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OIL SECTOR ISSUES IN SYRIA

*The research introduces a study on the Syrian oil sector before the crisis that has been taking place in the country since 2011, and the results of production deterioration and other impacts on consumption and exports. Also it highlights the future of this important sector in Syria.**

Moreover, it provides a compilation of local and foreign companies that have invested in oil drilling and exploration over the years, and the ones that might be involved in the future.

Key words: *Syrian oil, oil sector, oil production, oil companies, oil reserves, import and export of oil.*

F13, F17, F18, F23, G31

Introduction

The oil sector in Syria was an essential pillar of the economy, most of the oil reserves being located in eastern Syria near the border with Iraq, and there are few small fields in the center of the country. And lately it is believed that huge amounts of reserves are located in the Syrian costal parts of the Mediterranean Sea.

* Taking into consideration the lack of official data published by the government bodies during the crisis about the oil sector, the research sometimes follows an investigative method to achieve its aims depending on formal statements and publications in official websites and newspapers.

Syria relies on three seaports on the eastern shore of the Mediterranean Sea for the import and export of oil; Baniyas, Tartous and Latakia.

SYRIA

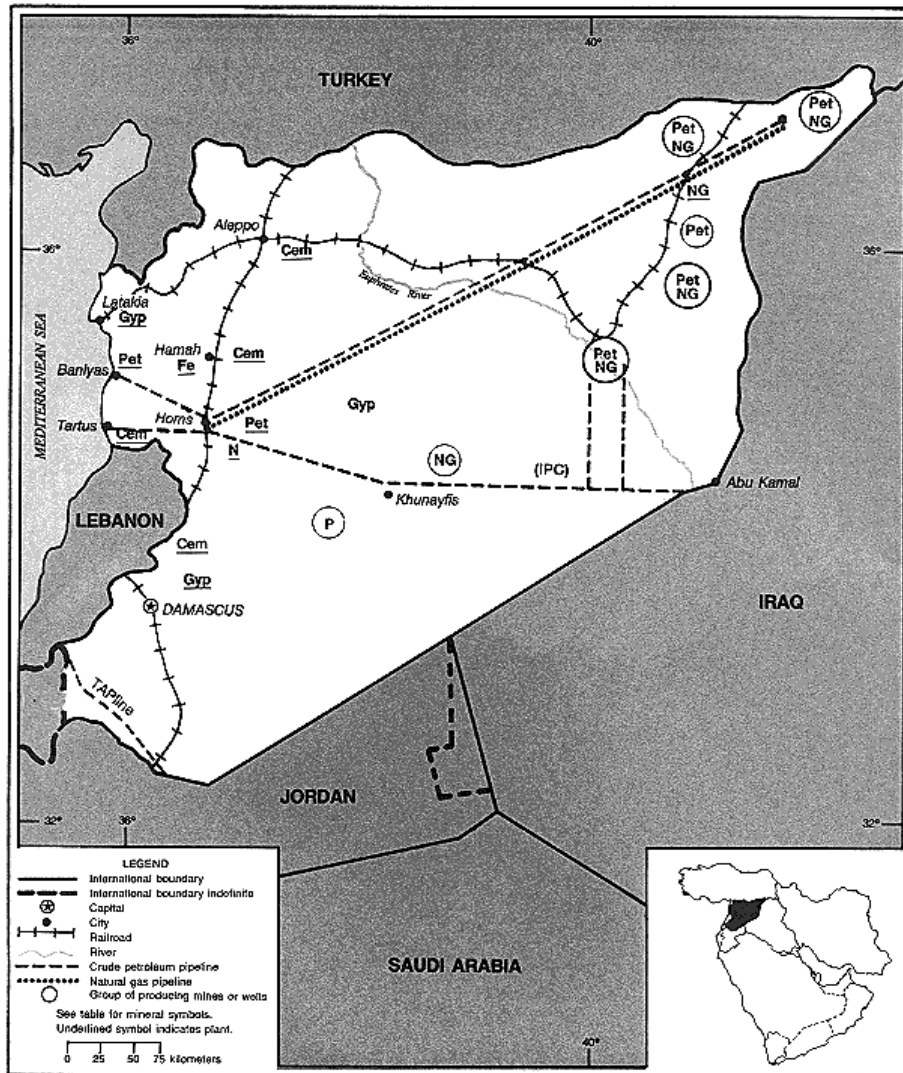


Figure 1: Map of Syrian oil fields, pipelines and refineries¹

The discovered oil in Syria can be divided into two main types; light oil, and heavy oil which contains a high concentration of sulfur. Low-quality oil products are extracted from the heavy one as there are large amounts of it.

More than half of the Syrian oil production was refined in state-owned refineries, namely, "Baniyas refinery" at a rate of 133 thousand barrels per day, and "Homs refinery" at a rate of 107 thousand barrels per day².

Oil exploration began in Syria in the early years of the 20th century, and its

¹ US Geological Survey.

² The Syrian Ministry of Oil and Mineral Resources, <http://mopmr.gov.sy/>

first discovery was announced in 1956 in "Krachuk" field, while the second discovery was in "Swediah" field in the eastern part of the country, where the production was being shared between foreign companies and the Syrian government. But Syria did not begin exporting oil until the mid-1980s³.

Syria's oil indicators: reserves, consumption, production and exports

Syria used to consume part of its production for domestic consumption and export the rest, as the oil sector was a major source of funding the budget and an important part of the national income. So it used to consume about 45% of the heavy produced oil and to export the rest, while to consume one-third of its production of the light one and to export the rest.

The average oil production of Syria for the years 2007-2014 according to the British Petroleum company "BP" data are as follows;

Table 1

The average oil production of Syria (2007-2014)⁴

<i>The average oil production</i>	<i>year</i>
Barrels per day / 380000	2007
Barrels per day / 260000	2008
Barrels per day /400000	2009
Barrels per day /385000	2010
Barrels per day /378000	2011
Barrels per day /42000	2012
Barrels per day /31500	2013
Barrels per day /14000	2014

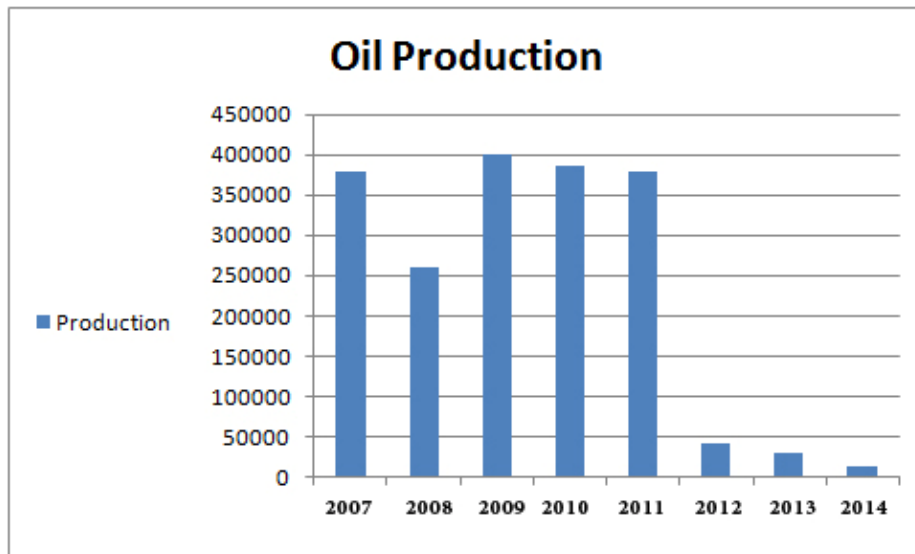


Figure 2: *The chart of Syrian average oil production (2007-2014) / Barrels per day*

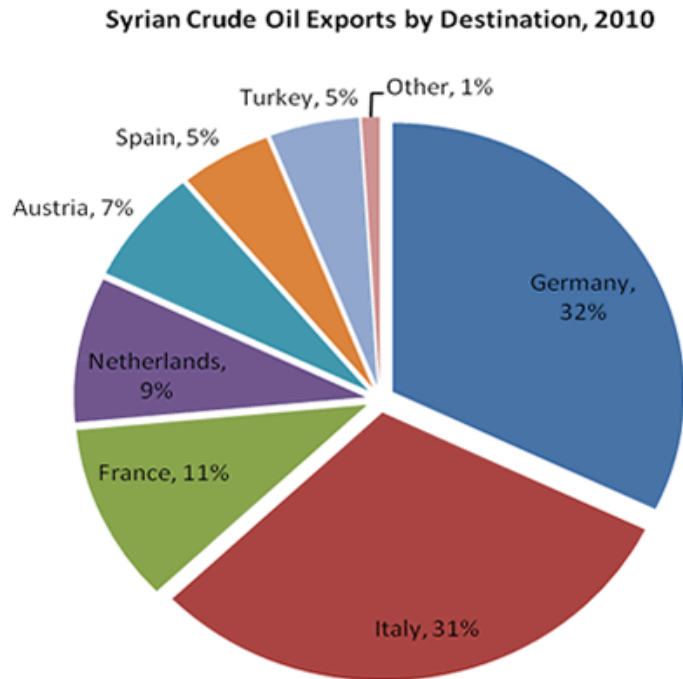
As noticed from the table and chart above, the oil production dropped starting from 2012, the second year of the crisis, because of many reasons (mentioned here after). This drop led to a shortage of needed oil amounts for the country as well as a key reason to start the import process.

³ "Background Note: Syria". US State Department.

⁴ Petroleum company "BP" data.

All oil exports are marketed by "Sytrol" Syria's state oil marketing firm, which sells most of its volumes under 12-month contracts. Before the crisis Syrian crude oil exports went mostly to the European Union, in particular Germany, Italy, and France, totaling an estimated 137,400 bbl/d (21,840 m3/d) in 2009, according to Eurostat⁵. In 2010, the European Union on the whole spent \$4.1 billion on Syrian oil imports.

The following figure shows the destination of exported Syrian crude oil as of 2010 (the last year before the crises)



Source: Global Trade Atlas, Lloyd's APEX Database, EIA

Figure 3: Syrian oil exports by destination country 2010⁶

According to the World Energy Report issued by the British Petroleum company "BP", the production of Syria's oil in 2010 was 0.5% of global oil production⁷, as Syria's oil reserves were estimated at 2.5 billion barrels, which represented 0.2% of total world reserves. while natural gas reserves amounted to nearly 0.3 billion cubic meters at the end of 2010, which represents 0.1% of the total world reserves⁸.

Oil Companies and Investment

The total investment in the oil sector in 2007 was about (20 billion SP), where production reached 138 million barrels / year, an average of 380 thousand barrels per day. Comparing to 2006 the decline was 7.8 million barrels, where production reached 400 thousand barrels per day.

⁵ "Imports (by country of origin) - oil - annual data". Eurostat.

⁶ US Energy Information Agency, <http://www.eia.gov/countries/cab.cfm?fips=SY>.

⁷ "BP Statistical Review of World Energy June 2011" (PDF). British Petroleum. pp. 6-8.

⁸ "Country Analysis Brief: Syria". US Energy Information Agency.

Up to 2011 the oil production average rate was 378 thousand barrels per day, noting that the plan for the production of Syrian oil must not be less than on average of about 300 thousand barrels per day up to 2025, according to studies.

Since 1964 Syria followed self-investment policy of the oil wealth, later on it went through a policy of engagement with major exploring companies. These companies were exploring for oil at their own expense, and if oil was discovered in commercial quantities, a joint venture for production and marketing could be formed, and in return the foreign company got a third of the oil produced as compensation for exploration expenses⁹.

In this way several companies were formed, including "Al Furat Petroleum Company" produced on average of about 350 thousand barrels a day, and "Deir al-Zour Oil Company" producing on average of about 65 thousand barrels a day, and "Khabur Oil Company" produced on average of about 5 thousand barrels per day, which was a joint of the "Syrian Oil Company," and the Irish "Tauler" company, all were of the light oil. In addition, the production of heavy oil in "Syrian Oil Company" was about 150 thousand barrels per day.

The following is an overview of most oil companies that have worked in the Syrian fields:

1. Al Furat Petroleum Company: founded in 1985, carries out exploration, development and improvements in Deir al-Zour fields, and manages several contracts of deep drilling. It is a joint of the state-run " Syrian Oil Company", "Shell" Company, China National Petroleum "CNBC", and the "Bergmo" Indian China, which replaced the Canadian "Petro-Canada" company.
2. Deir al-Zour Oil Company: founded in 1990 , it is a joint of the " Syrian Oil Company" and "Total" French Company, Carrying out exploration in Deir al-Zour province fields.
3. "Shell Syria" Company: founded in 1977 as a joint of the "Syrian Oil Company", and a coalition of three companies, namely American "Bacton", Dutch "Shell" and German "Damenks". Also it was founded to explore and produce oil in Deir al-Zour region, where the company was able to discover oil in commercial quantities in several fields.
4. "Hayyan Petroleum" Company: established in 2004 as a joint of the "Syrian Oil Company," and the Croatian "Aena" company. It began its work in October 2005, and its mission was to develop gas fields and establish a gas processing plant.
5. "Kawkab" Company: founded in 2004 as a joint of the "Syrian Oil Company," and "CNPC" company. It works in "Qubaibah" field.
6. state-owned "Sterol Marketing" Company : it owns the exclusive right to produce heavy crude and to market it outside Syria, where the company sells about 150 thousand barrels of heavy crude per day, most of it comes from Alsweida.
7. "Dublin" Company: signed two contracts to develop the fields in which "Syrian Oil Company" explored, also it had a plan to improve the yield of oil as it sought to drill since 2006.

⁹ The General Establishment of Geology and Mineral Resources, Syria.

8. "Aena" Croatian company: achieved an economic natural gas discovery in three fields (in 2008 , the first one production reached 2.4 million cubic meters per day, and the second-500 thousand cubic meters per day, and the third-420 thousand cubic meters per day.
9. "Petro Canada" Company: conducted a study of the gas in Syria.
- 10."TAT NEFT" Russian company: it conducted geological and geophysical studies, and carried out drilling of three exploratory wells, and also signed a contract in the "Albu Kamal" region.
11. "Stratek Energy" Canadian Company: conducts seismic scans, and signed a contract with the Kuwaiti company "KUFPEC" to work in the Palmyra area in the middle of Syria.
- 12."Gulfsands Petroleum" English Company: is involved with the Russian " Soyuz Neft" Company in drilling wells.
- 13."IPR" American company: worked to the north of the city of Deir al-Zour with "ONVL" Company. Its work includes drilling two exploring wells, in addition to bilateral and 3D dimensional seismic scans.
14. "HBS" Tunisian Company: which signed a contract with the "Syrian Oil Company" in 2005, in one of the areas in the northwest of Syria.
15. A number of Asian national oil companies: Led by Chinese "Sinochem" Company and other smaller companies such as "Gelovsandz" and "CNBC".
16. "Soyuz Naftagaz" Russian Company: signed a 25 years contract for oil exploration, development and production in the Syrian territorial waters in December 2013.

The oil sector during the crisis

The oil sector in Syria deteriorated during the crisis because of many factors:

- A package of economic sanctions imposed by several western countries on Syria including a ban on Syrian oil imports, the "European Union" imposed in 2011 its sanctions on the Syrian oil sector after the US ban on Syrian oil products.
- The destruction of oil fields by armed gangs, where a huge part of the supplying pipes and infrastructure of oil sector was blown up, cut, and stolen. The estimated quantities of oil wasted and stolen until 2013 were about 11.942 million barrels.
- The withdrawal or freezing the business of most companies operating in Syria regarding to the bad security conditions.

These factors led to reducing the government's dependence on locally produced oil to meet the needs of domestic consumption, forcing the government to import large quantities of the necessary oil derivatives for domestic consumption, where the Syrian consumption, on average, was estimated from 240 to 250 thousand barrels per day.

As a result, the oil production in Syria declined by about 80% to 96% during the years of the crisis, and it fell to less than 10 thousand barrels per day during the last months of 2015, while it reached about 378 000 barrels per day in 2011, the year when the crisis started¹⁰.

¹⁰ The official Syrian news agency " SANA", <http://www.sana.sy/>

Data indicated that the amount of oil imported through the years of the crisis till the end of 2013 reached the limits of 13,440,751 barrels at the cost of 1730 million dollars.

Syrian oil losses were estimated through the years of crisis about more than 1,600 billion Syrian pounds.

Despite the burden of the crisis, the State has continued to support oil derivatives (the government pays a part of importing and refining costs instead of charging the citizens for them), where the support during 2013 reached about 157.878 billion Syrian pounds¹¹.

It can be noticed that the first quarter of 2014 witnessed a decline in the consumption of petroleum products as compared to the same period of 2013, although the state support for the consumption of oil products for the first quarter of 2014 exceeded 40 billion Syrian pounds.

However, the large burden recently forced the state to raise the prices of oil derivatives, as the price of a liter of gasoline rose to 180 Syrian pounds compared to 40 pounds before the start of the crisis, and the price of a liter of diesel rose to 155 pounds compared to 20 pounds before the crisis.

The future of Syrian oil

In fact, the future of Syrian oil is still hidden in the depths of the Mediterranean Sea.

Syrian territorial waters have a good probability of gas discovery in the southern part and the oil in the northern part, but is not available to accurately estimate the reserves, due to not implementing sea drilling operations yet, so the reserves are estimated by US Geological Survey (USGS).

Data indicate that the exploration work in the Syrian sea water is of deep type because the bottom depth is more than 1000 meters, which raises the costs and risks and requires complex technique, in addition to the need of contribution on behalf of high technical expertise companies.

The US Geological Survey estimates the reserves (Undiscovered Oil and Gas Resources) of the Levant Basin Province (Eastern Mediterranean) with 345 trillion cubic feet of gas, in addition to huge amounts of oil reserves, as well as large quantities of gaseous fluids¹².

This basin consists of three regional ones. Syria is located in the eastern basin, off the eastern shores of Cyprus.

Using a geology based assessment methodology, the U.S. Geological Survey estimated a mean of 1.7 billion barrels of recoverable oil and a mean of 122 trillion cubic feet of recoverable gas, in addition to 3.1 billion barrels of liquid gas in the Levant Basin Province.

In 2011, there was an announcement concerning three sectors (blocks) with a total area of about 9000 square kilometers, and several well-known international companies purchased the books of conditions and information, including French "Total", Dutch "Shell", and Italian " ENI", but because of the crisis and the boycott imposed by western countries none of them continued the process.

¹¹ "Al-Thawra" Official Syrian newspaper, <http://thawra.sy/>

¹² US Geological Survey Report, Assessment of Undiscovered Oil and Gas Resources of the Levant Basin Province, March 2010. <http://pubs.usgs.gov/fs/2010/3014/pdf/FS10-3014.pdf>

The Syrian ministry of oil, welcomed recently all companies that want to invest in Syria in both land and sea areas of exploration, including the non-traditional types of oil and gas production¹³.

Recently, several Russian companies have expressed their interest in prospecting and exploration for oil and gas in the regional Syrian waters. And as mentioned above, a contract has been signed for land and marine exploration in Block No. 2 with the Russian company "Soyuz NAFTA", and there are other requests by other companies now.

Results

- The Syrian oil sector witnessed a gradually improving process before the crisis. It had a significant economic participation in the state revenues, as well as a good attraction of FDI as there were many international companies involved in the oil investment.
- The crisis badly affected the oil sector and played a key role in transferring the country from being a partly exporting player into totally importing one.
- In Addition to the underground reserves, the Syrian Sea has a promising future of oil and gas reserves, thus when the crisis comes to an end, it will be an important investment for foreign companies, and a vital resource of reconstruction process as well.

Օգտագործված գրականություն

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¹³ The Ministry of Oil and Mineral Resources, <http://mopmr.gov.sy/>

ՎԻԵՆ ԽԱՉԱՏՐՅԱՆ*ՀՊՏՀ կառավարման ամբիոնի դոցենտ, տնտեսագիտության թեկնածու***ՀԱՅՅԱՆ ԱՆԴԵԼԱ***ՀՊՏՀ գործարար կառավարման մասնագիտության մագիստրանտ***ԼԻՆԱ ԱՅՋՈՈՒԿԻ***Լաթաքիայի Տիշրին համալսարանի տնտեսագիտության մագիստրոս, Սիրիա***ՄԱՀՄՈՒԴ ԱՆԴԵԼԱ***ՀՊՏՀ ՄՏՀ ամբիոնի ասպիրանտ*

Նավթային ոլորտի հիմնախնդիրները Սիրիայում.– Սիրիական ճգնաժամի և պատերազմի հետևանքով նավթարդյունաբերության ոլորտը հայտնվել է լուրջ դժվարությունների առաջ, քանի որ կրճատվել են նավթարդյունահանման ծավալները, խզվել են նախկինում ձևավորված ընկերությունների միջև առկա պայմանագրային հարաբերությունները, որի պատճառով նվազել են Սիրիայի բյուջեի եկամուտները: Սիրիան ունի հսկայական ներուժ և՛ նավթարդյունաբերության, և՛ գազի արդյունահանման ու մշակման բնագավառներում, սակայն պատերազմի հետևանքով վնասվել են համապատասխան ենթակառուցվածքները, որոնց վերականգնման համար հետագայում անհրաժեշտ կլինեն հսկայական ներդրումներ:

Հիմնաբառեր. սիրիական նավթ, նավթային ոլորտ, նավթի արտադրություն, նավթային ընկերություններ, նավթի պահուստներ (պաշարներ), նավթի արտահանում և ներմուծում:

F13, F17, F18, F23, G31

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Основные задачи нефтяной отрасли в Сирии.– В следствии сирийского кризиса и войны нефтепромышленная сфера оказалась перед серьезными трудностями, поскольку сократились объемы экспорта нефти, разорваны договорные отношения, сформированные ранее между компаниями, в результате чего сокращены доходы в бюджет Сирии. Сирия имеет огромный потенциал и в нефтепромышленной, и в газодобывающей и обрабатывающей сферах, однако из-за войны были повреждены соответствующие инфраструктуры, для восстановления которых в дальнейшем необходимы будут огромные инвестиции.

Ключевые слова: сирийская нефть, нефтяная сфера, нефтяная промышленность, нефтяные компании, нефтяные запасы, экспорт и импорт нефти.

F13, F17, F18, F23, G31