

## Facts on Egypt: oil and gas

### Suez Canal

#### **Oil**

The Suez Canal used to be a major choke point for crude oil coming from the Middle East destined for Europe and the US. Two major incidents come to mind: 1956 and 1967 (until 1975), when shipment through the Suez Canal was completely blocked. At those times, almost 10% of global crude oil supply was trafficking through the Suez Canal.

The introduction of Very Large Crude Carriers (VLCCs) changed the picture dramatically. VLCCs are too large for the Suez Canal, but thanks to their size, VLCCs made shipments around the African Cape competitive with shipments through the Suez Canal. Nowadays less than 1% of global crude oil supply is shipped through the Canal.

The Suez Canal is a two-way street: crude oil and oil products are shipped in both directions: north to the Mediterranean and south to the Red Sea. The flows almost balance: some 55% of total shipped oil is Northbound and 45% is Southbound.

#### **Percentage Split between northbound and southbound oil shipments through the Suez Canal in 2009 and 2010.**

%	Northbound	Southbound	Unknown	Total
2009	52%	46%	2%	100%
2010	56%	43%	1%	100%

Source: APEX

Looking at the split between crude oil and products, only firm figures from the Suez Canal Authority for 2009 are available; numbers for 2010 might end up a bit higher because of economies coming out of recession, but preliminary data from shipping companies indicate a same breakdown pattern.

#### **Breakdown between Crude and Oil Products in 2009**

	Northbound		Southbound	
	Volume (kb/d)	%	Volume (kb/d)	%
<b>Crude</b>	317	32%	274	32%
<b>Fuel oil</b>	25	2%	206	24%
<b>Light products</b>	650	66%	366	43%
<b>Total</b>	992		846	

Source: Suez Canal Authority

Crude trade north/South almost balances out, while fuel oil is dominantly shipped south and gasoline and diesel is dominantly shipped north.

#### **LNG**

Traffic of LNG through the Suez Canal is dominantly Northbound and increasing rapidly. In 2009, some 20 bcm was shipped through the Suez Canal, mostly from Qatar. But with the rapid expansion of the liquefaction capacity in Qatar in 2009-10 (five new trains representing 53 bcm of liquefaction capacity), an estimated 30 to 35 bcm, or almost 50% of Qatari LNG exports, was likely shipped through the Suez Canal in 2010. Main destinations in Europe are the UK, Italy, Spain, and Belgium. Total gas consumption in OECD Europe stood at around 530 bcm in 2009, but it has been recovering in 2010 with a 6% growth over the first 9 months.

In contrast with oil, very few LNG tankers currently ply their trade via the Cape, although such a route could be taken in the event of a Suez Canal blockage. While no gas would be lost to the market in such an event, this would add to costs and add some 10 - 15 days of sailing time to Europe, depending on the destination.

### Sumed Pipeline

The 200-mile Suez-Mediterranean (Sumed) crude oil pipeline connects the Red Sea with the Mediterranean. Estimated capacity of the Sumed line is some 2.4 mb/d. Throughput at the end of 2010 was estimated at some 1.1 mb/d, so the pipeline currently has a spare capacity of some 1.3 mb/d. The pipeline runs from south to north, supplying the Mediterranean with oil from the Middle East.

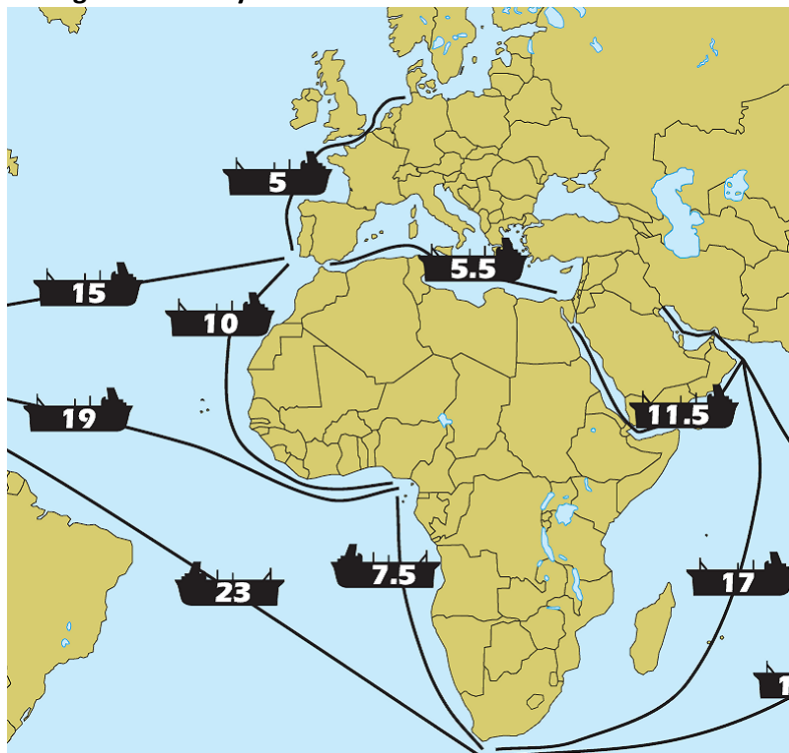
### Alternatives for Suez Canal and Sumed pipeline

A closure of the Suez Canal and/or Sumed Pipeline would not take any oil off the market; markets would re-route and reallocate available oil. On a net basis, northbound and southbound crude flows via the canal are balanced. Any crude oil blocked in the Mediterranean could be processed in Europe, albeit quality mismatch between crude and available processing capacity might require pricing adjustments.

For crude oil normally transiting the Sumed pipeline, disruption would require tankers to be diverted around Africa, adding to transit time and tying up tanker capacity, potentially elevating currently weak global freight rates. This route would significantly increase shipping costs as well as transportation time. It would take approximately 15 additional days to reach the same European destinations. Amounts going to the US would have to add an additional 8-10 days.

For oil products normally transiting the Suez Canal Northbound (notably gasoline and diesel, some 350 kb/d on balance) tankers would have to be rerouted around Africa, also adding transportation time and costs.

### **Sailing Times of Key Tanker Routes**



Source: IEA

## Egypt domestic production

### Oil

Egypt is a substantial oil producer of some 740 kb/d of oil (crude and condensate). Consumption stands at around 700 kb/d, so Egypt is a marginal net-exporter of oil. In 2010 Egypt exported 98 kb/d of crude oil to IEA countries and 61 kb/d of products (mainly naphtha, LPG and Jet Kerosene).

#### Crude Oil imported from Egypt (kb/d)

	2007	2008	2009	2010
<b>OECD Total</b>	<b>65</b>	<b>94</b>	<b>118</b>	<b>98</b>
France	0	3	8	12
Germany	24	25	23	20
Greece	0	3	3	6
Italy	27	28	36	32
Spain	12	25	23	3
United Kingdom	0	0	9	10
United States	1	8	9	11

Source: IEA

#### Total Products Imported from Egypt (kb/d) - mainly naphtha, LPG and Jet Kerosene

	2007	2008	2009	2010
<b>OECD Total</b>	<b>58</b>	<b>76</b>	<b>52</b>	<b>61</b>
Italy	13	15	16	16
Korea	5	14	11	20
Netherlands	4	11	5	5
United States	10	6	1	0

Source: IEA

### Gas

Egypt is an important gas producer of 64 bcm/y, of which some 45 bcm/y is consumed domestically and some 19 bcm/y is exported, mostly as LNG. Gas demand has been increasing very fast over the past decade at 8%/year. Due to this growth, gas exports have been limited to one third of the reserve base. Liquefaction capacity stands at 16 bcm and exports averaged 14 bcm over 2007-09. The LNG produced in Egypt is going to Spain (4.3), US (4.5), UK (0.5), Korea (1.9) and France (1.4). Some 5 bcm/y is exported by pipeline, mostly to Jordan, Israel and Syria. Both Jordan and Israel's power sectors are dependent on gas.