



# 2006 Minerals Yearbook

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## SYRIA

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# THE MINERAL INDUSTRY OF SYRIA

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In 2006, Syria played a significant role in the world's production of phosphate rock; the country's share of global phosphate rock output amounted to 2%. Other domestically significant mining and mineral processing operations included cement, crude petroleum, natural gas, and petroleum products (Jasinski, 2007).

## Minerals in the National Economy

In 2006, the output of the petroleum sector amounted to 23.6% of the gross domestic product. Exports of crude petroleum and petroleum products accounted for 40% of total exports in 2006 compared with nearly 58% in 2003 (International Monetary Fund, 2007, p. 36-37).

## Production

In 2006, the production of salt increased by 21%; sulfur, 19%; phosphate rock, 5%; and dry natural gas, 3%. Crude petroleum production continued its long-term decline; output decreased by 9% in 2006. Gypsum production declined by 5%.

## Structure of the Mineral Industry

Many of Syria's significant mining and mineral processing operations (cement, petroleum products, phosphate rock, phosphatic fertilizers, phosphoric and sulfuric acid) were owned by the Government. Crude petroleum and natural gas production was controlled by a mixture of state-owned and private companies. Most of the steel mills were privately owned.

## Commodity Review

### *Industrial Minerals*

**Cement.**—Syria's cement plants had a total capacity of about 5.4 million metric tons per year (Mt/yr); national cement demand amounted to 6.5 Mt/yr. Cement was imported from Egypt, Jordan, Lebanon, and Turkey. State-owned General Organization for Cement and Building Materials (GOCBM) and Military Housing Cement Group produced an estimated 4.7 Mt/yr. GOCBM planned to increase the national cement production capacity to 10 Mt/yr; the company planned to lease its plants to private investors for a period of 15 years for capacity upgrades and to allow private investors to build new plants. The tenders for the leases were cancelled in August 2006. Ehdasse Sanat Corp. of Iran was expected to complete a new plant in Hama with a capacity of 1 Mt/yr by early 2007. Sinohydro Corp. of China signed an agreement with privately owned Farzat Company to build a new plant near Damascus with a capacity of 1.8 Mt/yr (Pepper, 2005; Kalhasan and Lederer, 2006; Middle East Economic Digest, 2006a).

### *Mineral Fuels*

**Natural Gas.**—In 2006, Syria had five natural-gas-processing plants with a combined capacity of nearly 10.7 billion cubic meters per year. Syria planned to increase its natural gas production capacity by about 4.4 billion cubic meters per year by 2010. In 2006, Stroytransgas OJSC of Russia was building a gas-processing plant with a capacity of 2.2 billion cubic meters per year near Palmyra as part of the Middle Area Gas Project. The Government was negotiating with Stroytransgas for the construction of another new plant with a capacity of 1.1 billion cubic meters per year. INA Naftaplin of Croatia planned to build a plant with a capacity of between 1.1 and 1.3 billion cubic meters per year at its Hayan block (Pepper, 2006).

In May 2006, Marathon Oil Company of the United States signed a production-sharing agreement with Syrian Gas Company (SGC) for natural gas and petroleum at al-Shaaer and al-Shareefa fields near Palmyra. These fields were expected to produce as much as 730 million cubic meters per year of natural gas. Marathon or SGC could develop another gas-processing plant (Pepper, 2006).

**Petroleum.**—Syria's production of crude petroleum declined to 416,000 barrels per day (bbl/d) in 2006 from 458,000 bbl/d in 2005 and 495,000 bbl/d in 2004. The al-Furat Petroleum Company (AFPC) was Syria's leading producer of crude petroleum. AFPC and Deir ez-Zor Petroleum Company produced light crude.

In October 2006, Royal Dutch Shell Group signed agreements to explore for natural gas and petroleum in Blocks 13 and 15 in southeastern Syria. Soyuzneftgas of Russia signed an agreement in May to explore in Block 12.

Banias Refinery Company and Homs Refinery Company had a combined capacity of about 242,000 bbl/d. In 2006, the Government was negotiating with National Iranian Oil Company International and Petr6leos de Venezuela to build a new refinery with a capacity of 150,000 bbl/d. The Government was also considering a joint venture with private investors to build another refinery with a capacity of 150,000 bbl/d (Middle East Economic Digest, 2006b).

## Outlook

Syria's production of crude petroleum is likely to continue to decline to 352,000 bbl/d in 2008 and 330,000 bbl/d in 2012 because of maturing oilfields and aging equipment. Production of natural gas is expected to increase in response to likely increases in domestic demand. Cement and steel production are also likely to increase because of growth in the construction sector. Syria is expected to be a net petroleum importer by 2010 because of declining crude petroleum production (Pepper, 2006; International Monetary Fund, 2007, p. 37).

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TABLE 1  
SYRIA: PRODUCTION OF MINERAL COMMODITIES<sup>1</sup>

(Metric tons unless otherwise specified)

Commodity	2002	2003	2004	2005 <sup>e</sup>	2006 <sup>e</sup>
Cement, hydraulic thousand metric tons	4,679	4,824	4,757	4,700 <sup>r</sup>	4,700
Gas, natural:					
Gross <sup>e</sup> million cubic meters	9,300	9,401 <sup>2</sup>	9,700	8,300 <sup>r</sup>	8,600
Dry do.	6,800	6,850	7,110 <sup>r</sup>	6,090 <sup>r,2</sup>	6,290 <sup>2</sup>
Gypsum	350,088	376,715	431,561	467,000 <sup>r,2</sup>	443,800 <sup>2</sup>
Nitrogen:					
N content of ammonia	142,800	161,100	115,000	120,000	120,000
N content of urea	88,500	90,700	91,000 <sup>e</sup>	91,000	91,000
Petroleum:					
Crude thousand 42-gallon barrels	200,000 <sup>r</sup>	192,000 <sup>r</sup>	181,000 <sup>r</sup>	167,000 <sup>2</sup>	152,000 <sup>2</sup>
Refinery products:					
Liquefied petroleum gas do.	3,399	3,318	3,318	3,300	3,300
Gasoline do.	11,959	10,739	11,413	11,000	11,000
Naphtha do.	4,842	5,812	7,028	7,100	7,100
Jet fuel do.	1,491	1,618	1,943	2,000	2,000
Kerosene do.	495	301	448	450	450
Distillate fuel oil do.	31,093	29,139	30,758	31,000	31,000
Residual fuel oil do.	39,667	31,921	30,210	30,000	30,000
Asphalt do.	2,800	2,500	2,500	2,500	2,500
Other do.	950	850	900	900	900
Total do.	96,700	86,200	88,500	88,300	88,300
Phosphate:					
Phosphate rock, mine output:					
Gross weight thousand metric tons	2,483	2,414	2,883	3,500 <sup>r,2</sup>	3,664 <sup>2</sup>
P <sub>2</sub> O <sub>5</sub> content do.	770	750	890	1,080 <sup>r</sup>	1,130
P <sub>2</sub> O <sub>5</sub> equivalent:					
Phosphatic fertilizers	123,000	91,000	127,000	130,000	130,000
Phosphoric acid	102,000	73,000	97,000	100,000	100,000
Salt	145,018	128,265	141,445	110,000 <sup>r,2</sup>	133,000
Steel:					
Crude	70,000	70,000	70,000	70,000	70,000
Semimanufactured	400,000	600,000	800,000	800,000	800,000
Stone: <sup>e</sup>					
Dolomite, refractory grade thousand metric tons	5,000	5,000	5,000	5,000	5,000
Gravel and crushed rock do.	6,000	6,000	6,000	6,000	6,000
Marble blocks do.	340 <sup>2</sup>	340	340	340	340
Sand, construction thousand cubic meters	450	450	450	450	450
Sand, industrial thousand metric tons	850	850	850	850	850
Volcanic tuff do.	650	650	650	650	650
Sulfur					
Byproduct of petroleum and natural gas	11,740 <sup>r</sup>	13,516 <sup>r</sup>	14,996 <sup>r</sup>	36,074 <sup>r</sup>	43,000
Sulfuric acid:					
Gross weight	344,000	250,000	362,000	360,000	360,000
S content	112,000	82,000	118,000	117,000	117,000

<sup>e</sup>Estimated; estimated data are rounded to no more than three significant digits; may not add to totals shown. <sup>r</sup>Revised. -- Zero.

<sup>1</sup>Table includes data available through November 16, 2007.

<sup>2</sup>Reported figure.

TABLE 2  
SYRIA: STRUCTURE OF THE MINERAL INDUSTRY IN 2006

(Thousand metric tons unless otherwise specified)

Commodity	Major operating companies		Location of main facilities	Annual capacity
Cement	Tartous Company for Cement & Building Materials <sup>1</sup>		Tartous	1,802.
Do.	al-Chaba Cement & Building Materials <sup>1</sup>		Aleppo	923.
Do.	Arabian Cement Co. for Cement <sup>1</sup>		do.	898.
Do.	Adra Co. for Cement and Building <sup>1</sup>		Adra	845.
Do.	Syrian Co. for Manufacturing Cement <sup>1</sup>		Hama	432.
Do.	Rastan Co. for Cement and Building Materials <sup>1</sup>		Rastan	131.
Do.	Military Housing Cement Group (Government, 100%)		Musselemieh	336.
Natural gas	million cubic meters	ConocoPhillips Company	Processing plant at Deir ez-Zor	4,750.
Do.	do.	al-Furat Petroleum Company (Syrian Petroleum Company, 50%; Royal Dutch Shell, 33.3%; Bergamo Holding, 16.7%)	Processing plant at Omar	2,400.
Do.	do.	Syrian Petroleum Company (Government, 100%)	Processing plant at Palmyra	2,200.
Do.	do.	do.	Processing plant at Jebissa	1,060.
Do.	do.	do.	Processing plant at Suwaidiyah	240.
Nitrogen:				
Ammonia and urea <sup>2</sup>	General Fertilizers Company (subsidiary of General Organization for Chemical Industries)		Homs	256 ammonia; 137 urea.
Fertilizers	do.		do.	109.
Petroleum:				
Crude	thousand 42-gallon barrels	al-Furat Petroleum Company	al-Thayyem	20,000.
Do.	do.	do.	al-Izba	18,300.
Do.	do.	do.	Omar/Omar North	14,600.
Do.	do.	do.	Maleh/Azraq	11,000.
Do.	do.	do.	Sijan	11,000.
Do.	do.	do.	Jarnof/Saban	9,100.
Do.	do.	do.	al-Ward	7,300.
Do.	do.	do.	Tanak	6,600.
Do.	do.	Syrian Petroleum Company	Suwaidiyah, Jebissa, and Karatchok	45,600.
Do.	do.	Deir-ez Zor Petroleum Company (Syrian Petroleum Company, 50%, and Total S.A., 50%)	Qahar	10,200.
Do.	do.	do.	Jafra	4,700.
Do.	do.	do.	al-Mazraa and Attala North	3,700.
Do.	do.	al-Khabur Petroleum Co. (Syrian Petroleum Company, 50%)	Kishma	5,800.
Do.	do.	Tanganyika Oil Co.	Tishreen	2,190.
Refined	do.	Banias Refinery Company (Government, 100%)	Banias	49,300.
Do.	do.	Homs Refinery Company (Government, 100%)	Homs	39,100.
Phosphate:				
Phosphate rock	General Company for Phosphate and Mines (Government, 100%)		Alsharqia (A and B Mines)	3,050.
Do.	do.		Kneifis	800.
Phosphatic fertilizers	General Fertilizers Company		Homs	450.
Phosphoric acid	do.		do.	165.
Salt	General Company for Phosphate and Mines		Deir al-Zour	72.
Steel:				
Billet	General Company for Iron and Steel Products (Government, 100%)		Hama	60.
Rolled	Merri Family		Tartous	300.
Do.	Arab Steel Co.		Lattakia	250.
Do.	JoudCo Steel		do.	150.
Do.	Middle East Steel Industries		Yabroud	140.
Do.	General Company for Iron and Steel Products		Hama	78.

See footnotes at end of table.

TABLE 2--Continued  
 SYRIA: STRUCTURE OF THE MINERAL INDUSTRY IN 2006

(Thousand metric tons unless otherwise specified)

Commodity	Major operating companies		Location of main facilities	Annual capacity
Sulfur	metric tons	Homs Refinery Co.	Homs	14,600.
Do.	do.	do.	Processing plant at Suwaidiyah	7,410.
Do.	do.	Syrian Petroleum Company	Processing plant at Jebissa	7,300.
Sulfuric acid		General Fertilizers Company	Homs	560.

NA Not available.

<sup>1</sup>Subsidiary of General Organization for Cement and Building Materials, which is 100% Government owned.

<sup>2</sup>Expressed in nitrogen equivalent.