery convention, which urged member states to pass laws making it illegal for companies under their jurisdiction to use bribery anywhere in the world.[402]

In 2003, the United Nations General Assembly passed the United Nations Convention Against Corruption. Since that time, over 130 countries have signed up to the convention, which obliges them to introduce a wide range of measures in their own laws to combat corruption.[403]

These two tracks, of civil society activism and international treaties and conventions, are mutually reinforcing.

EITI

EITI, itself founded in 2002, can be considered as inbetween the two tracks, since it is an international initiative which formally and specifically engages the civil society sector.

Natural Resource Charter

In 2009, a group of independent experts set up a website and loose organisation called the Natural Resource Charter which seeks to lay out guidelines for best practice right across the energy industry, embracing the EITI but extending beyond it.[404]

The charter is governed by an advisory board which includes the former president of Mexico, Ernesto Zedillo, and the African businessman Mo Ibrahim.[405] The founder of the charter was economist Paul Collier, the leading world scholar on the link between natural resources and problems in development.[406]

401" Blood Diamond" *Wikipedia* Retrieved 24 October 2011.
402" OECD Anti-Bribery Convention" *OECD official website* Retrieved 24 October 2011.
403" Introduction to UNCAC" *Anti-Corruption Resource Centre (U4)* Retrieved 24 October 2011.
404" Natural Resource Charter" *Natural Resource Charter official website* Retrieved 24 October 2011.
405" Charter: Advisory and Monitoring Board" *Natural Resource Charter official website* Retrieved 24 October 2011.
406" The Plundered Planet: Why We Must - and How We Can - Manage Nature for Global Prosperity"" *Paul Collier* Oxford University Press, 2009.

EITI

EITI Compliance

Countries seeking to achieve EITI Candidate status must meet five sign-up requirements, and for a country to achieve EITI Compliance, it has two and a half years to be validated as a Compliant country. Once a country is Compliant, the country must undergo Validation at least every 5 years, or upon the request from the EITI International Board.[407]

As of October 2011 12 countries were EITI compliant, namely: Azerbaijan, Mongolia, Central African Republic, Niger, Ghana, Nigeria, Kyrgyz Republic, Norway, Liberia, Timor-Leste, Mali and Yemen,[408] although Yemen was temporarily suspended in June 2011 due to concerns that it did not satisfy the full and active participation of civil society and other actors in implementing the EITI.[409] There were 23 EITI Candidate countries, and an additional two - the United States and the Philippines - had signaled their intent to implement the EITI.[410]

Validation Requirements

Sign-Up

The EITI rules state that a country applying for Candidate status must meet the following sign-up requirements:

1. The government is required to issue an unequivocal public statement of its intention to implement the EITI.

2. The government is required to commit to work with civil society and companies on the implementation of the EITI.

3. The government is required to appoint a senior individual to lead on the implementation of the EITI.

4. The government is required to establish a multi-stakeholder group to oversee the implementation of the EITI.

5. The multi-stakeholder group, in consultation with key EITI stakeholders, should agree and publish a fully costed work plan, containing measurable targets, and a timetable for implementation and incorporating an assessment of capacity constraints.[411]

407" EITI Implementation" *EITI website* Retrieved 27 October 2011.
408" EITI Countries" *EITI website* Retrieved 27 October 2011.
409" EITI Yemen" *EITI website* Retrieved 27 October 2011.
410" EITI Countries" *EITI website* Retrieved 27 October 2011.
411" Sign Up" *EITI website* Retrieved 27 October 2011.

Preparation

The government is required to: ensure the engagement of civil society in the process; engage companies; and remove legal and regulatory obstacles to the implementation of the EITI. The multi-stakeholder group is required to agree a definition of materiality and the reporting templates, which define what revenue streams are included in company and government disclosures. The organisation appointed to produce the EITI reconciliation report must be perceived as credible, trustworthy and technically competent. The government is then required to ensure that all relevant companies and government entities report and that both company and government reports are based on accounts audited to international standards.[412]

Disclosure

Companies must comprehensively disclose all material payments in accordance with the agreed reporting templates, and government agencies must comprehensively disclose all material revenues. The multi-stakeholder group must also be content that the organisation contracted to reconcile the company and government figures did so satisfactorily, and the reconciler must ensure that that the EITI Report is comprehensive, identifies all discrepancies, where possible explains those discrepancies, and where necessary makes recommendations for remedial actions to be taken.

Dissemination

The government and multi-stakeholder group must ensure that the EITI Report is comprehensible and publicly accessible to encourage that its findings contribute to public debate.

Review and Validation

Oil, gas and mining companies must support EITI implementation, and the government and multi-stakeholder group are encouraged to take steps to act on lessons learned, address discrepancies and ensure that EITI implementation is sustainable. Implementing countries are required to submit Validation reports in accordance with the deadlines established by the Board.

Retaining Compliant Status

Compliant countries must maintain adherence to all the requirements listed above in order to retain Compliant status.

EITI Criteria

1. Publication: Regular publication of all material oil, gas and mining payments by companies to governments ("payments") and all material revenues received by governments from oil, gas and mining companies ("revenues") to a wide audience in a publicly accessible, comprehensive and comprehensible manner.

412" EITI Rules" *EITI website* Retrieved 27 October 2011.

2. Audit: Where such audits do not already exist, payments and revenues are the subject of a credible, independent audit, applying international auditing standards.

3. Reconciliation: Payments and revenues are reconciled by a credible, independent administrator, applying international auditing standards and with publication of the administrator's opinion regarding that reconciliation including discrepancies, should any be identified.

4. Scope: This approach is extended to all companies including state-owned enterprises.

5. Civil Society: Civil society is actively engaged as a participant in the design, monitoring and evaluation of this process and contributes towards public debate.

6. Work Plan: A public, financially sustainable work plan for all the above is developed by the host government, with assistance from the international financial institutions where required, including measurable targets, a timetable for implementation, and an assessment of potential capacity constraints.

EITI in the Mining Industry

Please see separate article on EITI in the Mining Industry

External Links

Official Website: www.eiti.org

Revenue Watch Institute

First launched in 2002 as the Revenue Watch Program of the Open Society Institute, and spun off into an independent organization in June 2006, the Revenue Watch Institute is the only organization dedicated exclusively to addressing the special problems of oil, gas and mining-dependent countries—countries where poverty, conflict and corruption too often converge[413].

Activities

RWI characterises its work as mainly with civil society, helping them oversee mining industries across the entire value chain, from wellhead to international markets. The organisation also makes many small grants to partner institutions in developing countries.

413" About Us, *RWI*, retrieved 26 March 2012.

EITI

RWI was a key founding member of the EITI in 2002 and has sat on its International Advisory Board. The institute defines its projects as supporting the EITI process in many countries around the world. Recent RWI support for EITI implementation has included visits and ongoing outreach in Ecuador, Bolivia, Peru, Trinidad and Tobago, Indonesia, Malaysia, Iraq, Yemen, Sierra Leone and South Africa, among other countries.[414]

RWI also carries out analysis of data found in EITI reports for participating countries. As part of this process they review the quality of recent reports and extract key pieces of revenue data, then rank the various reports according to a set of pre-determined indicators.[415]

External Links

Official Website: www.revenuewatch.org

Data Analysis: EITI Reports: Results and Analysis

Global Witness

Global Witness is a non-profit organisation headquartered in London, Britain, which describes itself as exposing "the corrupt exploitation of natural resources and international trade systems, to drive campaigns that end impunity, resource-linked conflict, and human rights and environmental abuses". [416]

Founded in 1993, Global Witness has been a key player in many of the major international mechanisms and initiatives that have been established to address these issues; including the Kimberley Process governing production of diamonds and precious stones, and the Extractive Industries Transparency Initiative.

Investigations which have driven policy changes

Global Witness' hard-hitting investigations have had direct and major impacts, such as the IMF withdrawal from Cambodia in 1996 over corruption in the logging industry,[417] the imposition of timber sanctions on Charles Taylor's Liberia in 2003,[418] and the precedent-setting arrest of timber baron Gus Kouwenhoven, in the Netherlands in 2005.[419]

414" RWI and the EITI", RWI website
415" EITI Reports: Results and Analysis", *RWI*, retrieved 26 March 2012.
416" Global Witness, About Us" *Global Witness website* Retrieved 24 October 2010.
417" Our History" *Global Witness website* Retrieved 24 October 2010.
418" Liberia breaches UN Sanctions - whilst its logging industry funds arms imports and RUF rebels" *Global Witness website* 6 September 2001.
419" Arms dealer and timber trader Guus Kouwenhoven found guilty of breaking a UN arms embargo" *Global Witness website* 7 June 2006.

Oil and Gas

Global Witness started producing reports on the oil and gas industry in 2004 when its report **Time for Transparency** detailed abuse of natural resources in Kazakhstan, Congo Brazzaville, Angola, Equatorial Guinea and Nauru.[420]

Reports on Russia's gas trade with the countries of Eastern Europe and the EU followed.[421]

In September 2009, Global Witness produced a report which provided details of the lack of transparency in the way Sudan distributes oil revenues between the government in Khartoum and the autonomous government of South Sudan.[422]

Global Witness and conflict minerals

Global Witness' work on conflict minerals focuses on the Democratic Republic of Congo (DRC) where fighting is fuelled by the trade in valuable minerals such as cassiterite, coltan, wolframite and gold.[423]

Global Witness was also one of the first organisations to bring the world's attention to the problems of conflict diamonds in countries such as Liberia, Sierra Leone, Angola, the DRC, and Cote d'Ivoire. The organisation is an official observer of the Kimberley Process and continues to campaign for the strengthening and effective implementation of its rules.[424]

External Links

Official website: www.globalwitness.org

Transparency International

Overview

Transparency International (TI) is the world's largest civil society organisation working on issues of corruption and transparency. It was founded in 1993 by Peter Eigen, a former regional director in Africa from the World Bank.

Eigen explained that in his 25 years at the World Bank, terrible projects often got fun-

420" Time for Transparency" *Global Witness website* Retrieved 26 October 2011.
421" It's a gas - funny business in the Turkmen-Ukraine oil trade" *Global Witness website* Retrieved 26 October 2011.
422" Fuelling mistrust - The need for transparency in Sudan's oil industry " *Global Witness website* Retrieved 26 October 2011.
423" Conflict Minerals" *Global Witness* Retrieved 30 November 2011.
424" Conflict Diamonds" *Global Witness* Retrieved 30 November 2011.

ded because they had the support of leading officials, backed by corruption. The purpose of TI was to put the issue of corruption on the agenda of the World Bank, large donor countries, and the development process.[425]

Major Programs

The project for which TI is most famous is the Corruption Perceptions Index, an annual report issued since 1995. In it, business people are asked for their perceptions of the influence of corruption in their country. Iraq ranked 175th out of 183 countries surveyed in 2011.[426]

As well as the index, TI also publishes a range of reports and position papers on various issues related to transparency.

Middle East Presence

TI works through a series of national chapters - some 100 worldwide. In the Middle East region, there are national chapters in Palestine, Lebanon, Bahrain, Kuwait and Morocco.

TI has also carried out a three-year project in four Arab countries (Egypt, Morocco, Lebanon and Palestine) called *Promoting Transparency and Enhancing Integrity in the Arab region*,[427] with the results of the studies on Lebanon, Morocco and Palestine being launched in late 2009 and the report on Egypt launched in March 2010.

The Oil and Gas Industries

In March 2011, TI issued a report about the status of transparency among global oil companies. It follows a 2008 report that was built on a 2005 study by the charity Save the Children into the same issue, but adapted the methodology.[428]

External Links

Official Website: www.transparency.org

425" TI's greatest success" *Wikipedia* Retrieved 25 October 2011.
426" 2011 Corruption Perception Index, *Transparency International*, Retrieved 5 January 2012.
427" Promoting Transparency and Enhancing Integrity in the Arab Region" *Transparency International website* Retrieved 25 October 2011.
428" Promoting Revenue Transparency: 2011 Report on Oil and Gas Companies" *Transparency International website* Retrieved 25 October 2011.

Transparency of Global Oil Companies (TI Report)

In March 2011, Transparency International (TI) issued a report on the transparency of information provided by 42 major oil and gas companies around the world.

Findings

The report summarised its analysis into several main findings:

- Oil and gas companies are increasingly adopting and making publicly available anti-corruption programmes, but there are many companies that still do not publish their anti-corruption codes, policies or measures.
- Public disclosure of partnerships and subsidiaries, including their countries of incorporation, are key elements of organisational disclosure and the average results in this section were relatively high. Many national oil companies have a good level of disclosure. However, disclosure of equity or field partners in upstream operations remains infrequent, despite the fact that equity minority partnerships often present corruption risks.
- Country-level disclosure on international operations has improved since the 2008 PRT report, and reporting on production levels has become a broadly accepted standard and there are examples of good disclosure for financial data and reserves. But country-level disclosure on international operations remains weak; many companies do not disclose any financial data on a disaggregated country-level. The host country environment itself cannot be exclusively blamed for poor disclosure. In the same host countries, often described as 'difficult environments', some companies disclose extensive information, while the others disclose little or none at all.

Key Policy Recommendations

For Companies

- Detailed anti-corruption programmes should be publicly available
- Companies should undertake voluntary independent assurance of anti-corruption programmes
- Companies should publish details of their subsidiaries and fields of operations
- Oil and gas companies should increase their reporting on a country-by-country basis
- Companies should join the Extractive Industries Transparency Initiative

- Companies should create and maintain up-to-date corporate websites

For National Oil Companies (NOCs)

- All NOCs should introduce internationally or generally accepted accounting standards, as well as publish independently audited accounts
- The relationships between home governments and NOCs should be clear and publicly disclosed

For Public Bodies

- The European Union should amend relevant legislation to require EU-registered companies to report on their operations on a country-by-country basis
- All governments that are home to oil and gas producers should require companies to report on their operations on a country-by-country basis
- Stock exchanges should enforce regulations providing for country-level reporting

For the Investor Community

- International rating agencies and risk analysts should include anti-corruption measures in their risk evaluation models where relevant
- The International Accounting Standards Board should require companies to report key information on a country-by-country basis
- Corporate responsibility indices should include reporting on anti-corruption programmes, organisational disclosure and country-level disclosure

Transparency of Contracts

Overview

The drawing up of contracts is necessary in the extractive industries in order to give precise detail and legal specificity to the obligations of a state and company or consortium of companies involved in a project. Many contracts establish important tax, environment and investment provisions with major implications for a producing country.[429]

The 2009 "Contracts Confidential" report from Revenue Watch notes that in recent years there has been a growing movement calling for greater contract transparency, within and beyond the extractives sector. International jurisprudence on the right to

429" Contracts Confidential: Ending Secret Deals in the Extractives Industries" *Revenue Watch*, 2009.

information, which increasingly supports the disclosure of agreements, as well as domestic freedom of information (FOI) laws across the world, are trends which offer important tools of argument and procedure in breaking the barrier to disclosure while balancing other legitimate interests.

According to Ingilab Ahmadov of the Public Finance Monitoring Center in Azerbaijan, it is widely known that a transparent "company-state" relationship is a key factor for resource-rich countries seeking efficient management of their natural resources to benefit current and future generations. He argues that contract transparency is necessary because an outside observer who wishes to compare similar contracts across or within countries needs a way to determine the extent to which it takes society's interests into account. To judge the fairness of these contracts, one must first have access to them.[430]

Proponents of contract transparency argue that the publishing and scrutiny of contracts allows government to be held accountable for all contracts they enter. In their report on the issue, Revenue Watch argue that "contract transparency is critical to addressing better resource management and bringing contract stability to an industry that sees its contracts renegotiated more than any other."

Opposition and counter-arguments

One of the most commonly aired arguments against transparency of contracts is that this openness impairs a company's commercial interests and weakens its competitive position. Confidentiality clauses are a common and legitimate feature in contracts between private parties and are used to prevent information from coming into the hands of public groups.

This assertion is contradicted by proponents of transparency such as Ingilab Ahmadov, who argues that industry specialists in any case are aware of all or almost all contracts. Given the high level of information technology and close cooperation on joint projects in today's oil industry, it is unrealistic to maintain "trade secrets" as they existed in the 1980s and 1990s. According to Ahmadov, practice has shown that the commercial interests of parties involved in oil and gas contracts do not suffer negatively from the exposure, but on the contrary are able to benefit from a badly needed enhancement of their public image.

Susan Maples, in her report for Revenue Watch, suggests that one reason why companies are not eager to embrace contract transparency is that the information asymmetry between different parties resulting from secrecy arrangements allows certain companies an advantage, enabling them to negotiate more favourable commercial deals. Maples admits that the arguments in support of contract secrecy are not negligible arguments, but they overlook the special obligations of governments and the democratic right to information.

430" WHY IS OIL CONTRACT TRANSPARENCY NECESSARY?" *Public Finance Monitoring Centre*, retrieved 15 March 2012.

The EITI and Contract Transparency

As of 2011, the Extractive Industries Transparency Initiative (EITI) did not make demands on participating countries regarding contract transparency. There have been calls from transparency activists for the initiative to widen its remit to include contract transparency.[431] However EITI representatives argue that it is important that the EITI retains precisely this tight focus in order to foster wider change and provoke debate on broader governance issues.

External Links

Revenue Watch Report: Contracts Confidential: Ending Secret Deals in the Extractive Industries

WikiLeaks

WikiLeaks is a non-profit media organisation with the stated goal of improving the transparency of governments, corporations and other organisations, and thereby ultimately reducing corruption and creating stronger democracies. The organisation was launched in 2007[432] by Julian Assange, an Australian internet activist.[433] Since its formation, WikiLeaks has released more classified intelligence documents than the rest of the world press combined, according to the organisation's website.

How WikiLeaks Works

Wikileaks publishes private, secret and classified media provided by anonymous news sources and whistleblowers. When information is submitted to WikiLeaks via a high-security electronic drop box, the organisation's journalists analyse and verify the material and write a news piece describing its significance to society. WikiLeaks then publishes both the news story and the original source material, enabling readers themselves to analyse the story in the context of the original source material.

Notable breakthroughs

Since 2007, WikiLeaks has broken many stories on controversial issues including government and corporate transparency, suppression of free speech, diplomacy and intelligence, censorship, war, and corruption.

WikiLeaks broke into mainstream public knowledge in 2007, when it leaked a manual describing the day-to-day operations of the US military's Guantanamo Bay detention

431“ What needs to change for the EITI remains relevant? ” *Publish What You Pay Africa*, October 2011.
432" What is Wikileaks?" *WikiLeaks.org* Retrieved 6 February 2012.
433" WikiLeaks Boss Says He Enjoys 'Crushing Bastards'" *ABC News* 26 July 2010.

facility. The manual indicated that some prisoners were designated as off limits to visitors from the International Committee of the Red Cross, which the US military had repeatedly denied.[434] In July 2010, WikiLeaks published over 75,000 confidential files relating to the US war effort in Afghanistan, revealing gruesome details of civilian killings by coalition forces, the increase in Taliban attacks, and coalition concerns that neighboring countries like Pakistan and Iran were aiding insurgents in the region.[435]

In 2007, WikiLeaks helped promote good governance when a leak exposed $3 billion of corruption in the government of Kenya in the midst of an epidemic of malaria, which, according to the WikiLeaks website, was estimated to have been the cause of 20 percent of all deaths in children under five. WikiLeaks claims that the leak swung the December 2010 Kenyan national elections by 10 percent, and led to changes in the constitution and the establishment of a more open government.

As of March 2012 the Wikileaks full-text search engine, Cablegate, contained over 7,000 cables with the tag "epet", the US state department tag for topics concerning petroleum and natural gas.[436]

Criticism and legal issues

WikiLeaks has drawn intense criticism from governments, organisations and individuals who have had their information leaked.[437] Since 2007, Wikileaks has been victorious over legal attacks from numerous entities, including the US Pentagon, the Chinese Public Security Bureau, the Former president of Kenya, the Premier of Bermuda, Scientology, the Catholic & Mormon Church, the largest Swiss private bank, and Russian companies.

The US administration of President Barack Obama pledged to pursue those responsible for the leak of US diplomatic cables in 2010. US Army Private Bradley E. Manning was arrested in May of that year for disclosure of confidential and classified information connected to a number of WikiLeaks releases. In 2008, Swiss bank Julius Baer Group successfully obtained an injunction shutting down the website by forcing Dynadot, the domain registrar of Wikileaks.org, to disassociate the site's domain name records with its servers, preventing use of the domain name to reach the site. The injunction was, however, dissolved in the same month by a United States district court and the bank dropped the suit in March 2008.

However because it acts as the publisher, rather than the discloser, of leaked documents, WikiLeaks enjoys substantial protection in the United States under the first amendment, which protects the freedom of speech, for its publication of US government documents.

434" Guantanamo operating manual posted on Internet" *Reuters* 14 November 2007.
435" Wikileaks releases 92,000 secret Afghan-war files" *TechRadar.com* 26 July 2010.
436" cablegatesearch.net" *WikiLeaks* Retrieved 21 March 2012.
437" WikiLeaks: Secrets and Legal Liability" *The Law Insider* 2 December 2010.

External Links

WikiLeaks website: www.wikileaks.org

Appendix

The Transitional Constitution of the Republic of South Sudan, 2011 (excerpt)

Part Twelve: Finance and Economic Matters[438]

CHAPTER I: GUIDING PRINCIPLES FOR DEVELOPMENT AND EQUITABLE SHARING OF NATIONAL WEALTH

169.

(1) The National Government shall promote, support and encourage decentralized broad based and balanced and participatory economic development based on the principle of subsidiarity and devolution of governmental functions and powers to the appropriate levels where the people can best manage and direct their own affairs.

(2) Equitable economic development shall be based, inter alia, on the agricultural and agro-industrial sectors, and promotion of private sector conducted in accordance with the best known practices of sustainable development within a framework of transparent and accountable governance.

(3) The National Government shall promote and encourage the participation of the people in the formulation of its development policies and programmes.

(4) The National Government shall endeavour to build institutional, human, social and economic capacity, develop infrastructure and social services and raise the standard of public services to attain the Millennium Development Goals.

(5) The sharing and allocation of resources and national wealth shall be based on the premise that all states, localities and communities are entitled to equitable development without discrimination as shall be regulated by law.

(6) National wealth and other resources shall be allocated in a manner that will enable each level of government to discharge its legal and constitutional responsibilities and duties and ensure that the quality of life and dignity of all the people are promoted without discrimination on grounds of gender, religion, political affiliation, ethnicity, language or locality.

(7) The National Government shall fulfill its obligations to provide financial transfers to all levels of government, and shall, except as otherwise provided herein, apportion

438 ''The Transitional Constitution of the Republic of South Sudan, 2011'' LAWS OF SOUTH SUDAN, Retrieved 20 July 2012.

revenue equitably among the states and local governments as shall be determined by law.

(8) Revenue sharing shall reflect a commitment to devolution of powers and decentralization of decision-making in regard to development, service delivery and good governance.

(9) All taxes and duties set out in this Constitution shall be regulated by law to ensure coordination, fairness, equity, transparency and to avoid an excessive tax burden and tax incident on the citizens, private sector and investors.

(10) No level of government shall unduly withhold any allocation or financial transfer due to another level of government. In case of dispute, any level of government, after attempting amicable solution, may initiate proceedings before the Supreme Court.

CHAPTER II: LAND OWNERSHIP, TENURE AND NATURAL RESOURCES

Land Ownership

170.

(1) All land in South Sudan is owned by the people of South Sudan and its usage shall be regulated by the government in accordance with the provisions of this Constitution and the law.

(2) Notwithstanding sub-Article (1) above, and the provisions of Article 28 of this Constitution, the government at all levels, may expropriate land in the public interest as shall be prescribed by law.

Land Tenure

171.

(1) The regulation of land tenure, usage and exercise of rights thereon shall be governed by this Constitution and the law.

(2) Without prejudice to sub-Article (4) below, the land tenure system in South Sudan shall consist of:

(a) public land;

(b) community land; and

(c) private land.

(3) Public land shall include, but not be limited to:(a) all land owned, held or otherwise acquired by any level of government as defined by law; and (b) all land which is not otherwise classified as community or private.

(4) Regardless of the classification of the land in question, rights over all subterranean

and other natural resources throughout South Sudan, including petroleum and gas resources and solid minerals, shall belong to the National Government and shall be regulated by law.

(5) Community land shall include all lands traditionally and historically held or used by local communities or their members. They shall be defined, held, managed and protected by law.

(6) Private land shall include:

(a) registered land held by any person under leasehold tenure in accordance with the law;

(b) investment land acquired under lease from the Government or community for purposes of social and economic development in accordance with the law; and

(c) any other land designated as private land by law.

(7) Rights in land and resources owned, held or otherwise acquired by the Government shall be exercised through the appropriate or designated level of government which shall recognize customary land rights under customary land law.

(8) All levels of government shall institute a process to progressively develop and amend the relevant laws to incorporate customary rights and practices and local heritage.

(9) Communities and persons enjoying rights in land shall be consulted in decisions that may affect their rights in lands and resources.

(10) Communities and persons enjoying rights in land shall be entitled to prompt and equitable compensation on just terms arising from acquisition or development of land in their areas in the public interest.

Land Commission

172.

(1) There shall be established an independent commission to be known as the Land Commission, and it shall be composed of persons of proven competence, experience, integrity and impartiality.

(2) The Chairperson, Deputy Chairperson and Members of the Commission shall be appointed by the President in accordance with this Constitution and the law.

(3) The structure, composition, functions, powers and terms and conditions of service of the Chairperson, Deputy Chairperson, Members and employees of the Commission shall be regulated by law.

CHAPTER III: PETROLEUM AND GAS DEVELOPMENT AND MANAGEMENT

Guiding Principles for Petroleum and Gas Development and Management

173.

(1) Ownership of petroleum and gas shall be vested in the people of South Sudan and shall be developed and managed by the National Government on behalf of and for the benefit of the people.

(2) Petroleum and gas development and management shall be guided by the following principles:

(a) safeguarding National interests;

(b) creating lasting benefits for society;

(c) promoting efficient and sustainable resource management;

(d) using oil revenues to develop other sectors of the economy, especially agriculture;

(e) ensuring transparency and accountability;

(f) promoting fair competition to increase productivity and efficiency in the petroleum and gas sector;

(g) promoting balanced and equitable development;

(h) creating a secure and healthy investment environment;

(i) protecting the environment and biodiversity;

(j) building the capacity of South Sudanese within the petroleum and gas sector;

(k) establishing oil infrastructure within South Sudan, such as pipelines, refineries, storage, processing and transport facilities;

(m) safeguarding interests of future generations;

(n) ensuring accountability for violations of human rights and degradation to the environment caused by petroleum and gas-related operations; and

(o) ensuring restoration of land and resources affected by development and management.

National Petroleum and Gas Commission

174.

(1) A National Petroleum and Gas Commission shall be established as a policymaking

body with respect to petroleum and gas resources as shall be regulated by law.

(2) The National Petroleum and Gas Commission shall report to the President and the National Legislative Assembly and Council of States.

(2) The National Petroleum and Gas Commission shall consist of relevant national Ministries, other relevant institutions, and representatives of oil producing states appointed by the President in accordance with the law.

(3) The Chairperson, Deputy Chairperson and members of the Commission shall be appointed by the President with the approval of the National Legislative Assembly.

(4) The Structure, Composition, Functions, powers, terms and conditions of service of the chairperson, Deputy Chairperson, Members and employees of the Commission shall be regulated by law.

Ministry in Charge of Petroleum and Gas

175.

(1) The Ministry in charge of petroleum and gas shall be the policy implementing body of the Government with respect to petroleum affairs. It shall act in accordance with this Constitution and the law.

(2) The functions of the Ministry shall include:

(a) negotiating all oil contracts for the exploration and development of oil and ensuring that they are consistent with its principles, policies and guidelines;

(b) initiating legislation, rules, and regulations regarding the petroleum and gas sector;

(c) managing the relations of the Government with petroleum and gas companies operating in South Sudan;

(d) formulating strategies and programmes for the development and management of the petroleum and gas sector;

(e) developing the necessary technical cadres for the petroleum and gas sector;

(f) in consultation with affected communities, ensuring that all petroleum and gas projects be subjected to environmental and social impact assessment; and

(g) signing contracts on behalf of the Government upon the approval of the National Petroleum and Gas Commission.

National Petroleum and Gas Corporation

176. There shall be established a national petroleum and gas corporation which shall

participate in the upstream, midstream and downstream activities of the petroleum andgas sector on behalf of the National Government. Its structure, management, and functions shall be determined by law.

CHAPTER IV: SOURCES OF REVENUE

Sources of Revenue for the National Government

177.

(1) there shall be established a National Revenue Authority. Its structure, composition and functions shall be regulated by law.

(2) The National Government shall legislate for raising revenue or collecting taxes fromthe following sources:

(a) petroleum, Gas/oil, mineral, and other natural resources;

(b) national personal income tax;

(c) corporate and business profit tax;

(d) customs duties and import taxes;

(e) airports, rail, road, and river transport revenue;

(f) service charges, fees and fines;

(g) national government enterprises and projects;

(h) value added tax or general sales tax on goods and services;

(i) excise duties;

(j) loans and borrowing from the Bank of South Sudan and the public;

(k) grants-in-aid and foreign financial assistance;

(l) fees from nationality, passports, immigration and visas;

(m) royalties; and

(n) any other tax or revenue as may be determined by law.

National Oil Revenue

178.

(1) The National Government oil revenue shall derive from the net oil revenue after payment to the Oil Revenue Stabilization Account. The two percent payable to the oil producing states shall be increased to five percent and shall be allocated as follows:

(a) Two percent shall be allocated to the states; and

(b) Three percent to the communities,

The above allocations shall be regulated by law.

(2) An Oil Revenue Stabilization Account shall be established from government oil net revenue derived from actual export sales above an agreed benchmark price. The benchmark price will be established annually as part of the national budget.

(3) The National Government shall establish a Future Generation Fund from its share of net oil revenue.

Sources of Revenue of the States

179.

The states shall legislate for raising revenue or collecting taxes from the following sources:

(a) state land and property tax and royalties;

(b) service charges for state services;

(c) licences issued by the state;

(d) state personal income tax;

(e) levies on tourism;

(f) at least two percent of net oil and other mineral revenues for each producing state;

(g) state government projects;

(h) stamp duties;

(i) agricultural production taxes;

(j) grants-in-aid and foreign aid;

(k) excise duties;

(l) other state taxes, which are not within the exclusive jurisdiction of the National Government;

(m) loans and borrowing in accordance with Article 184 (2) and (3) of this Constitution; and

(n) any other tax as may be determined by law.

CHAPTER V: FISCAL AND FINANCIAL INSTITUTIONS

National Revenue Fund

180.

(1) All revenue collected for or by the National Government shall be pooled in a National Revenue Fund administered by the Ministry of Finance. Such Fund shall em-

brace all accounts and sub-funds into which monies due to the National Government are collected, deposited and reported.

(2) All the revenue and expenditure of each level of government shall be on-budget operations and made public as the case may be.

(3) Any withdrawals from the National Revenue Fund shall not be made except in accordance with the law.

(4) The criteria and conditions for allocation of revenue to the states shall be determined by law.

Fiscal and Financial Allocation and Monitoring Commission

181.

(1) There shall be established an independent commission to be known as the Fiscal and Financial Allocation and Monitoring Commission, to ensure transparency and fairness in regard to the allocation of funds collected at the level of the National Government to the states and local governments.

(2) The Commission shall undertake the following duties and responsibilities:

(a) recommend criteria for allocation of National revenue to the state and local government levels;

(b) ensure and monitor that grants from the National Revenue Fund are promptly transferred to the respective levels of government;

(c) guarantee appropriate sharing and utilization of financial resources at the state and local government levels;

(d) safeguard transparency and fairness in the allocation of funds to the state and local government levels;

(e) monitor allocation and utilization of grants to and by the state and local government levels; and

(f) perform any other function as may be prescribed by law.

(3) The Commission shall submit a quarterly report to the President and the National Legislative Assembly and the Council of States about its performance, and the President shall take appropriate remedial action to resolve any problems affecting the work of the Commission.

(4) The President shall appoint the Chairperson, Deputy Chairperson, and Members of the Commission.

(5) The structure, composition, functions, powers and terms and conditions of service of the Chairperson, Deputy Chairperson, Members and employees of the Commission shall be regulated by law.

CHAPTER VI: BANKING IN SOUTH SUDAN

Establishment of the Bank of South Sudan

182. (1) There shall be established a central bank in South Sudan to be known as the Bank of South Sudan to provide for banking services in accordance with this Constitution and the law. The Bank shall be an independent corporate legal entity.

(2) The Bank of South Sudan shall be responsible for the formulation, conduct and implementation of monetary policy.(3) The Bank of South Sudan shall use the market-based banking instruments developed by the Bank to regulate and supervise the implementation of the national monetary policy in South Sudan in relation to the following:

(a) formulating monetary policy;

(b) issuing currency;

(c) promoting and maintaining price stability;

(d) maintaining a stable exchange rate;

(e) maintaining sound, effective and efficient banking and credit system;

(f) chartering and supervising financial institutions in South Sudan; and

(g) performing any other function as may be prescribed by law.

(4) The Bank of South Sudan shall be independent in the performance of its functions and the exercise of its powers.

(5) All financial institutions shall be subject to rules and regulations set by the Bank of South Sudan as well as to internationally recognised regulatory and prudential standards for finance.

(6) All financial institutions shall be bound to implement monetary policies set by the Bank of South Sudan.

(7) The Bank of South Sudan shall be headed by a Governor and assisted by two Deputy Governors, appointed by the President and approved by two-third majority of members of the National Legislative Assembly present and voting.

(8) The Governor of the Bank of South Sudan shall appoint other senior officers within the Bank of South Sudan in consultation with the Board of Directors and in accordance with the law.

(9) There shall be established a Board of Directors for the Bank of South Sudan appointed by the President. It shall consist of nine members as follows:

(a) Governor of the Bank of South Sudan, Chairperson;

(b) two Deputies of the Governor, members; and

(c) six non-executive, highly qualified, competent and experienced South Sudanese who are not employees of the Bank, members.

(10) The Board of Directors shall be the highest policy-making body of the Bank and shall be responsible to the President.

(11) Decisions of Board of Directors on matters that may affect adversely the interests of the clientele shall be by consensus.(12) The tenure and terms and conditions of service of the Governor, Deputy Governors, members of the Board of Directors and other officials of the Bank shall be prescribed by law.

Circulating Currencies in South Sudan

183.

(1) The Bank of South Sudan shall have the exclusive right to issue a currency to be the legal tender of South Sudan, the design of which shall reflect the historical and cultural diversity of the country.

(2) Until a new currency is issued on the recommendation of the Bank of South Sudan, the circulating currency in South Sudan shall be recognized as a legal tender.

Borrowing

184.

(1) (a) The National and state governments may borrow money with the approval of their respective legislatures. The appropriate legislature may by law exempt any categories of loans from the requirement of approval and in this case determine the extent of the money value of the loan subject to such conditions as it may prescribe.

(b) Neither the National Government nor the Bank of South Sudan shall guarantee borrowing by any state government without their prior approval.

(2) The National and state governments may borrow money from foreign sources depending on their respective credit worthiness.

(3) Foreign borrowing by the governments of the states shall be in a manner that does not undermine national macro-economic policies and shall be consistent with the objective of maintaining external financial viability. All foreign borrowing transactions of National and state governments shall conform to the specifications of the Bank of South Sudan.

(4) The National and state governments shall report financial and fiscal data relating to such loans to the Bank of South Sudan for statistical purposes.

Subject	Southern Sudan: Meeting With The Minister Of Finance And Economic Planning
Origin	Embassy Khartoum (Sudan)
Cable time	Thu, 16 Feb 2006 09:17 UTC
Classification	UNCLASSIFIED//FOR OFFICIAL USE ONLY
Source	http://wikileaks.org/cable/2006/02/06KHARTOUM407.html
History	• *Time unknown*: Original unredacted version, leaked to Wikileaks • Wed, 24 Aug 2011 18:27: First publication, unredacted, however non-text content differs • **Thu, 1 Sep 2011 23:24: Original unredacted version published, with HTML goodies**

¶1. (U) Summary: On February 15, CG Juba met with Government of Southern Sudan (GoSS) Minister of Finance and Economic Planning Arthur Akuin Chol. Chol discussed the upcoming GoSS USD 1.5 billion budget, funded mostly through oil revenues, and the priorities for spending, beginning with the development of Juba, state capitals, and transportation infrastructure. Chol then weighed in on the Total Oil controversy, saying that the block assigned to the firm was too large, and that Total should have lost its rights when it abandoned it in the 1980s. Chol also said that U.S. sanctions are hurting the development of Southern Sudan, as was the shift in focus to the ongoing conflict in Darfur. End summary.

A Budget Built on Oil and Priorities

¶2. (U) Chol said that he had prepared the 2006 budget, which would soon become a public document. He observed that, on the GoSS side, revenues came almost entirely from oil receipts. The budget projected USD 1.3 billion in petrol revenues, but only USD 4 million from all other sources. An additional USD 200 million brought the total budget to USD 1.5 billion.

¶3. (U) He listed priority areas of spending for the GoSS, beginning with the rehabilitation of Juba. He scoffed at ongoing work on ministry offices as touch up, and said that total renovation and refurnishing is needed. In addition, urgent repairs to the water supply and electric generation/distribution systems are foreseen. Sixty kilometers of road in Juba town will be repaved: in his speech the previous day President Bashir had promised enough bitumen to do 20 kilometers, and the GoSS would come up with the rest. Renovation of the ten state capitals would take place next, including an upgrade of information technology that would link the capitals to Juba by a system of VSATs. Finally, he concluded, the GoSS would emphasize mine clearance and the upgrade of main roads linking the major towns of the South. He said the Multi-Donor Trust Fund would provide USD 750 million over a three-year period in support of these infrastructure priorities.

¶4. (U) Chol expressed appreciation for USAID assistance in helping to shape the budget through its BearingPoint contractor. A workshop scheduled for next week would convene ministers of finance from the ten states to train them in preparing budgets at the state level, setting financial ceilings through which the various front line ministries would prioritize and set funding levels. In response to the CG's question on which GoSS ministries would get the largest slices of the pie, Chol ticked off the list in descending order: infrastructure (multiple ministries), education, health, housing, and the military.

Fretting Over Petroleum

¶5. (SBU) Chol echoed the concern of virtually everyone in the GoSS about the lack of Government of National Unity (GNU) transparency about petroleum revenues, both the amount produced and the terms of payment under existing contracts. He added that the failure to agree on the border was also critical, since the CPA did not require the North to share revenues from oil produced on its territory. Chol said that the oil rich area around Heglig in particular is an issue, since it had been part of the South at independence in 1956, but was now claimed by the North as its territory.

¶6. (SBU) Chol admitted that the GNU had recently improved its performance in transferring oil revenues to the South, although the North had still not fully paid up. Like other GoSS officials, he would not provide an exact figure. (Note: We have heard that the GNU has transferred approximately USD 900 million so far. End note.) Chol was vague on how new finds in the South would be handled in terms of revenue sharing, stating only that the CPA was not totally clear on this point. He spoke briefly on the Total/While Nile controversy (septel), insisting that the normal maximum petroleum zone granted worldwide was no more than 500 square kilometers, and that Total should have lost contractual rights during the long hiatus after it pulled out of Block B, the Central "super block" encompassing 120,000 square kilometers.

Developing Other Revenue Streams

¶7. (U) The Minister frankly admitted that customs and income tax were the only areas from which the GoSS would derive additional revenue, plus some new taxes on tent camps and other foreign businesses now in South Sudan to cater to NGOs, et al. Chol said that the GNU planned to train southern customs officials and upgrade communications between the border, Juba, and Khartoum. In return, the GoSS would equally share revenues with the GNU, which in turn would share a percentage of the customs revenues it generated in the North with the South.

Sanctions Pinch Both Sides

¶8. (U) Chol said that U.S. economic sanctions were punitive for the South. He described a pre-interim period donor fund established for the SPLM, but controlled by UNICEF. Twice Deutsche Bank had blocked the movement of funds from New York to the SPLM's bank in East Africa. More recently, transfer payments for petroleum had been held up in the banking circuit. Chol listed sanctions on spare parts for airplanes and locomotives as another measure that punished the South for the actions of the North. He added that at least President Bashir had been entirely clear in his speech in Juba the previous day that the North would accept a decision by the South to go its own way six years hence.

The Darfur Blues

¶9. (SBU) Chol lamented the negative impact of Darfur on the reconstruction of the South. He complained that attention had shifted away from the South and that resources that rightly would have gone to southern reconstruction were now diverted to IDP camps in Darfur. CG pointed out that it is thus clearly in the self- interest of the GoSS to do its utmost to support a negotiated solution in Darfur, and that it is in the interest of the SPLM to use its position to promote political transformation throughout Sudan and assure a secure future for the entire country, whatever CPA option the people of the South might ultimately choose.

Bio Data

¶10. (SBU) Chol is a Dinka from Aweil, probably in his mid- 60s. He was a refugee in Kinshasa for two years in the 1960s, and did pre-university studies at Louvanium before receiving a scholarship to Fribourg Catholic University in Switzerland. He completed an M.A. in economics over six years and worked for a private firm in Basel. Chol returned to Sudan in 1982 and worked for the government of Sadiq al Mahdi. Chol was sent to Cairo as the Sudanese representative on a multilateral maritime body, and served as al Mahdi's emissary to various sub-Saharan African countries in support of peace negotiations with the South. When Bashir seized power, the GOS canceled Chol's passport and pressed Egypt for his return. Chol traveled to Nairobi in 1992 and joined the SPLM, where in 1993 he became SPLM Minister for Humanitarian Affairs, the precursor of the SRRC. Garang appointed him Minister of Finance in 1997, a position he has held since.

Subject	Update On Petroleum Sector In South Sudan
Origin	Embassy Khartoum (Sudan)
Cable time	Mon, 31 Jul 2006 10:22 UTC
Classification	CONFIDENTIAL
Source	http://wikileaks.org/cable/2006/07/06KHARTOUM1817.html
History	• *Time unknown*: Original unredacted version, leaked to Wikileaks • **Thu, 1 Sep 2011 23:24: Original unredacted version published, with HTML goodies**

¶1. (C) Summary: Conversations with Government of Southern Sudan (GoSS) ministers and a Total representative indicate some movement on resolution of controversies in the petroleum sector in Southern Sudan, possibly to the advantage of Total. A committee to study the matter is recommending that GoSS split Super Block B, but give Total the right to choose which area to develop. Additional evidence of corruption and mismanagement of the petroleum sector is beginning to come to light. Also on the oil front, the GoSS reportedly is intent on replacing northern security forces in the petroleum fields of north Southern Sudan with southern forces. End summary.

Recommendation on Total/White Nile Controversy

¶2. (C) GoSS Minister of Mines, Energy and Industry Albino Akol Akol says that the three-person ad hoc ministerial committee of which he is a member has delivered to GoSS President Kiir a recommendation for resolving the competing claims of Total and White Nile Ltd. (WNL) over who maintains what exploration and production rights in Super Block B. Once Kiir has reviewed the decision, he can transmit it to the Council of Ministers for final approval, at which time it would be presented to the National Petroleum Commission (NPC) as the official position of the GoSS.

¶3. (C) Akol said that the heated debate that ensued when the three-person ministerial committee was formed - Vice President Machar and other supports of WNL opposed any debate of the question - will pale in comparison to what will erupt when the recommendation is publicized. Akol said that the committee recommends that the contesting parties share Block B - the WNL position - but that right of first choice for choosing the area it wishes to exploit should go to the party with the longest standing contract - which would be the Total Consortium.

¶4. (C) The Total representative in Juba said that he had received the same information and that the choice was simple; if given the chance, Total would resume work in Bor, the basin with the greatest potential. This would displace WNL, which has been conducting seismic work near Padak, and Moldovan firm Ascom, which has appropriated the Total site south of Bor as Ascom's supply site for its operations on the western bank of the White Nile. The Total representative said that the northern delegates to the NPC would probably approve a decision to split Block B based on the recommendation. He added that his greatest concern was the timeline for a final decision. Should WNL manage to sink a well and find oil before the decision was final, displacement of WNL would be more difficult. Also, the delay had weakened the consortium. He said that Akol had told him that the GoSS believed that Houston-based Marathon Oil, which holds the same share as Total, was seeking to sell its interests.

Evidence of Misdeeds

¶5. (C) A freight forwarder has provided us a letter that he has used to import materials into Southern Sudan without paying duties or taxes. Addressed to "to whom in may concern" on GoSS letterhead dated March 9, the letter is signed by Vice President Riek Machar, who is rumored to have interests in WNL as well as Ascom. The letter states the GoSS confirms that petroleum exploration firm Ascom Sudd operates on a concession in Southern Sudan in partnership with Nile Petroleum Corporation, the GoSS oil parastatal. Based on another GoSS letter dated October 29, the Machar letters states that Ascom Sudd and its subcontractors "are exempted of all taxes, fees and charges of all types which would normally have attached to their equipment, machinery, vehicles and consumables, including fuels, construction materials, food, medicines, into Southern Sudan." The letter continues that Ascom is also exempted from all local, provincial, regional, or municipal taxes.

¶6. (C) The exemptions granted Ascom are not on the surface unreasonable concessions for the putative partner of a GoSS parastatal. Procedurally, however, there are serious flaws. We have learned that Ascom has not been registered by the GoSS, and as such has no legal operational status. Normally, the decision to grant Ascom tax exempt status should be issued as a public decree, but we have been unable to locate any decree of this nature released by the GoSS during the period in question. The lack of transparency is troubling.

Tug of War over Security

¶7. (C) During a recent conversation, Minister of Police and Security Daniel Awet said that elements of the 18,000 strong SPLA contingent that had been transferred to his ministry would be trained to provide protection for diplomatic and international facilities in the South. Another group would be trained as "petroleum police" to provide security to oilfield near Bentiu and Heglig as well as Bor and other exploration sites. The SPLA forces in those areas would be withdrawn. He said that he had communicated with his Government of National Unity (GoNU) counterpart in Khartoum to tell him that the GoNU should also withdraw all non-Joint Integrated Unit (JIU) Northern forces from the petroleum zones as the Southern police element deployed.

Analysis

¶8. (C) We do not expect the supporters of WNL to accept the "first come, first served" committee recommendation without a fight. WNL's current operation is reportedly suffering from serious cash flow problems, and its displacement from Bor, the most promising site, would negate all WNL's efforts to date and probably send its market value plummeting. Further to the North, we do not expect the GoNU to accept Awet's invitation to turn oil security over to his police forces gracefully. A recent clash between the SPLA and SAF troops - or between two factions of the SPLA, depending upon which version that one accepts - near Bentiu temporarily displaced Chinese oilfield workers from their sites, according to a report from UNMIS.

Subject	Oil In Southern Sudan - The Story Of "crooks And Nannies"
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¶1. (SBU) Summary: The history of oil exploitation in Sudan has been marked by northern domination, killings, displacement, community destruction, environmental degradation, arms purchases, and accusations of cheating on revenue sharing. To break with this legacy, the Government of Southern Sudan (GOSS) is working to establish an indigenous oil industry independent of Khartoum. Southern initiatives include exploration and production contracts, and ambitious plans for refineries and pipelines serving central and eastern Africa. Nile Petroleum Company (NilePet), the GOSS-owned oil company, has signed international production sharing agreements (IPSA) with British, German, Moldovan, Dutch, and Chinese companies. The GOSS believes a strong southern oil industry will help them enforce the wealth-sharing protocols of the Comprehensive Peace Agreement (CPA) and yield more transparency in the oil sector. The GoSS also hopes this will allow for either unity with the north on more equal terms or independance. End Summary.

¶2. (U) The November 1-4, 2006 visit to Juba of a USG-hired oil expert, Phil Garrison, and a member of the Sudan Programs Group (SPG), Pamela Fierst, provided an opportunity to meet with a wide spectrum of GOSS officials, civil society, and private oil sector members, and obtain extensive documentation on oil contracts in the South. (Note: All documents were provided to SPG Officer Fierst for Washington. End Note). As one speaker said in a Freudian slip at an oil conference in Juba that coincided with the visit, we must look at all the "crooks and nannies" to understand the oil situation in Sudan.

General Overview

¶3. (U) The GOSS has moved quickly to try to establish an independent oil industry that it asserts is consistent with the wealth-sharing provisions of the CPA. The GOSS-owned NilePet has signed at least five production sharing agreements for oil exploration, development and sales. These controversial contracts have created divisions within the GOSS over their legality, their lack of transparency, and their ramifications for CPA. Oil experts believe that Southern Sudan may cover one of the largest under-explored oil basins in the world. Southern Sudan and Abyei already account for more than 90 percent of Sudan's approximately 330,000 b/pd of current oil production.

¶4. (U) Sudan's current oil production is controlled by Khartoum and is dominated by three foreign oil companies, all state-owned -- the Chinese National Petroleum Company (CNPC), Petroliam Nasional Berhad (Petronas, Malaysia) and ONGC Videsh (India). According to a recent Wood Mackenzie report, Sudan is the largest overseas operation for all three of these companies.

¶5. (U) In addition to its production agreements, the GOSS has begun to explore prospects for a pipeline to "connect to the Kenya-Uganda pipeline somewhere in Uganda" and then transport refined oil to Mombasa, according to one official. Others speak of building a pipeline to Matadi in the Democratic Republic of the Congo. The GOSS sees NilePet eventually supplying an African market which includes southern Sudan, parts of Ethiopia, Somalia, Kenya, Uganda, Northern Tanzania, Rwanda, Burundi, Eastern DRC and Central African Republic.

Southern Sudan Players

¶6. (SBU) NilePet: NilePet was established in 2003 as a subsidiary of the "New Sudan Public Corporation," which was itself created by the "Civil Authority of the New Sudan" (CANS) under the Chairmanship of then-Vice Chairman of the SPLM, Dr. Riek Machar. The legal status of CANS is uncertain. NilePet was subsequently incorporated in Yei, southern Sudan in July 2004. NilePet's purpose was to facilitate the development of the mining industry of "New Sudan," including the petroleum industry, and to find partners with appropriate technical and financial resources. In 2004, the CANS awarded NilePet all unassigned blocks in southern Sudan. This includes the enormous superblock B, which Khartoum awarded to a Total-led consortium in 1980. The GOSS claims block B was available because the Total contract had expired and was not renewed until December 2004, after they had given the block to NilePet. NilePet's directors are Dr. Bullon Bol, a petroleum engineer; Kuol Manyang Juuk, Government of National Unity (GNU) Minister of Transportation; and Simon Kun Puoch, a current member of the National Petroleum Commission and Director of the South Sudan Relief and Rehabilitation Commission (SSRRC). Since the signing of the CPA in January 2005, NilePet has become wholly-owned by the GOSS.

¶7. (SBU) White Nile Limited (WNL): WNL is registered in the KHARTOUM 00002654 002 OF 003 Guernsey Islands and traded on the Alternative Investment Market (AIM) of the London Stock Exchange since February 2005. It owned equally by NilePet and the Central African Mining and Exploration Company (CAMAC). A "shell company," it acquired oil exploration rights from NilePet for Block Ba, a GOSS-created section of block B that Total believes has the greatest potential. WNL has no oil expertise or proven development capacity, but it may be able to deliver significant returns for the GOSS. NilePet's initial capital ownership share value of WNL was USD 27.9 mil the day before its WNL agreement went public; it reportedly jumped to USD 279 the day after.

¶8. (U) WNL and Total are currently in litigation in the UK over Block B, which Total continues to claim as part of a consortium which includes Marathon Inc. and Kuwait Petroleum. WNL asserts that its claim is based on the August 2004 CANS award to NilePet. Total was originally awarded Block B by Khartoum in 1980 but abandoned this huge area of savannah and marshland when war erupted in 1983. Total pulled out in 1984 following the killing of one of its workers but kept paying the north an annual fee to maintain its claim. Total then renewed its contract with Khartoum in December 2004, just before the signing of the CPA. While the CPA states existing oil contracts cannot be renegotiated, because the NilePet deal preceded the Total renewal, GoSS officials claim their deal is the valid existing contract.

¶9. (SBU) SET Energy Gmbh (SET)/Industrial and Financial Group ASCOM S.A. (ASCOM): SET is a German company headquartered in Hamburg, while ASCOM is a Moldovan company. This consortium signed an IPSA with NilePet on June 28, 2005, covering Block 5b, a block that Khartoum had previously assigned to a Petronas-led consortium. ASCOM has already brought in drilling rigs and other heavy equipment and has reportedly begun construction of an airstrip to access its block.

¶10. (SBU) Shaanxi Yan Chang Petroleum Group (SYC): SYC is a partnership between the Provincial Government of Shaanxi and Yan Chang International, Ltd (YCI), a Hong Kong-based company. NilePet signed an IPSA with SYC for block Bc, a GOSS-created sub-block on the southern edge of superblock B, in November 2005. SYS is also preparing a feasibility study for the design, construction and operation of a 150,000 b/pd refinery in the south and is interested in the production of liquefied natural gas (LNG).

¶11. (SBU) Apex Petroleum N.V. (APEX) and Supex Petroleum N.V. (SUPEX): APEX and

SUPEX, based in Curacao, each signed separate contracts with NilePet in 2005 for Blocks Dc and 7S respectively. These blocks were previously unassigned by the north.

¶12. (SBU) Taken together, Nilepet has already netted signing bonuses from these contracts totaling at least USD 25 million, the majority of which is purportedly being held in international banks. The contracts provide fairly generous terms for the GOSS over time, high quotas for training and employing southern Sudanese, large amounts of funding for community development projects, and strong environmental protections. The contracts also give the government of the producing states 7 percent of net revenues, more than the 2 percent provided for under the CPA.

¶13. Nevertheless, there are rumors and recriminations among senior SPLM members who want an accounting of the bonuses paid and more transparency in the deals. Many suspect Vice President Riek Machar, among others, of profiteering, although a key minister, albeit with reported ties to Machar, assured CG Juba officials that the bulk of the funds are banked. Several GOSS contacts have asserted that President Salva Kiir has ordered these contracts nullified, but there is no evidence that such an order has been carried out. The SPLM leadership says they have set up an investigative committee to get more answers on oil deals. Many in the party admit the deals lack transparency, but assert that the SPLM had the right to sign these contracts and say they want to handle the corruption issues internally.

CPA Compliance: Blame to go Around

¶14. (SBU) The GOSS asserts that its contracts are legal under the CPA, as they cover areas controlled by the SPLM/A before January 2005 and not otherwise assigned (they did not recognize Total's continuing claim before the new contract in 2004). Other contracts, GOSS claims, are justified post-CPA as falling under the Interim Southern Sudan Constitution Article 183 (2) which allows for the "development and management of . . . petroleum development in KHARTOUM 00002654 003 OF 003 Southern Sudan in consultation with the relevant communities, within the overall framework of petroleum development during the interim period."

¶15. (SBU) The GOSS also argues that because NilePet was awarded all unassigned blocks in 2004, its agreement is an existing oil contract under the CPA and not subject to renegotiation or ratification by the National Petroleum Commission (NPC). The GOSS position is that it will, however, submit its contracts for review by the NPC to determine how much "profit oil" is available for division between the Government of National Unity, GOSS, and the Oil Producing States of Southern Sudan.

USG Help Sought

¶16. (SBU) The GOSS is seeking USG technical assistance to help them develop policies and capacity to monitor existing northern oil contracts and participate fully in the NPC when it becomes operational. Southern officials question the usefulness and objectivity of a Norwegian oil advisor who consults with both Khartoum and the south. The Garrison/Fierst visit provided insight into potential areas of assistance that would be supportive of the CPA. There are growing concerns that oil could become the source of separation or renewed violence. A full trip report is being prepared by the

USG oil expert for Washington's review.

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¶1. (U) SUMMARY: In separate meetings with econoff the week of March 9, oil industry insiders, former government officials, and petroleum experts appeared positive about the political and economic prospects of the Sudanese oil industry: the Norwegian Petroleum Envoy to Sudan stated that he is "optimistic" about the possibility of post-2011 oil revenue sharing; representatives of the only European oil company in Sudan appeared confident that their exploratory drilling will soon yield results; Misseriya tribal leaders admitted that oil should not be a factor in the Abyei conflict; and multiple sources praised the leadership of the former Minister of Energy and Mining, Awad Al-Jaz. This optimism was tempered by continued allegations of corruption, claims of the industry's negative environmental impact, and complaints of the reckless approach of many operators currently working in Sudan's oil industry. END SUMMARY.

NORWEGIAN OPTIMISM

¶2. (SBU) On March 9, the Norwegian Petroleum Envoy, Anders Hannevik, stated that he continues to meet with NCP and SPLM leaders, urging both sides to consider post-2011 oil revenue sharing options (reftel A&B). Hannevik stated that he met multiple times with influential NCP advisor Sayyed Al-Khateeb and that he is scheduled to meet this week with Government of South Sudan Vice President Riek Machar. "I am more optimistic now than I have been in a long time that a deal on post-2011 oil revenue sharing might be possible," stated Hannevik. Hannevik stated that the Norwegian's earlier conflict with the Ministry of Energy and Mining "has been mostly smoothed over" and that their access to the ministry has increased. (On a separate matter, Hannevik also hesitated about Norway's participation in a proposed UK-US-Norway technical-level meeting on oil revenue sharing.)

"ABYEI SHOULD NOT BE ABOUT OIL"

¶3. (SBU) Also on March 9, General Manager of Nilean Petroleum Services and family member of the Misseriya's tribal leadership, Hayder Nimir (see bio note in para 13) stated that oil is not a factor for the Misseriya and "Abyei should not be about oil." (Comment: In contrast to earlier meetings between his family and CDA Fernandez, where many of Nimir's relatives exaggerated the amount and importance of oil in the region (reftel C), Hayder Nimir appeared objective, balanced, and informed about oil. End Comment.) "Having oil in Abyei is like planting a palm tree in your own yard," stated Nimir, "as the tree grows so tall, it only gives shade to your neighbor." Nimir agreed that oil production in Abyei is declining, claiming that only 2% of what is pumped out of the ground is oil (with the remaining 98% as waste water.) Nimir stated that oil companies are starting to pump a heavier, poorer-quality oil from Abyei that requires special pipes and handling before being blended with lighter, sweeter crudes at the central processing facilities.

DRILLING ON BLOCK 5B UNDERWAY

¶4. (SBU) The contractual disputes over block 5b have been resolved and drilling results are promising, stated Dr. Alam Bagi, the only permanent representative of Lundin in Sudan. (Note: Lundin, the only European oil company in Sudan, works along with its partners Petronas, ONGC, Sudapet, and NilePet, in block 5b using the White Nile Petroleum company as an operator. End Note.) According to Bagi the dispute with Ascom will soon be resolved, as a committee of Petronas, Lundin, and ONGC will meet to evaluate Ascom's claims for compensation.

¶5. (SBU) Bagi stated that he is hopeful that drilling on the Wan Machar-1 well (formerly Umm Dandalo) will soon commence and that earlier studies show it has a great of potential. (Note: According to Bagi, Lundin first started work on less promising wells such as Nyal 1 because the relations with the State Governor and local communities in those regions helped facilitate their work. Bagi stated that successfully finding oil at the Nyal 1 was "a long shot" and that the Wan Machar-1 well is more important to the company. On March 13, the Sudan Tribune reported that Swedish oil explorer, Lundin Petroleum, said today it will abandon the Nyal-1 well in Sudan's oil Muglad Basin in Block 5B. The well is the first of four wells to be drilled in Block 5B during 2008. End Note).

LEADERSHIP

¶6. (SBU) In separate meetings both Lundin's Bagi and the former Minister of Finance, Abd Al-Rahim Hamdi, told econoff that the administration of the oil sector and the government's finances will continue to improve with the exchange of leadership between the KHARTOUM 00000367 002 OF 003 Ministry of Finance and the Ministry of Energy and Mining. According to Hamdi, Awad Al-Jaz transformed the Ministry of Energy and Mining into a modern, functional bureaucracy and that not much will be required from its new minister, Zubair Al-Hassan. According to Hamdi, Al-Jaz will now "clean up the Ministry of Finance as he did with the Ministry of Energy and Mining." Lundin's Bagi also exhibited great praise for Awad Al-Jaz. Bagi stated that during a recent social function for Khartoum's elite, he told President Omar Al-Bashir to his face, "If you had two or three people like Awad Al-Jaz, you could really relax." According to Bagi, President Bashir responded, "I know." (Note: Which is no doubt why President Bashir transferred Al-Jaz to the Finance Ministry - to clean up the mess left by Al-Hassan, reported reftel D. End note.)

CORRUPTION

¶7. (SBU) According to Misseriya leader Hayder Nimir, the oil industry has varying degrees of corruption at multiple levels, with widespread dishonesty in petroleum service contracts and the pricing of oil, especially from Blocks 3 and 7. "People can make millions just off of the issuing of contracts," stated Nimir. Although the GoSS and many southerners always demand more transparency in the oil industry, Hayder alleged that "the Southerners are the real kings of corruption."

¶8. (SBU) Lundin's Bagi also stated that corruption pervades the Sudanese oil industry. According to Bagi, there is corruption at the lower levels of the industry, especially with many of the Chinese service companies. Although the senior leadership of the Government of South Sudan recognizes the importance of resolving contractual disputes, stated Bagi, there are prominent personalities within the government who are likely corrupt. Bagi stated that one of the main reasons for Kuol Manyang's appointment as governor of Jonglei State was to confront companies and individuals who have complicated oil operations. "It is likely that Manyang was appointed to that position just to stand up to Riek Machar," stated Bagi. Bagi said that the consortium in Block 5b (of which Lundin is a part) will be stronger without Ascom, as "it was a dirty company" with "questionable ties" to some individuals in the GoSS.

ENVIRONMENT

¶9. (SBU) In addition to not financially benefiting the people of his region, Hayder Nimir complained that the oil industry has damaged Abyei's environment. "Oil companies do not honor the regulations," said Nimir. According to Nimir, oil companies have leaked drilling fluids and other hazardous chemicals that have resulted in dead cattle, poisoned water, and damaged land. The Norwegian Petroleum Envoy stated that although he only has anecdotal evidence of the oil industry's negative environmental impact, there is cause for concern. He stated that in April a Norwegian environmental assessment team will come to Sudan for one month and that a report should be completed by May. Due to the vast size of Sudan's oil producing areas and the limited nature of this assessment, "we will only partially know what is going on," said Hannevik.

FLY-BY-NIGHT OPERATORS

¶10. (SBU) Lundin's Bagi also expressed concern that many of the companies operating in Sudan are smaller companies unable to invest in large-scale exploration. He stated that without Chevron's investments (and particularly their seismic studies) Lundin would not currently be at the stage of drilling. "We did not conduct any seismic studies, relying totally on the data we received from Chevron. Without Chevron these areas would never have been discovered," stated Bagi. According to Bagi, there are some blocks in Sudan (such as Block 12A in northwest Sudan along the Libyan and Chadian border) where "we have no idea what is going on there, because smaller companies do not have the money or the foreign ones from China or India are not willing to spend on exploration."

¶11. (SBU) The Norwegian Petroleum Envoy agreed that without the presence of large, western multi-national companies, long term development and Sudan's environment may suffer. According to Hannevik, many of the companies operating in Sudan have less regard for environmental standards, the longevity of wells and fields, and their own reputations than big multi-national western companies. Hannevik stated that many of Sudan's current operators do not have access to the latest technology that would yield the cleanest, most efficient, and most sustainable results.

COMMENT

¶12. (SBU) The voice of balance and reason from the Misseriya leadership was reassuring, especially as many parties with a stake in the region falsely assume that Abyei has great reserves of oil. (Norwegian, ICG, and other independent studies have shown that KHARTOUM 00000367 003 OF 003 Abyei's oil reserves are quickly declining and new fields have not been discovered.) Hyder Nimir should be supported to provide a more objective analysis of Abyei's petroleum to his family members and the greater public. Although many players in Sudan's oil industry tempered their optimism with a focus on corruption, the environment, and reckless oil companies, there were other complaints which warrant further investigation. Contacts also criticized the lack of GOSS involvement in the industry ("to the point of almost being non-existent," as Hannevik stated,) difficulties in establishing the GoSS state oil company Nilepet, and dysfunctional national government institutions such as the National Petroleum Commission. The comments about long-term environmental impact and lack of capacity and professionalism among the oil companies operating in Sudan are vexing, and demonstrate a clear downside to the current U.S. sanctions regime.

BIO NOTE

¶13. (U) Hyder Nimir hails from a prominent Misseriya family that traditionally has led this important Arab tribe. Hyder earned a degree in geology from the University of Khartoum, and later worked for the Ministry of Energy and Mining. He was removed from this position in 1989 when the National Islamic Front came to power. He later moved to Saudi Arabia to work in the petroleum industry for most of the nineties. He returned to Sudan to work for Petrodar, the operator of blocks 3 and 7, until he started his own oil services company several years later.