



A DETAILED REVIEW FOR THE SUEZ CANAL & EGYPT'S LNG TRADE (2015-2019)

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Egypt has reclaimed its position as the hydrocarbons regional hub, especially when it comes to natural gas. In fact, the country has converted from being a natural gas net importer to being a net exporter in 2018. This phenomenon happened as a result of the major natural gas discoveries that increased natural gas production levels. The major developments in natural gas production were combined with the exceptional infrastructure that paved the country's path to become a regional natural gas hub. Egypt has one of the largest liquefied natural gas (LNG) infrastructures in the region, which include two liquefaction plants located in Idku and Damietta.

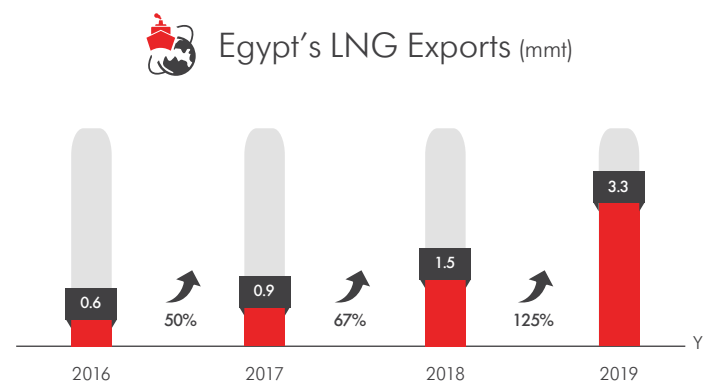
On the other hand, Egypt has one of the most important navigation canals in the world that plays a significant role in the international trade of LNG, the Suez Canal. Over the past five years, from 2015 to 2019, the Suez Canal witnessed the flow of 132.84 million tons (mmt) of LNG through both of its bounds, according to the Suez Canal Authority (SCA) data.

Hence, this report presents Egypt's position as a natural gas regional hub by shedding the light on both the country's LNG exports and flows through the Suez Canal over the period between 2015 and 2019.

1. EGYPT'S LNG EXPORTS

Egypt's annual average LNG exports reached about 1.25 mmt, during the period from 2015 to 2019, while its total LNG exports over the same period were recorded at 6.25 mmt. There was no LNG amount exported in 2015, according to BP's Annual Statistical Review of World Energy 2020. In 2014, the country completely halted exports, turning into a net natural gas importer in fiscal year (FY) 2015/16, due to upstream underinvestment and increasing demand. However, in August 2015, the discovery of the giant Zohr gas field by Italy's Eni brought a decisive turning point to the country's status in the natural gas market. Egypt was able to halt its LNG

imports and further started to export, according to BNP Paribas' study on Egypt's oil and gas industry in 2017.



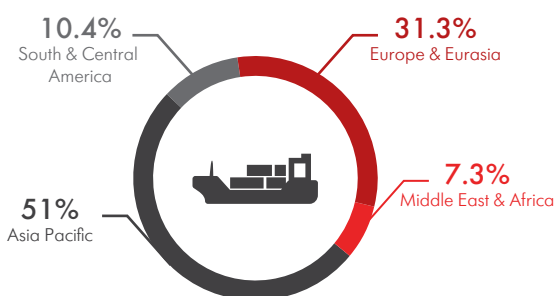
Egypt's LNG exports have been experiencing increasing rates on an annual basis. It is worth mentioning that LNG exports increased from 1.47 mmt in 2018 to more than double the amount exported, reaching about 3.5 mmt in 2019, due to the

increasing output from gas fields that are connected to the national grid. Thus, the highest amount of exports was in 2019; with the highest contribution of 53% from Egypt's total LNG exported along the years, according to BP's Annual Statistical Review of World Energy 2020.

A. LNG EXPORTS PER REGION

Asia Pacific acquired the largest amount of Egypt's LNG exports over the period from 2015 to 2019 with a total of 3.63 mmt LNG imports. The European continent, along with the Eurasia region, came second with total LNG imports from Egypt amounted at 2.22 mmt. The Egyptian LNG exports to the Middle East and African countries recorded a total of 0.518 mmt, while South and Central America imported a total of 0.74 mmt of the Egyptian LNG.

 Egypt's LNG Exports per Region over (2015-2019)

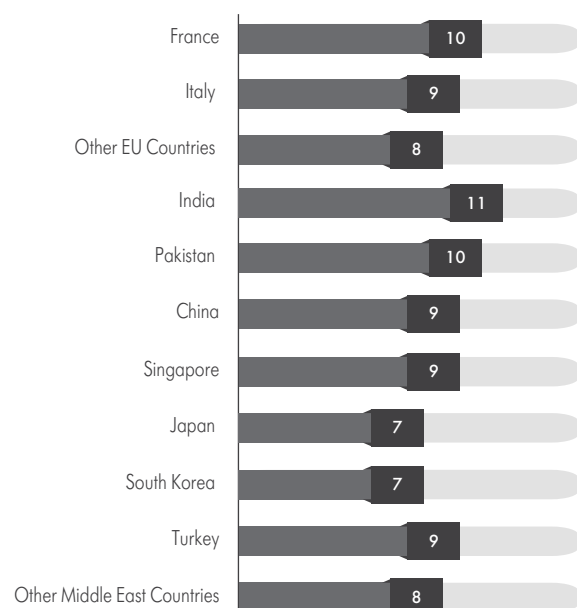


B. LNG EXPORTS PER COUNTRY

Egypt exports LNG to about 14 countries in Europe, Middle East, Africa, and Asia Pacific. Pakistan and India are considered Egypt's top LNG importers during the mentioned period. Pakistan's LNG imports from Egypt reached 0.66 mmt and India's LNG imports from Egypt were recorded at 0.735 mmt. While Taiwan, Thailand and other Asian Pacific countries received the lowest amount of LNG from Egypt of 0.147 mmt, 0.147 mmt and 0.0735 mmt respectively, according to BP's Annual Statistical Review of World Energy reports.

France, Italy, Turkey and other European countries received about 2.35 mmt of Egypt's LNG export. On the other hand, Kuwait and UAE received about 0.51 mmt of the country's total LNG exports, according to BP's Annual Statistical Review reports.

 Egypt's LNG Exports per Country over (2015-2019) (%)




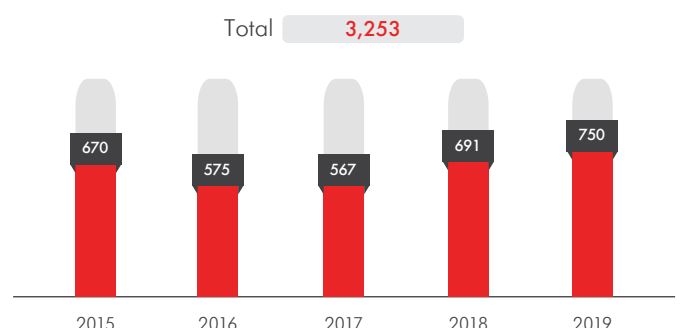
2. LNG CROSSING VESSELS IN SUEZ CANAL

The Suez Canal, that links the Red Sea to the Mediterranean Sea, is a critical checkpoint due to the large amounts of hydrocarbons that flow through it. The Suez Canal is considered Egypt's strategic path for LNG shipments to Europe and North America, according to a report by the US Energy Information Administration (EIA).

According to the SCA, the number of LNG ships in 2015 represented 3.83% of the total ships passing through the Canal, which increased to 3.97% in 2019.

Over the period between 2015 and 2019, the LNG vessels crossing the Suez Canal witnessed an increasing trend, with a total of 3,253 vessels. In 2016, the number of vessels slightly decreased, however, it continued to increase until reaching 750 in 2019.

 LNG Crossing Vessels through the Suez Canal

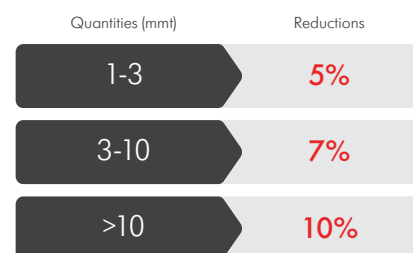


It is noteworthy that the number of crossing vessels remarkably increased from 691 vessels in 2018 to 750 vessels in 2019, according to SCA's annual reports. This was a result of the incentives provided by the SCA to the vessel's owners. For instance, in late 2017, the SCA granted LNG vessel's owners and operators discounts in order to encourage more vessels to transit within the Canal. The grant was concerned with LNG tankers operating between the American Gulf, the Arabian Gulf zone, India and its Eastern ports, according to SCA's Navigation Circular No. 7/2017.

In 2019, the SCA set an incentive called the 'Quantity Incentives'. Under this incentive, customers of LNG carriers are granted discounts for transporting additional quantities of LNG through the Canal. Several reductions shall be granted for the clients for each carrier's round-trip, according to SCA's Navigation Circular No. 1/2019. Consequently, the number of LNG vessels jumped by 9% in 2019, stated in SCA's annual reports.

It is worth mentioning that the mentioned rebates shall be calculated from Suez Canal normal tolls after deducting the rebate of 25%, which is granted by Circular No. 2/2015. Moreover, it is not allowed to benefit from both the Quantities Incentive discount as well as the discount granted by Circular No. 7/2017 at the same time.

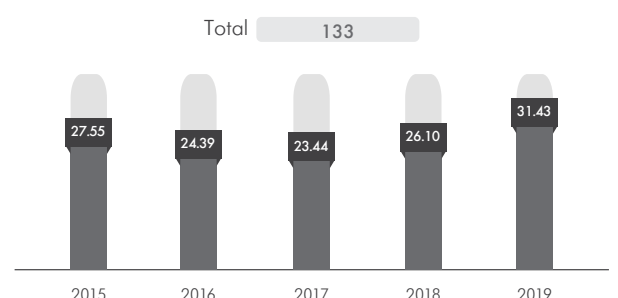
 LNG Quantities Incentive's Reductions



3. LNG FLOWS THROUGH THE SUEZ CANAL

The Suez Canal has LNG flows in the northbound and southbound directions, representing a significant amount of global LNG trade. The total LNG flows from both directions grew by 14% in 2019 compared to those in 2015. In parallel with the decline in number of crossing vessels, LNG flows declined in 2016 by 11%, yet they started to increase from 2017 until reaching about 31 mmt in 2019, stated in SCA's annual reports.

 Total LNG Flows in the Suez Canal (mmt)



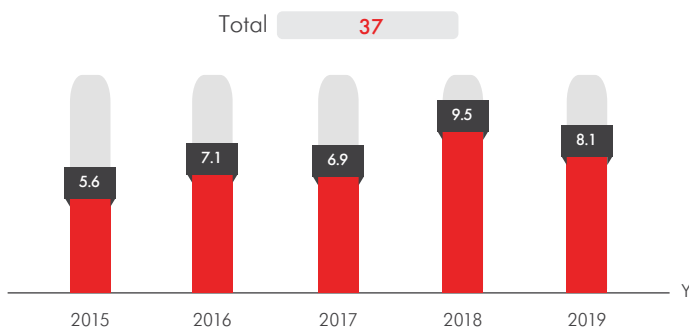
The northbound LNG flows come mostly from Qatar and are exported to European markets. On the other hand, the southbound LNG primarily flows from the United States (US), Algeria, France, and is generally exported to Egypt, Jordan and Japan, according to SCA's annual reports.

It is worth recalling that, from 2015 to 2019, Egypt's LNG flows represented around 7% of the total LNG flows through the Canal. Meanwhile, Egypt's LNG exports through the Canal recorded 4 mmt, representing 63% of the country's total LNG exports.

A. LNG MOVEMENTS THROUGH SOUTHBOUND

Over the period between 2015 and 2019, the southbound LNG flows totaled 37 mmt, and they remarkably rose by 45% in 2019 compared to those in 2015. Over the referred period, the LNG flows fluctuated until they jumped by 38% to hit 9.5 mmt in 2018 then cut down by 15% to record 8.1 mmt in 2019, explained in SCA's Annual reports.

Southbound LNG Flows (mmt)



The majority of LNG tonnage passing through the Canal's southbound comes mainly from America. As over the period between 2015 and 2019, the total LNG from America recorded 9.18 mmt. Over the referred period, the American continent as an exporting region had a share of 24.7% in LNG cargoes moving from South to North, according to SCA's annual reports.

The North Mediterranean region, on contrast, is the exporting region with the least exported volumes of LNG through the southbound. As from 2015 to 2019, the total tonnage of LNG coming from the North Mediterranean was recorded at 1.96 mmt, according to SCA's annual reports.

From the American continent, the US was the largest exporting country with 6.5 mmt, straightway followed by Algeria with about 6 mmt then France with 4.5 mmt, all representing 46% of the southbound LNG exports.

Main Southbound Cargo by Origin Region over (2015-2019)

Region	Quantity (mmt)	Share (%)
East & Southeast Med.	3.85	10.4
North Med.	1.96	5.3
West & Southwest Med.	7.38	19.9
North, West Europe & UK	11.27	30.3
Baltic Sea	0.22	0.6
America	9.18	24.7
Other	3.31	8.9

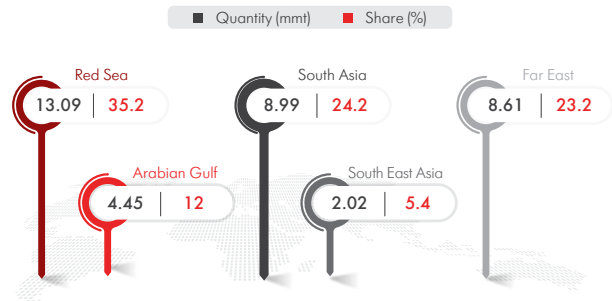
As for destination regions, the Red Sea region is the largest receiver of the South LNG, as it received approximately 13 mmt of LNG between 2015 and 2019, with an annual average of 3.72 mmt. Over the mentioned period, the Red Sea region had a 35.2% share in the total tonnage received by the Northern areas according to SCA's annual reports.

This is reflected in terms of the largest importing countries, which include Jordan, India, and Egypt with LNG imports of about 8, 6 and 5 mmt, respectively. These numbers contribute over 50% of the southbound LNG imports, according to SCA's annual reports.

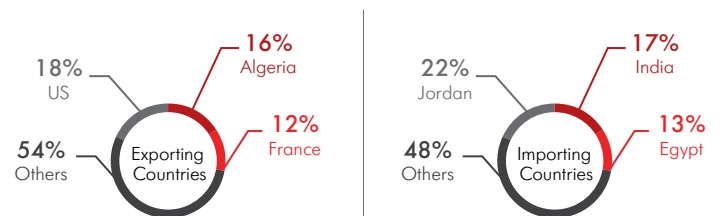
On the other hand, over the referred period, South East Asian countries received only a total of 2.02 mmt of the LNG tonnage passing through the Canal's southbound,

with 5.4% of the total tonnage passing through the bound, according to SCA's annual reports.

Main Southbound Cargo by Destination Region over (2015-2019)



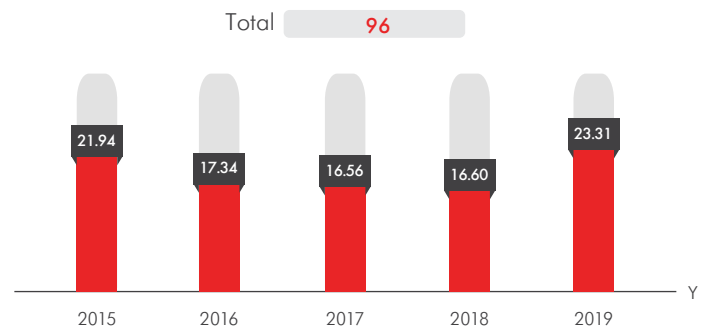
Largest Southbound Exporting & Importing Countries over (2015-2019)



B. LNG FLOWS THROUGH NORTHBOUND

From 2015 to 2019, the northbound LNG flows amounted to 96 mmt, where they increased by 6% in 2019 compared to those in 2015. Over the referred period, the LNG flows saw a declining trend. Nevertheless, the LNG flows slightly increased in 2018 to about 17 mmt. This was followed by a significant jump of 40% in 2019, reaching about 23 mmt representing the highest LNG flows, according to SCA's annual reports.

Northbound LNG Flows (mmt)

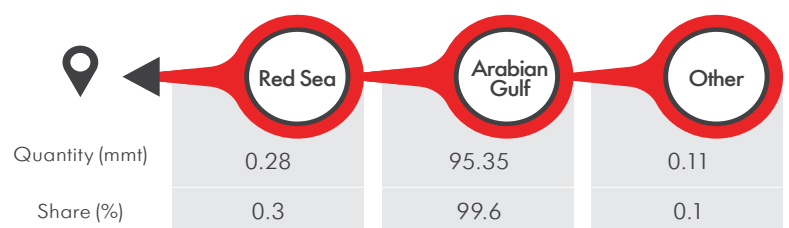


The Arabian Gulf dominates the LNG exports flow through the northbound of the Suez Canal. The total volume of LNG from the Arabian Gulf, over the period between 2015 and 2019, recorded 95.35 mmt, which represents 99.6% of the total LNG moving from North to South, according to SCA's annual reports.

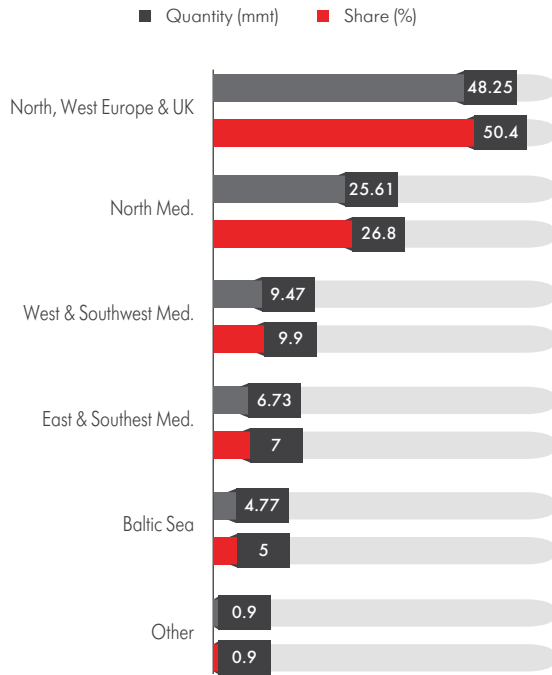
Over the referred period, Qatar got the lion's share from the exporting countries, contributing about 95 mmt of LNG flows.

Northern Europe, Western Europe and the UK represent the main destination for LNG cargoes in the South with a total tonnage of 48.25 mmt received from the northbound between 2015 and 2019. The UK was determined to be the largest importing country with LNG imports of 258 mmt. Italy came second with imports of 23 mmt, while Spain came third at 13 mmt, explained in SCA's annual reports.

Main Northbound Cargo by Origin Region over (2015-2019)

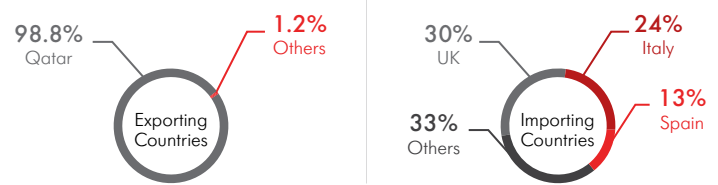


Main Northbound Cargo by Destination Region over (2015-2019)



On the other hand, the Baltic Sea region has received only a total of 4.77 mmt remarking a share of 5% in total LNG cargoes moving from North to South, according to SCA's annual reports.

Largest Southbound Exporting & Importing Countries over (2015-2019)



Egypt is moving with steady steps towards being a regional natural gas hub. This is reflected in the country's increasing growth rate of LNG exports and LNG trade expansion through the Suez Canal. The Egyptian LNG exports jumped from zero to 3.3 mmt over the period 2015 and 2019, according to BP's data.

On the other hand, the Suez Canal significantly participates in the growth of the Egyptian natural gas trade, by strengthening Egypt's global position and supporting the MoP's modernization project to convert Egypt to a regional energy hub.

The expansion of the canal in 2015 increased the traffic in terms of number of ships and quantities of transported goods, which was reflected in the LNG trade flows. Between 2015 and 2019, the number of LNG ships increased by 11.9 % from 670 to 750. While the net tonnage of LNG ships witnessed an increase of 16% from 72.996 mmt in 2015 to 84.699 mmt in 2019, according to the SCA data.



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