Research Profile

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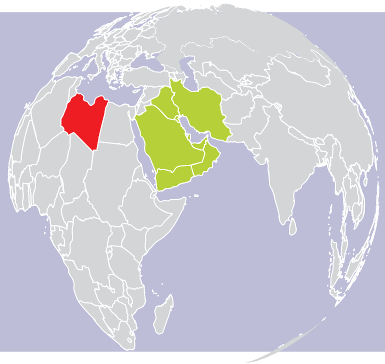
libya



Libya

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1. LIBYA IN GLOBAL OIL BALANCE

Libya is a member of the Organization of Petroleum Exporting Countries (OPEC) and holds the largest proven oil reserves in Africa. The country is now benefiting from the development and rehabilitation activities in the hydrocarbon sector after a long period during which the country was unable to ensure the proper maintenance of its oil & gas facilities, let alone expand its export and production capacity due to U.S. and international sanctions. The United Nations and the United States lifted sanctions on Libya in 2003 and 2004, respectively, and in 2006, the United States rescinded Libya's designation as a state sponsor of terrorism. Since then, international oil companies have stepped up investments in hydrocarbon exploration and production despite some degree of regulatory uncertainty. At the end of h1 2009; there were more than 30 international oil companies engaged in oil and gas development and exploration.

1.1 EXPLORATION AND PRODUCTION

Oil and gas exploration and production activities are being carried out by National Oil Corporation's (NOC) subsidiary companies (wholly owned) and other international oil companies licensed by special participation and sharing agreements. these activities cover wide areas, both onshore and offshore, throughout the Country's territorial waters and continental shelf.

Its geographical location makes libya's oil products easily accessible to one of the world's main consumer markets, i.e. the European market, of close to half a billion consumers.

Moreover, Libya has a network of onshore oil, gas and product pipelines as well as completely equipped crude oil export facilities in addition to a gas pipeline connecting Libya to the European market through Italy; these established infrastructures provide investors with great advantages in both.

2.1 PRODUCTION, CONSUMPTION; RESERVES FOR OIL

BP Statistics Review 2009 indicates that 2008 total oil production (crude plus liquids) was over 1.84 million barrels per day (bbl/d). The country's government plans to increase its oil reserves, production capacity, and further develop the natural gas sector. The National Oil Company (NOC) would like to raise oil production capacity to 2.3 million bbl/d by 2013. Most of the short-term oil production increases are expected to come from enhanced oil recovery (EOR) processes. Any major new production in Libya will require additional pipeline capacity.

Libya's energy consumption mix has remained moderately stable throughout the decade, with approximately 70% of energy demand being met by oil and 30% by natural gas. However, with electricity demand on the rise, the government is planning to expand the use of natural gas to meet domestic needs while also exploiting solar and wind potential in more rural areas.
With domestic consumption of 273,000 bbl/d in 2008, Libya had estimated net exports (including all liquids) of 1.6 million bbl/d. According to 2008 official trade data, the vast majority of Libyan oil exports are sold to European countries like Italy (523,000 bbl/d), Germany (210,000 bbl/d), Spain (104,000) bbl/d and France (137,000 bbl/d).

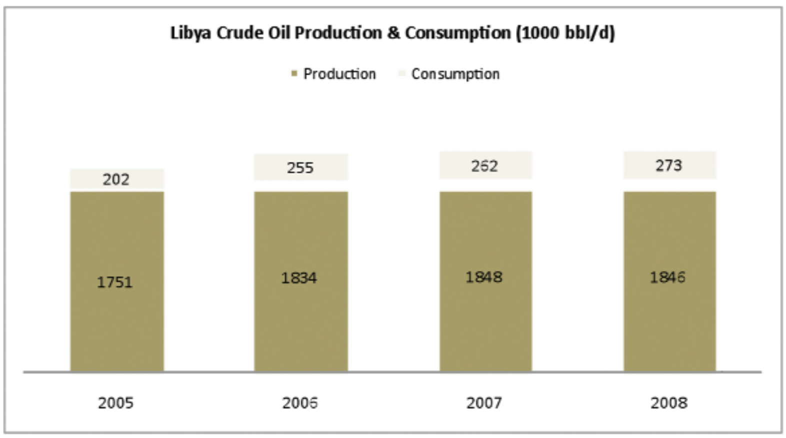

Figure 1: Libya Oil Production & Consumption Figures
Source: OPEC; EIA; BP Statistics Review

Libyan oil is generally light (high API gravity) and sweet (low sulfur content). The country's nine export grades have API gravities that range from 26o - 44o. While the lighter, sweeter grades are generally sold to Europe, the heavier crude oils are often exported to Asian markets.

The country has five domestic refineries; with a combined capacity of 380,000 bbl/d. Libya's refineries include the Ras Lanuf export refinery; the Az Zawiya refinery, the Tobruk refinery, Brega, and Sarir.

2.2 PRODUCTION, CONSUMPTION; RESERVES FOR NATURAL GAS

Since the opening of the "Greenstream" pipeline to Europe in 2004; the Libyan natural gas production and exports have increased significantly. The development of natural gas production remains a high priority for the government as it wants to use natural gas instead of oil domestically for power generation, freeing up more oil for export. Libya has vast natural gas reserves and is looking to increase its natural gas exports, particularly to Europe. Currently, 55% of the gas reserves consist of non-associated gas and 45% of associated gas. Major producing fields include Attahadi, Defa-Waha, Hatiba, Zelten, Sahl, and Assumud.

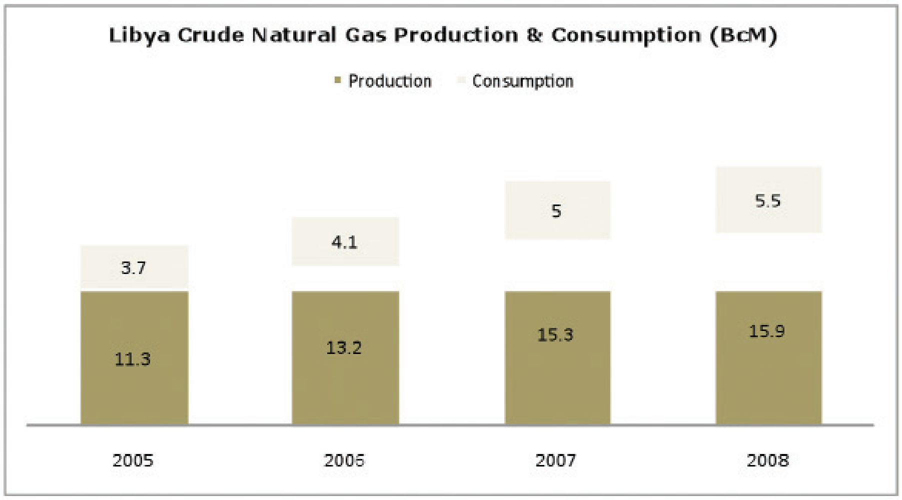

Figure 2: Libya Natural Gas Production & Consumption Figures
Source: OPEC; EIA; BP Statistics Review

At the end of 2008, the country's proven natural gas reserves were estimated at around 1.54 trillion cubic meters. The figure is likely to be revised up further in the coming years, with the growing emphasis on gas exploration and development. Geological, seismic and geochemical studies carried out by the state owned oil companies and foreign operators have indicated the presence of potential gas reserves of over 3 TcM.

Over the last few years Libya's natural gas production has grown substantially. BP Statistics Review 2009 indicates that the nation produced about 15.9 BcM in 2008, while consuming just under 5.5 BcM. Notwithstanding the plans to increase natural gas consumption for electricity generation, project delays and infrastructure limitations have kept domestic consumption relatively stable over the past decade. However, the International Energy Agency (IEA) is estimating that by 2012, domestic consumption could increase by as much as 50 percent if planned pipelines and gas-fired plants come online. According to data available from the OPEC; the country exported around 10.40 billion cubic meters of gas

2.3 PRICES

Libya's National Oil Company set its November 2009 official selling price for its benchmark Essider crude oil grade at a discount of 5 cents to Dated Brent, unchanged from the previous month. The average price for Brent crude averaged at $75.87 per barrel at the end of October 2009. Libyan November term crude prices are quoted as follows as a differential to dated Brent (in dollars a barrel):

Table 2: Benchmark Crude Prices for November 2009

Type	Price $/bbl
Brent	75.87
Dubai	75.46
Urals	75.74
WTI (mid)	77.38
OPEC basket 30/10	75.56

Source: NOC-Libya

Table 3: National Oil Corporation Official selling prices of the Libyan crude Oil for November 2009
Source: NOC-Libya

Crude	Benchmark	Aug.	Sep.	Oct.
Es Sider	Avg. Brent Dated	+0.05	+0.05	-0.05
Brega	Avg. Brent Dated	+0.40	+0.40	+0.30
Sharara	Avg. Brent Dated	+1.00	+0.80	+0.70
Zueitina	Avg. Brent Dated	+0.15	+0.15	+0.15
Sirtica	Avg. Brent Dated	-0.30	-0.30	-0.30
Amna	Avg. Brent Dated	-0.65	-0.65	-0.65
Sarir	Avg. Brent Dated	-1.10	-1.10	-1.05
Abu Attifel	Avg. Brent Dated	+0.30	+0.30	+0.30
Mellitah	Avg. Brent Dated	+0.90	+0.70	+0.60
Bouri	Avg. Urals (Med)	-1.90	-1.90	-1.90
Al-Jurf	Avg. Urals (Med)	0.00	0.00	0.00

3. COMPETITIVE OVERVIEW

Libya's oil industry is run by the state-owned National Oil Corporation (NOC), along with smaller subsidiary companies, which combined account for around half of the country's oil output. The NOC; established in 1970; oversees all petroleum activities in Libya including oil and gas exploration, drilling, production; refineries operation; petrochemical production; marketing and distribution of petroleum products and petrochemicals. The NOC has a total production capacity of 2 million barrels of oil per day.

Several international oil companies are engaged in exploration/production agreements with NOC. The leading oil producing companies operating in Libya include ENI; OMV; Petro-Canada; Total; RepsolYPF; Occidental; Arabian Gulf Oil Company (Agoco); and Sirite Oil company (SOC).

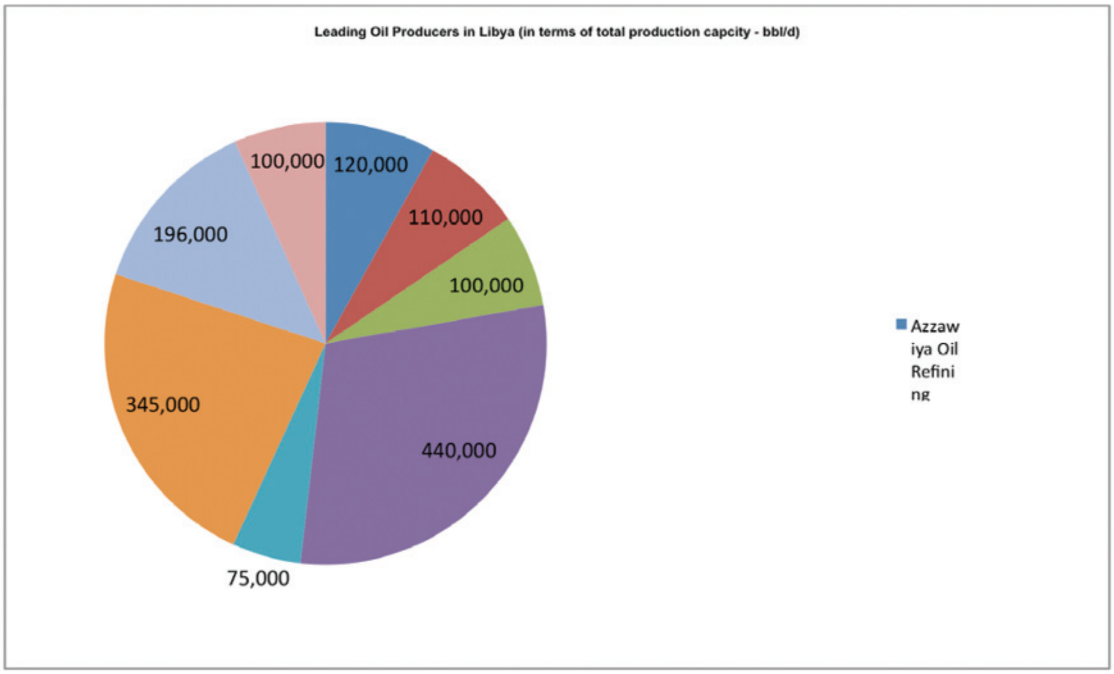

Figure 3: Production Share of Key Upstream players
Source: NOC; Company Website

The Arabian Gulf Oil Company (AGOCO) is an oil company based in Benghazi, Libya, engaged in crude oil and natural gas exploration, production and refining. It is a subsidiary of the state-owned National Oil Corporation (NOC). AGOCO has upstream operations in eight oil fields, including Sarir, Messla, Naffora, Beda and Hammada. The company also operates an oil terminal and a refinery in Tobruk and Sarir. In 2008; AGOCO produced over 440,000 bbl/d (70,000 m3/d), representing approximately 40% of total Libyan crude oil production.

Key Oil and Gas Players in Libya

- Azzawiya Oil Refining Company
- Sirte Oil Company (SOC)
- Brega Oil Marketing Company
- Waha Oil Company
- ENI Gas Company
- REPSOL OIL OPERATIONS CO
- Ras Lanuf Oil and Gas Processing Company
- Arabian Gulf Oil Company (AGOCO)
- Zueitina Oil Company
- ENI Oil Company
- Veba Oil Operations Company

4. FUTURE OUTLOOK

Libyan oil and gas industry has played a major role in economic growth and development of national economy. This industry has brought forth huge amounts of investment that have driven infrastructural plans and construction in Libya. Efforts are being made in Libya to increase capacity of its oil and gas industry. Certain short term plans are being made to increase its capacity to 2 million barrels per day by 2010.

The country is seeking to raise crude production capacity to 3 million barrels a day by 2013. The country has 5 billion barrels of oil untapped because they are difficult to develop or remote, accounting for 12 percent of its total oil reserves, according to the government.
In a new development in Libya oil and gas industry, the government approved a 12.1 billion-dinar ($9.86 billion) plan on September 2009 to develop and upgrade 24 oilfields to boost output. The plan includes raising output from the Jalo oilfield by 100,000 barrels a day, with an investment of 1.6 billion dinars, according to the statement. Another 1.3 billion dinars will be invested to boost production from the Nafoora oilfield by 130,000 barrels a day.

Table 5: Planned Oil Field Development Projects (bbl/d)
Source: Zawya

5. CODE OF ETHICS

Company	Field	Basin	2008 Production	Targeted Production	Date
Occidental-OMV	Nafoora-Aguila	Sirte	45,000	300,000	2015
	103a	Sirte	11,000		2015
	103d	Sirte	20,000		2015
	29/74	Sirte	27,000		2015
PetroCanada	Amal	Sirte	30,000	75,000	2015
	Ed Dib, Farigh, Tibisti, Ghani, En Naga	Sirte	70,000	125,000	2013-15
Repsol-YPF	I/R, NC-115	Murzuq	10,000	70,000	2012
	NC-186	Murzuq	95,000	125,000	2012
Total	Mabruk	Sirte	23,000	35,000	2010
Oasis Group	Waha	Sirte	350,000	600,000	2014
Verenex*	Area 47	Ghadames	n/a	50,000	2011
Total			681,000		1,380,000

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